Exploring Demand and Supply Sides of Sharing Economy of Skills

By

LA, Soo Jung

THESIS

Submitted to

KDI School of Public Policy and Management

In Partial Fulfillment of the Requirements

For the Degree of

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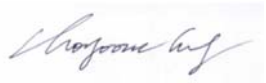
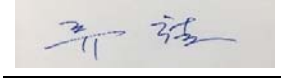
Professor Yooncheong CHO, Supervisor 

Professor Cheol LIU 

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Abstract

Sharing Economy is a recently emerged economic system with a wide scope of industries. Existing literature provide insights to consumer behaviors in finance, automobile, and commodities sector but lack findings in the aspect of skills. This study attempts to explore the effects different variables exert on consumer and producer behaviors in skills sharing practices. The variables this study examines are transaction utility, social utility, sustainability utility, emotional utility, economic utility, trust utility, all of which affect the attitudes of consumers and producers. Then, this study divides consumers and producers into two different categories: potential and actual. As potential consumers and producers have no relevant experience in skills sharing practices, this study explores the effect of their attitudes on their intention, which then affects their satisfaction when an actual consumption or supply of a service takes place. For actual consumers and producers, this study explores the effect of attitude on satisfaction, a variable that affects loyalty towards, or a constant use of, a particular service. A survey is conducted on a randomly selected sample in Republic of Korea. The data analysis methods conducted in this study are factor analysis, multiple regression analysis, logit regression analysis and MANOVA. The difference in statistical significance of results for different groups of consumers and suppliers provides important insights for policy implications and managerial implications.

Key words: Sharing Economy, Skills Sharing, Utility Factors, Customer Attitude, Customer Intention to Use, Customer Satisfaction, Customer Loyalty

I. Introduction

Sharing economy, the term first coined by Lessig (2008), is a recent phenomenon that has been growing rapidly and substantially since its emergence. Existing literature on sharing economy mainly focuses on finance and commodity sector. As a result, there are countless journal articles, news articles, and research papers on crowdfunding, Airbnb, Zip Car, and other exchangeable commodities. Such obsession with certain areas of sharing economy left other areas, including skills, of sharing economy overlooked and unexplored. Hence, the purpose of this study is to explore skills sharing practices in two main areas, general skills sharing and special skills sharing, and to analyze consumer and producer behaviors in skills sharing that are actively practiced in all around the world.

This study poses the following research questions: *What factors influence the behaviors of consumers and producers in the market for skills sharing? Does transaction utility affect the attitudes of consumers and producers in the market for skills sharing? Does social utility affect the attitudes of consumers and producers in the market for skills sharing? Does sustainability utility affect the attitudes of consumers and producers in the market for skills sharing? Does emotional utility affect the attitudes of consumers and producers in the market for skills sharing? Does economic utility affect the attitudes of consumers and producers in the market for skills sharing? Does trust utility affect the attitudes of consumers and producers in the market for skills sharing? Does attitude of potential consumers affect intention to consume general skills sharing services? Does attitude of potential consumers affect intention to consume special skills sharing services? Does attitude of actual consumers affect satisfaction gained from consuming general skills sharing services? Does attitude of actual consumers affect satisfaction gained from consuming special skills sharing services? Does attitude of potential suppliers affect intention to supply general skills sharing services?*

Does attitude of potential suppliers affect intention to supply special skills sharing services? Does attitude of actual suppliers affect satisfaction gained from supplying general skills sharing services? Does attitude of actual suppliers affect satisfaction gained from supplying special skills sharing services? Does intention to consume affect satisfaction in general skills sharing? Does intention to consume affect satisfaction in special skills sharing? Does intention to supply affect satisfaction in general skills sharing? Does intention to supply affect satisfaction in special skills sharing? Does satisfaction from consuming a general skills sharing service affect loyalty? Does satisfaction from consuming a special skills sharing service affect loyalty? Does satisfaction from supplying a general skills sharing service affect loyalty? Does satisfaction from supplying a special skills sharings services affect loyalty?

In order to answer posed research questions, this study conducts a survey on randomly selected sample and performs factor analysis, multiple regression analysis, logit regression analysis, and MANOVA. Although there are some limitations to this study, the analyses results provide important implications for policies as well as firms.

II. Literature Review

2.1 The Development of Sharing Economy

Contemporary literature alludes to the three factors that propelled the evolution of sharing economy: 1) a shift in paradigm; 2) the advent of modern technologies; and 3) the financial crisis which happened between 2007 and 2008.

2.1.1 A Paradigm Shift

Weber (2016) states that a paradigm shift from ownership-based consumption to access-based consumption made the emergence of the sharing economy in the early 2000s possible. Botsman and Rogers (2010) underpin Weber's perspective as they assert that 20th century was dominated by ownership-based "hyper consumption", whereas 21st century faces

shared-access-based “collaborative consumption”. On the other hand, Rifkin (2014a) maintains that this newly risen phenomenon can be explained by the rise of anti-capitalism as the whole economy is facing huge reduction in marginal cost. Rifkin (2014b) also denotes that the sharing economy became the new paradigm after the economic collapse in 2008.

2.1.2 The Development of Modern Technologies

The advent of modern technologies certainly has contributed to the evolution of sharing economy. Bardhi (2014) states, “Spawned by the rise of digital technologies, social media, the global economic crisis … an entirely new generation of business has emerged that enables consumers to rent from each other or share and lend possessions they already own”. Hamari, Sjöklint and Ukkonen (2015) advocate that the technological development has “simplified sharing of both physical and non-physical goods and services through the availability of various information systems on the internet”. Calo and Rosenblat (2017) acknowledge that the technological development has enhanced overall quality of goods and services in the market through promoting competition and access to new resources by the sharing economy platforms.

In addition, the digital dimension created by modern technology reduces transaction costs, thereby promoting efficiency of sharing economy platforms and reducing the risks associated with the transactions as technologies decrease overall level of uncertainty and promote trusts between strangers (Schor, Walker, Lee, Parigi & Cook, 2015; Bakos, 1997). John (2013) states that modern technologies not only enable but also promote sharing economy by encouraging offline practices of sharing through online practices of sharing via social network services, or SNS.

2.1.3 The 07-08 Financial Crisis

Uchitelle (2009) indicates that the number of job loss in the United States in 2008 was 2.6 million. Hicks (2017) suggests that the aftermath of financial crisis is a decline in the traditional job market and increase of the independent contractors and temporary workers. As a consequence, those who were out of jobs started to gig, or work several part-time jobs, to sustain a living (Brown, 2009), a social phenomenon which led to the creation of the term "gig economy", an alternative term for sharing economy. Other scholars (Mason, 2015; Stephany, 2015; Castells, 2012) also ascribe the rise of sharing economy to 2007-08 financial crisis. Stephany (2015) addresses that "economic distress let the underemployed and cash-strapped to flock to freelancer marketplaces, and consumers to the cheaper models of consumption through re-commerce platforms".

2.2 The Definition of Sharing

One of the most disputed issues around sharing economy is whether the use of the term *sharing* in sharing economy is germane. In an attempt to justify this use of sharing, Belk (2007) defines sharing as "the act and process of distributing what is ours to others for their use and/or the act and process of receiving or taking something from others for our use." Belk (2010) later adds that sharing is a communal act and process that not only redistributes resources but also creates positive feelings among individuals who participate. Belk (2014) even introduces two novel notions: "sharing in" (Belk, 2014 & 2010; Ingold, 1986) and "sharing out" (Belk, 2014). According to Belk (2014), the act of sharing associated with the sharing economy better suits the first notion than latter if it fosters a community among the participants rather than encourages the one-time interaction among participants. Matofska's (2016) definition of sharing economy states, "the sharing economy is a socio-economic ecosystem built around the sharing of human, physical and intellectual resources".

However, the widespread notion of sharing involves altruistic and benevolent intentions of the provider of goods or services. It is evident that the business models of platforms such as Airbnb, Uber, Zipar, TaskRabbit, and Etzy are all based on the barter system, a system in which benign intentions are nearly nonexistent. For instance, Bardhi and Eckhardt (2012) indicate that the motivation of consumptions of car sharing is not all so altruistic. Horton and Zeckhauser (2016) describe the sharing economy, a term they use interchangeably with peer-to-peer market, as a new kind of recently created rental markets by technology startup firms in which the owners not only use their assets for their own consumption but also rent those assets out to those who would benefit from the use of them.

When expounding sharing economy, scholars often, if not interchangeably, use the terms such as: “crowd-based capitalism” (Sundararajan, 2016); “collaborative economy” (Felson & Spaeth, 1978); “mesh” (Gansky, 2010); “on-demand economy” (Burrows, 2012); and “access-based consumption” (Bardhi & Eckhardt, 2012). These terms, which differ from one another in certain aspects, clearly do not embody the selfless, benevolent, and/or benign nature incorporated in the common notion of sharing.

Another renowned expert of sharing economy, Rachel Botsman, appears to acknowledge the un-altruistic nature of sharing in sharing economy. Botsman (2013) defines sharing economy as “an economic model based on sharing underutilized assets from spaces to skills to stuff for monetary or non-monetary benefits”. Another important source that provides official definitions to English words, Oxford English Dictionary, defines sharing economy as “an economic system in which assets or services are shared between private individuals, either free or for a fee, typically by means of the internet”.

As the definitions from different sources point out, it seems inevitable but to admit that *sharing economy* might not be appropriate for this newly risen phenomenon in which

online platforms link wiling-to-accept producers to need-to-pay consumers. The idea that access-based consumption, in the context of market-mediated access, is driven purely by self-serving and utilitarian, not pro-social, motivations (Bardhi, 2014) led some scholars to claim that sharing economy should be renamed as *access economy* as it is an economic exchange rather than "a form of social exchange that takes place among people known to each other, without any profit" (Eckhardt & Bardhi, 2015). Under this assumption, this paper contains misnomers: general skills sharing and special skills sharing should be rewritten as *general skills access* and *special skills access*, respectively.

2.3 Other Issues with Sharing Economy

As Mang and Wilt (2013) state, sharing economy "is born out of social trends that have gone by a variety of labels, such as crowdsourcing, micro-financing and collaborative consumption". Indeed, sharing economy practices rapidly grew large and new terminologies started to make appearances in published journal articles, newspapers, vlogs, and other sources without one single agreed definition of this new social and economic phenomenon. This led to the interchangeable uses of notionally different terms and created confusion and difficulty in drawing the boundary of sharing economy. Schor (2014) states that since it is nearly impossible to define what sharing economy really is as it covers a broad range of goods and services, the definition should be left to each sharing economy platform to decide. However, there lacks the incentives for each sharing economy platforms to select the definition that best depicts its economic model since the interest of these platforms lies in the maximization of profit. Why would firms allocate their scare resources in defining what sharing economy is when they can be allocating those resources in generating more profits?

Such discrepancy on the conceptual boundary of sharing economy causes acclaimed scholars to diverge in their analyses of each economic system. For example, Botsman (2015)

categorizes TaskRabbit as collaborative economy while Rinne (2017) asserts that TaskRabbit is part of on-demand, gig, collaborative and sharing (under the assumption that the tasker's skills have been underutilized) economies.

Moreover, scholars agree that there should to be an extensive term that incorporates all different economic systems based on the idea of "sharing" (Belk, 2014 & 2010). As a solution, Marr (2016) uses "sharing economies". This, however, is still controversial as such choice of wording once again touches upon the conceptual boundaries of sharing economy and other economic systems such as collaborative economy, on-demand economy, gig economy, and so on. The use of sharing economies to refer to similar, yet remarkably different, economic systems suggests that each economic system can be addressed as *a* sharing economy. Nevertheless, albeit the confusions and controversies over the use of sharing economy, for the sake of convenience, this paper still uses *sharing* to refer to associated consumer and producer behaviors as well as *sharing economy* to refer to relevant economic models and frameworks.

