Complementary relationship between legitimacies of an inter-firm network in a cluster: Case of collaboration in the Japanese cluster

Kazutaka Komiya (University of Hyogo), Woonho Kim (Nihon University), Shuichi Akiyama (University of Hyogo), and Junji Inoguch (Otaru University of Commerce)

Abstract

An inter-firm network designed in a cluster-form tends to avoid connecting with external actors, which may prevent it from responding to environmental change and becoming a basis for innovation. This study examines how an inter-firm network in a cluster promotes collaboration with external actors from the perspectives of three legitimacy concepts: pragmatic, moral, and cognitive. According to the case study of a collaboration between an inter-firm network and a design agent in the Japanese bladed tool cluster, the inter-firm network was sceptical about the collaboration's outcomes, that is, it perceived a low pragmatic legitimacy of the partner in the early stage. However, it identified favourable attitudes and shared values, that is, perceived high moral and cognitive legitimacy. This illustrates that the complementary relationship, where high moral and cognitive legitimacy complemented low pragmatic legitimacy, has promoted collaboration.

Keywords: Cluster, inter-firm network, legitimacy, complementary relationship

1. Introduction

Firms within the cluster flexibly engage with each other to produce and develop products. However, an inter-firm network may be designed to make their activities more effective. This 'designed' type of inter-firm network is intended to serve as a basis for cluster and regional development through collaborative activities (Andrésen et al., 2012; J. Eklinder-Frick et al., 2011, 2012; J. O. Eklinder-Frick, 2015; Felzensztein et al., 2012; Huggins, 2001; Human & Provan, 2000; Persson et al., 2011).

While Eklinder-Frick (2015) stated that the networking of firms within clusters is a prerequisite for innovation, some studies have identified that they tend to avoid additional connections with new external actors (J. Eklinder-Frick et al., 2011, 2012; Gargiulo & Benassi, 2000; Molina-Morales & Martínez-Fernández, 2009; Uzzi, 1997). This is because the strong bonds between actors within a network creates the perception that collaboration with external factors comes at a high cost (J. Eklinder-Frick et al., 2011, 2012; Molina-Morales & Martínez-Fernández, 2009; Uzzi, 1997), and with uncertainty (Ford & Mouzas, 2010). However, disconnection from outside entities is likely to reduce the inter-firm network's ability to innovate and respond to environmental changes in the long run. Many inter-firm networks in Japanese clusters perceived stagnation in their organisational activities (Komiya et al., 2011). What is important for a stagnant inter-firm network in a cluster to accept collaboration with an outside actor?

The concept of legitimacy contributes to an examination of the question. While research from an institutional perspective has discussed the concept of legitimacy, interest in legitimacy has recently spread to other research areas, such as its relationship to strategic alliances (Kumar & Das, 2007), networking (Low & Johnston, 2008), entrepreneurship (Rao et al., 2008; Zimmerman & Zeitz, 2002), products (Bunduchi, 2017) and social innovations (Verleye et al., 2019). Furthermore, legitimacy is also applied to understanding the behaviours involved in inter-firm collaboration in clusters (Emmoth et al., 2015; Human & Provan, 2000; Persson et al., 2011). Suchman (1995) defined legitimacy as 'a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions (Suchman, 1995, p. 574)'. When network actors interact and exchange resources with the new actor, it is essential to recognise each other' actions as being legitimate, that is, 'desirable, proper, or appropriate' (Suchman, 1995; Zimmerman & Zeitz, 2002). At the initial stage of collaboration, if the actors in the inter-firm network form a favourable perception of the legitimacy of the new actor's actions, which outweighs their reluctance to collaborate, they are likely to promote collaboration.

