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The sharing economy: Business cases of social enterprises using collaborative networks

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Abstract

This paper describes the sharing economy business cases of social enterprises using the collaborative networks in the platforms of production, consumption, and redistribution. These three cases (Orgdot's producer network, "Designers & Makers" in the fashion industry, Purun Bike Sharing's bike sharing network, and Bigwalk's donation network) show that exploiting the ICTs (Information and Communication Technologies) for social enterprise innovation can be a new driver for the success of the sharing economy business. The sharing economy model can provide social enterprises with the opportunities to overcome their market problems because social value can be fully embedded in the process of their sharing economy cycles. Using innovated and proactive platforms, collectively known as the "ICTs based sharing economy" can be a new business model to the social entrepreneurship. Also, social enterprise operations that are able to create both social and economic value are considered "double bottom-line" organizations, while other public organizations are mainly "single bottom-line" organizations. These findings have practical and strategic implications for the development and transfer of social values.

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Keywords: Social enterprise; Sharing economy; Social collaborative network; Case study

1. Introduction

Under the market economy of capitalism, there are several limitations that reveal inequity and problems in the redistribution of wealth, inefficiency of over-manufacturing and excessive consumption, pollution of the natural environment, and constraint of human liberty and dignity. Some new challenges of the symbiotic relationship between private and public parts coincide with the needs of social responsibility and sharing values to overcome these problems. As the discussion about social welfare and economic democratization is actively progressing, the importance of the representative social economy model, such as the social enterprise, is being promoted. The

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concept of the social entrepreneurship and sharing economy has received deep attention from both researchers and practitioners in the public, private, and social sectors. The social economy that simultaneously pursues making corporate private profit and the realization of social values has been suggested and disseminated as an alternative creator of social value. Social enterprises measure their success based on a blended value bottom line, where it is not only financial or social, but it is both financial and social. As such, it is a combination of both economic and social values. Thus, the concept of the social enterprise's sustainability is indeed vital in creating both economic and social values. However, these efforts of the social enterprises have fallen short against conflicts between private profit and social values.

The sharing economy is a new economic model beyond the paradigm of mass production and consumption. It means that sharing things rather than owning them has been on a growing trend as a new paradigm of capitalism. Growth in sharing systems has particularly been fueled by ICTs, with the rise of social network systems, which facilitate connections between peers eager to share their possessions. The central concept of a collaborative sharing system is that it is simple to obtain value from untapped potential residing in goods and services that are not entirely exploited by their owners. Thus, with the explosion of information and communication technology-based platforms, the sharing economy has also been expected to effectively solve these social problems, and social enterprises can apply the principle of sharing economy to develop their business models.

This study deals with the sharing economy business cases of social enterprises using collaborative networks in the platforms of production, consumption, and redistribution in Korea. These three cases (Orgdot's producer network, "Designers & Makers" in the fashion industry, Purun Bike Sharing's bike sharing network, and Bigwalk's donation network) show that exploiting information and communication technologies for social enterprise innovation can be a new driver to the success of the sharing economy business. This is a practical approach and case study on social entrepreneurship that focuses on a new business model using innovative and proactive platforms, collectively known as the "ICTs based sharing economy".

This paper therefore discusses the sharing economy business cases of these social enterprises' using social collaborative networks. The rest of this paper is structured as follows: Section 2 provides background on the current state and development of Korean social enterprises, Section 3 outlines the sharing economy and collaborative network, Section 4 presents three cases of real social enterprises' collaborative sharing networks in a more practical setting, and the final section concludes the paper with a discussion on the strategies for exploiting ICTs in implementing collaborative networks.

2. The social enterprise

Enterprises are usually classified according to two criteria: ownership (public or private) and objectives (for-profit or not-for-profit) [20]. According to the traditional two-dimensional typologies of enterprises based on ownership and objectives, social enterprises are characterized as private, not-for-profit enterprises (Fig. 1). Over the last three decades, the concept of social enterprise has grown in many regions of the world. Social enterprise refers to non-profits that operate businesses both to raise revenue and to further enhance the social missions of their organizations [26]. Broadly defined as the use of nongovernmental, market-based approaches to address social issues, social enterprises often provide a "business" source of revenue for many types of socially oriented organizations (such as, NPOs: Non-Profit-Organizations) and activities. In many cases, this revenue contributes to the self-sufficiency and long-term sustainability of organizations involved in charitable activities [16].

The term "social entrepreneurship" has been widely used in Korea recently to explain the effort of government agencies and non-profit organizations to change the status of unemployed people. At the beginning, the primary purpose of establishing social entrepreneurship programs in Korea was to create stable job positions to help reduce the high rate of unemployment during the economic foreign currency crisis period in 1997. The promotion of social enterprise has been operated as a government driven program since the establishment of the Social Enterprise Promotion Act in 2007. A total of 1,526 social enterprises were authorized by the Ministry of Labor

from 2007 until 2016 (Table 1.). The main types of social entrepreneurship consist of social services, such as culture/art, environment, education, social welfare and nursing care/housekeeping.

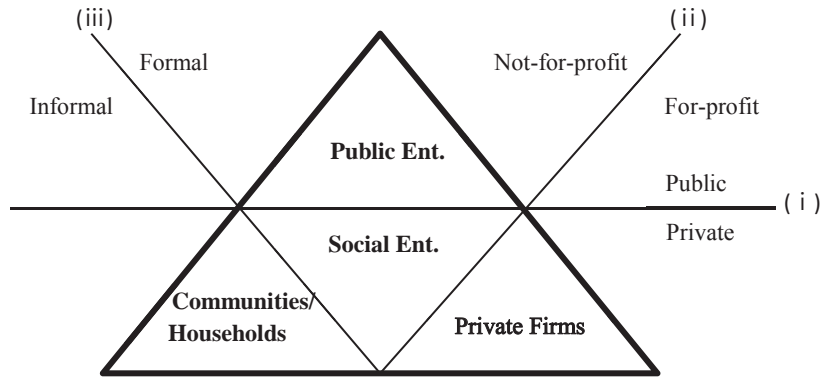


Fig. 1. Classification of enterprises

Note: Modified from Fig. 1. of Pestoff(1992)[21] and Fig. 1. of Mikami(2014)[20]. The large triangle shows the set of all types of enterprises, which is divided by three lines representing the borders between (i) public and private, (ii) for-profit and not-for-profit, and (iii) formal and informal. In this figure, the third sector is given by the inner triangle that comprises private, not-for-profit, and formal enterprises.

Table 1. Current status of certification for the social enterprise

Region	Seoul	Gyeonggi-do	Jeollabuk-do	Gyeongsang buk-do	Gangwon-do	Busan	Incheon	Gwangju	Gyeongsang nam-do
No.	261	246	98	96	88	87	85	80	77
Region	Chungcheong buk-do	Jeollanam-do	Chungcheong nam-do	Daegu	Ulsan	Daejeon	Jeju-do	Sejong	Total
No.	73	70	67	60	51	42	39	6	1,526

* source (Korea Social Enterprise Promotion Agency, 2016)

Fundamentally, the social enterprise literature suggests the following: the definition and categorization, success factor-related research for the social enterprise [7][6][24][22][23], the empirical case study for adapting social values and social entrepreneurship [3][5][8], and policy suggestion for the social enterprise [14].

3. The sharing economy

The development of information technologies alongside the growth of web 2.0 has enabled the development of online platforms that promote user-generated content, sharing, and collaboration [15]. The sharing economy is a broad concept that lacks a common definition and is often used interchangeably with such terms as “collaborative economy” and “on demand” economy, which is defined as “a system that activates the untapped value of all kinds of assets through models and marketplaces that enable greater efficiency and access” [4]. This so called “sharing economy” is growing rapidly. While estimates for the current size of the nascent market vary, Forbes [11] has estimated that “revenue flowing through the sharing economy directly into people’s wallets will

surpass \$3.5 billion, with growth exceeding 25%. PricewaterhouseCoopers has estimated that by 2025, the five main sectors of the sharing economy could represent \$335 billion in revenue worldwide.

In a broad sense, sharing can be anything to which access is enabled through pooling of resources, products or services [1]. Classical examples of these include open source software repositories (e.g. SourceForge and Github), collaborative online encyclopedias (e.g. Wikipedia) and other content sharing sites (e.g. Youtube, Instagram), or even peer-to-peer file sharing (e.g. The Pirate Bay). More recent examples are peer-to-peer financing such as microloans (e.g. Kiva) and crowdfunding services (e.g. Kickstarter). These examples, open-source software, online collaboration, file sharing, and peer-to-peer financing, are considered as different instances of the phenomenon we address as the “sharing economy” [13].

Table 2. Overview of assets and actors in the sharing economy

Sharing Asset	Example	Actor: International	Actor: Korean
Tangible	Transportation	Zipcar, Uber, Zilok.com, Lyft, Car2Go	Socar, Greencar
	Property	Airbnb, DestNearMe	Cozaza, Bnbhero
	Utility/Food	NeighborGoods.com, thredUP.com, EatWith	Libpia, Bookoob, CoLux, Kiple
Intangible: Service	Professional	Innocentive, oDesk	Zipbab, PumasiPower
	Personal	Landshare.net, TaskRabbit	
Intangible: Financial	Crowdfunding	Kickstarter, Indiegogo, gofundme, CircleUP, crowdfunder	Tumblbug, Ssiatfunding
	P2P Lending	KIVA, LendingClub, Prosper	Popfunding

Note: Modified from Table 1. of Fellander et al., (2015) [9].

The sharing economy mode can be divided into three main types [19]. The first mode is product service systems, which allow members to share multiple products that are owned by companies or by private persons. Examples of product-service systems are car-sharing services like Zipcar and peer-to-peer sharing platforms such as the website Zilok.com. Trends in tangible assets include the rise of household names such as Airbnb and Uber. Second, in redistribution markets, peer-to-peer matching or social networks allow the re-ownership of a product. Examples of redistribution markets include the online platforms NeighborGoods.com and thredUP.com. Finally, access can be derived through collaborative lifestyles in which people share similar interests and help each other with less tangible assets such as money, space or time; this sharing is mostly enabled through digital technology. Trends in intangible assets largely relate to the sharing of money through several types of so-called crowdfunding platforms: donation- or reward-based crowdfunding, equity-based crowdfunding and debt-based crowdfunding, also known as Peer-to-peer (P2P) lending [9]. This category covers a wide variety of collaboration systems. Examples range from garden sharing (Landshare.net) to systems of skill sharing such as Taskrabbit. Table 2 shows the sharing economy business models and actors. The phenomenon of the sharing economy thus emerges from a number of technological developments that have simplified sharing of both physical and non-physical goods and services through the availability of various information systems on the Internet. The “sharing economy” can be viewed primarily through the lens of information and communication technologies.

To date, relatively few empirical works have studied the sharing economy. Most studies have dealt with developing a pragmatic definition and current state of the sharing economy [18][25], the typology of the sharing economy [12], the case study for the recent sharing economy business model [4], examinations of the sharing economy adapting the ICTs [2], and addressing regulatory considerations and potential economic implications [10].

4. Case study: collaborative networks of three social enterprises

4.1. Collaborative network

This study deals with the sharing economy business cases of social enterprises using collaborative networks in the platforms of production, consumption, and redistribution in Korea. These three cases show that exploiting information and communication technologies for social enterprise innovation can be a new driver to the success of the sharing economy business. This is a practical approach and case study on social entrepreneurship that focuses on a new business model using innovative and proactive platforms, collectively known as the “ICTs based sharing economy”. The literature surrounding collaborative networks and three key cases on collaborative networks using ICTs are addressed below:

- *Collaborative production* - Peer production is a process taking advantage of new collaborative possibilities afforded by the internet and has become a widespread mode of labor. Free and open source software and open source hardware are two examples of peer production. Peer production occurs in a socio-technical system which allows thousands of individuals to effectively cooperate to create a non-exclusive given outcome. We introduce Orgdot’s producer network, “Designers & Makers” in the fashion industry.
- *Collaborative consumption* - The peer-to-peer-based activity of obtaining, giving, or sharing the access to goods and services, coordinated through community-based online services. Purun Bike Sharing’s bike sharing network shows the example of tangible asset sharing.
- *Collaborative redistribution* – Peer redistribution of wealth is respectively the transfer of wealth from some individuals to others by means of a social sharing mechanism such as donation or charity. We report Bigwalk’s donation network case.

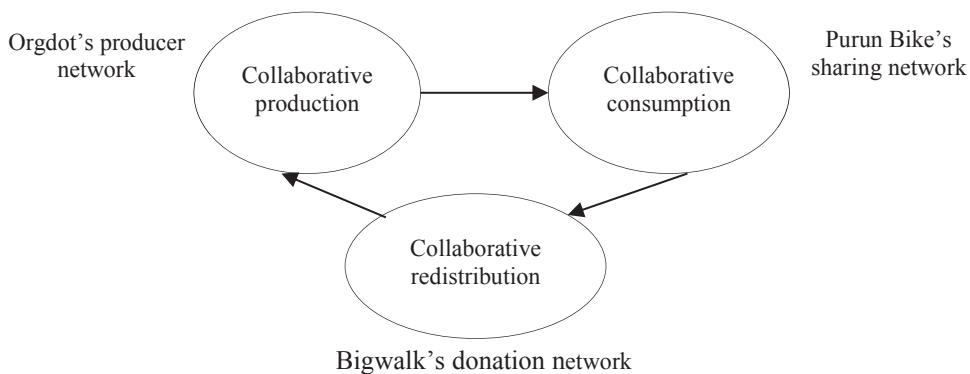


Fig. 2. Social collaborative networks of the three social enterprises' cases

4.2. Collaborative production: Orgdot's Producer Network (Designers & Makers)

Orgdot Inc., established in 2009, is a start-up level fashion company which pursues the simultaneous achievement for making social values and profit seeking. They have aimed for the spread of ethical fashion and ethical life style to help solve environmental and labor problems. Orgdot as an authorized social enterprise has highlighted the corporate social responsibility and shared value to solve the social problems in a private corporate way considering the environment, labor and sustainability. In fact, there are lots of destruction cases of the environment and labor intensity is high in the fashion industry. They have tried to find a change opportunity to

solve these problems and have searched for a different way for the fashion production system. An online fashion network platform was suggested to fulfill the social value as an alternative ecosystem in the fashion industry. This online collaborative producer network (D&M network: Designers & Makers, <http://designersnmakers.com>) connects with numerous designers, garment workers and customers. The basic function of D&M producer network is to inspire collaboration among designers with creativity and passion, experienced labor with expertise, and customers seeking diversity and uniqueness. See the Fig. 4. - Service flow chart for an online social producer’s network. The D&M producer network provides designers with a platform for production and distribution, manufacturers with stable orders at reasonable prices, and customers with diverse and unique products made by fresh designer brands.

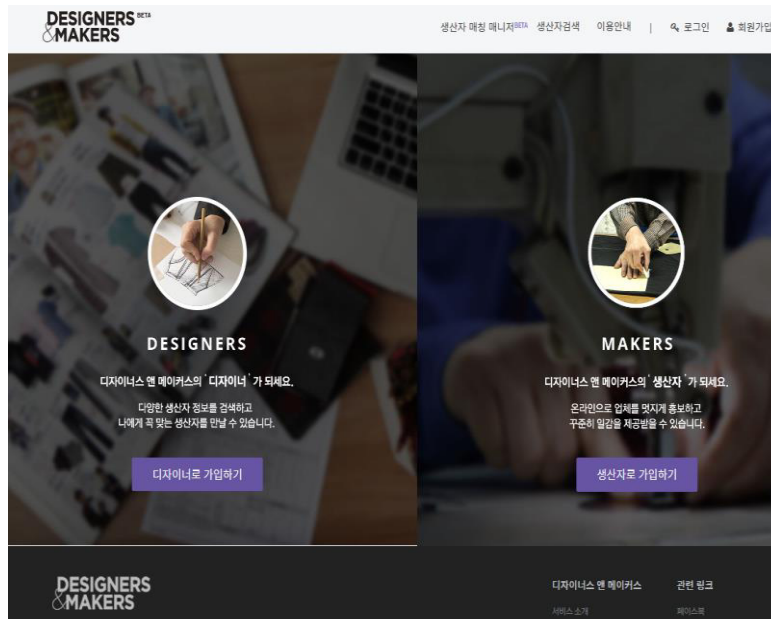


Fig. 3. Producer matching manager system for online social network (Designers & Makers)

Orgdot’s collaborative producer network model changes a former unfair profit sharing structure into an innovative win-win structure. This implementation case of the online fashion manufacturing network platform demonstrates the approach of start-up social corporate’s sustainability and practice of social shared values.

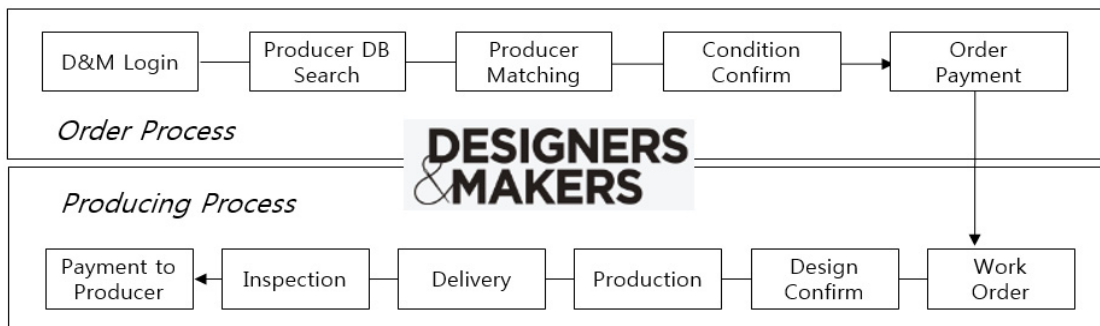


Fig. 4. Service flow chart for online social producer’s network of Orgdot (Designers & Makers)

4.3. Collaborative consumption: PurunBike’s Sharing Network

Purun Bike Sharing Inc., which is based on the regional (located on the Jeju island) sharing economy business model about bike rental services using collaborative service sharing networks using ICTs. This corporate, established in 2011 as an authorized social venture, pursues harmonic management in the balance between private profit and social values. Its corporate mission is to achieve sharing (bike sharing application with rental users), coexistence (local collaborative branches with local partners), and contribution (local donation, children education, and local employ program) for public welfare on the business model of creating the bike sharing culture. Purun Bike Sharing’s main sharing business mode is the PSS (product service systems) type which allows users to share bike rental services using the peer-to-peer sharing platforms.

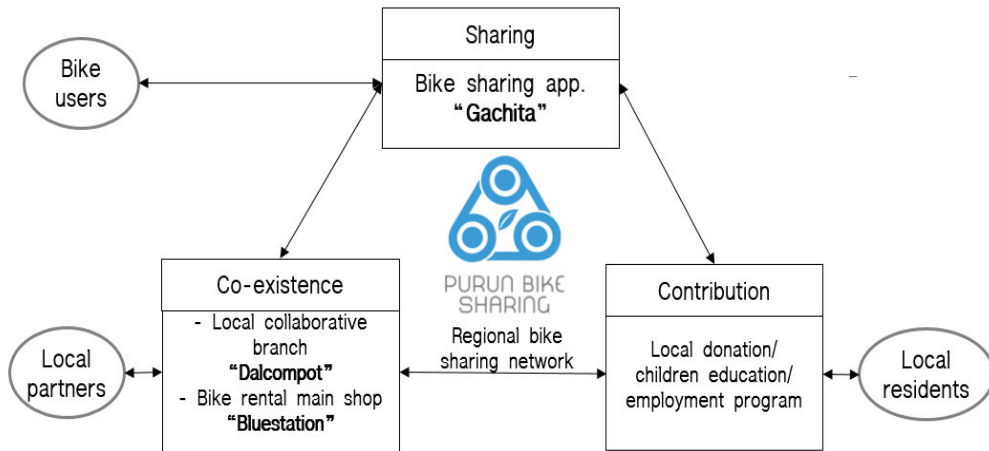


Fig. 5. Local sharing network model of Purun Bike Sharing

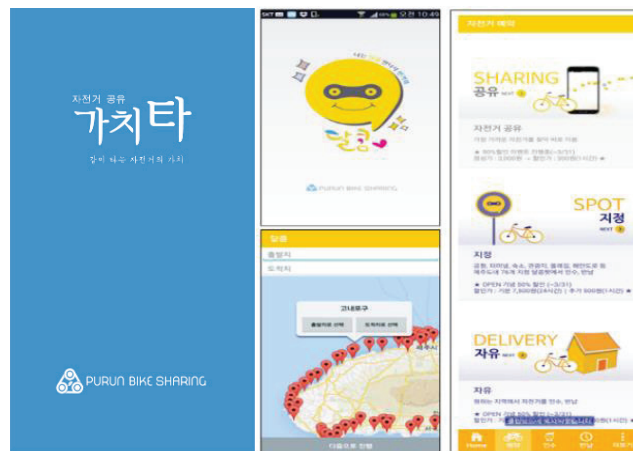


Fig. 6. Bike sharing application: “Gachita” by Purun Bike Sharing

Through the development in 2015 of a bike sharing application based on the GPS local detection system (<http://purunbike.modoo.at/>), “Gachita”, offers rental users instant bike sharing for booking, rental, delivery, and return services anywhere in the Jeju island (See Fig. 6. - bike sharing application: “Gachita”). From the start, they have campaigned to expand eco-friendly bike touring, donation by bike riding, and job offerings to the local disadvantaged in employment group. This case of Purun Bike Sharing’s collaborative sharing network shows how a sustainable sharing economy business model based on a regional cooperation network can be combined with social value and how ICTs can be applied to the sharing economy system. It can be a possible alternative to use the local community network as a core key for sustainable social enterprise.

4.4. Collaborative distribution: Bigwalk’s Donation Network

Bigwalk Inc., started with this motto, “One walk by a thousand is better than a thousand walks by one.” It was established in 2011 with the winning of the young social entrepreneurship promotion program as a social venture startup enterprise. They have developed and operated a mobile GPS based application and an indirect social donation network platform, Bigwalk (<http://www.bigwalk.co.kr/>). This indirect donation service is based on the users walking participation. This application accumulates 1 Korean won for 10 M walks by users when the Bigwalk app is on. Now, the users of this application are over 500,000 in 2016. Bigwalk’s business structures are showed as Fig. 7. and 8.

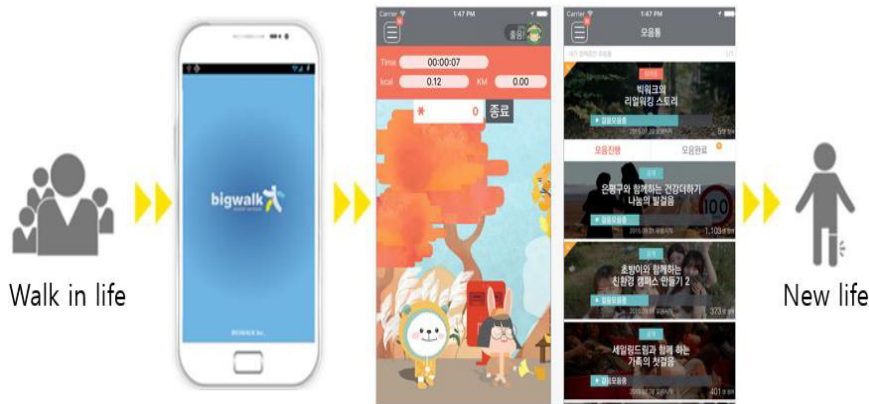


Fig. 7. Donation network application of Bigwalk



Fig. 8. Donation network model of Bigwalk

The main characteristic of Bigwalk's donation service is that they offer the donation platform using ICTs for mobile applications to walk participants (application users), donation fund contributors (corporates), NGOs and beneficiaries. Due to this connecting network system and compared to off-line donation channels, walk participants can now more easily access donation activity whenever and wherever, they like. Second, they basically adopt an indirect social donation network system, which means that donation money is raised by the support funds of corporate social responsibility. These accumulated donations from walkers are provided to disabled children who need help.

5. Discussion and Conclusion

The sharing of assets has always been a part of social organizing. Several drivers have led to increased sharing economy activity and to a number of startups that promote this behavior. Although there are several drivers of the sharing economy, there are lots of possibilities to exploit ICTs in implementing collaborative sharing networks for the social enterprises in Korea. First, the Internet and smart phones are the major accelerants. Internet and mobile smartphone penetration has risen considerably over the last two decades in Korea. We have achieved good advancements of technological infrastructures and experiences in areas such as information technology platforms and big data analytics. Although the sharing of assets is nothing new, the creation of two-sided or matchmaking, market platforms that enable peer-to-peer communication (i.e., individual-to-individual rather than firm-to-individual communication) is a novel development.

The concept of "Social economy or social corporate" is suggested and enlarged the area as a creation of a corporate's social shared value. Social enterprise operations that are able to create both social and economic value are considered "double bottom-line" organizations, while other public organizations are mainly "single bottom-line" organizations. Especially, this study has the following implications from the real social enterprises cases for the social enterprises managers of collaborative network platforms and services. Through the sharing economy cases of social enterprises using collaborative networks in the platforms of production, consumption, and redistribution, these three cases (Orgdot's producer network, "Designers & Makers" in the fashion industry, Purun Bike Sharing's bike sharing network, and Bigwalk's donation network) show that exploiting ICTs for social enterprise innovation can be a new driver to the success of the sharing economy business. Returning to the thesis that the sharing economy has the potential to increase social welfare, social enterprises have the potential to create both social and economic values from the sharing economy by connecting people and helping to make sharing more efficient. It presents a number of challenging possibilities for the future of work, production, consumption, redistribution and collaboration in Korea. Although Korea is in an excellent position to benefit from the growth of the sharing economy, we could do more to facilitate further growth in both social and private economic areas. Finally, understanding what types of collaborative networks using ICTs are particularly amenable to the social enterprises is another important alternative framework for future work.

Acknowledgements

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