2.4 Types of Sharing Economy

2.4.1 Crowdfunding

In spite of the recent emergence of sharing economy and relevant platforms, there are numerous studies regarding "financial side" of sharing economy. C*rowdfunding* is a term coined in 2006 by Michael Sullivan (Gass, 2011). Shiller (2015) states, "True crowdfunding, or equity crowdfunding, refers to the activities of online platforms that sell shares of startup companies directly to large numbers of small investors, bypassing traditional venture capital or investment banking". D'Ambrosio and Gianfrate (2016) claim that crowdfunding can be an alternative to traditional venture capitalists for startup companies that are in need of funds in the early stage of their businesses. Lin, Prabhala and Viswanathan (2013) conclude that the

probability of successful funding increases as a borrower has broader social network since social network plays as a signal of a borrower's credibility in the online market for capital. Burtch, Ghose and Wattal (2013) find significant evidence in support of the relationship between marketing of a project and the success of crowd-funded projects.

The positive aspects of crowdfunding attract a diverse group of borrowers who are in need of funds for different purposes. Cottrell (2014) provides successful real-life examples of crowdfunding campaigns, one of which was launched by a public library. As Schwienbacher and Larralde (2012) claim, a positive aspect of crowdfunding is that individual investors take small risk as the amount of money invested by each investor is small. Nonetheless, scholars, including Marvin (2016), are cautious about the idea of funding projects through crowdfunding. Agrawal, Catalini and Goldfarb (2011) talk about the disclosure of ideas to people other than the founder resulting in the copy of an original idea. Agrawal, Catalini, and Goldfarb (2014) and Hsu (2004) mention risk associated with funded projects by non-professional investors. Macht and Weatherston (2014) talk about costly investor management. However, just as Agrawal, Catalini and Goldfarb (2014) illustrate, there are both pros and cons to crowdfunding. As a result, the decision to engage in crowdfunding should be left to the discretion of the participants.

2.4.2 Accommodation Sharing

As Airbnb is a notable platform for sharing economy in accommodation, quite a number of existing literature analyze the effect of Airbnb on traditional hospitality industry. Zervas, Proserpio and Byers (2017) discover Airbnb's negative effect on the revenue of local hotels in Austin, Texas. On the contrary, Aznar, Sayeras, Rocafort and Galiana (2017) find the impact of Airbnb on the revenue of local hotels in Barcelona, Spain to be statistically insignificant. In response to some critics who argue that Airbnb decreases the supply of

housing available for long-term renters, Barron, Kung and Proserpio (2017) conduct a research that reveals Airbnb's some influence on housing prices only by small percentage. More interesting finding is that of Edelman and Luca (2014), which indicates that there is a racial discrimination in online rental marketplace. Lynn (2017) also pinpoints the discrimination of people of color prevalent in Airbnb by hosts.

2.4.3 Car Sharing

Many scholars embark on the idea of sharing vehicles as they believe such practice is helpful for preserving the environment: as car sharing makes car ownership an option, other modes of transportation become more viable (Schuster, Byrne, Corbett & Schreuder, 2005). This may lead to "potential reductions in GHG emissions that would become possible if a relatively new alternative to personally owned motor vehicles for providing mobility were to become widely adopted: the use of shared vehicles" (Crane et al, 2012). In support of this idea, Rifkin (2014b) states, "In 2009, each car-share vehicle eliminated 15 personally owned cars. In addition, car-share members drove 31 percent less than when they owned vehicle. These changes in car-traveling behavior reduced CO2 emissions in the United States by 482,170 tons". However, despite this prevailing optimism in the industry, Cohen and Kietzmann (2014) assert that relying solely on private sector in achieving desired environmental outcomes is too naïve.

Apart from researches that address environmental concerns, there are other interesting findings. Lamberton and Rose (2012) propound that scarcity risk, or the likelihood that a product might not be available when a consumer wishes to use it, a determinant of a person's inclination to engage in vehicle sharing, accounting for other variables. Wallsten (2015) expounds the negative correlation between taxi complaints and the growth of Uber business in Chicago by proposing that there might have been some pressure on traditional

taxi drivers to improve their customer services after the launch of Uber. If Wallsten (2015)'s proposition is true, car sharing has one more benefit in addition to the increased urban mobility and many other benefits enumerated by Litman (2000).

2.5 Skills Sharing

As there are different types of skills, this paper explores two types of skills sharing: *general skills sharing* and *special skills sharing*. A general skill refers to a simple labor that anyone can perform. For instance, cleaning a house, buying and delivering a canned pet food, delivering a freshly cooked meal, lending a hand with moving in or out, and assembling furniture someone bought from IKEA are all good examples of general skills. A special skill, on the other hand, includes arts and crafts, website design, clothes reform, cake baking according to the need of a customer, and other type of services that require some expertise to perform. Not surprisingly, some frameworks of special skills sharing overlaps with those of knowledge sharing. Thus, this paper limits special skills sharing to monetizing one's skill by producing sellable products. In other words, special skills sharing involves supplying customized products that are specifically designed, created, and delivered according to the needs of customers.

Unlike other industries, there are not much existing literature or scholarships on skills sharing. Further researches on this topic are needed.

2.5.1 TaskRabbit – An Example of General Skills Sharing Platform

Most well-known general skills sharing platform is TaskRabbit.com, or TaskRabbit. TaskRabbit is an online platform which matches its users, or task demanders, with taskers who are capable of performing requested tasks. Recent news of TaskRabbit involves Ikea, which signed a contract to acquire TaskRabbit (Hsu, 2017). Such decision of Ikea to acquire TaskRabbit will allow Ikea to substantially expand its business as it can now provide "full

range of products and services" (Morgan, 2017) to not only existing customers but also potential customers who were once deterred from buying products from Ikea due to too much hassle. Sargent (2017) also states, "TaskRabbit and Ikea both gain from this partnership due to the fact that TaskRabbit finds itself at the center of thousands of Ikea customers who have a very specific need that TaskRabbit can address". The success story of TaskRabbit is not something new. Bercovici (2016) elaborates on TaskRabbit's quadrupled revenue in 2015. In addition, Newton (2014) pinpoints TaskRabbit's success since its launch in 2009 aside from some managerial issues TaskRabbit faces.

2.5.2 Etsy – An Example of Special Skills Sharing Platform

On the other hand, one of the most renowned special skills sharing platform is Etsy.com, or Etsy. Etsy is most famous for unique pieces of handmade crafts made by individual vendors. Etsy, which was founded in 2005 (Green, 2016), went public in 2015 and earned $ 88 million in revenue during the third quarter of that year (Gelles, 2017). According to Dean (2018), Esty, in 2017, made improvements to its return policies and added more features to searching, all of which bespeak Etsy's endless effort to enhance the shopping experience of its users.

III. Theoretical Background

3.1 Consumer Satisfaction/Dissatisfaction Theories

Howard and Sheth (1969) define consumer satisfaction as "the buyer's cognitive state of being adequately or inadequately rewarded for the sacrifices he has undergone". Westbrook and Reilly (1983) define it as "an emotional response to the experiences provided by, associated with particular products or services purchased, retail outlets, or even molar patterns of behavior such as shopping and buyer behavior, as well as the overall marketplace". Oliver (1981) defines it as "the summary psychological state resulting when the emotion

surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience".

On the other hand, Hunt (1977), who believes perceive consumer satisfaction to be a process, defines consumer satisfaction as "an evaluation rendered that the (consumption) experience was at least as good as it was supposed to be". Others who share this view include: "an evaluation that the chosen alternative is consistent with prior beliefs with respect to that alternative" (Engel and Blackwell, 1982); and "the consumer's response to the evaluation of the perceived discrepancy between prior expectations (or some other norm of performance) and the actual performance of the product as perceived after its consumption" (Tse and Wilton, 1988).

Interestingly, Czepiel, Rosenberg, and Akerele (1974) state, "for any level of satisfaction, these facets may be of two types; maintainers which must exist in order for dissatisfaction to be avoided, and satisfiers which truly motivate and contribute to satisfaction", implying that consumer satisfaction may be of dual property. However, as different studies yield different results on this issue (Czepiel, Rosenberg & Akerele, 1974; Leavitt, 1977**;** Oliver and Westbrook, 1982**;** Swan and Combs, 1976; Maddox, 1981), the true property of consumer satisfaction stays in the realm of controversy. As a result, it is difficult to conclude which approach would most accurately measure consumer satisfaction.

Another important issue to examine is the discreteness of consumer satisfaction. LaTour and Peat (1979) argue, "given that attitude and satisfaction are both evaluative responses to products, it is not clear whether there are any substantial differences between the two. In fact, it may be more parsimonious to consider satisfaction measures as post-consumption attitude measures". Czepiel and Rosenberg (1977) substantiate such claim by stating, "Consumer satisfaction is an attitude in the sense that it is an evaluative orientation

which can be measured. It is a special kind of attitude because by definition it cannot exist prior to the purchase or consumption of the attitude object". However, several studies indicate that consumer satisfaction differs from attitude (Oliver, 1980&1981; Westbrook and Reilly, 1983; Wilton and Tse, 1983; Westbrook and Oliver, 1981). Moreover, Oliver (1980) and Wilton and Tse (1983) find empirical evidence that support their claims. Hence, this study treats consumer satisfaction and attitude as two distinct variables.

3.2 Intention, Attitude and Loyalty Theories

Ajzen (1991)'s Theory of Planned Behavior, Davis (1989)'s Technology Acceptance Model, and Venkatesh et al. (2003)'s Unified Theory of Acceptance and Use of Technology combined help researchers understand how the determinants (i.e. beliefs, intention, and attitude) of consumer behavior are correlated with one another. Regarding intention, Fishbein and Ajzen (1980) state, "most behaviors of social relevance are under volitional control and are thus predictable from intentions". Ajzen (1991) also states, "Intentions to perform behaviors of different kinds can be predicted with high accuracy from attitudes toward the behavior, subjective norms, and perceived behavioral control; and these intentions, together with perceptions of behavioral control, account for considerable variance in actual behavior". On attitude, Ajzen (2005) states, "An attitude is a disposition to respond favorably or unfavorably to an object, person, institution, or event … Attitude is a hypothetical construct that, being inaccessible to direct observation, must be inferred from measurable responses". Based on the Theory of Reasoned Action (Fishbein & Ajzen, 1975), which posits that the alternative measure of consumer loyalty process is attachment loyalty, or loyalty as an attitude, Divett (2002) contends that attachment loyalty is an effective way of measuring consumer loyalty.

3.3 Utility Theories

Fishburn (1968) states, “utility theory is concerned with people’s choices and decisions. It is concerned also with people’s preferences and with judgements of preferability, worth, value, goodness or any of a number of similar concepts”. Eccles’ (2005; Eccles et al., 1983) expectancy value model of achievement choice clarifies how the utility gained from consuming a product or service influences the decision-maker’s behavior. However, for utility theories to sound, there must be a presumption: individuals are always engaged in rational behaviors, making decisions that maximize their utilities or expected utilities (Edwards, 1954). Studies that correspond to rational behaviors of individuals include: Newell, Shaw and Simon (1958); Howard and Sheth (1969); and Bettman (1970). However, it is important to note that Howard and Sheth (1969) assume that consumers are fully aware of their needs and wants, thereby choosing the option that will yield the highest expected utility after searching for and processing the information under certain restraints. Some studies that develop their models on utility theories include: Hennig-Thurau, Henning and Sattler (2007); Rochelandet & Le Guel (2005); Lamberton & Rose (2012). Rochelandet and Le Guel (2005), for instance, propose that rational consumers would prefer an illegal copy to the original product if consuming an illegal copy of a product gives them higher level of utility.