The concept of legitimacy provides a perspective from which one can examine the desirability or appropriateness of the new actor's actions from three perspectives: pragmatic, moral, and cognitive (Suchman, 1995). Many cluster inter-firm collaborations have been investigated according to their partners' economic attractiveness (e.g. Human & Provan, 2000), which is evaluated from the perspective of pragmatic legitimacy. Meanwhile, legitimacy, as understood from the moral and

cognitive perspectives, which looks at the normative appropriateness and value alignment of actors' actions, has not been sufficiently discussed. A gap in research exists here. This study shows that the complementary relationship between the three legitimacies encourages a cluster inter-firm network to collaborate with an external actor in the initial stage of collaboration, in which cluster inter-firm network has no previous interactions with external actors and feels the most difficulty. That provides new insights for research in this area. In addition, most of these clusters are composed of small and medium-sized enterprises (SMEs). This study can also examine collaborations between SMEs and external actors, which has been identified as an important research field (Agostini & Nosella, 2015; Bocconcelli et al., 2018).

The remainder of this paper is organised as follows. We review existing studies on inter-firm networks in a cluster and their understanding of the concept of legitimacy. Through this, we show that difficulties exist in adding new actors to a cluster inter-firm network and point out the advantages of considering the question from the viewpoint of legitimacy. After proposing an analytical framework based on the concept of legitimacy, a case study of collaboration between a cluster inter-firm network and an external marketing agent in the Japanese traditional cluster is explored. This illustrates how the actors' perceptions of pragmatic, moral, and cognitive legitimacies affected successful collaboration. Finally, the contributions and limitations of this study are described.

2. Literature review

2.1. Cluster inter-firm network and external connections

Inter-firm networks are crucial in industrial clusters. Clusters have developed through flexible product development and production based on the interrelationships between geographically close firms (Piore & Sabel, 1984; Saxenian, 1994). Meanwhile, inter-firm networks can be deliberately organised to facilitate collaboration in clusters. These networks aim to promote learning and information sharing among firms, as well as joint marketing, purchasing, and production (Felzensztein et al., 2012; Huggins, 2001; Human & Provan, 2000). Eklinder-Frick et al. (2011) stated that they provide the 'designed cooperation' in clusters. A regional strategic network (RSN) is considered to be a designed network and is strategically intended to promote more benefits by encouraging collaborative relationships among firms, universities, and other institutions with various support measures from the central and municipal governments (Andrésen et al., 2012; J. Eklinder-Frick et al., 2011, 2012; J. O. Eklinder-Frick, 2015; Persson et al., 2011).

Connections and collaborations with external actors are significant for the cluster's inter-firm networks to respond to environmental changes and seize opportunities for innovation. As prominent studies, on subjects such as weak ties (Granovetter, 1983), structural holes (Burt, 1982) and connections to the creative class(Florida, 2002), provide a theoretical background, novel knowledge

and abilities gained from external actors enable clusters to increase the efficiency of information gathering and innovation potential. Some studies have empirically examined whether increasing the number of new connections and the diversity of actors will greatly impact the performance of clusters (Bathelt, 2005; Eisingerich et al., 2010).

However, this is not an easy task for a cluster's inter-firm network, which specifically exists for a certain period. One factor that increases the difficulty of connecting with an external actor is the strong bonds within firms in clusters. As firms in clusters have developed interdependence or reciprocity with each other, strong bonds among firms have been created. Two contrasting aspects of strong bonds in cluster networks have been discussed: facilitating the transfer and sharing information among actors within clusters, whereas inhibiting external connections (J. Eklinder-Frick et al., 2011, 2012; Molina-Morales & Martínez-Fernández, 2009; Uzzi, 1997). Meanwhile, strong bonds encourage the sharing of information and norms, and serve as a basis for business relationships. Uzzi (1997) identified that the strong bonds within a network make it easier to speculate on how actors will behave, which increases the likelihood of providing mutually beneficial solutions that are not available through markets. Yet, strong bonds within clusters tend to bring a lock-in effect that hinders external connections (J. Eklinder-Frick et al., 2011, 2012; Gargiulo & Benassi, 2000; Molina-Morales & Martínez-Fernández, 2009; Uzzi, 1997). Molina-Morales and Martínez-Fernández (2009) stated that while network bonds in clusters facilitate the exchange and combination of resources, the cost of maintaining a relationship increases the cost perception of creating a new relationship after exceeding a certain level of bonds. As Håkansson and Ford (2002) pointed out, even in general networks, actors tend to avoid change. They have mutually invested time and money into the existing network and were in an interdependent state. When creating a new relationship with an external actor, the network inevitably changes, and no actors can completely control it. These will incur unpredictable costs and make it difficult to accept change.

