An Exploratory Study on Structuralization and Changes of the Business Model of Startups[1]

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ABSTRACT

This paper is an exploratory case study to understand the answer to the question, "through what kind of structuralization and changes of the business model do entrepreneurs foster the growth of enterprises?" In this paper, upon first sorting the lineage of theories of the business model into theories which intend to explain either the structure, or the logic of development, of the business, a framework for analyzing the business model is proposed which integrates both categories. Then by using this framework to make a case analysis with GREE as the subject, it was possible to explain the static relationships upon "structuralization" of the business model, as well as the mechanism of changes of the constituent elements which take place when the model undergoes "change".

With regard to the latter mechanism of changes, it was found that the securing of compatibilities among, of the constituent elements of the business model, the three elements of "operation structure", "revenue model" and "cost structure" becomes delayed in time and that, the definition of the "target customer" can be flexibly changed along with the accumulation of "management resources". In addition, it was found that the intentions of the entrepreneur have impacts especially on the accumulation of "management resources" and the establishment of the "target customers" and the "income structure" in the business model.

Keywords: *Business Model; Structuralization; Changes; Structure; Logic of Development*

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1. Introduction

As a reality, it is difficult for startups to establish a competitive advantage and to continue sustainable growth. In fact, it appears in research that clarified the number of startups going bankrupt in the years after its establishment in the United States (Broom & Longenecker, 1976; Van de Ven, Hudson & Schroeder, 1984; Sandberg, 1986), and data on the rate of unemployment exceeding the startup rate of companies in Japan (Statistics Bureau, Ministry of Internal Affairs and Communications, 2007).

Among them, enterprises are exposed to high business risks, it is the startup phase after the company's founding. Although the definitions of the startup phase are varied by researchers, it is about five years after establishment roughly. In this stage, there are constant changes and uncertainties in the business environments (Timmons, 1994), and many startups review the business plans they owned at the time of their establishment.

This seems to be closely related to the two problems: (1) business plans conceived at the beginning of entrepreneurship are not necessarily realized as expected and (2) it is also difficult for the business model that succeeded in earnings and customers to acquire the initial aim or partially, to continuously sustain driving. Rather, it is reasonable for entrepreneurs to believe that it is necessary to receive a change in the business environment once the business model is built based on the business plan, and to continue to reconstruct and evolve it.

It is possible to grasp the aspect of such business model construction as a series of "structuralization" and "changes" of the business model. At a certain point in time the business model is structured within the entrepreneur as a model with certain beliefs. However, the model fluctuates and starts to change due to changes in the business environment and internal factors of the organization. And is also structured at a certain point in time. It is considered to be an important aspect of startups growth how to successfully manage this cycle or how to overcome change and acquire a strong structure. In this research, the starting point is the problem consciousness that existing research can not sufficiently capture the dynamic aspect of such a business model.

The business model generally refers to "a concrete mechanism to create profit", what to do as a business and where to generate profits. And in the existing research in the field of business administration, the aspect as the design drawing of the business structure aiming at value creation has been emphasized (Kokuryo, 1999; Negoro, 2006). Among others, emphasis is placed on the explanation of the elements of the business model, and we aimed at grasping the structure of the business such as revenue model, cost structure, management resources, value proposition, differentiation policy from competition (Yanagawa, Abe, & Ishida, 2010; Zott, Amit, & Massa, 2011).

These research groups conducted research on the static aspect of the business model by positioning it at a time point in the time series. This approach itself was effective for grasping the structure of business as a best practice, but it seems that it can not fully capture the structure of business model and the mechanism of change. Therefore, in this paper, we aim at presenting that mechanism in a trial way through case analysis on “how entrepreneurs are growing enterprises through structuring and changing business model”.

This paper has the following composition. Firstly, in the next section (the second section), we examine previous researches on the business model concept and show that the existing discussion can’t sufficiently capture the dynamic aspects of the business model which is the problem consciousness of this paper. In the third section, we present the analysis framework that will contribute to solving the problems of existing research with the discussion in section two as a base. Then, in the fourth section, we conduct a case analysis based on the analysis framework and discuss the implications of case analysis in the fifth section. In the last sixth section, we will describe the results, challenges and future prospects of this paper.

2. Literature Review

Business model concept in this paper

The definition of the business model concept is diverse, both practically and academically. Therefore, we would like to explain the scope of the business model concept that is the subject of discussion in this paper. In this paper, “business model” is considered as a framework that entrepreneurs can express as a consistent abstraction on the structure of their business such as the characteristics and strengths of their company, the reason why the company can develop, and the premise of the company’s operations.

For this reason, in previous research, regardless of whether the argument uses the term "business model" as the name of the concept or not, if it deals with the framework on the structure of the project as described above, it is subject to discussion in this paper. Specifically, "business system" (Kagono & Ishii, 1991; Kagono & Inoue, 2004) and "strategy story" (Kusunoki, 2010) are also considered as a business model concept in this paper.

In Negoro (2012), there is an aspect as "static" and an aspect as "dynamic" in the business model. The former sees the business model as "to explain the business structure at a certain point in time". The latter also captures the business model "how can we develop our business?". In the following discussion, considering the above Negoro's discussion, consider the preceding research of the business model theory in accordance with two trends: (1) to explain the structure of business and (2) to explain the logic of development of business.

Business model concept for the purpose of explaining the structure of business

One of the major trends in the previous studies on business model theory is a group of studies that presented conceptual frameworks to respond to the interest in explaining the structure of business. This is intended to show the inside of business; specifically, it refers to frameworks that can clearly show the difference between own company and other companies as well as the goals in designing business objectives (Negoro, 2012).