IV. Hypotheses Development

The models used in the studies on online consumer behaviors (Venkatesh & Davis, 2000; Venkatesh, Thong & Xu, 2012; Hom, 2000; Yi, 1989) provide guidelines for this research. Satama (2014)’s proposition that expected performance, hedonic motivations, social influences and other variables may influence consumers to use Airbnb, and Möhlmann (2015)’s analysis of the determinants of choosing a sharing option in two economic models of collaborative consumption all imply multiple regression analyses for this study.

Based on the models of Hennig-Thurau, Hennig & Sattler (2007), Lamberton & Rose (2012), and Oliver (1980), Lee and Cho (2018), this study proposes that utility variables are highly correlated with attitude, intention, satisfaction, and loyalty of consumers in the context of skills sharing. This paper modifies the model proposed by Lee & Cho (2018) to formulate hypotheses. The modified utility variables are *transaction and technology utility, social utility, sustainability utility, emotional utility, economic utility, and trust utility*. Each variable measures perceived utility (Davis, 1989) and is hypothesized to be correlated with attitude (Eccles, 2005; Ajzen, 2005; Davis, 1989) as illustrated in Figure 1.

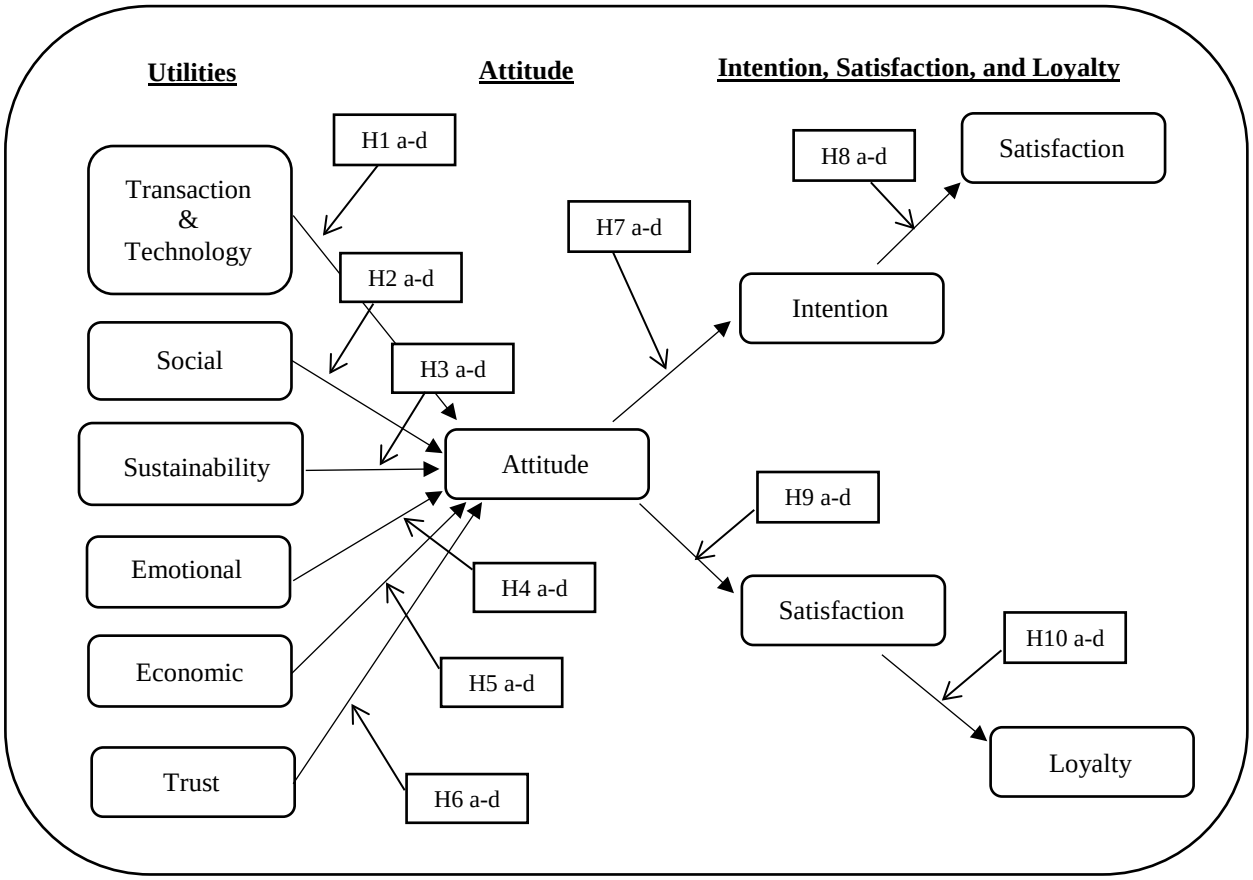

Figure 1. The Model of Utilities, Attitude, Satisfaction, Intention, and Loyalty of Skills Sharing (Modified from Lee & Cho (2018), Lamberton & Rose (2012), Hennig-Thurau, Henning & Sattler (2007), and Oliver (1980))
Note: a&b are users, c&d are suppliers, a&c are general skills sharing, and b&d are special skills sharing

As the utility theories propose, this study assumes that higher levels of utility lead to higher levels of attitude, satisfaction, intention and loyalty, which is captured by positive

correlation between variables. There are four components to each hypothesis: a and b hypothesize that a change in the level of each utility affects the level of attitude of consumers, or the skills sharing platform users who consume services; c and d hypothesize that a change in the level of each utility affects the level of attitude of producers, or the skills sharing platform users who supply services. In addition, a and c of each hypothesis are for general skills sharing while b and d of each hypothesis are for special skills sharing.

This study postulates that the utility variables that have impact on the attitude of consumers also have impact on the attitude of suppliers. As a number of literature concede, the flexibility in peer-to-peer markets relatively lowers the entry barriers for suppliers by increasing asset utilization (Einav, Farronato & Levin, 2016; Horton & Zeckhauser, 2016; Sundararajan, 2013; Edelman and Geradin, 2016; Botsman & Rogers, 2010). This suggests that a customer who has an underused asset (in this case, a set of skills) can easily become a supplier in the market for skills sharing. Therefore, this study assumes that the determinants of the attitude of consumers are also the determinants of the attitude of suppliers in the market for skills sharing.

4.1 Transaction Utility on Attitude

Thaler (2008) states that the transaction utility refers not to the value of consumed goods or services but to the expected benefits of the transaction. Grewal, Monroe, and Krishnan (1998) denote transaction utility as the perceived benefit of a transaction, or the expected satisfaction/pleasure of obtaining the monetary benefit from the access to goods or services. To summarize, a transaction utility is the monetary benefit converted from the positive feelings an individual expects to gain from a transaction.

Often, transaction utility differs from technology utility, which has two components: Venkatesh and Davis (2000)’s “perceived usefulness” and “perceived ease-of-use”.

According to Davis (1989), perceived usefulness is “the degree to which a person believes that using a particular system would enhance his or her job performance”, whereas perceived ease-of-use is “the degree to which a person believes that using a particular system would be free from effort”.

In the market for skills sharing, however, transaction utility is similar to, if not the same as, technology utility as the initial stage of a transaction between a consumer and a producer occurs in an online platform. As a result, an individual’s transaction utility is highly positively correlated with technology utility and having both utilities in a regression analysis will be redundant. Therefore, this study only examines transaction utility of consumers and producers for both general and special skills sharing.

The hypotheses on transaction utility are like the following:

H1 a: The level of transaction utility of consumers affects the level of attitude of consumers for general skills sharing.

H1 b: The level of transaction utility of consumers affects the level of attitude of consumers for special skills sharing.

H1 c: The level of transaction utility of suppliers affects the level of attitude of suppliers for general skills sharing.

H1 d: The level of transaction utility of suppliers affects the level of attitude of suppliers for special skills sharing.

4.2 Social Utility on Attitude

The social influence, as Venkatesh & Davis (2000) define, is the degree of a dependence of consumer behaviors on peers, or the extrinsic motivation on participation. Gardete (2015) states, “consumers’ willingness to buy is shown to be positively correlated with responsiveness to social influence”. Such statement of Gardete coincides with those

maintained by other studies that social utility is one of the significant determinants of participation in collaborative consumption (Bardhi & Eckhardt, 2012; Botsman & Rogers, 2010; Gansky, 2010). Thus, social utility, as Lamberton and Rose (2012) specify, is the "the gains that may accrue to sharing participants in form of approval by reference group", is suffice for this study.

In an attempt to verify previous studies (Davenport & Prusak, 1998**;** Wasko & Faraj, 2005**;** Lakhani & Wolf, 2005**;** Nov et al., 2010), Hamari, Sjöklint & Ukkonen (2015) analyzes the effect of extrinsic motivation of participation in consumer behavior in sharing economy, controlling for reputation. Parameswaran & Whinston (2007) and Raymond (1999) demonstrate the high correlation between gaining reputation among like-minded people and motivation to share in online communities and open-source projects. Wasko and Faraj (2005) find that the participants in electronic network of practice share knowledge since the contribution often enhances personal reputation. Donath (1999) also finds that active participation can be driven by the desire for good reputation. Yang and Lai (2010) explain, "individuals are more likely to gain self-based achievement rather than enjoyment in the process of sharing knowledge". Therefore, this study tries to examine the effect of social utility on attitude of consumers and producers for both general and special skills sharing practices.

The hypotheses on social utility are like the following:

H2 a: The level of social utility of consumers affects the level of attitude of consumers for general skills sharing.

H2 b: The level of social utility of consumers affects the level of attitude of consumers for special skills sharing.

H2 c: The level of social utility of suppliers affects the level of attitude of suppliers for general skills sharing.

H2 d: The level of social utility of suppliers affects the level of attitude of suppliers for special skills sharing.

4.3 Sustainability Utility on Attitude

Sustainability utility refers to the "belief that sharing is a way to protect environment or reduce wastes" (Mintona and Roseb, 1997). As Prothero et al. (2011) and Sacks (2011) mention, the participation in collaborative consumption is often thought to be eco-friendly as it promotes sharing instead of producing. As Mont (2004) puts, over-production can be avoided if less materials are required, which leads to less waste produced. Crane et al. (2012), Rifkin (2014a & b) and Botsman and Rogers (2010) elaborate on accompanied environmental benefits of car sharing services. Likewise, skills sharing practices can be beneficial to the environment by promoting reuse of existing products. Such eco-friendly gesture of a firm may also enhance its brand image as Olsen, Slotegraaf and Chandukala (2014) find that the introduction of green product influences brand attitude.

In addition, as Sachs (2017) argues, job creation is a crucial factor in sustainable development. Skills sharing practices may create more job opportunities for individuals as an individual can easily access to the vast opportunities for performing tasks or selling handmade products by just simply creating an account. In conclusion, sustainability utility is the expectations on social gains, which result from protecting the environment, reducing wastes, and increased job opportunities.

The hypotheses on sustainability utility are like the following:

H3 a: The level of sustainability utility of consumers affects the level of attitude of consumers for general skills sharing.

H3 b: The level of sustainability utility of consumers affects the level of attitude of consumers for special skills sharing.