Another factor that makes external connections difficult is the uncertainty involved in collaborating with an external new actor. Various studies have discussed uncertainty in decision making (Duncan, 1972; Jauch & Kraft, 1986; Milliken, 1987). Ford and Mouzas (2010) stated that there are three types of uncertainty in networks: how to deal with the problem (problem uncertainty), parties with whom the relationship will be effective (network uncertainty), and whether the relationship will achieve the expected outcome (fulfilment uncertainty). Connection with an external actor causes the cluster interfirm network to perceive these uncertainties. The network hesitates to collaborate when it perceives strong uncertainty.

These discussions suggest that an inter-firm network in a cluster needs to collaborate with an external actor but perceives excessive costs in creating a new relationship and also faces uncertainty related to collaboration. Eklinder-Frick et al. (2012) reported that RSNs in Sweden were reluctant to engage in marketing activities with outside organisations. How then does the inter-firm network

promote collaboration with the inclusion of a new actor?

2.2. Research on the legitimacy

This study addresses this question from the perspective of legitimacy. When actors interact and interchange their resources, it is essential to recognise each other as legitimate (Suchman, 1995; Zimmerman & Zeitz, 2002). This is also true in an inter-firm network in a cluster (Emmoth et al., 2015; Human & Provan, 2000; Persson et al., 2011). It assumes that collaboration will be promoted to overcome the barriers so long as the mutual legitimacy of the partner is strong and favourable.

Legitimacy has been heavily discussed in institutional theory, and it insists that organisations adopt specific behaviours to be seen as socially legitimate (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). These studies mainly focus on 'external legitimacy', which means that organisations aim to earn legitimacy from external stakeholders, such as suppliers and customers (Bunduchi, 2017; Kumar & Das, 2007; Persson et al., 2011). A study in a within-organisational context also emphasises the importance of 'internal legitimacy'. An effort to gain legitimacy from organisational actors and groups is the key to the implementation of product innovation within organisations (Bunduchi, 2017)

In the in-network context, some studies have focused on 'inter-partner legitimacy'. (Kumar & Das, 2007; Persson et al., 2011) Kumar and Das (2007) defined it as 'the mutual acknowledgment by the alliance partners that their actions are proper in the developmental processes of the alliance' (p.1426). Since the concept of inter-partner legitimacy has been used in the discussion of the development of a new cluster inter-firm network (Persson et al., 2011), this study considers legitimacy as the inter-partner legitimacy based on Kumar and Das's (2007) definition.

A concept of legitimacy is appropriate in exploring the initial stages of the relationship between the cluster's inter-firm organization and an external actor, although trust is a concept that has been used in many studies to grasp relationships, which captures aspects similar to legitimacy. Trust is defined as a firm's willingness to rely on a partner (Moorman, Zaltman, & Deshpande, 1992), or belief that a partner will not take unexpected actions (Anderson & Narus, 1990), which implies whole perception for a partner based on substantial interactions with it (Persson et al., 2011; Ring & Van De Ven, 1994). Meanwhile, as defined by Suchman (1995), legitimacy is an evaluation of the partner's each action. In the initial stages of the relationship, there is little interaction with the partner and whole perception for the partner, or trust, is not enough recognized (Persson et al., 2011). Thus, the partner's perception of each action, or legitimacy, is important in determining its own actions and investing the resource.

Previous studies on inter-partner legitimacy recognise three types of legitimacy based on Suchman's (1995) study (Kumar & Das, 2007; Persson et al., 2011) as similar to the studies of external or internal legitimacy (Bunduchi, 2017; Suchman, 1995; Zimmerman & Zeitz, 2002). Suchman (1995) classified legitimacy into pragmatic, moral, and cognitive types. Pragmatic legitimacy occurs as a 'result of "the

self-interested calculations" of the organisation's audience' (Suchman, 1995). Suchman (1995) stated that 'exchange legitimacy', which is the simplest level of pragmatic legitimacy, arises as the organisation's audience places the expected value onto the organisation. When a new actor is added to the inter-firm network, they perceive each other's exchange legitimacy when they expect new interactions to advance their self-interest, such as profit or success.