While this group of studies originated back in the 1960's, the use of the term "business model" had been ambiguous in each study until the 1990's (Yanagawa, Abe, & Ishida, 2010). Later in Japan, Itami and Kagono (1993) reviewed studies such as the survey research by Kagono and Ishii (1991) on the alcoholic beverage industry and said "a business system consists of management resources required to create value and mechanisms to organize those resources" (Itami & Kagono, 1993, p.42), raising the importance of understanding what is included in the business as mechanisms.

Since then, there have been continuous discussions on business model from the perspective of understanding the structure of business. For example, Negoro and Kimura (1999) defined business model as "a model that shows what kind of business activities are in progress or what kind of business planning will be done (p.2)" and deemed it can be described as (1) a strategy model, (2) an operation model, or (3) a revenue model. Kokuryo (1999) also deemed that "a business model is an idea concerning business design as to (1) what value is provided to whom, (2) how the management resources are procured and combined for (1), (3) how the communication with partners and customers is carried out, and (4) what kind of distribution channels and pricing structures are used to deliver them (p.26)."

It is the studies on the elements of business model which seem to exhibit these discussions most directly (Afuah, 2004; Johnson, 2010; Osterwalder, Pigneur, & Tucci, 2005). These studies specifically consider what kind of elements make up a business model. Yanagawa, Abe and Ishida (2010), which sorted out and combined the elements of business model proposed in ten previous studies, noted the following seven as important elements: Environ Factor (external environment that cannot be controlled), Network (external resources, partners, and suppliers that are valuable in business), Cost (the costs related to the business model and the source of profit), Position (target customers, segments, and the factors for differentiation), Resource (internal resources of the company and management resources such as human resources, facilities, technologies, capabilities, and core competences that are strategically valuable), Customer Value (customer value including the means to provide values to customers and relationship with customers), and Combination (the concept that links each elements idea according to strategy and operates them) (pp. 42−43).

We can say that the business model theories intended to explain the structure of business as seen in this section were mainly interested in the elements of successful businesses that are generating profits or winning customers in a given point in time or in the checklist-type of usage when planning business structures.

Business model concept for the purpose of explaining the logic of development of business

Another major trend to make up the linages of the previous studies on business model theory is the ones that present a conceptual framework to respond to the interest in the clarification of the logic of development of business (Negoro, 2012). They intend to answer the question "why do you or did you organize the business that way?" Specifically, the frameworks that can clearly show the following would fall under this category: the consistency among the elements of business model as seen in the previous section, the reason why a particular element is necessary in the business structure, or the mechanism as to how a business develops. Negoro (2012) deems there are two business model concepts for explaining the logic of development of business: (1) the one to show the causal relationship for self-reinforcement to further strengthen the company and (2) the one to show the causal relationship for advancing the business model (p. 200).

The former business model concept emphasizes to understand the mechanisms among the elements of business model more. As its specific methodology (description method), many are based on causal map and system dynamics (Kim & Anderson, 1998; Senge, 1990). For example, the operating business model advocated by Linder and Cantrell (2000) is intended to show the core logic of an organization for creating value. Illustrated as round logic in which elements such as revenue model, customer value model, and the structure of organization and business relationship are related to each other, it allows us to grasp the general idea as to why a given business is successful. Likewise, Casadesus-Masanell and Ricart (2011) illustrates the reinforcement logic of Airbus' business model as a circulation diagram by using system dynamics.

Unlike the model based on this type of round logic, the latter business concept captures the structure of business in a manner of causal chain. For example, Negoro (2006) advocates "the differentiation system". By using causal relationship and connecting the elements within three layers, namely, resources, activities, and targeting/differentiation, it allows us to analyze how they make it difficult for others to imitate their business as well as how they should go about making it difficult to imitate. The discussion of "strategy story" by Kusunoki (2010) is also considered as one with an awareness toward a similar problem since it illustrates the business elements leading to competitive advantage as a coherent causal logic.

The business model theories focusing on the clarification of the logic of development of business as described above has contributed to the elucidation of the specific mechanisms of business structure. However, these discussions only go as far as understanding the success mechanism of a business model in a certain point in time (static relationship); it doesn't seem capable of fully understanding the process of structuring and changing a business model (dynamic mechanism of business model).

Movement towards the integration of the two lineages and the remaining tasks

To reiterate, each of those existing business model theories has progressed as studies to explain the two: the structure of business and the logic of development of business. The former focused on what is included in the elements of business model at a specific point in time and how it is modelled at the time of business planning. In contrast, the latter was to promote the understanding of specific mechanisms of business structure (static relationship among elements). While both of these seem to have made great contributions to explaining the inside of business structure, the issue remains that they are not sufficient in understanding the sides as to how a business model is structured and changed as things change over time. As described as a problem at the beginning of this paper, business models are characterized by the fact they change over a certain period of time or they must be changed due to environmental changes (Yoshida, 2011). If that is the case, how should we approach to solve this problem?

As one of the recent measures for this, there is a movement to integrate the two intentions—to explain the structure of business and the logic of development of business—in order to understand the mechanism of business model changes due to changes over time. For example, Sosna, Trevinyo-Rodríguez and Velamuri (2010) have explained the trial-and-error learning process in constructing a business model by using the exploration and exploitation concepts of organizational learning as underlying theories. There are also discussions focusing on the learning effect that a business model has on inside the company once it is built (Itami and Nishino, 2010).