H3 c: The level of sustainability utility of suppliers affects the level of attitude of suppliers for general skills sharing.

H3 d: The level of sustainability utility of suppliers affects the level of attitude of suppliers for special skills sharing.

4.4 Emotional Utility on Attitude

Numerous scholarly work on happiness (Dunn, Aknin & Norton, 2008; Kahn & Isen, 1993; Lyubomirsky, King & Diener, 2005) signifies the importance of emotion. Morris, Woo, Geason, and Kim (2002) also establish the importance of emotion on the purchase decision of individuals. Thus, firms attempt to convey the implicit message that consuming their products increases the level of happiness of their consumers through advertisements. The examples of those advertisements include Coca-Cola's marketing campaign "Open Happiness" (Mogilner, Aaker, & Kamvar, 2012) and BMW's marketing campaign "Stories of Joy" (Mogliner, Aaker, & Kamvar, 2012; J.D. Power and Associates, 2010). Although current literature does not explicitly define emotional utility, it can be inferred that emotional utility is the expected gain from the positive feelings an individual gets from consuming or supplying a product or a service.

The hypotheses on emotional utility are like the following:

H4 a: The level of emotional utility of consumers affects the level of attitude of consumers for general skills sharing.

H4 b: The level of emotional utility of consumers affects the level of attitude of consumers for special skills sharing.

H4 c: The level of emotional utility of suppliers affects the level of attitude of suppliers for general skills sharing.

H4 d: The level of emotional utility of suppliers affects the level of attitude of suppliers for special skills sharing.

4.5 Economic Utility on Attitude

People often pay attention to the economic value of a product or a service to maximize their economic utility. Hall and Mishkin (1982) establish that a change in the price of a product or a service causes a change in income of an individual, which then causes a change in the aggregate consumption patterns. Similarly, Carlson, Wolfe, Blanchard, Huber and Ariely (2015) show that consumers tend to select less variety of items to avoid feeling of loss when their budget restricts to a certain level. As mentioned earlier, Bardhi and Eckhardt (2012) underscore the importance of economic utility in sharing economy in which people use sharing services for their competitive advantage rather than collaborative motivation. Hence, economic utility can be simply understood as the expected satisfaction from an economic gain from purchasing or supplying a product or a service.

The hypotheses on economic utility are like the following:

H5 a: The level of economic utility of consumers affects the level of attitude of consumers for general skills sharing.

H5 b: The level of economic utility of consumers affects the level of attitude of consumers for special skills sharing.

H5 c: The level of economic utility of suppliers affects the level of attitude of suppliers for general skills sharing.

H5 d: The level of economic utility of suppliers affects the level of attitude of suppliers for special skills sharing.

4.6 Trust Utility on Attitude

Wirtz and Lwin (2009) state that trust is a mediatory entity that helps resolve issues and promote relationships. Botsman (2012) emphasizes trust in the sharing economy as one of the most essential determinants of consumer behaviors. Ostrom (1990) introduces eight different design principles for common pool resource institutions to building trust. In addition, Ostrom (2003) emphasizes the importance of reciprocity of trust for cooperation among people. Other studies that suggest the importance of trust in sharing economy include: Sundararajan, 2014; Botsman, 2012; Ert, Fleischer & Magen, 2016; Zervas, Proserpio & Byers, 2017.

The hypotheses on trust utility are like the following:

H6 a: The level of trust utility affects the level of attitude of consumers for general skills sharing.

H6 b: The level of trust utility affects the level of attitude of consumers for special skills sharing.

H6 c: The level of trust utility affects the level of attitude of suppliers for general skills sharing.

H6 d: The level of trust utility affects the level of attitude of suppliers for special skills sharing.

4.7 Effects of Attitude, Intention, Satisfaction and Loyalty

Existing literature suggests that consumer and producer behaviors may be predicted by measuring attitude, intention and satisfaction (Fishbein & Ajzen, 1980; Ajzen, 1991; Davis, 1989; Venkatesh, Thong & Xu, 2012; Oliver, 1997; Hom, 2000). As the utilities of consumers and producers may affect their attitude, which then affects their satisfaction or intention, this study hypotheses the following.

Potential customers and suppliers have not yet used or supplied any services. Thus, this study measures intentions of these customers and suppliers and analyzes the effect of their intention on their satisfaction, or, more precisely, expected satisfaction. Thus, the hypotheses on attitude and intention are like the following.

H7 a: The level of attitude affects the level of intention for potential consumers of general skills.

H7 b: The level of attitude affects the level of intention for potential consumers of special skills.

H7 c: The level of attitude affects the level of intention for potential suppliers of general skills.

H7 d: The level of attitude affects the level of intention for potential suppliers of special skills.

On the other hand, actual consumers and suppliers have actual experiences to recollect their satisfaction on the consumption or supply of the services. Thus, the hypotheses are like the following:

H9 a: The level of attitude affects the level of satisfaction for actual consumers of general skills.

H9 b: The level of attitude affects the level of satisfaction for actual consumers of special skills.

H9 c: The level of attitude affects the level of satisfaction for actual suppliers of general skills.

H9 d: The level of attitude affects the level of satisfaction for actual suppliers of general skills.

As mentioned earlier, this study hypothesizes that the intention of an individual to consume or supply a product or service affects satisfaction of the individual when the actual consumption or supply of a good or service takes place. In addition, this study hypothesizes that the higher level of satisfaction of an individual causes higher level of loyalty of that

individual towards a particular product or service consumed or supplied. As a result, the hypotheses are like the following.

For potential consumers and suppliers:

H8 a: The level of intention affects the level of satisfaction for potential consumers of general skills.

H8 b: The level of intention affects the level of satisfaction for potential customers of special skills.

H8 c: The level of intention affects the level of satisfaction for potential suppliers of general skills.

H8 d: The level of intention affects the level of satisfaction for potential suppliers of special skills.

For actual consumers and suppliers:

H10 a: The level of satisfaction affects the level loyalty for actual consumers of general skills.

H10 b: The level of satisfaction affects the level of loyalty for actual consumers of special skills.

H10 c: The level of satisfaction affects the level of loyalty for actual suppliers of general skills.

H10 d: The level of satisfaction affects the level of loyalty for actual suppliers of special skills.

V. Methodology

A survey was conducted on randomly selected respondents. The questions were asked on a 7-point Likert scale, with three questions for each construct of interest to enhance the accuracy of data (Cho, 2013). The data was collected both online and offline, but mostly offline. In order to incorporate larger size of sample, a link to the survey was posted on

Reddit.com, a website which is frequently visited by numerous researchers as well as renowned institutions for surveys. As a result, it is quite difficult to determine the accurate response rate for online surveys. However, the response rate was around 98% for offline surveys. Offline surveys were distributed in Hongdae, Sinchon, Itaewon and Gangnam in Seoul, Korea as these districts incorporate a wide range of age groups of Korean nationals as well as foreigners from diverse countries. The survey uses multi-item scales to measure each variable.

The total number of respondents is 103, with 50.49% of male respondents and 49.51% of female respondents. As this paper attempts to analyze the behaviors of actual and potential consumers as well as actual and potential producers of skills sharing economy platforms, the survey data includes both Koreans (66.99%) and Internationals (33.01%). Among the respondents, the majority of them are in their 20s (70.87%), followed by those in their 30s (22.33%). The majority of respondents are student (48.54%), followed by those who work in the private sector (19.42%). The three most indicated ranges of annual salary are: 1) 0-24,999 USD (50.49%), 2) 25,000-49,999 USD (31.07%), and 3) 50,000-79,999 USD (14.56%).

Furthermore, those who have used general skills sharing services are 55.43%, whereas those who have provided general skills sharing services are 39.81%. Those who have used special skills sharing services are 16.50%, whereas those who have provided special skills sharing services are 14.56%.

VI. Data Analysis

This section examines the possible effects of independent variables on dependent variables through conducting factor analysis, multiple regression, and other quantitative methods. To check the validity of major construct of the study, this paper uses extraction

method and varimax rotation methods with Kaiser normalization for factor analyses. Most of the factors have Eigen values greater than 1.

6.1 Potential and Actual Demand General

The Cronbach's alpha is computed to test reliability of each construct of interest. The values of Cronbach's alpha for sustainability, emotional, economic, trust, attitude, intention, and satisfaction for potential users of general skills sharing services
are .725, .702, .763, .754, .807, .793, and .897, respectively. For actual users of general skills sharing services, these values are .723, .765, .743, .698, .786, .840 (satisfaction), and .740 (loyalty), respectively.

The following shows the results of factor analysis for potential users of general skills sharing services:

Items		**Components**					
Factors	**Scale Items**	**1**	**2**	**3**	**4**	**5**	**6**
Transaction 1	I like the fact that I can submit my request anytime anywhere as long as I have access to the internet or Wifi.	.803					
Transaction 2	It is important that the process of submitting my request is short and easy.	.728					
Transaction 3	It is important that I can easily contact the supplier.	.503					
Social 1	The whole idea of general skill sharing makes me intrigued because it sounds trendy.		.771				
Social 2	If people around me give positive feedback on general skill sharing services, I will be interested in consuming those services.		.755				
Social 3	If people around me are the users of general skill sharing services, I will also become a user of those services.		.647				
Sustainability 1	If general skill sharing services are helpful to the job market, I will be more inclined to use those services.			.840			
Sustainability 2	If general skill sharing services promote healthy environment, I will be more inclined to use those services.			.795			
Sustainability 3	I like consuming products and/or services of the companies that positively contribute to social welfare.			.779			
Emotional 1	I will feel productive as I can spend more time on my priorities with someone helping me with everyday tasks.				.837		
Emotional 2	I will be happy to use general skill sharing				.795		

	services as someone who is better than me at everyday tasks is doing the work.						
Emotional 3	General skill sharing services will make me happy as the amount of work I have to do will be reduced.				.741		
Economic 1	General skill sharing sounds like a good deal.					.901	
Economic 2	I think general skill sharing services will help me save my time.					.825	
Economic 3	General skill sharing services save me costs (i.e. time and money spent on finding the service supplier) that otherwise would have occurred.					.756	
Trust 1	I trust to get the service I expect.						.845
Trust 2	I trust general skill sharing websites and apps to operate transparently.						.834
Trust 3	I trust that I will be protected from possible liabilities such as physical injuries and/or damages, robbery, and etc.						.785

Table 1. Component Matrix: Utility Dimension for General Skills Sharing for Potential Users

For potential users of general skills sharing platforms, transaction, emotional and economic utilities are revealed to be statistically significant. Transaction and emotional utilities are statistically significant at 10 percent whereas economic utility is statistically significant at 5 percent.

Demand Potential General	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**
Transaction Utility → Attitude (H1a)	.196 (.069)*
Social Utility → Attitude (H2a)	.024 (.850)
Sustainability Utility → Attitude (H3a)	.113 (.313)
Emotional Utility → Attitude (H4a)	.214 (.078)*
Economic Utility → Attitude (H5a)	.360 (.019)**
Trust Utility → Attitude (H6a)	.216 (.083)

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 2. Effects of Utilities on Attitude for Demand Potential General

The following is the results of factor analysis for actual users of general skills sharing services:

Items		**Components**					
Factors	**Scale Items**	**1**	**2**	**3**	**4**	**5**	**6**
Transaction 1	I like the fact that I can submit my request anytime anywhere as long as I have access to	.818					

	the internet or Wifi.						
Transaction 2	It is important that the process of submitting my request is short and easy.	.693					
Transaction 3	It is important that I can easily contact the supplier.	.623					
Social 1	The whole idea of general skill sharing makes me intrigued because it sounds trendy.		.924				
Social 2	If people around me give positive feedback on general skill sharing services, I will be interested in consuming those services.		.780				
Social 3	If people around me are the users of general skill sharing services, I will also become a user of those services.		.603				
Sustainability 1	If general skill sharing services are helpful to the job market, I will be more inclined to use those services.			.828			
Sustainability 2	If general skill sharing services promote healthy environment, I will be more inclined to use those services.			.812			
Sustainability 3	I like consuming products and/or services of the companies that positively contribute to social welfare.			.784			
Emotional 1	I will feel productive as I can spend more time on my priorities with someone helping me with everyday tasks.				.836		
Emotional 2	I will be happy to use general skill sharing services as someone who is better than me at everyday tasks is doing the work.				.822		
Emotional 3	General skill sharing services will make me happy as the amount of work I have to do will be reduced.				.819		
Economic 1	General skill sharing sounds like a good deal.					.901	
Economic 2	I think general skill sharing services will help me save my time.					.849	
Economic 3	General skill sharing services save me costs (i.e. time and money spent on finding the service supplier) that otherwise would have occurred.					.724	
Trust 1	I trust to get the service I expect.						.891
Trust 2	I trust general skill sharing websites and apps to operate transparently.						.836
Trust 3	I trust that I will be protected from possible liabilities such as physical injuries and/or damages, robbery, and etc.						.643

Table 3. Component Matrix: Utility Dimension for General Skills Sharing for Actual Users

For actual users of general skills sharing platforms, only trust utility is statistically significant but only at 10 percent level of significance. Despite the absence of significance, it is interesting that the coefficient on social utility is negative.

Demand Actual General

Variables (Independent → Dependent)	Standardized Coefficient (t-value-Sig)
Transaction Utility → Attitude (H1a)	.098 (.414)
Social Utility → Attitude (H2a)	-.162 (.236)
Sustainability Utility → Attitude (H3a)	.190 (.121)
Emotional Utility → Attitude (H4a)	.224 (.228)
Economic Utility → Attitude (H5a)	.257 (.160)
Trust Utility → Attitude (H6a)	.229 (.067)*

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 4. Effects of Utilities on Attitude for Demand Actual General

This finding suggests that the actual customers and potential customers of general skills sharing value given utilities differently when making decisions to use general skills sharing platforms in this sample. Potential customers correspond with transaction, emotional, and economic utilities while actual customers only correspond with trust utility. This is reasonable as the provision of general skills sharing service might require service providers to enter customers' houses to perform requested tasks such as cleaning the house, fixing and/or assembling machines and furniture placed in the house, and so on. It is logical that actual customers place high value on their security. On the other hand, for those who have not used the general skills sharing platforms, the easy and short transaction of using an app or website (transaction utility), the positive feelings associated with the use of service (emotional utility), and the price or cost of a service (economic utility) might seem more important.

6.2 Potential and Actual Demand Special

The computed values of Cronbach's alpha are fairly high for each factor. The values of Cronbach's alpha for potential users of special skills sharing services are .668 (transaction), .774 (social), .779 (sustainability), .794 (emotional), .777 (economic), .714 (trust), .833 (attitude), .872 (intention), and .846 (satisfaction). For actual users of special

skills sharing, the values are .666, .686, .813, .780, .850, .869, .800, .932 (satisfaction), and .590 (loyalty).

The results of factor analysis for potential users of special skills sharing services are like the following:

Items		Components					
Factors	**Scale Items**	**1**	**2**	**3**	**4**	**5**	**6**
Transaction 1	I like the fact that I can submit my request anytime anywhere as long as I have access to the internet or Wifi.	.815					
Transaction 2	It is important that the process of submitting my request is short and easy.	.773					
Transaction 3	It is important that I can easily contact the supplier.	.751					
Social 1	The whole idea of special skill sharing makes me intrigued because it sounds trendy.		.883				
Social 2	If people around me give positive feedback on special skill sharing services, I will be interested in consuming those services.		.883				
Social 3	If people around me are the users of special skill sharing services, I will also become a user of those services.		.778				
Sustainability 1	If special skill sharing services are helpful to the job market, I will be more inclined to use those services.			.834			
Sustainability 2	If special skill sharing services promote healthy environment, I will be more inclined to use those services.			.834			
Sustainability 3	I like consuming products and/or services of the companies that positively contribute to social welfare.			.833			
Emotional 1	I will feel productive as I can spend more time on my priorities with someone helping me with everyday tasks.				.905		
Emotional 2	I will be happy to use special skill sharing services as someone who is better than me at everyday tasks is doing the work.				.854		
Emotional 3	Special skill sharing services will make me happy as the amount of work I have to do will be reduced.				.784		
Economic 1	Special skill sharing sounds like a good deal.					.896	
Economic 2	I think special skill sharing services will help me save my time.					.850	
Economic 3	Special skill sharing services save me costs (i.e. time and money spent on finding the service supplier) that otherwise would have occurred.					.753	
Trust 1	I trust to get the service I expect.						.811
Trust 2	I trust special skill sharing websites and apps to operate transparently.						.794
Trust 3	I trust that I will be protected from possible liabilities such as physical injuries and/or damages, robbery, and etc.						.789

Table 5. Component Matrix: Utility Dimension for Special Skills Sharing for Potential Users

For potential users of special skills sharing platforms, emotional and trust utilities are statistically significant at 10 percent and 5 percent, respectively.

Demand Potential Special	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**
Transaction Utility → Attitude (H1b)	.145 (.197)
Social Utility → Attitude (H2b)	.066 (.595)
Sustainability Utility → Attitude (H3b)	-.043 (.714)
Emotional Utility → Attitude (H4b)	.236 (.089)*
Economic Utility → Attitude (H5b)	.237 (.121)
Trust Utility → Attitude (H6b)	.307 (.010)**

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 6. Effects of Utilities on Attitude for Demand Potential Special

The following is the results of factor analysis for actual users of special skills sharing services:

Items		**Components**					
Factors	**Scale Items**	**1**	**2**	**3**	**4**	**5**	**6**
Transaction 1	I like the fact that I can submit my request anytime anywhere as long as I have access to the internet or Wifi.	.914					
Transaction 2	It is important that the process of submitting my request is short and easy.	.850					
Transaction 3	It is important that I can easily contact the supplier.	.633					
Social 1	The whole idea of special skill sharing makes me intrigued because it sounds trendy.		.875				
Social 2	If people around me give positive feedback on special skill sharing services, I will be interested in consuming those services.		.770				
Social 3	If people around me are the users of special skill sharing services, I will also become a user of those services.		.737				
Sustainability 1	If special skill sharing services are helpful to the job market, I will be more inclined to use those services.			.916			
Sustainability 2	If special skill sharing services promote healthy environment, I will be more inclined to use those services.			.853			
Sustainability 3	I like consuming products and/or services of the companies that positively contribute to social welfare.			.809			

Emotional 1	I will feel productive as I can spend more time on my priorities with someone helping me with everyday tasks.				.911		
Emotional 2	I will be happy to use special skill sharing services as someone who is better than me at everyday tasks is doing the work.				.816		
Emotional 3	Special skill sharing services will make me happy as the amount of work I have to do will be reduced.				.789		
Economic 1	Special skill sharing sounds like a good deal.					.925	
Economic 2	I think special skill sharing services will help me save my time.					.863	
Economic 3	Special skill sharing services save me costs (i.e. time and money spent on finding the service supplier) that otherwise would have occurred.					.851	
Trust 1	I trust to get the service I expect.						.933
Trust 2	I trust special skill sharing websites and apps to operate transparently.						.895
Trust 3	I trust that I will be protected from possible liabilities such as physical injuries and/or damages, robbery, and etc.						.840

Table 7. Component Matrix: Utility Dimension for Special Skills Sharing for Actual Users

For actual users of special skills sharing platforms, sustainability and trust utilities are statistically significant at 5 percent.

Demand Actual Special	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**
Transaction Utility → Attitude (H1b)	.198 (.177)
Social Utility → Attitude (H2b)	-.013 (.935)
Sustainability Utility → Attitude (H3b)	.349 (.024)**
Emotional Utility → Attitude (H4b)	.061 (.728)
Economic Utility → Attitude (H5b)	.065 (.712)
Trust Utility → Attitude (H6b)	.384 (.015)**

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 8. Effects of Utilities on Attitude for Demand Actual Special

As indicated, trust utility is statistically significant at 5 percent level for both potential users and actual users of special skills sharing. However, these users diverge when it comes to emotional utility and sustainability utility. Emotional utility is statistically significant at 10 percent level for potential customers, whereas sustainability utility is

statistically significant at 5 percent level for actual customers. One possible explanation is that when customers, who have not yet used the service, make purchase decisions, they make decisions upon the probability of gaining emotional utility. However, once they have used the service, they are more inclined to repurchase products from or consume services of the service providers who engage in activities that promote social welfare. This leads to a hasty speculation that the reason actual customers correspond with sustainability utility might be that they feel strong attachment to the brands from which they consume goods and services. Thus, through purchasing products from or consuming services of brands that promote social welfare, consumers feel that they partake in something socially good.

6.3 Potential and Actual Supply General

Most of the values of Cronbach's alpha for potential suppliers of general skills sharing surpass .750, with an exception of social utility (.587). The values are .804 (transaction), .788 (sustainability), .779 (emotional), .749 (economic), .825 (trust), .867 (attitude), .887 (intention), and .906 (satisfaction). For actual suppliers of general skills, these values are .605 (social), .680 (sustainability), .850 (emotional), .610 (economic), .801 (trust), .892 (attitude), .867 (satisfaction), and .875 (loyalty).

The following is for potential suppliers of general skills sharing:

Items		**Components**					
Factors	**Scale Items**	**1**	**2**	**3**	**4**	**5**	**6**
Transaction 1	I like the fact that I can apply for tasks of my interest anytime anywhere as long as I have access to the internet or Wifi.	.872					
Transaction 2	It is important that the application process is short and easy.	.868					
Transaction 3	It is important to be able to easily contact my clients.	.806					
Social 1	The whole idea of general skill sharing makes me intrigued because it sounds trendy.		.840				
Social 2	If people around me give positive feedback on general skill sharing services, I will be interested in supplying those services.		.824				
Social 3	If people around me work as the providers of general skill sharing services, I will also become		.556				

	a provider of those services.						
Sustainability 1	I believe that general skill sharing is helpful to the job market.			.876			
Sustainability 2	I believe that providing general skill sharing services can be a source of income.			.842			
Sustainability 3	I believe that general skill sharing can promote social welfare.			.797			
Emotional 1	Appreciation from my clients makes me happy.				.868		
Emotional 2	I will feel excited as I can take tasks of my interest.				.823		
Emotional 3	General skill sharing will bring joy to my life as it allows me to use my skills.				.813		
Economic 1	Providing general skill sharing services is a good opportunity to earn money.					.879	
Economic 2	Working as a provider of general skill sharing services sounds like a good deal.					.852	
Economic 3	Working as a provider of general skill sharing services saves me costs (i.e. time and money spent on finding the people who demand my service) that otherwise would have occurred.					.732	
Trust 1	I trust to get what I expect from working as a general skill sharing service provider.						.904
Trust 2	I trust that the general skill sharing websites and apps operate transparently.						.863
Trust 3	I trust that I will be protect from possible liabilities such as physical injuries, invalid accusations, robber, and etc.						.831

Table 9. Component Matrix: Utility Dimension for General Skills Sharing for Potential Suppliers

For potential suppliers of general skills sharing platforms, transaction, social, and emotional utilities are statistically significant at 5 percent whereas sustainability and trust utilities are statistically significant at 1 percent.

Supply Potential General	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**
Transaction Utility → Attitude (H1c)	.178 (.037)**
Social Utility → Attitude (H2c)	.217 (.021)**
Sustainability Utility → Attitude (H3c)	.379 (.000)***
Emotional Utility → Attitude (H4c)	.036 (.724)**
Economic Utility → Attitude (H5c)	-.056 (.604)
Trust Utility → Attitude (H6c)	.289 (.002)***

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 10. Effects of Utilities on Attitude for Supply Potential General

The following is for actual suppliers of general skills sharing:

Items		Components					
Factors	**Scale Items**	**1**	**2**	**3**	**4**	**5**	**6**
Transaction 1	I like the fact that I can apply for tasks of my interest anytime anywhere as long as I have access to the internet or Wifi.	.863					
Transaction 2	It is important that the application process is short and easy.	.855					
Transaction 3	It is important to be able to easily contact my clients.	-.025					
Social 1	The whole idea of general skill sharing makes me intrigued because it sounds trendy.		.934				
Social 2	If people around me give positive feedback on general skill sharing services, I will be interested in supplying those services.		.809				
Social 3	If people around me work as the providers of general skill sharing services, I will also become a provider of those services.		.628				
Sustainability 1	I believe that general skill sharing is helpful to the job market.			.900			
Sustainability 2	I believe that providing general skill sharing services can be a source of income.			.744			
Sustainability 3	I believe that general skill sharing can promote social welfare.			.734			
Emotional 1	Appreciation from my clients makes me happy.				.949		
Emotional 2	I will feel excited as I can take tasks of my interest.				.891		
Emotional 3	General skill sharing will bring joy to my life as it allows me to use my skills.				.820		
Economic 1	Providing general skill sharing services is a good opportunity to earn money.					.888	
Economic 2	Working as a provider of general skill sharing services sounds like a good deal.					.745	
Economic 3	Working as a provider of general skill sharing services saves me costs (i.e. time and money spent on finding the people who demand my service) that otherwise would have occurred.					.589	
Trust 1	I trust to get what I expect from working as a general skill sharing service provider.						.916
Trust 2	I trust that the general skill sharing websites and apps operate transparently.						.863
Trust 3	I trust that I will be protect from possible liabilities such as physical injuries, invalid accusations, robber, and etc.						.771

Table 11. Component Matrix: Utility Dimension for General Skills Sharing for Actual Suppliers

For actual suppliers of general skills sharing platforms, transaction, social, emotional, and trust utilities are all statistically significant at 5 percent.

Supply Actual General	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**
Transaction Utility → Attitude (H1c)	.293 (.028)**

Social Utility → Attitude (H2c)	.378 (.034)**
Sustainability Utility → Attitude (H3c)	-.121 (.499)
Emotional Utility → Attitude (H4c)	-.410 (.030)**
Economic Utility → Attitude (H5c)	.262 (.141)
Trust Utility → Attitude (H6c)	.644 (.012)**

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 12. Effects of Utilities on Attitude for Supply Actual General

Transaction utility, social utility, emotional utility, and trust utility are all statistically significant for both potential suppliers and actual suppliers of general skills. The difference between these two groups of suppliers is that sustainability utility is statistically significant at 1 percent level for potential suppliers of general skills only. This might be due to the gap in expectations of potential suppliers and actual suppliers. The potential suppliers may choose to provide service in the hope that general skills sharing platforms contribute to securing decent jobs and enhancing social welfare, whereas the actual suppliers have realized that skills sharing platforms have systematic restrictions to offering decent, or well-paid, jobs and no longer take sustainability utility into consideration when making their decision to provide general skills sharing services.

6.4 Potential and Actual Supply Special

The values of Cronbach's alpha for potential suppliers of special skills sharing services are .744 (transaction), .713 (social), .823 (sustainability), .828 (emotional), .831 (economic), .747 (trust), .827 (attitude), .879 (intention), and .875 (satisfaction). For actual suppliers of special skills sharing services, these values are quite similar. For example, sustainability is .878, economic is .896, and trust is .877.

The following is for potential suppliers of special skills sharing:

Items		**Components**					
Factors	**Scale Items**	**1**	**2**	**3**	**4**	**5**	**6**
Transaction 1	I like the fact that I can apply for tasks of my	.846					

	interest anytime anywhere as long as I have access to the internet or Wifi.						
Transaction 2	It is important that the application process is short and easy.	.841					
Transaction 3	It is important to be able to easily contact my clients.	.770					
Social 1	The whole idea of special skill sharing makes me intrigued because it sounds trendy.		.903				
Social 2	If people around me give positive feedback on special skill sharing services, I will be interested in supplying those services.		.886				
Social 3	If people around me work as the providers of special skill sharing services, I will also become a provider of those services.		.614				
Sustainability 1	I believe that special skill sharing is helpful to the job market.			.885			
Sustainability 2	I believe that providing special skill sharing services can be a source of income.			.851			
Sustainability 3	I believe that special skill sharing can promote social welfare.			.844			
Emotional 1	Appreciation from my clients makes me happy.				.872		
Emotional 2	I will feel excited as I can take tasks of my interest.				.871		
Emotional 3	Special skill sharing will bring joy to my life as it allows me to use my skills.				.845		
Economic 1	Providing special skill sharing services is a good opportunity to earn money.					.908	
Economic 2	Working as a provider of special skill sharing services sounds like a good deal.					.905	
Economic 3	Working as a provider of special skill sharing services saves me costs (i.e. time and money spent on finding the people who demand my service) that otherwise would have occurred.					.789	
Trust 1	I trust to get what I expect from working as a special skill sharing service provider.						.850
Trust 2	I trust that the special skill sharing websites and apps operate transparently.						.823
Trust 3	I trust that I will be protect from possible liabilities such as physical injuries, invalid accusations, robber, and etc.						.792

Table 13. Component Matrix: Utility Dimension for Special Skills Sharing for Potential Suppliers

For potential suppliers of special skills sharing platforms, economic utility is statistically significant at 10 percent level whereas emotional and trust utilities are both statistically significant at 1 percent level.

Supply Potential Special	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**
Transaction Utility → Attitude (H1d)	.057 (.440)

Social Utility → Attitude (H2d)	.079 (.311)
Sustainability Utility → Attitude (H3d)	.105 (.300)
Emotional Utility → Attitude (H4d)	.403 (.000)***
Economic Utility → Attitude (H5d)	.165 (.073)*
Trust Utility → Attitude (H6d)	.235 (.004)***

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 14. Effects of Utilities on Attitude for Supply Potential Special

The following is for actual suppliers of special skills sharing:

Items		**Components**					
Factors	**Scale Items**	**1**	**2**	**3**	**4**	**5**	**6**
Transaction 1	I like the fact that I can apply for tasks of my interest anytime anywhere as long as I have access to the internet or Wifi.	.779					
Transaction 2	It is important that the application process is short and easy.	.656					
Transaction 3	It is important to be able to easily contact my clients.	.529					
Social 1	The whole idea of special skill sharing makes me intrigued because it sounds trendy.		.943				
Social 2	If people around me give positive feedback on special skill sharing services, I will be interested in supplying those services.		.899				
Social 3	If people around me work as the providers of special skill sharing services, I will also become a provider of those services.		.720				
Sustainability 1	I believe that special skill sharing is helpful to the job market.			.925			
Sustainability 2	I believe that providing special skill sharing services can be a source of income.			.919			
Sustainability 3	I believe that special skill sharing can promote social welfare.			.886			
Emotional 1	Appreciation from my clients makes me happy.				.911		
Emotional 2	I will feel excited as I can take tasks of my interest.				.886		
Emotional 3	Special skill sharing will bring joy to my life as it allows me to use my skills.				.830		
Economic 1	Providing special skill sharing services is a good opportunity to earn money.					.962	
Economic 2	Working as a provider of special skill sharing services sounds like a good deal.					.933	
Economic 3	Working as a provider of special skill sharing services saves me costs (i.e. time and money spent on finding the people who demand my service) that otherwise would have occurred.					.836	
Trust 1	I trust to get what I expect from working as a special skill sharing service provider.						.968
Trust 2	I trust that the special skill sharing websites and apps operate transparently.						.902
Trust 3	I trust that I will be protect from possible						.849

	liabilities such as physical injuries, invalid accusations, robber, and etc.						

Table 15. Component Matrix: Utility Dimension for Special Skills Sharing for Actual Suppliers

For actual suppliers of special skills sharing platforms, none of the utilities are statistically significant.

Supply Actual Special	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**
Transaction Utility → Attitude (H1d)	.452 (.144)
Social Utility → Attitude (H2d)	-.312 (.239)
Sustainability Utility → Attitude (H3d)	.172 (.393)
Emotional Utility → Attitude (H4d)	-.287 (.270)
Economic Utility → Attitude (H5d)	.346 (.338)
Trust Utility → Attitude (H6d)	.550 (.123)

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 16. Effects of Utilities on Attitude for Supply Actual Special

The number of actual suppliers of special skills is quite small as skills sharing platforms are relatively new. This can be one of the possible reasons that there are no statistically significant results for actual suppliers of special skills when there are statistically significant results for potential suppliers of special skills.

However, the fact that two groups of respondents diverge in their responses is interesting. In addition, the coefficients on social and emotional utilities for actual suppliers of special skills is negative.

6.5 Potential Demand and Supply

Due to the fact that the measured variables differ for actual users of general and special skills sharing services, the regression results for potential users of general skills sharing services are compared with those of potential users of special skills sharing services in this section. Likewise, the regression results of actual users of general skills sharing

services are compared to those of actual users of special skills sharing services. The same is true for suppliers of general and special skills sharing services.

For potential users of general skills sharing platforms, the coefficients on attitude and intention are positive as well as statistically significant at 1 percent level.

Demand Potential General	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**
Attitude → Intention (H7a)	.663 (.000)***
Intention → Satisfaction (H8a)	.712 (.000)***

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 17. Effects of Attitude on Intention and of Intention on Satisfaction for Demand General

The same is true for potential users of special skills sharing services. Both coefficients on attitude and intention are positive as well as statistically significant at 1 percent level.

Demand Potential Special	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**
Attitude → Intention (H7b)	.663 (.000)***
Intention → Satisfaction (H8b)	.712 (.000)***

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 18. Effects of Attitude on Intention and of Intention on Satisfaction for Demand Special

For potential suppliers to general skills sharing platforms, the coefficients on attitude and intention are positive and statistically significant at 1 percent level just as the two previous findings.

Supply Potential General	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**
Attitude → Intention (H7c)	.440 (.000)***
Intention → Satisfaction (H8c)	.787 (.000)***

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 19. Effects of Attitude on Intention and of Intention on Satisfaction for Supply General

For potential suppliers of special skills sharing services, the same is true.

Supply Potential Special	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**
Attitude → Intention (H7d)	.525 (.000)***
Intention → Satisfaction (H8d)	.723 (.000)***

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 20. Effects of Attitude on Intention and of Intention on Satisfaction for Supply Special

6.6 Actual Demand and Supply

The results are consistent for actual users of general skill sharing services.

Demand Actual General	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**
Attitude → Satisfaction (H9a)	.567 (.000)***
Satisfaction → Loyalty (H10a)	.461 (.000)***

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 21. Effects of Attitude on Satisfaction and of Satisfaction on Loyalty for Demand General

The consistent results for actual users of special skills sharing services follows.

Demand Actual Special	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**
Attitude → Satisfaction (H9b)	.567 (.000)***
Satisfaction → Loyalty (H10b)	.461 (.000)***

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 22. Effects of Attitude on Satisfaction and of Satisfaction on Loyalty for Demand Special

This is where the results are somewhat different. For actual suppliers of general skills sharing services, only the coefficient on satisfaction is statistically significant at 1 percent level. This may be due to the stressful and deficient working environment in which general skills sharing service providers are put.

Supply Actual General	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**

Attitude → Satisfaction (H9c)	.399 (.113)
Satisfaction → Loyalty (H10c)	.902 (.000)***

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 23. Effects of Attitude on Satisfaction and of Satisfaction on Loyalty for Supply General

On the contrary, the results of actual suppliers of special skills services are consistent with the findings shown above.

Supply Actual Special	
Variables (Independent → Dependent)	**Standardized Coefficient (t-value-Sig)**
Attitude → Satisfaction (H9d)	.774 (.001)***
Satisfaction → Loyalty (H10d)	.561 (.029)**

*Significant at .1 level; **Significant at .05 level; ***Significant at .01 level (2-tailed).

Table 24. Effects of Attitude on Satisfaction and of Satisfaction on Loyalty for Supply Special

VII. Results

7.1 Major Findings

7.1.1 Demand

For potential users of general skills sharing services, transaction utility, emotional utility, and economic utility are statistically significant. For actual users of general skills sharing services, only trust utility is statistically significant. The most plausible explanation for this divergence in results can be inferred from information asymmetry. As potential users have not used these services, they might not be aware of the skills sharing platforms in general as well as each stage of the process for their orders to be conveyed. Likewise, the statistical significance of coefficients diverges from potential users to actual users of special skills sharing platforms. For potential users of special skills sharing platforms, only emotional utility and trust utility are statistically significant. For actual users, sustainability utility and trust utility are statistically significant.

More interestingly, potential users differ in their responses for general skills and special skills. Although emotional utility is statistically significant for both, transaction and

economic utilities are insignificant when it comes to special skills. Instead, trust utility is significant for special skills. This difference may be explained by the unique features associated with each type of skills. General skills incorporate those that anyone can easily perform when special skills may require profound knowledge or education. Therefore, the general skills sharing services might not differ much by supplier but the special skills sharing services might differ enormously from a supplier to a supplier. As a result, the trust a consumer has in the supplier inevitably affects the attitude of a consumer when making a purchase decision.

7.1.2 Supply

For potential suppliers of general skills sharing services, sustainability utility, trust utility, transaction utility, social utility, and emotional utility are statistically significant. For actual suppliers of general skills sharing services, transaction utility, social utility, emotional utility, and trust utility are statistically significant. The only difference in results between potential and actual suppliers of general skills is the statistical significance of sustainability. As mentioned earlier, sustainability utility measures whether the respondent believes that skills sharing platforms can enhance social welfare through protecting the environment, reducing unnecessary wastes, and creating jobs. Thus, one of the survey questions for sustainability utility asks if the respondent thinks that providing services via skills sharing platforms can be a stable income source. The statistical insignificance of sustainability utility for actual suppliers indicates that these platforms lack the respects of a stable income source.

On the other hand, for potential suppliers of special skills, emotional utility and trust utility, and economic utility are statistically significant. For actual suppliers of special skills, none of the utilities is statistically significant. The insignificance of coefficients for actual suppliers of special skills may be due to the small size of the sample. Nevertheless, the

comparison between the results for potential suppliers and actual suppliers of special skills portrays the fact that these skills sharing platforms need more advertising as they are relatively new. The information asymmetry between potential and actual suppliers and the lack of actual suppliers call on policy intervention in the market for sharing economy of skills.

Overall, for both potential and actual suppliers, emotional utility and trust utility are statistically significant. This finding calls for the attention of skills sharing platforms when recruiting more suppliers to supply skills sharing services.

7.1.3 Supply and Demand

The results between potential users of general skills sharing services and potential suppliers of general skills sharing services show that transaction utility and emotional utility are statistically significant for both groups of respondents. On contrary, economic utility is only statistically significant for potential users. One possible reason that economic utility is not statistically significant for potential suppliers is that potential suppliers of general skills sharing services may expect that the tasks associated with general skills are so physically taxing that the value of their income from supplying general skills might be less than the monetary value of their labor.

The results between actual users of general skills sharing services and actual suppliers of general skills sharing services show that trust utility is statistically significant for both groups of respondents. This finding once again underscores the importance of policy intervention in the market for sharing economy to ensure mutual trust between suppliers and consumers.

The results between potential users of special skills sharing services and potential suppliers of special skills sharing services show that emotional utility and trust utility are statistically significant for both groups of respondents. The only difference between these two

groups of respondents is economic utility. Economic utility is statistically significant for potential suppliers as skills sharing platforms help these sellers save time spent on finding the right location, cost of hiring a shopkeeper, rents, maintenance fees, and other costs associated with opening physical stores.

7.2 Additional Findings

Other additional analyses were conducted for this research. Some of the interesting findings involve logit regression and MANOVA. The regression of gender (male=0 and female=1) on utilities for actual users of general skills sharing services show that trust utility is statistically significant at 10 percent level. When nationality (domestic=0 and foreign=1) is regressed on utilities for actual users of special skills sharing services, social utility is statistically significant at 5 percent level. The results for MANOVA indicate that the mean transaction utility value of those who have used at least one sharing economy platform and that of those who have not used any of sharing economy platforms differ significantly at 1 percent level for actual users of general skills sharing services, actual users of special skills sharing services and actual suppliers of general skills sharing services. Once again, the small sample size of actual suppliers of special skills sharing services might be the reason that none of the difference in mean values of utilities is statistically significant for actual suppliers of special skills sharing services. However, the statistically significant differences in the mean values of transaction utility for three groups (actual users of general skills sharing platforms, actual users of special skills sharing platforms, and actual suppliers of general skills sharing platforms) underscore the possible influence of information asymmetry on perceived utilities of respondents. Those who have used other sharing economy platforms gave higher values for transaction utility while those who have not used other sharing economy platforms gave lower values for transaction utility. It can be inferred that those who have enough experiences

with the sharing economy platforms positively evaluate the easy access to services and fast execution of orders offered by sharing economy platforms.

VIII. Conclusion

Through comparing results of potential users and actual users, potential suppliers and actual suppliers, and users and suppliers, this paper not only suggests efficient marketing tools for the companies that feed on the economic models of skills sharing in sharing economy but also recommends viable solutions to policy makers in an attempt to mitigate significant job replacements, if not job losses, that are resulting from the advance of modern technologies. This paper urges firms and government to work together to stimulate the market for skills sharing. As mentioned above, the difference in results seems to arise from information asymmetry, which can be overcome by encouraging potential users and suppliers of both skills to participate and gain actual experiences of skills sharing platforms. Trust utility and emotional utility are statistically significant throughout the analyses, a finding that once again emphasizes the importance of interventions from government and firms in the market of skills sharing.

8.1 Managerial Implications

As shown from the statistical significance of trust utility in the majority of analyses, mutual trust between consumers and producers is crucial in stimulating sharing economy businesses. Cox (2017) introduces an umbrella-lending Chinese startup, which has witnessed 300, 000 missing umbrellas within several months of its operation and eventually filed bankruptcy. Fergusson, Ahlqvist, and Smith (2017) find that consumers of Airbnb are vulnerable to scams as reliability checks on hosts are difficult to execute. Likewise, both consumers and producers are in danger in the market of sharing economy. Companies that

operate sharing economy platforms should devise solutions to promote mutual trust between consumers and producers.

Unlike platforms such as Airbnb, skills sharing platforms (Etsy, TaskRabbit, ArtFire, 3DCart, and etc.) share a characteristic that allows them to conduct reliability checks on the suppliers as well as the consumers. As these platforms play the role of a middleman that connects demanders of services to suppliers of those demanded services, these firms can protect consumers as well as producers by requiring every user (in this case, *user* refers those who use skills sharing platforms to either spend or make money) to create an account before using their platforms. In other words, the accounts created by both suppliers and consumers allow firms to store private information of their users and retrieve relevant information from their database whenever resolutions are necessary.

In addition, unlike Uber, Airbnb and other sharing economy platforms that deal with commodities, platforms that deal with skills, especially those that sell handcrafted products, are not well advertised. To overcome information asymmetry, these enterprises should advertise more often and make themselves exposed to potential users and potential suppliers. Advertisements on social network services such as Facebook, Twitter, and Instagram will help these firms reach out to a substantial number of customers and producers. Moreover, a short video clip that walks users through the process of creating their accounts and submitting their orders will further reduce the information asymmetry between potential and actual users of these platforms. It is very likely that firms will witness an increase in the number of users after uploading a video clip that helps these users with using their platforms.

Finally, as the statistical significance of emotional utility indicates, firms should promote a sense of community in which hard labor is appreciated and every complaint is heard. Apart from having a review/comment section on each page, firms can create a virtual

space within the skills sharing platform for both consumers and suppliers of skills to freely make comments. Whenever complaints are raised, firms should immediately take action to resolve them. Firms should understand that a little delay can exacerbate the situation.

8.2 Policy Implications

The government should intervene to ensure that firms do not abuse their power with private information of users of platforms. The leakage of private information is a serious issue that every person in modern society faces. The government should implement a policy that strictly forbids and heavily punishes any kinds of act linked to the leak in, trade of, and/or exchange of private information without the consent of the user by sharing economy firms.

In addition, the government should devise a system that promotes mutual trust between consumers and producers so that they can safely interact with one another in sharing economy platforms. The government can promote trusting environment by firms to thoroughly conduct reliability checks on sellers to protect buyers. It can also strongly urge firms to collaborate with companies similar to PayPal to allow a safer environment for consumers.

The government can also utilize skills sharing platforms to combat weak job market. The next section is dedicated to the implications on the job market and the government's role to help create more jobs through stimulating skills sharing economy.

8.3 Implications on Job Market

PwC expects to see robots and artificial intelligence replacing 38% of jobs in the United States and 30% of jobs in the United Kingdom over the next 15 years (Petroff, 2017). In addition, a study from the National Bureau of Economic Research indicates, "hundreds of thousands of jobs have been sidelined by automation in the U.S. in recent decades" (Soergel,

2017). Such phenomenon is also referred to as *technological singularity*. This term, which was coined by a science fiction writer, Vernor Vinge, refers to a time in which artificial intelligence or any other technological creations outperform humans in every aspect (Falconer, 2011). The fear of technological singularity, unfortunately, does not seem preposterous. Google's director of engineering, Ray Kurzweil, who is also known to have popularized the term *singularity*, predicts computers to have human intelligence by 2029 (Galeon & Reedy, 2017). In his book, Miller (2012) writes that certain types of singularities can be detrimental to the economy as people have incentives to save less for retirement and make fewer investments when the number of unknown unknowns increase. Less savings and fewer investments for the future is truly lethal and can thwart future economic growth. Furthermore, Uber's announcement that it will soon launch driverless cars in Pittsburgh, U.S. (Huws, 2016) seems to signal the era of technological singularity has already come forth.

Some critics argue that this decrease in job openings is temporary and new jobs will soon be created. However, when new jobs emerge, there will be pervasive skill mismatches in the labor market as acquiring new skills takes time. Unlike commodity sharing, skills sharing can actually be helpful in the labor market as labor itself is the traded commodity. The job seekers will not have to acquire new sets of skills as they can supply whatever they already have.

The sustainability benefits of economic models of sharing, including skills sharing, cannot be ignored. As the economic models of the sharing economies enable individuals to generate income from underused asset, anyone who has underutilized asset, skills in this case, may utilize it for living, which may actually help and improve social welfare. Correspondingly, Elvira and Potcovaru (2015) contend that the platforms of sharing economy help each individual, within and across communities, supply and gain from fundamental

skills and services through linking those individuals. Elvira and Potcovaru (2015) also state that such characteristic of sharing economy platforms provides opportunities to not only save resources through sharing but also make economies, especially for low-income families, through participation. Kartsen (2017) elaborates on the efficiency that arises from flexible access of consumers to goods and services for a duration of time in the sharing economy.

8.4 Limitations and Opportunities for Future Research

This study contains a number of limitations. First, the sample size (n=103) is arguably small to analyze the precise effects of the utilities on attitude, satisfaction, intention, and loyalty. As these sharing economy platforms are newly risen phenomenon, it was difficult to find actual suppliers of special skills. This may imply that more advertisements and policy interventions are needed to incorporate those who are capable of supplying relevant services in the market. In addition, there is few literature on economic models of skills sharing. Further researches are needed in this field. Moreover, this study analyzes the perceived utilities of Koreans and Internationals living in Korea as a whole. Such analysis might yield biased results due to sample bias. Further research on this subject should analyze the effects of each utility by country or by culture as one's citizenship might be a determinant of one's attitude. Lastly, future research should explore sustainability of these platforms more deeply as more and more people and governments are interested in whether these platforms can create stable source of income.

Appendix 1. A Survey: Analyzing Factors That Affect Satisfaction in the Economic Model of Skill Sharing

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Please answer the following questions based on your experience.

Part I. Collaborative economy is defined as "[a]n economic system of decentralized networks and marketplaces that unlocks the value of underused assets by matching needs and haves, in ways that bypass traditional middlemen" (Botsman, 2015). In other words, in a collaborative economy, online platforms play as marketplaces where the suppliers of certain skills are matched with the demanders of those skills.

Skill sharing, the main focus of my research, consists of two parts: general skill sharing and

special skill sharing. *General skill* refers to everyday tasks (i.e. cleaning , moving, delivery, and handyman work - assembling furniture, fixing machinery, etc.). *Special skill* refers to arts and crafts, designing, and other similar customized services.

1. Have you ever heard about the term *sharing economy* or *collaborative economy* before this survey?

① Yes ② No

2. Have you ever used any of the following sharing economy/collaborative economy platforms such as Uber, Airbnb, Zipcar/SoCar, TaskRabbit/FoodFly/ddingdong, Skillshare/Taling/WeSwot, or any other similar websites/apps?

① Yes ② No

Part II. This part asks your opinion on general skill sharing services (i.e. cleaning, moving, delivery, handyman work, and so on) as a customer.

To use general skill sharing services, you will put a request on the websites/apps such as TaskRabbit, Thumbtack, FoodFly (푸드플라이), ddingdong (띵똥), and etc., using your electronic devices.

1. I like the fact that I can submit my request anytime anywhere as long as I have access to the internet or Wifi:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

2. It is important that the process of submitting my request is short and easy:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

3. It is important that I can easily contact the supplier:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

4. The whole idea of general skill sharing makes me intrigued because it sounds trendy:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree

1	2	3	4	5	6	7

5. If people around me give positive feedback on general skill sharing services, I will be interested in consuming those services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

6. If people around me are the users of general skill sharing services, I will also become a user of those services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

7. If general skill sharing services are helpful to the job market, I will be more inclined to use those services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

8. If general skill sharing services promote healthy environment, I will be more inclined to use those services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

9. I like consuming products and/or services of the companies that positively contribute to social welfare:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

10. I will feel productive as I can spend more time on my priorities with someone helping me with everyday tasks:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

11. I will be happy to use general skill sharing services as someone who is better than me at everyday tasks is doing the work:

Strongly	Disagree	Somewhat	Neutral	Somewhat	Agree	Strongly

disagree		disagree		agree		agree
1	2	3	4	5	6	7

12. General skill sharing services will make me happy as the amount of work I have to do will be reduced:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

13. General skill sharing sounds like a good deal:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

14. I think general skill sharing service will help me save my time:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

15. General skill sharing services save me costs (i.e. time and money spent on finding the service supplier) that otherwise would have occurred:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

16. I trust to get the service I expect:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

17. I trust general skill sharing websites and apps to operate transparently:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

18. I trust that I will be protected from possible liabilities such as physical injuries and/or damages, robbery and etc.

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

19. I believe general skill sharing to be something useful:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

20. I positively evaluate the economic model of general skill sharing services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

21. Overall, I have a positive attitude towards general skill sharing:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

22. Have you ever used online platforms for general skill sharing?

① Yes ② No

Display This Question:

If Have you ever used online platforms for general skill sharing? = Yes

23. General skill sharing services meet my expectations:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

Display This Question:

If Have you ever used online platforms for general skill sharing? = Yes

24. I am satisfied with my previous experience with general skill sharing service:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

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If Have you ever used online platforms for general skill sharing? = Yes

25. Overall, I am satisfied with general skill sharing services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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Display This Question:

If Have you ever used online platforms for general skill sharing? = Yes

26. I plan to use general skill sharing services again in the future:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

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27. I think I will recommend general skill sharing services to my friends and family:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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If Have you ever used online platforms for general skill sharing? = Yes

28. I will use general skill sharing services frequently in the future:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

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If Have you ever used online platforms for general skill sharing? = No

29. I intend to use general skill sharing services in the near future:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree

1	2	3	4	5	6	7

Display This Question:

If Have you ever used online platforms for general skill sharing? = No

30. If I need some help with everyday tasks, I will use general skill sharing services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

Display This Question:

If Have you ever used online platforms for general skill sharing? = No

31. I would like to have an actual experience in general skill sharing services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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If Have you ever used online platforms for general skill sharing? = No

32. I believe that general skill sharing services will satisfy my expectations:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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If Have you ever used online platforms for general skill sharing? = No

33. In general, I think I will be satisfied with general skill sharing services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

Display This Question:

If Have you ever used online platforms for general skill sharing? = No

34 My level of satisfaction will be enhanced through using general skill sharing services:

Strongly	Disagree	Somewhat	Neutral	Somewhat	Agree	Strongly

disagree		disagree		agree		agree
1	2	3	4	5	6	7

Part III: This part asks your opinion on special skill sharing services (i.e. arts and crafts, cooking, designing, decorating, making accessories, reforming clothes, and so on) as a customer.

To use speciall skill sharing services, you will put a request on the websites/apps such as TaskRabbit, Thumbtack, Etsy, and etc., using your electronic devices.

1. I like the fact that I can submit my request anytime anywhere as long as I have access to the internet or Wifi:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

2. It is important that the process of submitting my request is short and easy:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

3. It is important that I can easily contact the supplier:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

4. The whole idea of special skill sharing makes me intrigued because it sounds trendy:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

5. If people around me give positive feedback on special skill sharing services, I will be interested in consuming those services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

6. If people around me are the users of special skill sharing services, I will also become a user of those services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

7. If special skill sharing services are helpful to the job market, I will be more inclined to use those services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

8. If special skill sharing services promote healthy environment, I will be more inclined to use those services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

9. I like consuming products and/or services of the companies that positively contribute to social welfare:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

10 I will feel excited to put a request according to my needs:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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11. I will be happy to use special skill sharing services as someone is providing a service customized to my needs:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

12. Special skill sharing services will bring joy to my life as I will own unique pieces of goods:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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13. Special skill sharing sounds like a good deal:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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14. I will use special skill sharing services because it helps me save my time:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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15. Special skill sharing services save me costs (i.e. time and money spent on finding the service supplier) that otherwise would have occurred:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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16. I trust to get the service I expect:

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17. I trust the special skill sharing websites and apps to operate transparently:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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18. I trust that I will be protected from possible liabilities such as physical damage, injuries, robbery, and etc.:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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19. I believe special skill sharing to be something useful:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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20. I positively evaluate the economic model of special skill sharing services:

Strongly	Disagree	Somewhat	Neutral	Somewhat	Agree	Strongly

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21. Overall, I have a positive attitude towards special skill sharing:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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22. Have you ever used online platforms for special skill sharing?

① Yes ② No

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If Have you ever used online platforms for special skill sharing? = Yes

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Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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25. Overall, I am satisfied with special skill sharing services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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If Have you ever used online platforms for special skill sharing? = Yes

26. I plan to use special skill sharing services again in the future:

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If Have you ever used online platforms for special skill sharing? = Yes

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Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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If Have you ever used online platforms for special skill sharing? = No

30. If I want to own unique pieces of goods, I will use special skill sharing services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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Part IV. This part asks your opinion on general skill sharing services (i.e. cleaning, moving, delivery, handyman work, and so on) as a supplier.

To supply general skill sharing services, you will apply for the tasks of your interest on the websites/apps such as TaskRabbit, Thumbtack, FoodFly (푸드플라이), ddingdong (띵똥), and etc., using your electronic devices.

1. I like the fact that I can apply for tasks of my interest anytime anywhere as long as I have access to the internet or Wifi:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

2. It is important that the application process is short and easy:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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3. It is important to be able to easily contact my clients:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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4. The whole idea of general skill sharing makes me intrigued because it sounds trendy:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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5. If people around me give positive feedback on general skill sharing services, I will be interested in supplying those services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

6. If people around me work as the providers of general skill sharing services, I will also become a provider of those services:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

7. I believe that general skill sharing is helpful to the job market:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

8. I believe that providing general skill sharing services can be a source of income:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

9. I believe that general skill sharing can promote social welfare:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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10. Appreciation from my clients makes me happy:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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11. I will feel excited as I can take tasks of my interest:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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12. General skill sharing will bring joy to my life as it allows me to use my skills:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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13. Providing general skill sharing services is a good opportunity to earn money:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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14. Working as a provider of general skill sharing services sounds like a good deal:

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16. I trust to get what I expect from working as a general skill sharing service provider:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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21 Overall, I have a positive attitude towards general skill sharing:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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22. Have you ever worked as a supplier of general skill sharing service?

① Yes ② No

Display This Question:

If Have you ever worked as a supplier of general skill sharing service? = Yes

23. I was satisfied with the level of the tasks assigned to me:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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24. I was satisfied with my interaction with my clients:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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27. I will recommend working as a provider of general skill sharing services to my friends and family:

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Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
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Display This Question:

If Have you ever worked as a supplier of special skill sharing service? = No

34 Overall, I think I will be satisfied with special skill sharing as a supplier:

Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

Part V: Demographic Questions

1. What is your gender?

① Male ② Female

2. What is your marital status?

① Single, never married ② Married ③ Divorced

Display This Question:

If What is your marital status? = Single, never married

3. Do you have children?

① None ② One ③ Two ④ Three or More

4. What is your age?

①	②	③	④	⑤
Under 20	20~24	25~29	30~34	35~39

5 What is your level of education?

①	②	③	④
High School Diploma or Less	Associate's Degree	Bachelor's Degree	Master's Degree and Beyond

6. What is your occupation?

①	②	③	④	⑤	⑥
Self-employed	Employed in the Public Sector	Employed in the Private Sector	Out of Work and Looking for Work	Out of Work but not Currently Looking for Work	A Student

⑦

Other

7. Which range of annual salary do you identify yourself with (in USD)?

①	②	③	④	⑤
0 to 24,999	25,000 to 49,999	50,000 to 79,999	80,000 to 100,000	More than 100,000

8. What is your country of citizenship?

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