Some studies on inter-firm networks have pointed out the importance of pragmatic legitimacy. (Persson et al., 2011) stated that pragmatic legitimacy was crucial to forming RSN because actors have no reason to commit to the network without perceiving a pragmatic legitimacy. Kumar and Das (2007), who discussed the inter-partner legitimacy of a dyadic alliance, also found that obtaining each other's pragmatic legitimacy is the first step in development.

While pragmatic legitimacy is perceived based on the utility of the other side, moral and cognitive legitimacies are assessed based on normative beliefs and cultural models (Bunduchi, 2017). Moral legitimacy occurs based on an assessment of organisational actions as being 'the right thing to do' (Suchman, 1995), which reflects the audience's beliefs, rules, or norms. In a situation where the interfirm network and the new actor collaborate, the perception of moral legitimacy is related to whether they feel that each other's presence or actions are appropriate based on their own beliefs, rules, or norms.

Kumar and Das (2007) stressed the importance of moral legitimacy because there are concerns about opportunism and lack of cooperation with the other party in a situation of negotiating a collaboration. Actors are required, for the appropriateness of behaviours, to dismiss these concerns. Suchman (1995) classified moral legitimacy into various types, two of which are critical to the collaboration of cluster inter-firm network. These are 'procedural legitimacy', meaning appropriateness of procedure relating to an organisation's actions, and 'personal legitimacy', meaning appropriateness of organisation's leader or representative.

Suchman (1995) explained cognitive legitimacy as that which 'may involve either affirmative backing for an organisation or mere acceptance of the organisation as necessary or inevitable based on some taken-for-granted cultural account' (Suchman, 1995, p. 582). Suchman (1995) presented two types of cognitive legitimacy. The first is 'comprehensibility legitimacy', which arises from the fact that the organisation's actions are consistent with the prevalent cultural model. The second is 'taken-for-granted legitimacy', which arises from the fact that the organisation's actions are unthinkable. In a situation where the inter-firm network collaborates with an external actor, the perception of cognitive legitimacy occurs when they feel that each other's activities are appropriate based on their own cultural models, or when they cannot consider alternatives.

These three types of legitimacy provide a wider range of investigations. In the analysis of starting collaboration, it is essential to evaluate the benefits perceived by both sides of actors. While the concept of pragmatic legitimacy can grasp these benefits, moral and cognitive legitimacy provides an

additional view of the actors' considerations. This enables us to more deeply understand the collaboration process.

Regarding the mutual relationship of each legitimacy, some studies have pointed out that the three types of legitimacy are considered to be mutually related, although they are conceptually distinct. (Persson et al., 2011) said that the higher the pragmatic and moral legitimacy, the higher the cognitive legitimacy among actors in RSN. Emmoth et al. (2015) also examined, in the tourism inter-firm network, cognitive legitimacy depended on pragmatic and moral legitimacy, although later two legitimacies formed independently. (Kumar & Das, 2007) argued that the pragmatic legitimacy of the network may be eroded in the long run if it fails to acquire or maintain moral legitimacy. However, (Persson et al., 2011) stated that the importance of each type of legitimacy was not fully discussed in cluster network formation.

2.3. Research question and framework

This study focuses on the initial process of collaboration between the cluster inter-firm network and the new actor and examines, from the perspective of legitimacy, how they promote collaboration that overcomes the network's reluctance to collaborate. The legitimacy of this study is inter-partner legitimacy. It has been previously examined in two forms: as the relationship between two firm dyads (Kumar & Das, 2007) and the relationship within inter-firm networks (Emmoth et al., 2015; Persson et al., 2011). Both address the issue of legitimacy perception among firms. This study examines a different form of inter-partner legitimacy, which is the relationship between the inter-firm network and the new actor.

