

[Articles]

Construction of a Co-Creation Theory between Different Actors: From the Perspective of Mass Game and Soccer-Type Co-Creation Models

異なる主体間の共創理論の構築
—マスゲーム型およびサッカー型共創モデルの視点から—

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Abstract

This paper summarizes research to date on the act of co-creation, which has been attracting much social interest in recent years and discusses the requirements for creating new value through co-creation between different entities. Since the 2000s, new ideas about co-creation such as S-D Logics and Open Innovation have been presented, and research on co-creation has been conducted in various fields. This paper presents two different models of co-creation based on such existing research. The two models are the mass game-type co-creation model and the soccer-type co-creation model. The former is a traditional co-creation model, while the latter is a new type of co-creation model. The latter model is more desirable from the perspective of bring about innovation, therefore most studies on co-creation also focus on the latter model. First, the mass game-type and soccer-type models have fundamentally different organizational designs, and the relationships among players and the nature of management are very different. In addition to discussing these differences, this paper presents a model of the co-creation process consisting of seven stages, which was developed based on the author's findings from previous field research.

(日本語要旨)

本稿は、近年大きな社会的関心を集めている「共創」という行為について、これまでの研究を整理し、異なる主体間の共創を通じて新たな価値を生み出すための要件について論じるものである。2000年代以降、S-Dロジックやオープン・イノベーションといった新たな共創概念が提示され、共創に関する研究はさまざまな分野で進められてきた。本稿では、これら既存研究に基づき、2つの異なる共創モデルを提示する。1つはマスゲーム型共創モデル、もう1つはサッカー型共創モデルである。前者は伝統的な共創モデルであり、後者は新しいタイプの共創モデルである。後者はイノベーション創出の観点からより望ましいモデルであり、そのため共創研究の多くが後者に焦点を当てている。まず、マスゲーム型とサッカー型のモデルは、組織設計が根本的に異なっており、プレイヤー間の関係やマネジメントの性質も大きく異なる。本稿では、これらの違いを論じるとともに、筆者が過去のフィールド調査から得た知見に基づいて構築した、7つの段階からなる共創プロセスモデルも提示する。

1. Introduction

There is growing interest in creating new value through co-creation between different entities. In corporate activities, creating innovation can be a new competitive advantage, although co-creation with other entities is essential for creating innovation. In the first place, even inventions and discoveries that are historically noteworthy were not created in isolation. For example, Newton's law of universal gravitation and Einstein's theory of relativity are notable discoveries in the history of mankind. Although these discoveries depended on the qualities of those people, the inspiration for these laws and theories did not suddenly come from nothing. They accumulated a variety of scientific findings discovered or hypothesized by their contemporaries or past scientists and constructed new and original theories based on these findings. In other words, they were also co-creating with their scientific predecessors through time. Thus, a creative act to create new value is not an act that relies on the qualities of one genius, but an act that takes place in relationship with other entities. In this regard, Steve Jobs, founder of Apple, said, "Creativity is about connecting things."

Thus, co-creation is an important act for creating new value, but it has not received much attention as a research subject in management studies. Nevertheless, research on co-creation has progressed in areas such as services marketing, strategy theory, and innovation, and various findings have accumulated toward theory building. This paper reviews previous studies on co-creation and presents two models of co-creation, the "mass game-type" and the "soccer-type," and discusses the differences in the relationships among players and the quality of management. Based on his past field research, the author also presents a hypothetical model of the co-creation process, which consists of seven stages. This paper is an extension of a range of studies conducted in Japan and abroad since the 2000s toward the construction of a theory on co-creation and is intended to help in the construction of such a theory.

2. Review of existing research

Research on co-creation has been active since the early 2000s in the fields of services marketing and strategy theory. In the services marketing field, the Service-Dominant Logics (S-D Logic) concept proposed by Vargo and Lusch (2004) has revolutionized this field. They argued that corporate value creation is shifting from a traditional model based on the price of products to a model that emphasizes the system and logic of services, and that services are not something that companies supply to customers one-way but are created through co-creation between companies and customers. Prahalad and Ramaswamy (2003, 2004a, 2004b) argued that in the 21st century market, value is created through co-creation between companies and customers, and that markets do not only function places for trading products and services, but also places for co-creation between companies and customers.

Meanwhile, in the field of strategy theory, Chesbrough (2003, 2006) proposed the idea of open innovation. Open innovation is a concept that enables co-creation with other companies by disclosing to them the company's intellectual resources, such as technology and know-how, thereby creating value that the company could not create on its own. Open innovation has brought significant results to innovation research by bringing a new perspective of co-creation with other companies to the field of strategy theory, which until then had been built on the premise of competition with other companies.

Thus, research on co-creation has gained increased interest with the advocacy of novel concepts such as S-D Logic and Open Innovation, and a number of research results have been published to date. In writing this paper, the author listed major papers written on co-creation since 2010 and attempted to categorize them by subject of analysis. In total, 23 papers were listed, which were classified into four categories: "Research on the concept of co-creation," "Research analyzing co-creation from the perspective of management and strategy," "Research on the analytical framework for co-creation," and "Others." First, with "Research on the concept of co-creation," although the concept of co-creation was defined to some extent in the aforementioned studies by Vargo and Lusch, and Prahalad and Ramaswamy, confusion about the concept was observed when various studies were conducted on the concept of co-creation. Ranjan and Read (2014) point out that existing studies on value co-creation ambiguously use two different dimensions of value co-creation, co-production and value in use. Grönroos (2012) criticized the concept of value co-creation proposed in S-D Logic as highly metaphorical and thus an obstacle to focused empirical research. Ramaswamy and Ozcan (2018) also noted that although the term co-creation is popular today, little has been achieved in terms of the implications of what co-creation is, but they define co-creation as "an act of creation that takes place across an interactive system environment," which is provided by an interaction platform and involves behavioral engagement with, and construction of organizations. Furthermore, Zwass (2014) analyzed the intellectual space underlying co-creation research and proposed a comprehensive taxonomy of web-based co-creation. Skarzäuskaaitė (2013) reviews existing research on value co-creation and attempts to construct a conceptual model to measure co-creation.

Next, the study by Nicholas and Nick (2013) can be cited regarding "Research analyzing co-creation from the perspective of management and strategy." They focus on consumers, not companies, and analyze how co-creation among consumers affects the management of companies. In contrast, Ramaswamy and Ozcan (2014) analyze the paradigm of co-creation, the construction of co-creative management systems, and economies and societies evolving through co-creation, citing abundant examples of co-creation among companies. A more strategic perspective is the work of Saarijärvi (2012). According to Saarijärvi, who examines the mechanisms for benefiting from value co-creation from a strategic perspective, value co-creation between companies and customers has been attracting attention, but not all companies are benefiting from value co-creation. In addition, studies by Durugbo and Pawar (2014), Jones, et al. (2019),

Ramaswamy and Ozcan (2013), and Sjödin (2018) also analyze co-creation from a strategic perspective. The study by Yisu, Wen Lin, and Jen Chen (2015) focused on technology development through Open Innovation, noting that development took less time than independent technology development, and was more exploratory and pioneering. Others, such as Galvagno and Dalli (2014), organize the results of existing research on co-creation from three perspectives: service science, innovation and technology management, and marketing and consumer research.

Meanwhile, the study by Frow, et al. (2015) is a good example of “Research on the analytical framework for co-creation.” They attempt to identify key elements in designing co-creation through field-based research and develop a framework for analyzing co-creation. Saarijärvi, Kannan, and Kuusela (2013) provide a foundation for developing a business-oriented analytical framework for value co-creation. Mauser, Klepper, et al. (2013) discuss dimensions of integration of different knowledge and propose platforms and paradigms for co-creation. Furthermore, Kazadi, Lievens, and Mahr (2016) examine the innovation process in pharmaceutical companies and argue that co-creation with diverse stakeholders creates new problems, and therefore a framework needs to be created to anticipate and manage these problems. Similarly, Ruoslahti (2020) analyzes how the “complexity” created by the involvement of multiple stakeholders in an EU-funded innovation project affects knowledge co-creation. The most recent results are those of Ferenhof, Bonamigo, et al. (2024). They analyze the key elements that a Knowledge Management (KM) model should present in the context of value co-creation between companies, the constraints, and the advantages and disadvantages, etc.

As for the “Other” studies that do not belong to the above three categories, the study by Ruhanen, Saito, and Axelsen (2021) that analyzed the role of consultants in the tourism industry from a co-creation perspective, the study by Chaban (2023) analyzed a case of grassroots diplomacy through co-creation that started as a communication program in school education, and Davis, et al. (2016), who analyzed the relationship between design thinking, knowledge creation, and innovation from a co-creation perspective.

3. Co-creation models

As discussed in the previous section, research on co-creation since 2010 can be broadly categorized into four main streams: studies on the concept of co-creation, studies on its relationship with management and strategy, studies on analytical frameworks for co-creation, and other related research. In contrast, it has become clear that relatively little research has been conducted on the “process of co-creation” and “models of co-creation,” which constitute the central focus of this paper. Accordingly, based on insights obtained from fieldwork previously conducted by the author, this paper presents original findings concerning the process and models of co-creation.

It should be noted that the seven-stage model of the co-creation process and the two models of co-creation presented in this paper, as well as the analytical perspectives

underlying them, have already been discussed in several previously published papers and therefore partially overlap in content. However, while maintaining the foundational ideas and models, this paper aims to achieve a theoretical deepening of the quality of co-creation management. The author's objective is to develop a more advanced theory by deepening the analysis while preserving the same models.

What models can be considered for co-creation between different entities? Based on the field research 1) conducted thus far, the author believes that there are two models of co-creation: the "mass game-type" and the "soccer-type." A summary is provided below.

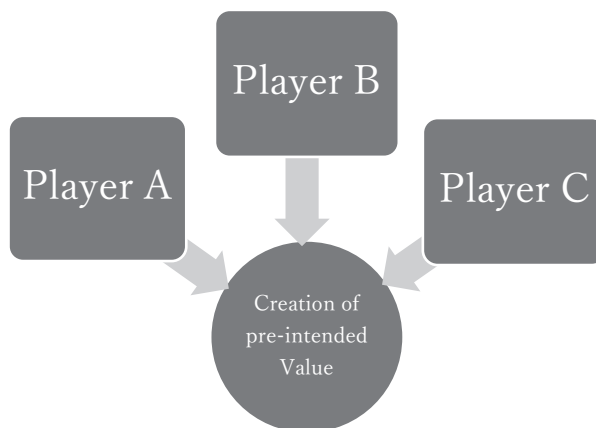
3-1 The "Mass Game-Type" co-creation model

In "mass game-type" co-creation, the roles of each entity participating in co-creation are clearly defined, and value is created as the sum total of roles faithfully carried out by each entity. In other words, a mass game is a competition in which each person's role is clearly defined based on a detailed plan established in advance, and the harmonious beauty of the whole is realized by each person's accurate and faithful performance of his or her assigned role. What is required of competitors in mass games is not imagination or resourcefulness, but the ability of each person to accurately perform the pre-planned roles assigned to them.

The author became aware of the "mass game-type" co-creation model when he investigated the Environmental Future City project, which was led by the government with involvement of businesses and citizens. The Environmental Future City project was one of the national strategic projects undertaken to realize a decarbonized society. 11 cities were selected from among the municipalities in Japan to receive intensive support. The project called for co-creation among government, businesses, and citizens to build a new town. These three parties were expected to co-create value to build a decarbonized society. Therefore, an actual survey of the cities selected for this project revealed the actual state of co-creation among the three parties. Based on the master plan prepared in advance by the government, the roles of the government bodies, companies, and citizens were clearly defined, and they were to fulfill their respective roles to realize the intended value. Although organizations such as councils and consortiums were established as places for the parties to co-create, the parties did not exchange opinions on a daily basis. At meetings regularly held, the main discussion topic was the confirmation of the progress of the project. In other words, this type of co-creation aims to precisely realize the intended value through the delegation of roles among the parties. As an analogy, this story entails the realization of the value of 5, which was planned in advance. The roles of the 3 government bodies, 1 company, and 1 citizen are assigned to achieve this value, resulting in $3 + 1 + 1 = 5$. The model basically does not assume synergistic effects through co-creation. The goal is to realize the intended value as the sum total of each party's faithful performance of its role. In reality, however, each entity does not always carry out its role as originally planned, so the planned value of 5 may turn into 4, or unexpected synergy may turn into 6. Basically, as a result of each party faithfully carrying out its role,

the intended value is realized as the sum of its parts. This is the concept of the “mass game-type” co-creation model.

In fact, many of the things called co-creation in the real world are probably based on this “mass game-type” model. The usual process for a project involving various entities is to first devise a preliminary project plan, then clarify the roles of each entity participating in the project and hold regular meetings to confirm that the project is proceeding as intended and that value is being created. This is the normal process. This process has been in place since before the early 2000s, when the term “co-creation” became widespread in society, and in a sense, it can be seen as value creation through the division of labor. Whether the division of labor and co-creation are synonymous or not is a matter of opinion, but if co-creation is defined as “the act of creating value that cannot be created by a single actor through collaboration among multiple actors” (Tokoro, 2016), then such divisions of labor can be considered a type of co-creation. However, it is difficult to create innovation in a “mass game-type” co-creation model, because innovation is not about realizing pre-intended value, but about creating unintended value. Now, with innovation as a factor behind the focus on co-creation, there is interest in how to bring about innovation through co-creation between different actors. This requires a new type of co-creation model that is different from the “mass game-type” co-creation model.



Source: The author’s work

Figure 1 Conceptual diagram of the “mass game-type” co-creation model

3-2 The “Soccer-Type” co-creation model

The “soccer-type” co-creation model is characterized by flexible and loose relationships with ambiguity in the division of roles among the various actors. The sport of soccer is played by 11 players, but the roles of each player are not strictly defined. In a manner of speaking, although roles are assigned to each position, such as defense, offense, and goalkeeper, these roles can be changed flexibly depending on the situation. For

example, when the opposing team is attacking, everyone will defend, including offensive players, and conversely, when there is an opportunity, defensive players may join an attack and play near the opponent’s goal. Even scoring goals is not based on a precise, preplanned strategy, but rather on each player’s judgment in the situation. Players on strong teams are more capable in this way. Their imaginative and spectacular play results in beautiful goals that captivate the spectators. Soccer is an imaginative sport that relies on flexible, loose relationships and resourcefulness among players.

“Soccer-type” co-creation has similar characteristics to the game of soccer and is in contrast to the “mass game-type” co-creation described above. The main characteristics are as follows:

- (1) Each party shares the same direction and goals to be achieved.
- (2) The division of roles among parties is ambiguous, and they maintain flexible and loose relationships.
- (3) Each entity is expected to be flexible and responsive to the situation.
- (4) What is required of each entity is not the faithful reproduction of pre-intended value, but the realization of unintended value through co-creation among entities.

In other words, all members share the direction and goals that the organization as a whole should aim for, but their roles to achieve these goals are not clearly defined, and the division of roles is ambiguous. Each member’s role changes according to the situation and each member’s imagination and interaction produces results that were not anticipated. In this “soccer-type” co-creation model, synergies may work to produce results of 4 or 5 instead of $1 + 1 + 1 = 3$, because each party is guaranteed room to freely use their imagination without being bound by external regulations. Multiplying imagination by imagination may produce additional results.



Source: The author’s work

Figure 2 Conceptual diagram of the “soccer-type” co-creation model

When the “soccer-type” co-creation model works well, it increases the likelihood that innovation will be realized. However, because this model is different from that of a normal organization, it is difficult for such a model to form naturally and requires a deliberate effort to create it. The author has conducted research on Fujisawa Sustainable Smart Town (Fujisawa SST), one of the smart city projects led by Panasonic Corporation, and has found that Panasonic has deliberately worked hard to build a “soccer-type” co-creation model for this project. The quality of management is key to the successful functioning of this model. This point will be discussed in detail in the next chapter.

Although the “mass game-type” and the “soccer-type” have contrasting characteristics as co-creation models, co-creation in the real world is not clearly classified into one or the other, and in fact, many cases are considered to be a mix of these. In other words, the “mass game-type” could be used as a base while introducing a partial “soccer-type” or incorporating some elements of the “mass game-type” type into the “soccer-type”.

4. Co-creation management

Management is the key to promoting co-creation among different actors and creating value. This chapter discusses the appropriate management for both “mass game-type” co-creation and “soccer-type” co-creation. The management content discussed here is also based on findings from past field research 1) conducted by the author.

4-1 Management of “mass game-type” co-creation

The management of “mass game-type” co-creation is basically the same as the management of a normal organization. Normal organizations operate through collaboration based on divisions of labor, and management methods have been developed to properly control these divisions and achieve results. This framework is as follows:

- (1) Set organization-wide goals and develop a plan to achieve them.
- (2) Define the role that each should play with respect to each entity.
- (3) Based on the principles of authority and responsibility, managers supervise each entity so they can faithfully carry out their defined roles.
- (4) Periodically check on the achievement of goals and the operation of the organization.
- (5) Verify final results.

These processes are the so-called Plan-Do-Check-Action (PDCA) cycle, which is routinely followed in normal organizations. Basically, it is effective to adopt a management method based on this PDCA cycle to manage “mass game-type” co-creation. In this type of co-creation, autonomy and flexible response capabilities of each entity are not required. Therefore, routine management based on clarification of authority and responsibilities will promote co-creation among the entities and lead to the creation of value.

4-2 Management of “soccer-type” co-creation

Management of “soccer-type” co-creation is qualitatively different from management of “mass game-type” co-creation, and it is difficult to promote co-creation and value creation among entities if routine management is based on the PDCA cycle performed in ordinary organizations. As already mentioned, this model is characterized by the ambiguous division of roles and loose relationships among the entities, and the actual situation subject to management is different in the first place. Therefore, if management were to clarify where authority and responsibility lie and then require each entity to faithfully carry out their respective roles, the relationship between the entities would be compromised and the dynamic energy of the organization could be lost as a result. Appropriate management in a “soccer-type” co-creation model has the following characteristics.

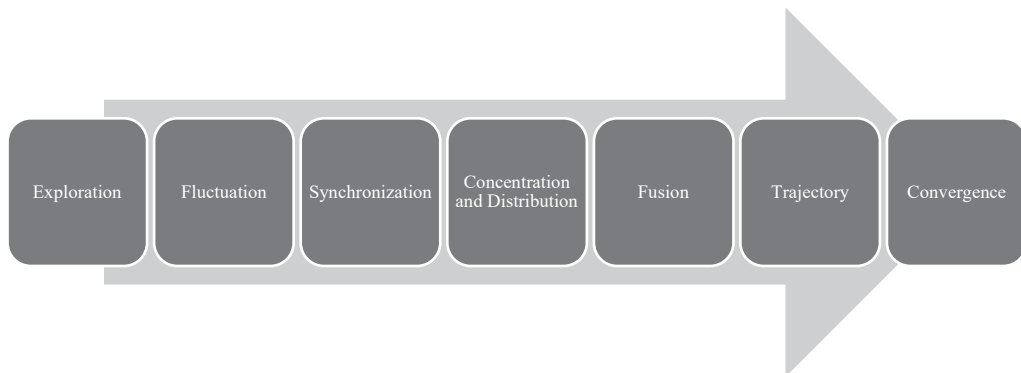
- (1) Provide each entity with the goals of the entire organization and the direction in which it should aim.
- (2) The role of each entity should be kept ambiguous, and efforts should be made to maintain loose relationships between the entities.
- (3) Build a highly autonomous place for the active exchange of opinions and ideas among the entities.
- (4) Have the receptivity to tolerate failure and mistakes to some extent.

Such management is atypical and different from management in the “mass game-type” co-creation model, i.e., the routine management practiced in ordinary organizations. With routine management, management is generally based on authority and responsibility, but with atypical management, “dialogue” is key. In other words, the deciding factor is whether it is possible to create an environment and place where active dialogue among actors can take place. The author explains here why the “ambiguous division of roles among the various actors” and “loose relationships” mentioned as characteristics of the “soccer-type” co-creation model are necessary. These features are important because they encourage active dialogue among the entities. If the division of roles among the actors is tightly defined, dialogue among them will be limited to occasional confirmation of their respective roles, and constructive dialogue will often not take place. The aforementioned dialogue between government bodies, businesses, and citizens in the “Environmental Future City” project was such a situation. But what if the division of roles among the entities is left ambiguous and a loose relationship is maintained? Since each entity shares the same direction and goals, there will be a lively exchange of ideas and opinions on how to achieve them. There will be so-called “exchanges of ‘knowledge.’” It can be pointed out that originally unintended new value may be created from such processes. This is precisely the reason why the “ambiguous division of roles” and “loose relationships” are considered important in the “soccer-type” co-creation model.

5. The co-creation process

This chapter discusses a hypothetical model of the “co-creation process between different entities” that the author developed based on past research on Fujisawa SST, a smart city project implemented by Panasonic Corporation 2). In this paper, two types of co-creation models, “mass game-type” and “soccer-type” are discussed, but the chapter discusses the co-creation process of the “soccer-type” co-creation model.

The author has developed a model of the co-creation process between different actors, consisting of the following seven stages. The details are described below.



Source: The author’s work

Figure 3 Co-creation process between different actors

“Exploration”

The first stage of the co-creation process between different entities is “exploration.” “Exploration” refers to the intersubjective exploration of the other party’s existence, capabilities, and so on. For example, in the business world, it is common for people who meet for the first time to exchange business cards when they greet each other. The name of the person’s company, department, position, etc. are written on the business card, and the other party can learn about the person’s social status and career by looking at the card. It is also possible to infer the person’s attitude about things from the content of conversation. If we can “explore” at a deeper level, we can learn more about the other person, whereas if we only “explore” at a shallow level, our understanding of the other person will be limited. The degree of such exploration will have a significant impact on any subsequent co-creation between the entities. In other words, if a deep level of “exploration” is conducted and mutual understanding between entities is deepened, the co-creation process will be richer and more likely to result in value creation. On the other hand, if only a low level of “exploration” is done, mutual understanding among the entities will not be achieved, and subsequent processes of co-creation will be impoverished. Therefore, to enable

“exploration” at a deep level, it is necessary to maintain loose relationships between entities in a state of ambiguity, without fixing the roles of each entity. This is because doing so stimulates each entity’s desire to “explore” the other. Regarding this “exploration,” Teece (2007, 2014), a well-known advocate of dynamic capability, presents a similar concept called “sensing.”

“Fluctuation”

The second process following “exploration” is “fluctuation.” “Fluctuation” is a concept used in organizational theory to refer to the transition from a stable state to an unstable or unbalanced state. Normally, organizations should be in a stable state, and generally undesirable for them to become unstable or uneven due to “fluctuations.” However, since innovation cannot come from a stable state, we may intentionally create “fluctuations” and dare to put the organization in an unstable state.

Exploration in the first stage of the co-creation process between different entities causes changes in previous relationships between the entities. In other words, by getting to know the other party in depth through “exploration,” it is possible to grasp previously unknown potential abilities, resources, or shortcomings of the other party. This results in changes in previous relationships. In other words, relationships with others become denser and closer, or conversely, relationships are reevaluated and become more distant. These changes are “fluctuations.”

“Synchronization”

The third process, following “exploration” and “fluctuation,” is “synchronization.” “Synchronization” refers to phenomena in which the resources of each entity resonate with each other. Each entity shares the same direction to aim and goals to be realized, and “synchronization” of resources occurs as a result of a deeper awareness of other parties through the two processes of “exploration” and “fluctuation.” For example, a new technology could be created by combining Company A’s technology with Company B’s technology, which would enable the realization of services that did not exist before. However, at this stage, such services are only conceptual, and it remains to be seen whether they will actually be realized. Alternatively, perhaps each entity has already shared a concrete vision of the services they wish to realize, and the resources to realize these services are in sync with each other. In any case, through dialogue between entities, various patterns of resource synchronization will occur and the potential for value creation will expand.

“Concentration and Distribution”

The fourth process is “concentration and distribution.” The term “concentration and distribution” refers to the sorting of resources held by each entity into those that are open to other entities and those that are closed and confidential. The “synchronization” that occurs in the previous stage causes the resources possessed by

each entity to resonate and begin moving toward value creation, but not all resources are open to each entity. This is where careful calculation comes into play. Entities weigh the future benefits of opening resources against the benefits of closing them and make decisions about which resources to make public and which to keep secret. These actions are called open-and-close strategies in the field of strategy theory and are commonly taken by companies. Panasonic's Smart City Project, which the author investigated, was also a project that brought together for-profit companies, confirming the "concentration and distribution" in the co-creation process. 3)

It should be noted, however, that this process of "concentration and distribution" does not necessarily occur in all cases. As mentioned above, even if it could occur in the process of co-creation between for-profit companies, sometimes it might not be the case. For example, in the development of a new drug to treat an intractable disease, researchers around the world could openly share all of their intellectual resources to work toward the development of a new drug. Therefore, it is necessary to accumulate verification on various cases regarding this process going forward.

"Fusion"

The fifth process is "fusion." "Concentration and distribution" clarify the resources to be operated by each entity, and when they mix and collide, a kind of chemical reaction takes place. This is "fusion." Just as when different liquids are mixed together, the color of the liquid changes and bubbles appear. At this point, however, it is not yet possible to clearly foresee what changes will occur and what value will be created in the future. This is a stage of repeated trial and error - like increasing or decreasing the amount of liquid to mix. In short, the resources of each entity are repeatedly examined to determine how they can be blended to create greater value, and trial and error is repeated to find the optimal blending pattern.

"Trajectory"

The sixth process is "trajectory." After repeated trial and error in the previous stage, the goal of value creation will appear if an optimal pattern of fusion can be found. And at this stage, the speed of co-creation accelerates dramatically. This is the "trajectory" stage. In the "trajectory" stage, the resources possessed by each entity are moved forward together to make it possible to see a clear picture of the total value to be created. At this stage, each entity operates at full resource utilization while repeatedly verifying the resource fusion process.

"Convergence"

The seventh process is "convergence." The process of co-creation between different entities comes to an end when value is imagined through the six processes described so far. This is the "convergence" stage. However, the process of "convergence" does not mean the complete end of the series of movements toward

value creation among entities, and there may be situations in which subsequent processes develop continuously. For example, it is possible that the creation of new value will stimulate the desire for more co-creation among entities, and the co-creation process will move seamlessly toward subsequent value creation.

However, that should only be understood as a separate co-creation process.

This section introduced a co-creation model consisting of seven processes developed by the author for the co-creation process between different entities. As mentioned above, this model was developed independently based on information and knowledge obtained from the author's research of the smart city project (Fujisawa SST) promoted by Panasonic and interviews with participating companies in different industries about the actual state of co-creation. Therefore, this model was derived from a small number of cases and is only a hypothetical model at this time. In future, the model needs to be refined and elevated to a more objective model through the accumulation of various empirical studies.

6. Issues - in lieu of a conclusion

Finally, the author would like to discuss future issues. As stated in the Introduction, the purpose of this paper is to make a theoretical contribution to the research on co-creation that has been conducted in Japan and abroad since the early 2000s, and to build a theory of co-creation by attempting to develop a typology of co-creation models, and present an original hypothetical model for the co-creation process. This study categorizes co-creation models into two types: “mass game-type” co-creation models and “soccer-type” co-creation models. In co-creation research since the 2000s, it seems that researchers have mainly focused on the “soccer-type” co-creation model. This is because the soccer type is a factor of innovation behind the growing interest in co-creation research, and many researchers were interested in how to bring about innovation. What the author categorizes as the “mass game-type” co-creation model in this paper was described in terms of “collaboration through division of labor” before the term “co-creation” became popular and is a form of co-creation practiced in ordinary organizations. This type of co-creation is suitable for reproducing pre-planned value, but it does not make it easy to create unintended value through interaction and synergy among the entities. In other words, it is an unsuitable form for innovation. Thus, the main focus of co-creation research has been on the “soccer-type” co-creation model and how to bring about innovation from it.

The “soccer-type” co-creation model requires a deliberate effort to create because it is different from the usual organizational form. Therefore, to make this model work and lead to value creation, it is important to practice management appropriate to this model. In this paper, the author has listed four characteristics of management suitable for the “soccer-type” co-creation model. The essence of this management is to practice management based on

“dialogue,” rather than management based on the “principle of authority and responsibility” as seen in management in ordinary organizations. Numerous studies show how management should promote co-creation among different actors and lead to the creation of innovation, and it is necessary to continue to evolve toward a higher degree of perfection while repeating the back-and-forth movement between theory and proof.

In addition, further research is needed on modeling the process of co-creation. This paper presents a model consisting of seven processes originally constructed by the author, but as already mentioned, this model was derived from a small number of cases, and at this point it is only a hypothesis. It is possible that a different model of the co-creation process could be constructed as a result of analyzing a different case than the one on which this paper is based. In this sense, the hypothetical model presented in this paper should serve as a springboard for future research and therefore must be refined into a more sophisticated model through the accumulation of various empirical studies.

[Notes]

- 1) The author conducted interviews about Fujisawa Sustainable Smart Town (Fujisawa SST), a smart city project led by Panasonic Corporation, at Panasonic’s headquarters in Shiodome, Tokyo, in February 2014, September 2016, and March 2019, and gained many important insights into co-creation between companies in different industries.
He also visited Toyama City in October 2017 and Kitakyushu City in May 2018 to conduct research on the “Environmental Future City” project.
- 2) The author has already presented this hypothetical model in several media. For more information, see the following references.
Tokoro, N. (2020), *The Process of Creating Knowledge Between Different Actors in Co-Creation “Ba”: A Case Study of the Panasonic Smart City Project*.
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- 3) In the Panasonic project, certain commitments were made among the participating companies. It is said that once the technology, know-how, etc. that each company is to bring to the project is determined, a “mutual nonaggression” agreement is made so that neither party can enter any other resources.

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