In addition, Negoro and Tokunaga (2007) looked at the cases where "the company's activities led to changes in customer attitude and resulted in the development of situations advantageous to their competitors." Using the concept "excessive self-reinforcement of structure," they discussed the mechanism of changes in a business model by both explaining the elements of business structure and describing the system dynamics from the perspective of unintended consequences that a company's successful business model brings. Inoue (2006) also chronologically analyzed the case of Yahoo! Japan's business development to describe how the elements of their business model changed and demonstrated the process as to how they gradually strengthened their business model as the business environment changed.

Such discussions toward the integration of the two lineages of business model theories can be considered a "should-be" business model that simultaneously pursues the clarification of the structure of business and the logic of development of business. Yet, it seems the above-mentioned previous studies also leave the following problems. First, it doesn't sufficiently explain the static relationship among the elements of business model. For example, while both Sosna, Trevinyo-Rodríguez and Velamuri (2010) and Negoro and Tokunaga (2007) established analysis frameworks after identifying the elements of business model, they haven't been able to fully demonstrate the relationship among the elements. Second, they haven't sufficiently explained the mechanism of the dynamic change in the elements. Specifically, they haven't shown factors such as the order and priority of changes in other elements when a certain elements changes over time. It can also be said that they haven't fully answered the question as to what factors drive changes in the elements.

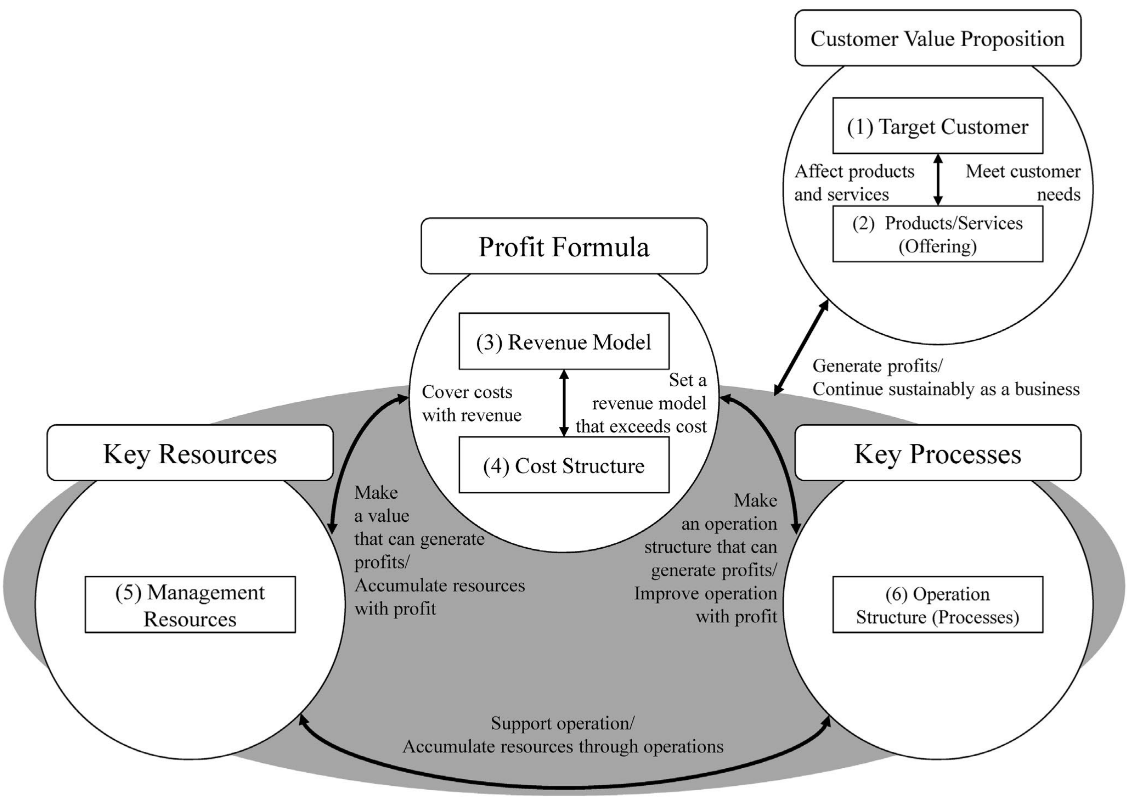
3. Analysis framework

Based on the above examination of existing studies and the identification of issues, this paper will present a framework for analyzing the dynamic aspects of how a business model is structured and changed. The analysis framework has the following two features.

The first is that the static relationship among the elements of business model is clearly shown. This paper first considers "the four factors to make a business model successful" by Johnson, Christensen, and Kagermann (2008) and classifies the elements of business model into six categories including (1) target customers, (2) products and services (offering), (3) revenue model (methods for generating revenue), (4) cost structure (decision on internal vs. external manufacturing, creative differentiation in cost), (5) management resources (tangible and intangible, including external resources such as external networks and customer assets), and (6) operation structure. Furthermore, it also takes into consideration Alt and Zimmermann (2001), Yoshida (2011), etc. to set those static relationships as a philosophical system as shown in Figure 1. In this paper, a business model is considered "structured" when it is in the state where this static relationship is coherently established (even partially) for a certain period of time as the business develops. As a note, the thick arrows connecting the elements in the figure indicate that these elements are interdependent.

The second is that it chronologically understands the changes in the static relationship among the elements of business model in Figure 1 and examines the mechanism from the following two perspectives. The first is the clarification of the state of chronological changes in the elements. Specifically, it explores which elements of business is changed and determined in what order as the time goes by. The second is the effect of the entrepreneur's intent at time of change. There is a tendency among startups that their business growth and innovation are greatly affected by the intent of the entrepreneurs who are actually involved in the business development (Bird, 1988; Shepherd & Krueger, 2002; Yamada & Yamashita, 2006). This is the same storyline as the notion there is manager's strategical intention as a means to create a sense of obsession for victory among all hierarchies at all divisions at a large company (Hamel & Prahalad, 1989); however, it is said that the intention of entrepreneurs of a startup is a larger factor to affect the direction of the business, the continuation of the

Figure 1
Static Relationship between the Components of the Business Model



Source: Created by the author with reference to Johnson, Christensen, and Kagermann (2008)

organization, and the profitability (Bird, 1988; Shepherd & Krueger, 2002). Therefore, examining the intention of entrepreneurs which intervenes in the changes in the business model should, to some extent, help us in understanding the mechanism of changes in business model unique to startups.

4. Case Analysis

Objective of case analysis and subject case

In this section, we would like to use a case analysis based on the analysis framework presented in the previous section and hold an explorative discussion as to how entrepreneurs structure and change their business model to grow their company.

As a subject of case analysis, we will look at the changes in the business model of GREE (GREE, Inc.) which was founded as an Internet startup and has become a major servicer in the SNS market in Japan today. The two reasons for choosing this service as a case are as follows. First, we determined that GREE was an appropriate subject for the problem this study focused on because it had continuously changed the business model during the start-up phase of five years or so since its founding (when the service was launched). Second, we felt it was ideal for analyzing the mechanism of business model change because we can see the interaction with the business models of competing services, including mixi (mixi, Inc.) and Mobage (formerly Mobage Town until March 2011, hereinafter referred to as “Mobage” in this paper, DeNA Co., Ltd.) in the market of the analysis subject’s service, the impact of business environment factors, and the shifts in the business model reflecting the intention of the entrepreneurs.

As a note, the case study in this paper was conducted by analyzing secondary materials such as public documents like PR and IR materials obtained on the website of subject companies for the analysis, and related articles found in newspapers, magazines, online news. While the analysis period is from February 2004 when GREE started their SNS service to June 2010, the business model of GREE in the domestic market was analyzed by dividing this period into three stages including (1) the period of establishment (around 2004 to 2005), (2) the period of focus on the SNS for mobile phones (around 2006 to 2007), and (3) the period of adding social games and entering into the social platform business (around 2008 to 2010).

Stage 1: period of establishment (around 2004 to 2005)

GREE started by launching the alpha version as a personal website of current CEO Mr. Yoshikazu Tanaka in February 2004. mixi also started their SNS service at around the same time. At that time, while mixi was operated under a corporation called e-Mercury, Inc. (later changed the company name to mixi, Inc.) which managed the IT job site "Find Job!", GREE remained as a personal operation by Mr. Tanaka (later appointed as the CEO). He was developing and maintaining the site after work and on his day off and paying all expenses including the server expense on his own.[3] Therefore, he says there was a period when the number of members increased more than expected and working on GREE while working the day job (he was working at Rakuten, Inc. at the time) was difficult.[4] He incorporated later in December 2004, thinking "given that there are this many supportive users, I should probably turn it into a corporate structure so that the service can continue even if I leave."[5] The service of GREE is a simple one centered on roasters created with sentences to introduce friends; this was because Mr. Tanaka was influenced by the SNS "Friendster" which was developed in the United States mainly for the purpose of managing the information on personal connections.

GREE and mixi maintained equilibrium for some time after their services were launched, but starting around October 2004 GREE began to gradually lose out to mixi, which overtook GREE by approximately 100,000 users. Mixi saw major growth until 2005, and in March of that year they were in the black on a monthly basis as a result of advertisement income and charging membership fees to some users. During the period when Yoshikazu Tanaka personally managed GREE and even for a while after it incorporated, it was barely able to acquire the minimum amount of advertising income required to continue operating and it had yet to establish an income flow through the use of a proprietary SNS business model, as

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3 ITmedia "IT is now "That's fine, it's fun." —— A company employee who is making alone 7,000 towns "GREE" "
http://www.itmedia.co.jp/news/articles/0407/30/news006.html (in Japanese: Browsing date; August 31, 2018)

4 *Nikkei Business Associe,* November 27, 2009 (in Japanese)

5 Ibid.

mixi had previously done.[6] And much of the advertisement revenue was the result of Kotaro Yamagishi, who was involved in sales at the time (currently serving as part-time director), making effective use of his personal connections in the business world.[7]

Approximately one year after incorporating, GREE devoted a great deal of time to acquiring high-quality personnel and was under pressure to create a new corporate structure. Both mixi and the user-participation-style service Hatena (Hatena Co., Ltd.), which are GREE's competitors, had already had several years of corporate experience and as a result they were able to quickly add new services and functions to their basic offerings. GREE, on the other hand, was late to incorporate and President Tanaka felt that their situation was therefore unavoidable.[8]

However, GREE then decided to take their subsequent development into their own hands. GREE, which was greatly threatened by the sheer number of members that mixi had, started putting its energy into an SNS for mobile phones and in June 2005 it launched its "GREE Mobile" mobile phone SNS service. With this and other similar moves, the company began development of its mobile business. Approximately one year after founding the business, President Tanaka was quoted as saying, "I have decided to move the company in the direction of the mobile business."[9] One major factor in this decision was the fact that President Tanaka was deeply impressed by the growing popularity of hand-held gaming devices in the gaming community.[10]

As can be seen in Figure 2, during this period of time GREE's business model was considered to have static relationships. Although the business model was formalized according to the strong desires of President Tanaka, who personally managed the start of the SNS business, the company was also under pressure to create a corporate organizational structure, and it is believed that there was only partial compatibility among the various

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6 ITmedia "Society, the Internet and services ──SNS No.3 Make a "society" "GREE, Inc." " http://www.itmedia.co.jp/news/articles/0505/02/news007.html (in Japanese: Browsing date; August 31, 2018)

7 CNET Japan "GREE, President Tanaka's approach to SNS-style entrepreneurship" https://japan.cnet.com/article/20088792/ (in Japanese; Browsing date; August 31, 2018)

8 Ibid.

9 *Nikkei Business Associe,* November 27, 2009 (in Japanese)

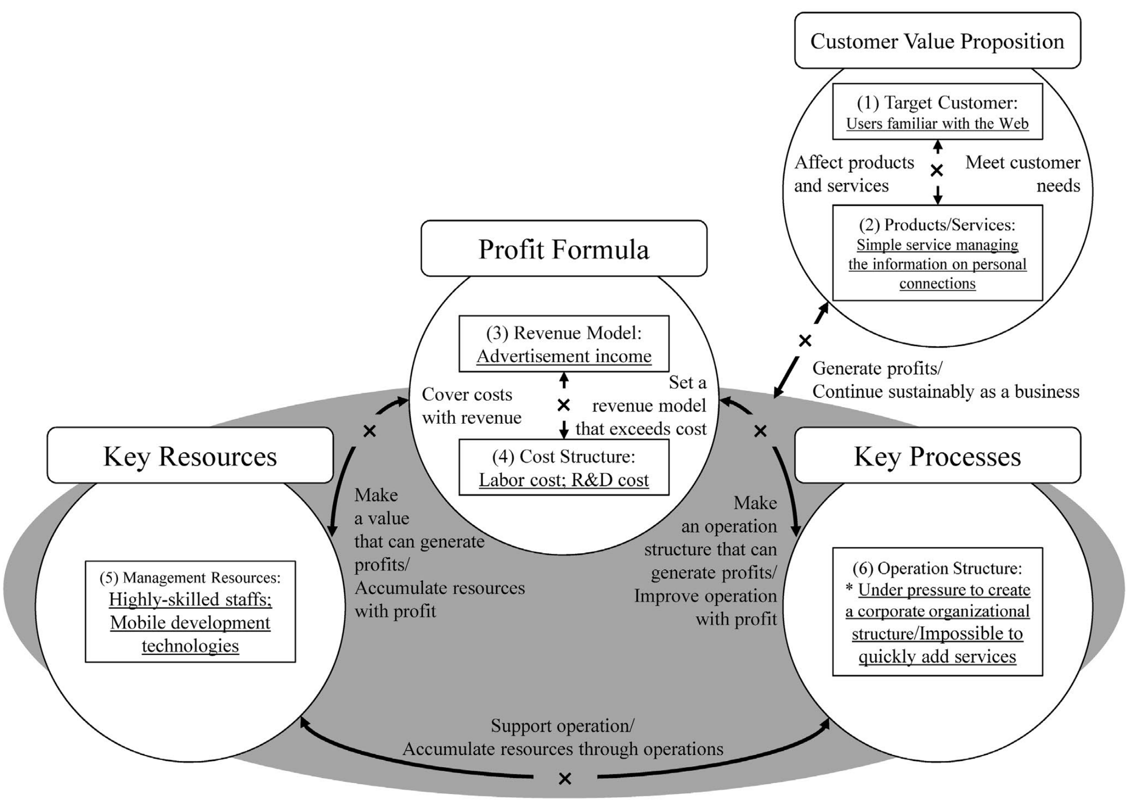
10 Ibid.

structural elements of the business model (portions of the business model that are thought to be incompatible are labeled with an “×” in the diagram; the same method is used in Figure 3 below). Although efforts to acquire resources known as “development technology for the mobile business” were begun, partially due to the circumstances described above, this did not lead to the types of products and services that would attract customers and thus it did not lead to added value for customers.

Stage 2: period of focus on the SNS for mobile phones (around 2006 to 2007)

As mixi was completely removing itself from the SNS business, in July 2006 GREE entered into a capital and business alliance with KDDI Co., Ltd. (au), marking a drastic

Figure 2
Stage 1: The business model during the period of establishment (around 2004 to 2006)



Source: Created by the author with reference to Johnson, Christensen, and Kagermann (2008)

change in the company's direction into increased focus on mobile phones. Naoki Aoyagi, who joined GREE in March 2006, introduced Makoto Takahashi of KDDI (at the time serving as Director of the Contents & Media Business Headquarters), with whom he became friendly during his time at Deutsche Bank, to President Tanaka, which then led to the decision to provide the EZ GREE service for au handsets through a financial and business alliance. This alliance let to the provision of financing totaling 364 million yen to GREE, which at the time had a total capital of approximately 60 million yen as well as the use by au of GREE's service that was exclusively available to their customers. For GREE, this alliance was nothing short of a life-saver. President Tanaka attributed this good fortune to the fact that Aoyagi had made the swift decision to form an alliance within just three months of joining the company, saying "We were totally blind to the possibility that general users would enjoy using an SNS via their mobile device."[11]

Approximately ninety percent of the 30 employees working at GREE at that time were engaged in the planning and development of SNS services for PCs. However, taking advantage of the opportunities provided by the new alliance, President Tanaka shifted all of those employees to the development of a mobile service, which effectively shifted the focus of the company to the mobile device SNS business. This led to the start of a major increase in GREE subscribers and by March 2007 the number of subscribers had exceeded 1 million.

In March 2007 DeNA Co., Ltd. succeeded in acquiring 4.41 million subscribers for its mobile device game portal and SNS service "Mobage," which it launched in February 2006. At this same time mixi, which was gradually creating mobile phone services, acquired approximately 9 million subscribers. In comparison, GREE could hardly be thought of as having succeeded.

In fact, GREE was still in the red at this point.[12] One of the reasons for this was increases in investment in servers that could handle large-scale access and increased hiring of staff. Another reason was the fact that, since the company's flagship EZ GREE service was little more than GREE's PC SNS service with additional functions aimed at the mobile device market, the tools available to the mobile user were limited to a personal profile, an email

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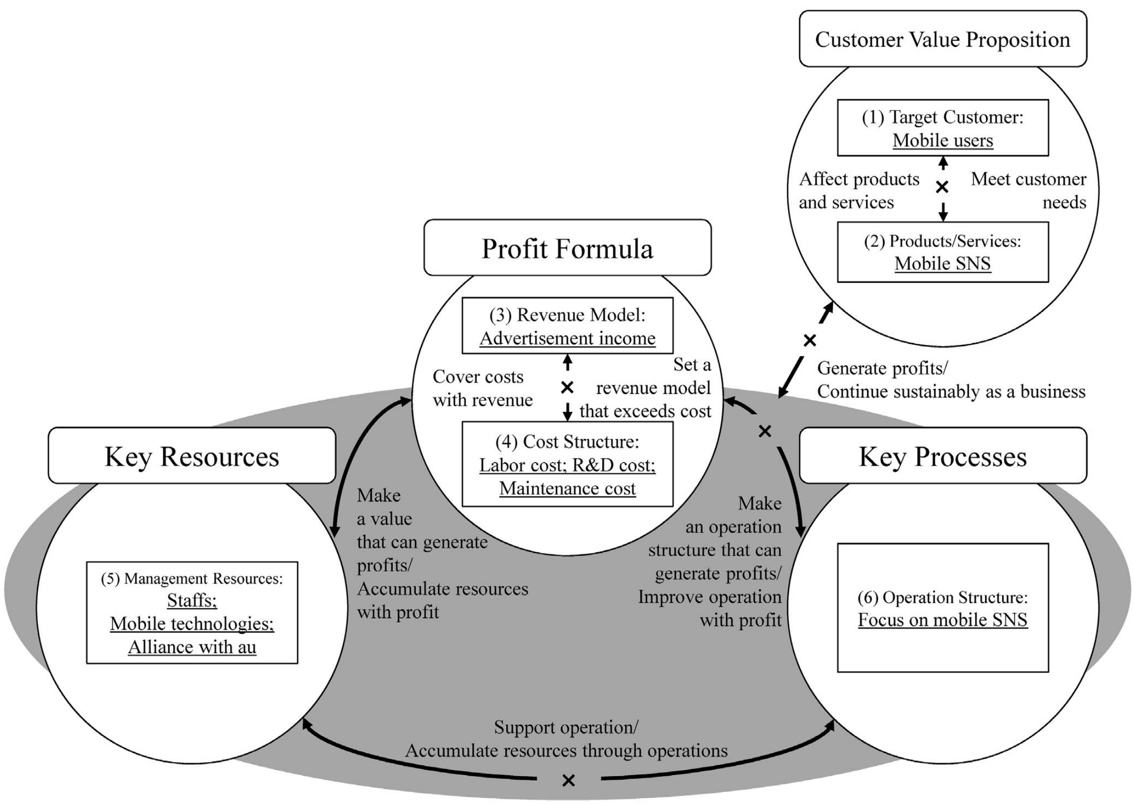
[11] *Nikkei MJ,* February 8, 2008

[12] Nikkei Business Online, op.cit.

service, a decoration function for the diary tool, and the ability to post horoscope and pop-psychology test results on the diary tool. Thus, it did not lead to an effective revenue model.

GREE's business model at this stage is shown in Figure 3. During this period, the company was supported by the mobile development technologies it had accumulated up to that point as well as a highly-skilled staff. It had also created a business model that included mobile device SNS services that were instigated by its alliance with KDDI. However, GREE was unable to sufficiently distinguish itself from mixi, which had created an oligopoly in the PC-based SNS service market, or Mobage, which had developed a mobile device site specific to games and gamers. Thus, GREE was unable to fully satisfy the needs of its target customers. In addition, GREE had yet to create a revenue structure and was focusing its investments in the mobile

Figure 3
Stage 2: The business model during the period of focus on the SNS for mobile phones (around 2006 to 2007)



Source: Created by the author with reference to Johnson, Christensen, and Kagermann (2008)

phone SNS business, which meant that there was incompatibility in its revenue structure, cost structure, and operation structure cycle.

Stage 3: period of adding social games and entering into the social platform business (around 2008 to 2010)

GREE, which had realized that it was unable to generate revenue through the creation of an SNS service for mobile phones alone, engaged in a major renewal of its site in July 2007. Specifically, in addition to major changes to its top page and ensuring that avatars were displayed by default, GREE introduced “social gaming” functions such as “Clinoppe” and “Tsuri ★ Star!” in order to promote communication between users. This marked a shift in revenue structure strategy to contents that require payment of a fee, such as the purchase of items within games and avatars. This move was made as a result of growing awareness of the success of Mobage, which had acquired a high page view (PV) figure as a mobile phone game portal.[13] However, GREE’s services were considered casual games that were “tools for the purpose of promoting communication.”[14] This indicates an intent to differentiate itself from Mobage.

Some users resisted these changes in the services provided by GREE, and they caused something of an uproar on the company’s site through flaming and other means.[15] But GREE continued improving is fee-requiring contents in spite of this. As a result, in December 2008 the company made rapid progress up to its listing on Mothers (market of high-growth and emerging stocks), and its sales reached the same level as mixi’s sales. Then, in June 2009 its sales overtook those of Mobage.

At this same time, the major US SNS companies on overseas internet markets, such as Facebook and MySpace, released Application Programming Interface (API), and subsequently a large number of startups began to utilize this platform to distribute games and application software. In August 2009 mixi had a third-party develop an app for the PC platform that had recently been offered as open source software. This marked its serious entrance into the social

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[13] ITmedia “In the new GREE “live in” mobile phones: Making avatar and “room” ” http://www.itmedia.co.jp/news/articles/0707/10/news016.html (in Japanese; Browsing date; August 31, 2018)

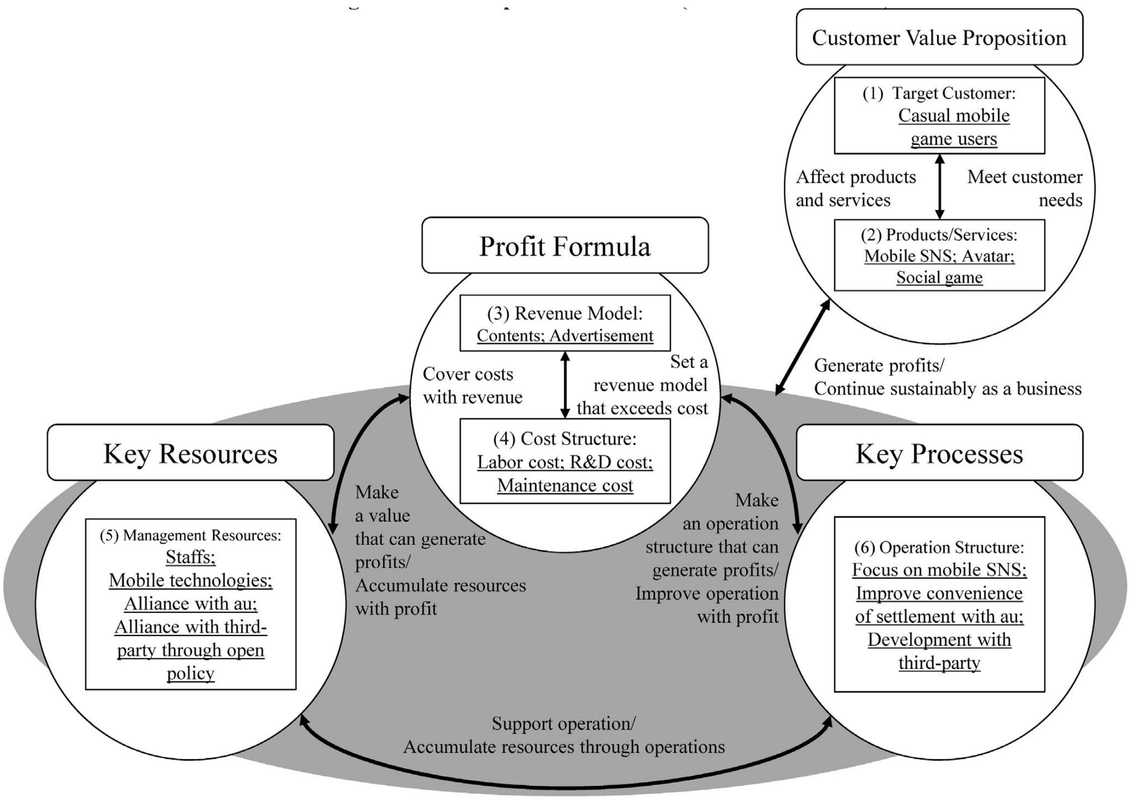
[14] Nikkei Business Online, op.cit.

[15] CNET Japan “Rogue mobile community ― The uproar over GREE’s avatar” https://japan.cnet.com/article/20358027/ (in Japanese; Browsing date; August 31, 2018)

gaming arena. Meanwhile, Mobage developed games such as Kaito Royale (October 2009) for the purpose of catching up to GREE, which had entered the social gaming market earlier, which led to increased revenue. Thereafter, as a result of mixi releasing open source software, it also provided a mixi app for Kaito Royale (December 2009), and in January 2010 it released its own platform, which allowed it to catch up to mixi. However, GREE was slightly late in starting, and finally released open source software in June 2010. As it had fewer titles to distribute than its two competitors, GREE signaled its intention to differentiate itself, stating that "we would like to gradually create a revenue-generating structure as a game company."[16]

GREE's business model during this period is shown in Figure 4. Specifically, the company

Figure 4
Stage 3: The business model during the period of adding social games and entering into the social platform business (around 2008 to 2010)



Source: Created by the author with reference to Johnson, Christensen, and Kagermann (2008)

[16] *Nikkei Sangyo Shimbun,* July 2, 2010 (in Japanese)

created a revenue model by through fee-requiring contents included in its social gaming mobile phone SNS services. Thus, the company had created a consistent business model. GREE had achieved differentiation from its direct competitor, Mobage, through the use of its line of casual games that it had introduced to the social gaming market earlier than Mobage. Thus, GREE was finally providing products and services that satisfied the needs of customers. GREE realized a mobile phone billing and payment function, which was a required operation that supported the fee-requiring contents it offered, through its alliance with KDDI. In addition, it also realized optimization of human resources costs and development costs through the use of third-party contents following the release of open-source software. Through these methods, GREE ensured integrity and consistency in its revenue model and operation structure cycles.

5. Discussion

Elucidation of chronological changes in structural elements

The above is a description of how the business model that GREE employed during each stage of its development became increasingly structured (even though some partial inconsistencies remained) and also showed the static relationships between its structural elements at each stage. What then is the mechanism through which a business model becomes increasingly structures at any given stage? To answer this question, first it is necessary that we discuss the process by which each structural element in the business model was decided to be changed over time.

First, one thing that can be said based on the case analysis included in this paper is that when changes were made to the business model, the company was late in ensuring that consistency was maintained among the three main structural elements of operation structure, revenue model, and cost structure. Analysis of GREE's case indicates that ensuring consistency among the three structural elements mentioned above by establishing fee-requiring contents as its revenue model was the last step to be taken on in the process of creating its business model. Given these circumstances, the following can be said with confidence. Of the abovementioned three structural elements, operation structure is influenced by the accumulation of management resources and revenue model is influenced by the creation of products and services.

This suggests that, even if entrepreneurs do not ensure consistency with their revenue model when creating their business model at the start of their business activities, as a matter of practicality, they are able to begin by putting energy into accumulating management resources and creating products and services. Also, entrepreneurs need to remain aware of the fact that, even if they are able to differentiate their products and services superficially, if this is not translated into creating a revenue model then it is essentially meaningless.

Also, identifying target customers in the business model should be an element that is allowed to be modified as management resources accumulate. GREE accumulated management resources in the form of development technologies for mobile devices and networking with KDDI as the business environment changed and it competed with mixi. This caused GREE to change the customers identified in its first business model when it began offering services – that is, customers who were used to using the web – to mobile phone users and users who enjoy casual games.

This suggests that it is important for entrepreneurs to remain flexible in their understanding of who their target customers are when they create their business model structure and that they should remain open to change. When creating a business model, it is necessary to create a business concept (Kusunoki, 2010) and a Customer Value Proposition (Johnson, 2010) that assumes specific target customers. However, it is also important to avoid becoming fixed on the customers targeted at first as the business develops.

The effect of the "entrepreneur's intention" during times of change

Is it also possible to identify the influence that the entrepreneur's intention has on changes to the business model? Shindo (2003) and others have asserted that during the growth and development stage of the business model of a startup, the entrepreneur plays a major role. However, in this paper the following tentative argument can be made.

The entrepreneur's intention has an effect on the accumulation of management resources and in the establishment of both target customers and a revenue model in the business model. First, the effect on management resources could be seen in the fact that the sense of distance that President Tanaka had as regards changes in the business environment and from his competitor mixi led to the accumulation of development technologies for mobile devices and the alliance with KDDI. What was characteristic of this was the fact that, while still trailing his competitor in terms of creating an organizational structure through acquiring human resources, President Tanaka sense that he would have only one chance to decide on whether to form an alliance with KDDI. This indicates that the timing at which a decision (a decision that is in line with a strong entrepreneur's intention) will differ depending on the exact type of resources accumulated. Thus, future research is required in order to elucidate what resources force an entrepreneur with a strong sense of intention to make a decision.

It is possible to make the following fairly certain assertion regarding customers and revenue model based on the case: An entrepreneur would be wise to have the ability to flexibly change his or her intentions. For example, as mentioned above, GREE did not become fixated on its original target customers that it envisioned when it started operations, but rather it remained flexible to changing who its target customers were. In terms of revenue model, GREE made a flexible shift to fee-required contents even in the face of resistance from existing customers. In an interview, President Tanaka said the following: "I had intended to follow an advertising model as our main business model," but "there was no need for the company to remain fixed on the current revenue structure."[17]

6. Conclusion

This paper presented an exploratory study of the issue of the mechanism of structuralization and change in the business model of startups through a case study of the changes that occurred in the business model of GREE.

The following two points are the main results of this study. First, based on Negoro (2012), in addition to organizing the various business models by elucidating the structure of business and the logic of development of business, we presented an analytical framework for business models that integrate both of those through the use of ideas presented by Johnson, Christensen

[17] CNET Japan "GREE, President Tanaka's approach to SNS-style entrepreneurship" https://japan.cnet.com/article/20088792/ (in Japanese: Browsing date; August 31, 2018)

and Kagermann (2008). Second, by using this analytical framework to conduct a case analysis of the changes that GREE's business model underwent, we were able to tentatively identify the mechanism by which the structural elements changed when the business model was "structuralized" and when changes occurred to the static relationships among them.

However, the following two points represent issues that remain unresolved. First, there remains a need to conduct a more detailed discussion through analysis of cases that are richer both quantitatively and qualitatively. For example, it would be possible to use mixi and Mobage as the subjects of this same type of analysis. In addition, we cannot rule out the possibility that, when analyzing the contents of the structural elements of the business model of the target case in this paper, the observer's observational judgment may have been reflected. One way to deal with this issue if for future studies to utilize a method in which text mining of press releases and other public resources is used to ascertain as objectively as possible the contents of the structural elements of business models.

The second issue is the fact that this paper investigated ways of balancing two elements of business models: Ensuring overall consistency and the adoption of contradictions for the purpose of change. In this paper, we presented an analysis that stated GREE's business model had consistency among the structural elements at stage 3. The fact that changes occur as the time axis changes is realistically valid. However, there remains a need to investigate what "contradictions" must be adopted in order to cause what types of change in business models that already are consistent.

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