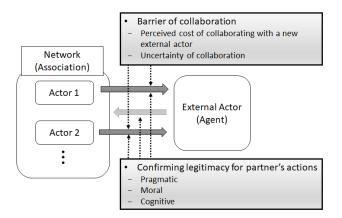


Figure 1: Framework of the collaboration from the perspective of legitimacy

Figure 1 illustrates the framework of the study. There are three key points of analysis. First, while actors of the cluster's inter-firm network intend to collaborate with external actors, they are likely to

perceive the relatively high costs and uncertainties of collaboration, which consist of collaboration barriers. Second, when they find a new external actor, inter-firm network actors assess the legitimacy of the external actor's actions from three perspectives: pragmatic, moral, and cognitive. If these evaluations are positive and outweigh the perceived costs and uncertainties, collaboration will be promoted. Furthermore, we examine the external actor's legitimacy perception of the inter-firm network's actions because inter-partner legitimacy assumes that both sides interchange resources only when they gain a mutual perception of legitimacy. This evaluation is thought to be developed from the behaviour of the network's representatives as well as the behaviour of the network as a whole. Finally, we capture changes in perceptions of legitimacy. Previous studies have pointed to dynamics of legitimacy, where the main issue discussed has been the change in the role of the three legitimacy over time (Emmoth, Gebert Persson, & Lundberg, 2015; Kumar & Das, 2007; Persson et al., 2011). Meanwhile, this study focuses on changes over time in perceptions of legitimacy, particularly pragmatic legitimacy, for some actions. Pragmatic legitimacy is the perception of whether or not a partner's action provides the expected value to the other. This perception is assumed to change before and after the delivery of outcomes for the partner's specific action. Identifying perception changes of legitimacy is important for understanding the legitimacy context in which the collaboration takes place.

Thus, the research question consists of the following sub-questions: 1) how does the inter-firm network perceive the cost and uncertainty of collaboration; 2) what are the legitimacy perceptions of the inter-firm network actors and the external actor to the partners, and how do these legitimacy perceptions affect their collaborative behaviours; and 3) how do these legitimacy perceptions change over time?

3. Methodology

This study examined a single case study. To examine the collaboration between the cluster inter-firm network and the external actor in terms of legitimacy, it is necessary to clarify how the legitimacy of each actor was assessed and how this affected the collaboration. This requires not only a deep description of the phenomenon but also the context in which legitimacy was assessed. In particular, understanding the context of the phenomenon is significant when examining actors' perceptions of moral and cognitive legitimacies. Furthermore, we need to track the changes in legitimacy perceived by each actor over time. Case study research allows for a rich description of and a thorough investigation of the phenomenon. It is also suitable for understanding contexts and change processes (Yin, 2014). In addition, a single case study allows us to gain new insights from a phenomenon that has not been sufficiently studied before (Siggelkow, 2007), and can also be used to make comparisons between different points in time (Yin, 2014).

This study examines the collaboration case in the bladed tools industrial cluster in Ono City, Japan.

We consider the wholesale association in this cluster as a cluster inter-firm network, where the design agent is an external actor. Based on the theoretical sampling perspective of selecting appropriate cases to clarify the relationships between the constructs of interest (Eisenhardt & Graebner, 2007), we decided to select a case in which a cluster inter-firm network existing for a long time had collaborated with the external actor and achieved a certain degree of success. This case enables us to obtain rich information because the people involved were cooperative with the research project.

As indicated in the framework of the study, the case analysis will examine the association's perception of legitimacy for the agent's actions, and the agent's perception of legitimacy for the association's actions. Although external legitimacy is said to be difficult to confirm because it is the overall perception of an organization's external audience (Medlin & Törnroos, 2015; Tornikoski & Newbert, 2007), the inter-partner legitimacy can be captured because the parties who perceive legitimacy can be identified. Since the two representatives (chairperson and vice chairperson) made the main decisions for the association, and the presidents made the decisions for the agents, we confirmed their perceptions of the legitimacy of each other's actions through interviews.

One focus of the analysis for legitimacy perceptions is the marketing proposal made by the agent to the association. This proposal is an action plan that the agent will take the initiative in and will lead to a significant investment of resources by the association if the association accepts it. The association evaluated the pragmatic legitimacy of this proposal in terms of the value it brings to it, and also recognize the moral and cognitive legitimacy based on the agents' various behaviours during the period in which the proposal was made, whether or not they were right for the association members (moral), and whether or not they were consistent with their cultural values (cognitive). We assessed these legitimacies through interview data.

We conducted semi-structured interviews with the representatives of the association, the president of the design agent, and bladed tool craftspeople from August 2018 to March 2019, which were consist of three stages. First, we confirmed the overview of collaboration activities through secondary data, such as newspapers, magazines, and the websites of the actors involved. We then developed a research protocol (Yin, 2014) with the tentative research question of identifying collaborative processes, and conducted in-depth interviews with the association's chairperson, vice-chairperson, and the marketing agent's president about the events during the collaboration process. A descriptive case was developed based on the data (Komiya & Akiyama, 2018) and sent to the interviewees for their review of the research protocol, and conducted additional interviews with the same people to confirm legitimacy perceptions. In addition, two scissors' craftsmen, who manufactured products for orders from wholesalers, were interviewed twice to obtain information about the collaboration from a third-party perspective. We transcribed all data, identified three types of legitimacy and relevant constructs by Nvivo, and agreed on their interpretation.

4. Case study

4.1. Banshu Hamono project

The bladed tool industry in Ono has a history of about 250 years, which originated with traditional Japanese swords (Katanas). This region has produced a variety of bladed tools, such as scissors, hooks, kitchen knives, and razors. The cluster consists of regional wholesalers and manufacturers (craftspeople). Wholesalers take orders from urban wholesalers and retailers and give orders to manufacturers. Manufacturers are independent craftspeople, producing each product by hand, following traditional techniques. Wholesalers and manufacturers form associations.

The wholesale association (the association), which is treated as a cluster inter-firm network, was established around 1960 and consists of twenty-seven wholesalers. All of them are SMEs. The association is run voluntarily, with a chairperson and vice-chairperson, and there is no official support from the public authorities to run the association. The association sets up a forum for discussions with manufacturers to deal with regional business problems. It also organises visits to observe initiatives in other regions. In addition, the association sometimes conducts joint marketing activities, which we focus on in this study.

The bladed tools industry in Ono recorded a decline for a long time because of an increase in imported products from mainly eastern Asia and changing lifestyles. They are always subject to price-pressure from customers. Craftspeople are ageing, and it has become difficult to pass on the traditional manufacturing skills and techniques to the next generation.

In 2010, the association elected a new chairperson and vice-chairperson and started deliberating on a new project to revitalise the cluster, but was unable to find appropriate measures and suitable collaboration partners. In 2011, the design agent (the agent) was established by a young product designer at the centre of the Ono area, which is close to the cluster. In 2012, the association learned from the press that the Soroban (traditional calculator) industry, another industry in the Ono area, had made some progress by collaborating with the agent. The agent's president was also a high school classmate of the vice chairperson's child. The association asked the agent to redesign their products without thinking it would be a major initiative. The agent's president was not well-acquainted with bladed tools in the region but was very interested in these products. The agent's main purpose was to contribute to the revitalising of the local industry. The agent's president enthusiastically inspected the cluster and observed many products at his own expense, even before he was paid for the project. He felt through observation that the products were incredibly appealing, and that there was no need to redesign them.

A half-year after the agent examined the bladed tool industry in the region, the president made a formal presentation to the association on the marketing plan. He presented a selection of exquisite products and rebranded them as 'Banshu Hamono', with the use of a sophisticated brand logo and visually designed advertisement. He also proposed overseas as a major market, especially in Europe,

and marked it at a much higher price, five times more expensive than the local price at that time. This was done with the intention of mitigating the cost of exporting overseas. It aimed to ensure that the craftspeople and wholesalers would make enough profit to keep the business viable.

Furthermore, the agent intended to attend the international interior exhibition in Tokyo as the first step of the project. The association had never participated in an interior exhibition, and it cost over one million yen (ten thousand euros), which bore a significant financial burden. The association deliberated on whether to accept the agent's proposal and attend the exhibition. Although some in the association disagreed, the chairperson took the lead in organizing the discussion and finally decided to accept proposal and participate in exhibition. The association had some concerns about the marketing proposal, especially the drastic price increase and the advance into overseas markets, but they positively perceived the agent president's passionate attitude without regard for its own interests, his philosophy of preserving Ono's traditional bladed tool industry, and his favours for the bladed tools.

Once the collaboration starts, agents' presidents made the main preparations for the exhibition, while the association members provided support while running their own businesses. In the exhibition Banshu Hamono gained a good reputation and was soon after invited to participate in the exhibitions in Paris. The association obtained opportunities to sell Banshu Hamono products in overseas markets. In 2015, 'Banshu Hamono' was awarded the 'Good Design Award of Small and Medium Enterprises', which is the most prestigious award for product design in Japan. This contributed to the steady expansion of the Banshu Hamono project. Overseas sales nearly tripled between 2014 and 2018, and the number of sales is steadily increasing. The agent's other efforts focused on training manufacturing successors, which was crucial to the sustainability of the bladed tool industry. It set up a facility next to the agent's office where young people could learn how to manufacture bladed tools, and two young men started learning the skills there. Local craftspeople sometimes provide instructions.

4.2. Barriers to Collaboration

We start with an analysis of the barriers to collaboration with an external actor in the association. When the chairperson and vice-chairperson were elected, the association intended to develop a new activity, but they were unable to find an appropriate option and suitable external actor to collaborate with. The vice-chairperson said, 'We didn't know what to do, and two or three years had passed'. There was not collaboration with any external actor before the Banshu Hamono project with the agent.

This suggests two aspects regarding the barriers to collaboration. First, in terms of networking costs within the association, the cost of searching for an external actor is high. This is suggested by the fact that the association did not find the appropriate collaborator for a certain period, and the actual collaborator was an agent who had offices near the cluster.

However, the high cost of maintaining the existing network (Molina-Morales & Martínez-

Fernández, 2009) and the reluctance to change (Håkansson & Ford, 2002), which are pointed out as barriers to collaboration, did not have a significant impact in this case. The association has a history of about 80 years. They were not very active, and their bonds were not particularly strong. The vice-chairperson said, 'Association is like a group of a good company...It was just a way to provide information'. The perceived high cost seemed to be mainly due to the lack of information and experience in working with external actors (Agostini, Filippini, & Nosella, 2015; Bocconcelli et al., 2018; Nieto & SantamarÃa, 2010; O'Donnell, 2014; O'Dwyer, Gilmore, & Carson, 2009).

Second, the fact that the association had not been able to identify measures and collaborators for a certain period also suggests that the association recognised the problem of network uncertainty, how to deal with the problem, and whom to collaborate with. The uncertainty made it difficult to find collaborators. Furthermore, the association faced fulfilment uncertainty – whether collaborating with the agent would lead to success after identifying the agent as a potential collaborator. This is indicated by the pragmatic legitimacy perception of the association, which is discussed in the next section.

4.3. The Association's Pragmatic Legitimacy Status

Participation in the international interior exhibition in Tokyo was the first opportunity for an intensive interaction between the association and agent. Prior to this event the two parties had not had enough opportunity to interact and build trust. They required a significant investment of effort and budget to enter the exhibition. The initial perception of each other's legitimacy had a significant impact on the first interaction. We defined the period before the exhibition as the initial stage of collaboration and examined the association's and agent's perceptions of legitimacy for the other party in that period.

Table 1 shows the quotes that indicate the association's legitimacy status to the agent, which consists of three parts: pragmatic, moral, and cognitive. The pragmatic legitimacy of the agent's marketing proposal represents the probability of the agent's proposal delivering value to the association and can be interpreted as not high. We asked the association representatives about their first impression of the agent's marketing proposal. Initially, the association was sceptical about whether the marketing measures the agent proposed would be successful. As described in the case, the agency had achieved some success in another traditional industry, the Soroban industry, but its past performance did not have a significant impact and the association felt apprehensive about the agent's proposal.

The points of doubt were 1) increasing the selling price of products by two or five times, and 2) expanding into overseas markets. The association was forced to continue to reduce prices due to price differences with competing products. The vice-chairperson recounted that he felt Ono's products were only worth the price they were selling for at the time. Thus, they could not imagine doubling or quintupling the prices. The association also had a negative legitimacy perception of selling their products in overseas markets. The interview data suggested that not only did they feel uncertain about

selling their products abroad, but they were also unsure about their ability to sell in overseas markets with which they were unfamiliar.

Definition		The Association's Legitimacy for the Agent
	Initial stage	<
Pragmatic Legitimacy Organization's perception that its audience puts the expected value on it (exchange)	After middle stage	Cprice>"By changing the product packaging and asking buyers if they can sell our products at such a price?" It is perceived as being too cheap. There are values in the product that can be accepted at this price. " (Vice Chairperson)(if someone from a different sector came and asked, "Can I buy this product at this price?" your sense of value would change. After all, if the product it good, consumers will buy at this price. If we stayed here (Don city) for a long period of time, we would not know our own value. We begin understanding that there are many people who would buy a 1,000 yen roduct for 5,000 yen." (Vice Chairperson)
		<overseas market=""> "From the beginning, I was not thinking about going overseas at all. However, as I was working on this project, the trend is changing. Japanese food became popular overseas, and I heard that Japanese kitchen knives were selling well. thought it might be a good opportunity. If I was going to go abroad, I thought, now would be the time."(Chairperson)</overseas>
Moral Legitimacy Organization's perception of appropriateness of its audience's leaders or representatives (personal)	initial and after middle stage	"He (the president of the agent) doesn't care about his profit and loss and just moves forward". (Chairperson) "He's young and energetic. I thought he had the agility to move quickly anytime, anywhere when he thought of something." (Chairperson)
Cognitive Legitimacy Organization's perception that its audience actions align with cultural models in its institutionalized value system (comprehensibility)	Initial and after middle stage	"As we talked, I realized that he had a passion, and I felt that I could leave it to him. (interviewer: Is his passion for Ono?) Yes, it is. His passion for Ono. Also, it just so happens that he also likes knives. He likes to sharpen and tinker with knives. So it was just right."(Chairperson)

Table 1.	According tion 'o	Logitimor	w for A gont
	Association's	Legiumac	y for Agent

Definitions of each legitimacy are based on Suchman(1995)

Although in the initial stage of the collaboration, the association negatively legitimated the agent's proposal, the pragmatic legitimacy perception changed gradually. "After middle stage" of pragmatic legitimacy in Table 1 shows the quotes indicating these perception change. As for high prices, the association members came to realise that their products were accepted by customers, even at high prices. At the international interior exhibition in Tokyo, where they had never opened a stall before, they met buyers from different fields and heard opinions that the prices were low. They found that some customers would buy their products even at high prices. Their perception of overseas sales also changed positively. As overseas sales increased, the initial negative perception changed as they realised that there was a market that accepted the products. As the project progressed, the association members positively recognised the pragmatic legitimacy of Banshu Hamano's marketing measures.

4.4. Association's Moral and Cognitive Legitimacy Status

Table 1 also shows the quotes about the association's moral and cognitive legitimacy status to the agent. The association's perception of moral legitimacy represents whether it felt the agent's behaviours was right or appropriate on its beliefs, rules, or norms. As described in the case, the agent's president had been making diligent observations in the cluster for six months at his own expense. Quotes of the association's representatives show that they were well aware of such his enthusiasm and

self-giving behaviour and had a positive impression for him. From these quotes, it can be interpreted that the association perceived the moral legitimacy of the agent's behaviour as high.

The association's cognitive legitimacy with the agent was also high. