Sharing economy archetypes as service triads: Towards an integrated framework

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Abstract
This study offers a multifaceted review of the literature on the sharing economy from a service-triad perspective and presents an integrated conceptual framework that characterizes service-triad archetypes of the access-based economy to guide future research. In building on social capital and balance theories, the conceptual framework presented proposes two types of strategies for access economy platforms (commitment- and control-based platform strategies) that reveal five service-triad structures/archetypes that lead to different outcomes (i.e., service quality and social capital). This may be the first study to explore the access-based economy from a service-triad perspective, thereby revealing a new avenue of sharing-economy research.

Keywords: Service triads; Structural hole; Access economy.

Introduction

As an emerging phenomenon, the sharing economy has attracted considerable attention from academics and industry professionals. Led by a shift in end-user demand, the sharing economy can spur the formation of new markets based on new business structures (e.g., bike sharing (e.g., OfO or Mobike), accommodations sharing (e.g., Airbnb) (Belk, 2014; Sundararajan, 2016), and ridesharing (e.g., Uber).

However, the nature of the sharing economy has recently shifted away from its original form as peer-to-peer (P2P) transactions of underutilized resources toward being more capitalistic (Bardhi and Eckhardt, 2012). Rather than focusing on the sharing of products or services, this new form of the sharing economy provides access to products or services for customers who need them. This new form of the sharing economy is more precisely referred to as the "access economy", stressing that users are not necessarily motivated to share a product or service with other users but rather are motivated by prices and the convenience of transactions (i.e., by a profit motive) (Eckhardt and Bardhi, 2015).

Most available models on the sharing economy are service based and involve three actors: platforms, service providers, and customers (Kumar et al., 2017). This fits reasonably well with the service triad examined in the Supply Chain Management (SCM) literature. However, few studies have focused on the sharing economy, whose service triad presents distinct characteristics, e.g., an information and communications technology (ICT)-enabled e-business/platform model (Parente et al., 2017). This type of service triad differs from a traditional service triad. Thus, researching this type of

service triad can contribute to this body of literature by adding a digital and platform dimension to the research.

However, to date, few studies have explored sharing-economy archetypes from a service-triad perspective. In addition, while there is anecdotal evidence that the sharing economy promotes environmental sustainability (Lan et al., 2017; Cohen and Kietzmann, 2014), research connecting the sharing economy to triple bottom line (TBL) performance is also scant, and it is not clear whether intermediary performance measurements of sharing-economy practices and TBL performance exist (Priporas et al., 2016). Based on gaps in the literature, the purpose of this study is to answer the following three research questions: (1) What are the sharing economy's strategies and triad archetypes from a service-triad perspective? (2) What role do information technologies play in the relationship between sharing economy structural states and social capital and service quality? (3) How do the different sharing economy archetypes affect TBL performance and other performance measures (e.g., service quality and social capital)?

Research methodology

A systematic literature review was conducted to organize the structure of extant research and to identify integral aspects of any research conducted (Easterby-Smith et al., 2002; Seuring and Gold, 2012).

We first conducted two searches based on two sets of keywords (i.e., not combined) through the Scopus database, which is the most comprehensive and widely used database for recent reviews (Jia et al., 2014). The first set of keywords was related to the sharing economy (i.e., "sharing economy" OR "collaborative consumption" OR "access economy" OR "gig economy" OR "peer to peer economy"). Another set of keywords included the term "triad*" following Wynstra et al. (2015). We finally identified 90 papers (sharing economy 39, service triads 46) in our study.

Thematic findings

Definitions of the sharing economy

The nascent literature on the sharing economy offers no commonly accepted definition of this economic area. Typically, researchers focus on definitions of a sharing economy: one refers to a (traditional) sharing economy and the second refers to an access economy. For example, the sharing economy was initially referred to as "collaborative consumption", which refers to the cyclical business loop based on the sharing user's underutilized and unwanted goods (Botsman and Rogers, 2010).

Compared to definitions of the traditional sharing economy, Eckhardt and Bardhi (2015) explicitly defined the sharing economy as a type of access economy wherein shared products are market based while transactions are facilitated by a platform firm that allows customers to access services or products and convenient transactions (Nnajiofor, 2017). Defining the sharing economy as an access economy categorizes the sharing economy as a capitalism-based economy.

While we consider both definitions in our review, we develop our conceptual model based on the access-based sharing economy. In this study, in integrating definitions of

the traditional sharing economy and access economy, we define the sharing economy as *an ICT enabled platform business model in which customers pay for the short-term rental of goods to secure access to rental assets and services (underutilized or not) provided by service platforms or suppliers through Internet-based service platforms.*

Strategies of service platforms

All of the papers reviewed on this theme come from the service triad literature. Simmel (1950) states that two common strategies are always used in intermediary platforms: 1) *tertius gaudens* and 2) *tertius iungens*. The *tertius gaudens* strategy involves an intermediary connecting two disconnected actors but maintaining control over the two actors. In the context of the sharing economy, this refers to an intermediary (i.e., service provider) connecting service suppliers with end users while maintaining a broker position (i.e., without facilitating direct contact between service suppliers and end users). The *tertius iungens* strategy refers to the intermediary connection of two disconnected actors while allowing them to connect directly with one another. In the context of the sharing economy, this involves an intermediary (i.e., the service provider) facilitating direct contact between service suppliers and end users (Obstfeld, 2005; Pathak et al., 2014).

Closure service triads

Unlike manufacturing triads, closure service triads generally involve three distinctive actors (1) a service supplier, 2) service provider, and 3) customer) as opposed to involving a supplier and two buyers or two suppliers and one buyer in a manufacturing context.

Research on relationships between the three actors in closure service triads is an important stream of the service-triad literature. For example, Choi and Wu (2009a) describe a shift from the use of dyads to triads in supply networks and offer three key propositions. First, the triadic relationship replaces the dyadic relationship and forms the cornerstone of network research. Second, triads are the core focus of research on SCM. Third, balance and transaction-cost theories serve as theoretical lenses for understanding service supply chain phenomena. Choi and Wu (2009b) also extend two sets of dyadic relationships (supplier to supplier and buyer to supplier) to a triadic relationship (buyer to supplier to supplier) and claim that the triad rather than the dyad should be considered the basic unit of a supply network. Most importantly, Choi and Wu (2009b) identify nine triadic states of the buyer to supplier to buyer relationship based on balance theory (which was initially used in the field of psychology to examine interpersonal relationships) (Osgood and Tannenbaum, 1955) and the structural-hole concept (a branch of social-network theory).

Wynstra et al. (2015) conducted a comprehensive literature review to obtain a complete account of research conducted on service triads. Their research offers a comprehensive review of strands of existing research and theories used to examine service triads. Siltaloppi and Vargo (2017) conducted a literature review on service triads from a marketing perspective. They identify three distinctive forms of the triadic

relationship offered in the current literature (brokerage, mediation, and coalition) and provide an initial research agenda for triadic marketing research.

Structural holes service triad structure

As a special type of triad, the structural-hole triad is frequently found in the supply network. This triad refers to a scenario in which service platforms keep service suppliers and end users disconnected from one another. The notion of the structural hole was originally developed by Simmel (1950). Burt (1992) later advanced this notion as a tool for analyzing social networks. The structural hole is defined as a lack of connection between parties that do not directly interact with one another (Burt, 1992).

The service quality and TBL performance of service triads

Two of the papers reviewed on service triads focus on service quality, and one paper on the sharing economy discusses service quality. Using a survey method, Priporas et al. (2016) found that convenience and assurance have been listed as critical measurements of Airbnb lodging service quality. Van Iwaarden and van der Valk (2013) also show that buying firms can effectively manage service quality by controlling service delivery throughout the entire service process.

The literature on the sharing economy and on service triads has touched on one or two dimensions of TBL, which contains economic (financial and operational), environmental, and social dimensions (Carter and Rogers, 2008). In the literature on the sharing economy, Martin et al. (2017) show that sharing economy firms can become more sustainable in social and environmental dimensions by ensuring that service platforms promote the value of the capitalist economy based on the democratic-governance model. Using Airbnb as a case study, Henten and Windekilde (2015) demonstrate that Internet-based platforms can significantly reduce transaction costs of service suppliers and end users.

Discussion

Theories applied to our research

We adopted both social capital theory and balance theory as the theoretical lenses for our study for the following reasons. First, balance theory can explain dynamic relationships between the three actors of a triad (e.g., Choi and Wu, 2009a). In addition, balance theory complements the manner in which inter-organizational relationships have been examined in triadic relationships in the context of the sharing economy. Second, the core proposition of social capital theory is that social actors can create value through interactions with other social actors in the environment in which all social actors are embedded (Bourdieu, 1986; Burt, 1992; Coleman, 1988, 1990). Third, our goal is to examine the sharing economy's internal relationships based on different triadic archetypes and to explore the value of such relationships.

Social capital theory

Social capital theory is one of the most commonly adopted theories in the management literature. This theory develops the relationships between different parties of a social

network (Coleman, 1988). Social capital emphasizes the value that different actors can generate from the relationships in which they are embedded (Bourdieu, 1986; Burt, 1992; Coleman, 1988; Granovetter, 1985). Social capital includes three dimensions: the structural, relational, and cognitive dimensions (Nahapiet and Ghoshal, 1998).

Balance theory

Balance theory was initially developed in the field of psychology (Heider, 1958). Recently, balance theory has been applied to examine interpersonal and interorganizational levels (Wynstra et al., 2015). For example, Carson et al. (1997) propose the concept of the service triangle to explain how interrelationships of the service triangle affect service quality. In building on balance theory, Choi and Wu (2009a) employ the concept of the structural hole to analyze the relationship between one buyer and two suppliers in manufacturing triads.

Conceptual framework of the sharing-economy service triad

In adopting balance theory and social capital theory, in building on the thematic findings of this research, and in discussing different triadic sharing economy archetypes through a set of case examples, we develop a conceptual framework and five sets of propositions, which are shown in the conceptual framework below (Figure 1).

Relationship between platform strategies and archetypes of the access economy

Platform strategies

We propose that two principal platform strategies are applied in the access sharing economy: that of *tertius iungens* and that of *tertius gaudens*. Both of these strategies have been considered by several researchers (Burt, 1992; Obstfeld, 2005; Pathak et al., 2014; Simmel, 1950).

When adopting the *tertius iungens* strategy, the service platform (broker) may become the matchmaker that introduces disconnected actors of the sharing economy, thus forming a closure service triad (Pathak et al., 2014). Obstfeld (2005) notes that specifications of the *tertius iungens* strategy change with changing social-network perspectives that stress how the strategy determines a given structure.

However, in adopting the *tertius gaudens* strategy, the service platform exerts control and power over disconnected actors by connecting and interacting separately with the two actors, showing that the control-based strategy is an important aspect of the *tertius gaudens* strategy (Holma et al., 2015). More importantly, the service platform can maintain a structural hole via the *tertius gaudens* strategy (Burt, 1992), maintaining competitive tensions between disconnected actors that can result from an absence of direct connections in service triads (Pathak et al., 2014). In adopting the *tertius gaudens* strategy, the service platform is positioned between two disconnected actors and can control and discover the benefits of leveraging two disconnected actors based on information or resource asymmetries (Burt, 1992; Simmel, 1950). When a service platform (broker) applies the *tertius gaudens* strategy to achieve channel control, no new relationship can form in the triadic sharing economy.

Archetypes of the access economy

From our analysis of the platform strategy we identify two archetypes of the access economy: closure service triads and structural holes. These represent service-triad structures and can be connected to the platform strategies of *tertius iungens* and *tertius gaudens*. Moreover, the level of analysis used when applying balance theory is of the firm level (though not for consumers). Choi and Wu (2009a) state that typically "a plus (+) sign represents a cooperative, voice-based relationship between two firms predicated on mutual trust and commitment (Krackhardt, 1992; Morgan and Hunt, 1994; Uzzi, 1997). A minus (-) sign indicates an adversarial, exit-based relationship that arises from inequity and distrust between two firms (Johnston et al., 2004; Griffith et al., 2006)". According to balance theory (Heider, 1958), the balanced state in the triadic access economy relationship includes "three plus signs or two minus signs and one plus sign". The unbalanced one refers to two plus signs and one minus sign or three minus signs, according to Choi and Wu (2009a). The use of balance theory in structural holes is neither balanced nor unbalanced (Wasserman and Faust, 1994).

In our study we identify five triadic states of service-supplier–platform–customer relationships (from the cases of the eight areas) based on two archetypes of the access economy building on balance theory. Nine types are proposed by Wu and Choi (2009); however, we could not find case examples fitting the other five states of the access economy context.

Tertius iungens related closure access economy archetypes

As shown in Figure 1, for the closure triadic access economy we propose one balanced state and two unbalanced states of the closure triadic access economy. For the balanced state, we consider a state in which the service platform has a cooperative relationship with both the service supplier and the customer where there is a positive relationship between customers and service suppliers. This state is referred to sustained *iungens*, i.e., encouraging interactions between actors and subsequently maintaining an indispensable coordinative role for three actors. Such balanced states of the closure triadic relationship are commonly defined as affective (pleasantness or harmony) and cognitive states without any tensions (expectancy and stability) (Insko, 1984). For example, the accommodation service platform Airbnb successfully provides a service to customers and homeowners (service suppliers). Accommodations recommended through Airbnb to customers can fulfil use experiences and can enhance the relationship between homeowners and the platform (Airbnb); the homeowners also become satisfied with their customers by accumulating income by selling their services (Camilleri and Neuhofer, 2017). Through the process, the Airbnb platform exerts control over service quality levels by receiving feedback from customers and homeowners and by using this feedback as a credit record.

P1a. Service platforms adopting the *sustained tertius iungens* strategy collaborate with both service providers and customers, encourage interactions between actors and subsequently maintain an indispensable coordinative role for three actors, leading to the formation of the balanced closure triadic archetype in the context of an access economy.

Another state of the closure triad structure is that of an unbalanced structure. Service platforms maintain positive relationships with both service suppliers and customers, while there is an adversarial relationship between service suppliers and customers that leads to an unbalanced state through the adoption of the *brief iungens* strategy, i.e., introducing and facilitating pre-existing tiers between actors through which the coordinative role of *iungens* consequently becomes less important. For example, TaskRabbit, an online and mobile service platform that can match freelance labour (service suppliers) to local demand (customers) and that delivers everyday task completion services to customers (e.g., cleaning, moving, delivery and handyman work). Specifically, the TaskRabbit platform maintains positive relationships with both freelance labour and customers, as TaskRabbit can meet both parties' needs by matching them appropriately. However, it has been reported that at TaskRabbit, an increasing number of taskers are failing to complete their tasks due to low levels of competence and that in turn customers are becoming dissatisfied with service quality levels (Newton, 2014), creating a negative relationship between freelance labourers and customers due to TaskRabbit's lack of control over freelancer labour.

P1b. Service platforms adopting the *brief tertius iungens* strategy and collaborating with both service providers and customers are characterized by a negative relationship between service providers and customers because such platforms introduce and facilitate pre-existing tiers between actors by which the coordinative role of *iungens* consequently becomes less important. This leads to the formation of an unbalanced closure triadic structure in the context of an access economy.

Another unbalanced state can be observed in a closure triadic access economy. Both service platforms and service suppliers maintain positive relationships with customers; however, service platforms have a negative relationship with service suppliers because such platforms and their service suppliers wish to please customers but compete on the benefits that they are meant to share. Conflicts can arise from financial arrangements that lead to adversarial relationships between service platforms and service suppliers. For example, as the largest ridesharing platform, DiDi (which is equivalent to and is acquiring Uber in China) maintains a positive relationship with customers and an adversarial relationship with drivers (Parente et al., 2017); however, customers have a positive relationship with drivers. There are two reasons for the presence of such tension between drivers and DiDi. First, DiDi cancelled the subsidies that it once gave to drivers after it achieved market domination. Second, DiDi has been gradually increasing service charges taken from drivers to increase its own profits.

P1c. Service platforms adopting the *tertius iungens* strategy and maintaining an adversarial relationship with service providers present higher levels of competition, and this leads to the formation of an unbalanced closure triadic structure in the context of an access economy.

Tertius gaudens-related structural-hole access economy archetypes

In the structural-hole access economy, there is a balanced state and an unbalanced state. In the balanced state, the service platform is positioned as a broker who maintains positive relationships with customers and service suppliers (Burt, 1992; Simmel, 1950). In adopting the *tertius gaudens* strategy, the service platform can readily control the information and market channels of an access economy. For example, Mobike is one of the largest bike-sharing platforms available in China. Mobike purchases high-tech bikes from bike manufacturers and maintains cooperative relationships with these manufacturers (Lan et al., 2017). To maintain the broker position and to maintain strong control with two disconnected actors in its service triad, Mobike does not forge connections between bike manufacturers and its customers. In addition, customers (i.e., bike users) are presented with no opportunities or intentions to directly contact the bike manufacturers, and they maintain a positive relationship with Mobike.

When adopting the *tertius gaudens* strategy under an unbalanced state, a service platform that connects two disconnected actors in its service triad maintains a cooperative relationship with service suppliers but an adversarial relationship with customers. This adversarial relationship between service platforms and end users may be related to product quality issues. For example, JieDian is a charger-sharing platform that maintains a positive relationship with charger manufacturers but a negative relationship with customers because customers receive little service (i.e., the service station is unmanned) other than several charging points at hotels or at other public locations. Levels of trust forged between the platform and customers are low due to the purely transactional nature of the relationship and because there no service personnel are involved.

P1d. Service platforms adopting the *tertius gaudens* strategy enhance competition between service providers and lead to the formation of a structural hole in the context of an access economy; however, service platforms adopting the *tertius gaudens* strategy and maintaining tensions with service providers enhance competition and form an unbalanced structural hole in the context of an access economy.

Relationships between access economy archetypes and social capital

We argue that the effect of a balanced state in a closure triadic access economy on structural, relational and cognitive dimensions of social capital is more positive than that of an unbalanced state. In the structural dimension, balanced closure allows for strong relationships between three actors that can lead to more intensive interactions and to mutually interdependent connections. As one of the key facets of the relational dimension, trust is an indispensable factor of both balanced and unbalanced states of the closure triadic access economy. However, the influence of a balanced state on relational capital is more significant than the influence of an unbalanced state due to the presence of high levels of mutual trust. In a balanced state, a cooperative relationship characterized by mutual trust between three actors can effectively prevent information from being ambiguous (Hartmann and Herb, 2015). For the cognitive dimension, the presence of a high level of trust affords the three actors occupying a

balanced state a common language and culture to share with one another. Actors of the closure triadic access economy archetype can translate common languages and cultures into shared goals, visions, and values (Bolino et al., 2002). However, under an unbalanced state, the negative relationship between service platforms and service suppliers causes the two parties to enjoy fewer common terms and cultural values due to an inadequate level of trust forged between them; this can negatively affect the performance of the supply chain (Carey et al., 2011).

P2a: Compared to an unbalanced closure triadic access economy archetype, the balanced state has a more positive effect on the structural, relational, and cognitive dimensions of social capital.

By adopting the *tertius gaudens* strategy, a service platform of a balanced state exerts an appropriate level of power and control over disconnected actors, which is beneficial in forging a cooperative relationship between service suppliers and customers (Obstfeld, 2005). Therefore, a service platform that positions itself as a broker enjoys more exclusive access to information and resources, which can better serve disconnected parties while ensuring productive control over interaction channels. However, information and resources benefiting from the structural hole can be diminished when the three actors occupy an unbalanced state. This detrimental effect results when the control behaviours of a broker are sanctioned. Rather, power and control overemployed by the service platform create a negative relationship between the service platform and customer, thus generating an unbalanced state (Tan et al., 2014). In such cases, levels of interaction and connection between service platforms and customers can be negatively influenced.

In the relational dimension, a balanced state in the structural-hole access economy archetype is fully supported by high levels of mutual trust between the three actors. Service suppliers and customers separately maintain a cooperative relationship with the service platform under which conditions relational capital can be enhanced. In contrast, an unbalanced state presents an adversarial situation whereby a service platform overemploys power and control, gradually creating negative relationships with service suppliers or customers. Levels of mutual trust in turn decline.

In the cognitive dimension, a balanced state in the structural-hole access economy archetype requires that three actors have congruent organizational goals in which common languages and cultures are embedded. However, in an unbalanced condition where there is less trust in the relationship between service platforms and customers, these two parties have few common terms and languages (Hartmann and Herb, 2013).

P2b: Compared to an unbalanced structural-hole access economy archetype, the balanced state has a more positive effect on the structural, relational, and cognitive dimensions of social capital.

Relationships between access economy archetypes and service quality

The closure triadic access economy archetype focuses more on the role of service suppliers in a service delivery context. Service suppliers maintain cooperative relationships with the service platform and customers to deliver better services and to guarantee service quality. Thus, for the highest quality services to be rendered, it is essential for the three actors to maintain a positive relationship with one another and a balanced state (Mastenbroek, 1991). Compared to an unbalanced state under which service suppliers maintain a negative relationship with a service platform, a balanced service platform (e.g., Airbnb) maintains a positive relationship with service suppliers and customers, which helps suppliers better interact with customers and the service platform.

P3a: In the closure triadic access economy archetype, a higher level of service quality can be delivered under a balanced state than under an unbalanced state.

The structural-hole access economy archetype relies more heavily on a service platform because there is no connection between service suppliers and customers, and services are delivered directly from the service platform to the customers. Some researchers argue that a balanced structural-hole access economy archetype can better ensure service quality through excellent service delivery (van Iwaarden and van der Valk. 2013). Similarly, compared to an unbalanced structural-hole sharing-economy archetype, Mobike (a case of a balanced state), as a broker of service triads, maintains positive relationships with bike manufacturers and customers and simultaneously controls information and resource channels. Under such conditions, Mobike delivers high-quality services to customers by adopting an ex-ante and ex-post management approach.

P3b: In the structural hole access economy archetype, a service triad of a balanced state can deliver a higher quality services than under an unbalanced state.

Moderating effects of information technology

We now discuss the effect of information technologies (mobile payment and Internet-based technology) on the relationship between access economy practices, social capital, and service quality. Mobile payment (a payment solution of the sharing economy) enhances direct interactions between service platforms and customers (Evans, 2009).

P4: The effect of access economy practices on social capital and service quality is positively moderated by information technology.

TBL performance

When considering the sustainability of the sharing economy, it is important to consider the TBL approach (Elkington, 2004). We argue that social capital and service quality levels achieved by service triads have a positive effect on their TBL performance.

Social capital allows a service provider to identify valuable information and resources for service triads and to access information and resources (Lee, 2015). In

particular, three dimensions of social capital can help a service platform and its suppliers establish coherent perceptions of how they should interact with one another, thus laying solid foundations for information and resource exchange (Tsai and Ghoshal, 1998). Common languages and cultures provide a conceptual sense of an access economy that helps a service platform recognize and evaluate valuable information and resources (Matthews and Marzec, 2012). As an important element of a sharing economy, trust can facilitate the development of long-term relationships between service platforms, service suppliers, and customers (Ganesan, 1994). Social capital mitigates information asymmetries in service triads, which directly improves operational performance (Tsai and Ghoshal, 1998). Researchers also find that social capital can enhance several dimensions of operational performance (e.g., reducing costs and ensuring high-quality services) (Carey et al., 2011; Villena et al., 2011).

Some studies also emphasize the importance of service quality levels on operational performance. Bai et al. (2006) argue that service quality has a positive effect on service satisfaction and on levels of commitment to organizations, which further positively influence the operational performance of services given through service triads (van Iwaarden and van der Valk, 2013).

P5a: Social capital and service quality have a positive effect on a service platform's operational dimensions of economic performance in an access economy triad.

When strong interactions, trust, and culture are present based on a long-term relationship, service providers are encouraged to advance new ideas, to solve complex problems regarding to issues of environmental sustainability, and to enhance their environmental performance (Lee, 2015). Improvements in environmental performance require a service platform to offer technical expertise in production and product design. For example, Mobike collaborates with Foxconn, an innovative-electronics manufacturing company, to produce bikes. These bikes are equipped with a smart-design lock and GPS, are constructed from eco-friendly materials, and are aesthetically attractive, meaning that customers can travel comfortably, conveniently, and sustainably. Social capital (e.g., communication, knowledge sharing, and collaborative activities between actors of an access economy) can enhance information exchange (Modi and Mabert, 2007), which in turn helps service platforms strengthen their supply chains (Parmigiani et al., 2011). Lan et al. (2017) argue that in a sharing-economy context, the relationship between service quality and environmental performance (as shown from high-quality services offered by Mobike) can co-create considerable value for customers of service platforms.

P5b: Social capital and service quality have a positive effect on a service platform's environmental performance in an access economy triad.

Social capital and service quality can also be related to a service platform's social performance in a sharing-economy context, particularly when considering the management of insufficient social services (e.g., the issue of the first or last mile).

Rather, the high cost and low efficiency of short-distance travelling has always posed problems for consumers (Cohen and Kietzmann, 2014). To address this problem, Mobike obtains information on customers' needs from big data, which are obtained through frequent interactions and from high levels of trust that the service platform has forged with its customers. In compiling and accessing these data, Mobike can deliver high-quality services tailored to its customers' needs in relation to the first and last miles of travelling. In catering to its customers' needs, Mobike not only satisfies its customers short-distance travel needs by saving customers transportation cost and by improving users' health (cycling as a means of exercise), but it also helps local governments improve insufficient social services.

P5c: Social capital and service quality have a positive effect on a service platform's social performance in an access economy triad.

Conclusion

This study identified different access economy archetypes from a service-triad perspective through two theoretical lenses: balance theory and social capital theory. Research questions posed were addressed through a comprehensive systematic literature review and through the creation of an integrated conceptual model that applies nine sets of propositions.

The present study makes several contributions to theory. First, we explore a new form of the triadic sharing economy (i.e., the access economy from a triad perspective). Second, we examine service triads in reference to the sharing economy, enriching service-triad theory in the following ways: 1) the sharing economy form of the service triad is ICT enabled or digitized whereby the service platform plays a central role in forging connectedness and in offering means to enhance service quality and TBL performance; and 2) the service platform plays an important role in the access economy service triad as a coordinator and serves as the driving force behind sustainable performance, as a service platform can collaborate with or leverage service suppliers. Third, rather than merely identifying the different types of triads and describing relationships among the three actors, we relate service-triad archetypes to performance levels, particularly in relation to social capital, service quality and TBL.

This study presents limitations. We only analyzed papers written in English journals and our exclusion of papers and journals not written in English may have led us to miss important information given the rapid development of the sharing economy in countries such as China.

References will be provided upon request