

The Business Model for the Sharing Economy between SMEs

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Abstract: - Because of the global economic recession, SMEs that are less competitive compared to conglomerates are facing difficulties in securing labor force, capital, and technology. As an alternative to address those difficulties, research is being conducted to introduce the “sharing economy,” in which activities that share, exchange, and lease resources in B2B transactions are carried out. However, the business model necessary for SMEs to actually introduce and utilize the sharing economy does not exist, which leads to other difficulties in introducing the B2B sharing economy.

This research has presented the business model for the sharing economy that is necessary in the introduction and operation of the said economy among SMEs. In order to design the business model for the B2B sharing economy, this research has drawn the components needed to design the business model through a preceding study on existing business models. Based on this and the preceding study, this research has presented the business model, which can be introduced to the sharing economy among SMEs. In addition, following the presentation of the business model, the research has conducted a case study to confirm that the business model can explain the sharing economy.

Key-Words: - Sharing Economy, Business Model, Component, B2B, SMEs, Case Study

1 Introduction

The sharing economy, which was first mentioned in 2008 by Prof. Lawrence Lessig, Harvard University, means the collaborative consumption made by the activities of sharing, exchanging, and rental of resources without owning the goods. This sharing economy began to spread widely by sharing the unused resources between individuals [1]. In the current sharing economy, the type of resource that can be shared was extended to intangible resources and the objects of the shared economy were also extended to the enterprises that connect consumer to consumer (C2C) and supplier to consumer (B2C).

Recently, a study is being conducted to apply the sharing economy between enterprises. In the study by Minje Cho et al. (2013), based on the definition of the sharing economy between individuals defined by the preceding studies, the sharing economy between enterprises was defined as “collaborative activities to lend unused goods and services, which

are expected to be in excess if individual enterprises own them, owned by an enterprise to another enterprise, or to invest and use the goods and services jointly with another enterprise” [2]. Combined with this, the research has listed the resources that are expected to be idle when the B2B sharing economy is introduced. It has predicted that not only are goods shared by joint purchase and development through the sharing economy in the B2B environment, but education and services are shared also.

This helps the companies utilizing the sharing economy to realize cost cutting and the economy of scale, and the companies introducing the sharing economy create new profit structures through idle resources. In the end, the B2B sharing economy is aimed at promoting the interests of stakeholders by creating new earnings through the utilization of idle resources of the companies that introduce the sharing economy and enhancing the

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competitiveness by reducing costs through the prevention of overlapping investments of the participating companies, thereby securing credibility and supplementing insufficient capabilities.

The concept of this B2B sharing economy is being proposed as an alternative to deal with the various difficulties faced by SMEs of today. However, because sharing economy is mainly applied to B2C and C2C transactions at present, the introduction and implementation of the sharing economy for B2B transactions is considered challenging.

In order to introduce the B2B sharing economy, the companies that introduce it should be specifically informed of who their clients will be, what values will be provided to the clients, and how to make profits. It will be the business model that systematically answers all those questions.

The business model is the script as well as the blueprint to show how companies perform their business activities. Companies can lead a successful business only through a well-designed business model.

This research aims to present the business blueprint necessary to successfully introduce and operate the B2B sharing economy by designing a specific business model exclusive for such a setup. To that end, this research has organized the concepts of the business model addressed in existing documents and examined the components in the design of the model. Coupled with this, this research has presented the business model reflecting the characteristics of the sharing economy based on the components and the business model for the B2B sharing economy, which is more structural through a case study on the existing B2B sharing economy.

2 Theoretical Background

2.1 Definition of Business Model

Since the mid-1990s, the concept of business model has spread with the development of the Internet and various studies began to define the concept of a business model on the basis of the Internet business [5]. A business model refers to a description of various participants in a business, including their roles, the flow of the goods and services, and the profit [6]. Also, some studies were conducted to define the business models in general

industries and non-Internet business, and the business models in general industries may refer to a concise description of methods to make the close relations of decision-making factors the sustainable competitive advantage in the strategy, structure, and economy[7].

With this, there were many studies and efforts to define the business models in various industries and viewpoints. In the study by Zott et al. (2010), the concepts of business models defined by these various viewpoints were arranged, which can be summarized as the informative description of business [8][9], the explanation of business [7], the conceptual tool [10], the template of structure [11], and the framework [12]. Although there are differences in explanation of the business model among diverse industries and viewpoints, a business model is a blueprint of a business that explains how the business is carried out.

2.2 Constituent Factor of a Business Model

To design a business model for the sharing economy between enterprises, existing documents that defined the concept of a business model were reviewed. Among the documents mentioned about constituent factors, eight papers were arranged, and all the constituent factors mentioned in the relevant documents were collected and divided by terms of similar meaning and levels of range of business factor explained by the terms.

The constituent factors of business model commonly mentioned by preceding studies can be largely divided into eight factors, such as Customer Value Proposition, Financial Profit and Loss incurred from Business Operation, Necessary Resources for Business Operation (Human Resource, Technology, Etc.), Business Operation Procedure (Work Process, Business Management, Etc.), Target Customer in Business, Exterior Cooperation, and Logistical Flow in Business. The documents and the terms mentioned in the documents are as follows:

Table 1 Documents and terms that mentioned Customer Value Proposition as the constituent factor

	First order concept	Second order concept
Johnson et al. ., (2008)[13]	Customer Value Proposition	Job to be done Offering
Timmers, (1998)[6]	Architecture of Product and service	-
	A description of	

	the sources of revenues	
Stewart and Zhao(2000)[14]	Value Capture	-
Zimmerman (2001)[15]	Mission	Value Proposition Including the basic product and service
Applegate (2001)[8]	Business Concept	Product and services
Osterwarder et al(2010)[16]	Value Proposition	-

In Table 1, the documents and the terms that described the value proposition from business as the constituent factor were arranged. Most documents consider the objectives of the value incurred from business as the target customers of business and define them as the goods and services delivered to them and solution of customer problems.

Table 2 Documents and terms that mentioned Financial Flow as the constituent factor

	First order concept	Second order concept
Johnson et al., (2008)[13]	Profit formula	Revenue Model cost, Margin
Mahadevan (2000)[17]	Revenue Stream	
Zimmerman (2001)[15]	Revenue	-
Applegate (2001)[8]	Value	Benefits returned to stakeholder, firm Financial Performance
Ostwarder et al.(2010)[16]	Cost Structure	-
	Revenue Stream	

In Table 2, the documents and the terms that mentioned the financial flow from business as the constituent factor were arranged. The financial flow from business is largely divided into two kinds, such as the expenditure incurred from business operation and the profit obtained from the business.

Table 3 Documents and terms that mentioned Resources as the constituent factor

	First order concept	Second order concept
Johnson et al., (2008)[13]	Key Resource	Technology Equipment Information, people brand
Applegate (2001)[8]	Capabilities	People, Infrastructure model reputation and brand
Osterwalder et	Key Resource	-

al.(2010)[16]		
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In Table 3, the researchers and terms that described the necessary resources for business operation as the constituent factors were arranged. In the relevant documents, resources were described mainly as technology, equipment, human resources, etc.

Table 4 Documents and terms that mentioned Business Operation Procedure as the constituent factor

	First order concept	Second order concept
Johnson., (2008)[13]	Key Process	Process
Zimmerman (2001)[15]	Process	-
Applegate (2001)[8]	Capabilities	Management model Operating model Business development model Marketing sales model
Osterwalder et al.(2010)[16]	Key Activities	-

In Table 4, the researchers and terms that described the business procedure as a constituent factor were arranged. It includes the procedure of creating business value in business activities, while Johnson et al. (2008) defined business activities as the form that includes not only value-creating procedure but company regulations, lead time, and business standard, and Stewart and Zhao (2000) described these business activities as “Scope and the Organization of the value” in the wider form from business organization to value delivery[13][14].

Table 5 Documents and terms that mentioned Target Customer as the constituent factor

	First order concept	Second order concept
Johnson et al., (2008)[13]	Customer value proposition	Target Customer
Osterwalder et al.,(2010)[16]	Customer segment	-
Stewart and Zhao(2000)[14]	Customer selection	-

In Table 5, the documents and the terms that described the customers consuming the value created from business were arranged. These consumers gladly pay the expense to consume the Value Proposition.

Table 6 Documents and terms that mentioned Outside Business Cooperators as the constituent factor

	First order concept	Second order concept
Johnson et al., (2008)[13]	Key resources	Partnership alliances
Applegate (2001)[8]	Capabilities	Partners
Osterwalder et al.,(2010)[16]	Key Partnership	-

In Table 6, the documents and the terms that described the cooperators outside the business as the constituent factor were arranged. Those resources that cannot be resolved within business are obtained from the exterior suppliers.

Table 7 Documents and terms that mentioned Distribution Channel as the constituent factor

	First order concept	Second order concept
Johnson et al., (2008)[13]	Key resource	channel
Mahadevan (2000)[17]	Logistical stream	-
Osterwalder et al.,(2010)[16]	Channel	-

In Table 7, the documents and the terms, which described the distribution channel explaining how to deliver the value created through business to target customers as the constituent factor, were arranged.

There are other constituent factors mentioned in other documents, such as the legal factor suggested in the study by Alt and Zimmerman (2001)[15], the flow of information suggested by Timmers(1998), and Customer Relationship that explains how to maintain a relationship with customers suggested by Osterwalder(2010)[16]. Osterwalder suggested the method to maintain customer relations as the answers to the following two questions, first, “What method should we use to maintain continuous relationship with our customers?” and second, “How do the customers want to maintain a relationship with us?” In short, maintaining a good relationship is the exchange of information between the enterprises and customers for continuous business. After all, it is the flow of information in its narrow meaning. Although there are various methods and terms to explain the constituent factors of business model as above, basically, they are considered the similar methods and terms.

Table 8 Business Model Canvas

	Explanation
Value proposition	It Seeks to solve customer problems and satisfy customer needs with value proposition.
Customer Segment	An Organization serves one or several customer segment.
Channel	Value Propositions are delivered customers through communication, distribution, and sales channels.
Customer Relationship	Customer Relationships are established and maintained with each Customer Segment
Key Resource	Key Resources are the assets required to offer and deliver the previously described elements.
Key Activities	By performing a number of Key Activities.
Key Partnership	Some activities are outsourced and some resources are acquired outside the enterprise.
Cost Structure	The Business model elements result in the cost structure.
Revenue stream	Revenue streams result from value proposition successfully offered to customers.

To sum up, the common constituent factors of business model based on the studies on common constituent factors are similar to the nine major factors suggested in “Business Model Generation” by Osterwalder et al(2010)[16]. In this study, through the constituent factors suggested at Table 8, the constituent factors necessary to form the business model of the sharing economy between enterprises were defined and the relevant business models were proposed.

3 Business Model for the Sharing Economy between SMEs

3.1 Definition of Business Model for the Sharing Economy between SMEs

The research on the sharing economy in the B2C and C2C environment were conducted as the companies utilizing the sharing economy began to succeed in the global market and the number of those companies started to increase. This research has defined the companies utilizing the sharing economy based on the preceding study on the said economy and the definition of the business model in the general industry, which was also defined in the preceding study. The business model for the sharing

economy in the B2C and C2C environment is the blueprint that identifies the sharing users, the roles of the resources sharers, and the business operation plan.

The definition of the business model in the B2B sharing economy is not significantly different. The business blueprint; that is, the plan to further structurally and systematically implement the inquiries presented to the stakeholders of the companies concerned as to who will be their clients, which values will be provided, and what benefits will be gained; is the business model for the B2B sharing economy.

3.2 Constituent Factor of a Business Model for the Sharing Economy between SMEs

There are few preceding studies on the business model of the sharing economy between enterprises. Therefore, after suggesting the business model for the sharing economy between enterprises based on the constituent factors suggested in Business Model Canvas to deduct the business model and the studies on the sharing economy between enterprises conducted so far, a methodology that suggests a business model for the sharing economy between enterprises was used, regarded as an example of the sharing economy between enterprises, replenishing the incomplete portion of business model by applying the above business model to the company [18].

Minje C., et al.(2013)[2], who studied the introductory strategy for the sharing economy between small businesses, derived the definition of the sharing economy between enterprises on the basis of the sharing economy between enterprise and individual, and between individual and individual which occupied most of the sharing economy. The sharing economy between enterprises can be defined as “the collaborative activities to lend the unused goods and services, which are expected to be in excess if individual enterprises own them, owned by an enterprise to the other enterprise, or to invest and use the goods and services jointly with the other enterprise.” At the same time, the sharing economy between enterprises was divided by type and purpose. In this study, business models are suggested as divided into different business types—Type 1 and Type 2. Type 1 is a type of sharing economy in which the excessive goods and services owned by any enterprise are lent to the other enterprise, and Type 2 is another type of sharing economy in which an

enterprise invests and uses, jointly with other enterprises, the goods or services that will be expected to be in excess if individual enterprises own them.

(1) Value Proposition

It is a constituent factor to explain which value will be provided to the consumers outside the business. Customer evaluates the utility of value provided by us and determines whether to pay for the expense to use the value. Regardless of the type of sharing economy, target customers who will use the sharing economy evaluate the utility obtained by using the excessive resources. Because of this, the utility can be regarded as a value proposal.

(2) Customer Segment

A customer is the exterior consumer who uses the value provided by any business after paying for the expense. The utility obtained from the value is the purpose of the customer and the customers who are using the sharing economy, regardless of its type, can be sharing users who want to solve the shortage of usable resources at low price.

(3) Key Activity

Key activity can be considered as a constituent factor explaining that activity shall be taken to “propose value” by a business. In the study by Minje C., et al. (2013)[2], the processes were suggested by the type of sharing economy. In case of Type 1, any sharing supplier selects the resources to be shared and plans how to share them, and then selects the sharing user. After completion of the sharing activity, they will settle the sharing profit. In case of Type 2, a sharing businessman selects the target of sharing business, constitutes the sharing business, and chooses sharing participants. After conducting the sharing business, there will be the process to settle the sharing business, which will be a key activity of the sharing economy.

(4) Channel

A channel explains how to deliver the utility provided by us. In the sharing economy, a channel is regarded as the explanation on how to deliver the excessive resources to the customers. It belongs to the sharing supply in the case of Type 1 and it belongs to the performance of sharing business in the case of Type 2, which is considered as a key activity.

(5) Key Partnership

Enterprises establish a strategic alliance with the people outside of business in accordance with the purpose to minimize its business costs, to reduce the risks, or to secure the critical resources during the operation of their business. In the sharing economy, the purpose and the type of partnership with exterior partners will be diverse because the performing activities to create value are diversified according to the types. In case of Type 1, as the objective reliance will be a critical factor in the process to explore, to select, and to evaluate the user to share the sharable resources, it requires an intermediary to connect the sharing user and the supplier of sharable resources objectively. In case of Type 2, as it requires the procedure to constitute a new business, it establishes great complicated strategic alliance. There exists the exterior partner, who selects and operates the sharing target business and supplies the resources in shortage, and the investors, who constitute the sharing business and invest the financial and shared resources while requesting their definite shares. In addition, Soon Goo Hong et al. (2013)[19], suggested that the roles of the government and municipal government are required to introduce the sharing economy between small businesses successfully. They can be classified as the supporters who invest resources to the sharing economy without requesting any share in return. Consequently, the intermediary in Type 1 and the investor, the exterior partner, and the supporter in Type 2 can be classified as the Business Actors who establish a partnership and act as a critical factor in the business of sharing economy.

(6) Key Resource

Key Resources mean the resources required for the value proposition and for the key activities. In Business Model Canvas, key resources were classified into four groups by their purposes, such as material resources, intellectual resources, human resources, and financial resources. In the sharing economy, however, they are classified by the use purpose of resources because resources are divided into the resources for sharing or for controlling resources, regardless of types of resources. So, regardless of their types, the resources owned are classified into three aspects, such as the resources for the purpose of sharing, the resources for controlling and supporting the key activities, and the resources for maintaining the relationship with exterior partners of sharing resources.

(7) Customer Relationship

In Business Model Canvas, Customer Relationship was suggested as a constituent factor to explain how to manage the classified customer segments. It will be a constituent factor of a business model that provides the information on the value supplied by the business to each classified customer segment, and is able to explain it to the customers, including how to use them.

Because the concept of the sharing economy initiated from the collaborative consumption called sharing, the continuous relationship with the customers using the resources and with the partners, such as cooperators and intermediaries as well, is important. As the partners are different by type, the managing tools to maintain the relationship are also diverse. These relationships can be divided into the relationship with the intermediary in Type 1 who connects the sharing users with the suppliers of shared resources, and the relationship with the exterior cooperators, the investors and the supporters in Type 2. Consequently, the relationship in the sharing economy can be enclosed by a large category of relationship.

(8) Cost Structure

Cost means all the expenses incurred from the business operation and each cost is divided into fixed cost and variable cost. Even in the sharing economy, it is necessary to explain the cost structure, regardless of its type.

(9) Revenue Stream

Revenue source is a constituent factor obtained as the result of successful supply of the value proposition to the customers. In the sharing economy, the revenue resources vary by the shared resources.

In accordance with the constituent factors in Business Model Canvas and the types of Sharing Economy according to the preceding literature, the constituent factors of business model for the sharing economy between enterprises were derived. They can be summarized as follows:

Table 9 Constituent Factors of Business Model for Sharing Economy

Category	Class	
	Type1	Type2
Value Proposition	-	
Customer	-	

Activity	Key Activity	
	Channel	
Resource	Resources for Sharing	
	Resources for Key Activity	
	Resources for Relationship Maintenance	
Cost Structure	-	
Revenue Stream	-	
Business Actor	Intermediary	Exterior Cooperator
		Investor
		Supporter
Relationship	Customer Relationship	Customer Relationship
		Exterior Cooperator Relationship
	Relationship with Intermediary	Investor Relationship
		Relationship with Supporter

Consequently, the constituent factors of a business model for the sharing economy between enterprises can be divided into eight large constituent factors different from nine factors in Business Model Canvas. The constituent factors of the sharing economy between enterprises are Value Proposition explaining the utility obtained from the sharing economy, Customer as the user of sharing economy, Activity explaining the activities to lend the shared resources and let the users use the shared resources, Resource explaining the necessary resources for the sharing economy, Business Actor as the cooperators participating the sharing economy, and Relationship representing the relationship with them and the methods and conditions to cooperate with them. Among the constituent factors of the sharing economy in Type 1 and those in Type 2, there is a big difference in Business Actor and Relationship. To sum up, designing the business model for the B2B sharing economy is equivalent to explaining the components of the business model for the very same economy.

So far, the components of the business model have been defined and the business model has been designed. By explaining the components of the business model, the B2B sharing economy could have clearly shown what it offers and to whom, and also what can be gained out of it.

On the other hand, unlike other business models aiming for specific profit structures, the B2B sharing economy is aimed at cost cutting and the improvement of bargaining power, credibility, and

the level of utilization for all stakeholders. In addition, the benefits that can be gained from the business model for the B2B sharing economy is different from those of other business models. The B2B sharing economy is made up of cooperative activities in which the companies involved utilize idle resources together. Once the sharing economy is introduced to SMEs, they will be naturally engaged in cooperative activities.

Luca, C., et al (2014)[20], has summarized the benefits that SMEs gain from cooperation: 1. effectively utilizing their assets, 2. improving the quality of the service provided to clients, 3. reducing the time consumed to develop new products, 4. cutting expenses, 5. decreasing the risks of failures stemming from the development of new products, 6. increasing the quality of products, and 7. enhancing their internal capabilities. Furthermore, through cooperation, SMEs can obtain new opportunities regarding the research result of new products and the market[21][22].

The benefits the stakeholders of the sharing economy among SMEs gain are not different from those gained by SMEs from cooperation. In Type 1, the participants of the sharing economy could have saved the expenses consumed on noncore competencies by utilizing idle resources at a low price, and the providers of the sharing economy could have created a new profit structure utilizing idle resources. In addition, intermediaries will get brokerage fees by securing credibility. In the case of Type 2, the operating companies and customers of the sharing economy are able to enhance their capabilities through cooperation in the various industries by efficiently improving existing business processes, reducing risks through joint research, and efficiently using their assets through utilizing idle resources. The investors and external business actors of the sharing economy will gain steady profits much like their counterparts in other businesses.

4 Case Study

To validate the business model of sharing economy, the existing case similar to the sharing economy was applied. As the existing cases similar to the sharing economy between enterprises, Tech Shop and Cooperative Distribution Center were selected.

Table 10 Business Model of Tech Shop

Category	Explanation	
	Subcategory	Explanation
Value Proposition	-	Usage of tools and equipment at low cost
Customer	-	Customer of Tech Shop
Activity	Key Activity	All activities of Tech Shop
	Channel	Direct usage by customer
Resource	Resources for sharing	Equipment Various tools
	Resources for Key Activity	Labor force for resource management, Office, etc.
	Resources for Relation Maintenance	Web site
Cost Structure	-	Resource management cost
Revenue Stream	-	Tech Shop fee
Business Actor	Intermediary	-
Relationship	Relationship with Intermediary	-

Tech Shop is a type of enterprise in which any individual can use the specialized up-to-date machinery, which individuals find hard to handle, and various tools, which are hard to find at home, at reasonably low cost, without buying them. The customers of Tech Shop pay a certain amount, call, and use the up-to-date equipment and tools at the nearer branch office of Tech Shop. Customers visit its Web site to get and use the information on Tech Shop, and Tech Shop is also using its Web site for customer management. Activities, such as equipment owning, customer management, and helping the customers for convenient use, are the activities of Tech Shop, and the Cost Structure is created from these activities.

However, as the case of Tech Shop can be considered as an example of the sharing economy between enterprise and consumer (B2C), the intermediary of Business Actor and the Relationship with the intermediary cannot be explained. However, in the study of SoonGoo, H., et al. (2013), because the factor of reliability and information is important to introduce the sharing economy between enterprises successfully in Type 1 sharing economy, it is hard to say that the sharing intermediary and

the relationship with the intermediary should be excluded.

The case in Type 2, Shipbuilding Material Cooperative Distribution Center is an organization established by the joint investment from dockyard and small shipbuilding material companies to operate the joint purchase of raw materials and to use the joint distribution center, funded by central government and local government after being selected as a Local Strategic Industrial Developing Business by the Ministry of Knowledge Economy in 2005.

Through Shipbuilding Material Joint Distribution Center, Dockyard and Shipbuilding Material Companies pay the storage fee at the level of 50–60% of market price and use the storage service and transportation optimized for shipbuilding and marine materials. The transportation business is operated by “Sebang”, an outsourcing operator. Table 11 below shows the constituent factors of the business model in the sharing economy of Shipbuilding Material Joint Distribution Center.

Table 11 Business Model of Shipbuilding Material Joint Distribution Center

Category	Explanation	
	Subcategory	Explanation
Value Proposition	-	Low storage fee, Cost reduction
Customer	-	Dockyard Shipbuilding material companies
Activity	Key Activity	All activities of Joint Distribution Center for shipbuilding materials
	Channel	Dockyard Shipbuilding material companies
Resource	Resources for sharing	Equipment joint distribution warehouse
	Resources for Key Activity	Labor force for resource management, Office, etc.
	Resources for Relation Maintenance	Distribution information system
Cost Structure	-	Resource management cost Maintenance cost

Revenue Stream	-	Storage fee
Business Actor	Exterior cooperator	Sebang
	Investor	Dockyard Shipbuilding material companies
	Supporter	Government Local cities
Relationship	Exterior cooperator	Contract terms
	Investor	Investment conditions
	Supporter	Governmental policy and tasks

It was identified that the constituent factors of business model in Type 2 were thoroughly explaining the constituent factors of business model of Shipbuilding Material Joint Distribution Center. Consequently, the explanation of these constituent factors can be considered as the business model of Shipbuilding Material Joint Distribution Center

5 Conclusion

In the end, the B2B sharing economy has a variety of benefits, such as the creation of a new profit structure, cost cutting by preventing overlapping investment of the participating companies, and the improvement of efficiency through jointly utilizing resources. Lastly, it can serve as an alternative in dealing with the difficulties faced by SMEs in the global economic recession.

Unlike other business models or the business model in the B2C and C2C sharing economy, the business model in the B2B sharing economy has recognized the significance of participants and confirmed that stakeholders could have both a new profit structure and other benefits gained from the cooperation among participants when these participants make a joint effort to introduce the B2B sharing economy.

This thesis has examined preceding studies on business models, drawing common components from them. Based on the components and the existing documents regarding the B2B sharing economy, it has designed the business model that can be applied to the B2B sharing economy.

It is the first thesis that has proposed the framework of the business model applicable to the B2B sharing economy based on the common

components drawn from existing documents. The thesis has conducted a case study to judge whether the framework of the business model proposed is well applied to the B2B sharing economy.

When SMEs try to apply the B2B sharing economy, they will be able to provide the business model befitting circumstances by referring to the business model proposed in this thesis. However, the business model proposed in this thesis has yet to be put into practice and further research is needed to determine if the business model has competitiveness. With this, further study on the application and verification of the business model for the sharing economy among SMEs is required.

Acknowledgements

This work was supported by the National Research Foundation of Korea Grant funded by the Korean Government (NRF-2012S1A5A2A03034683)

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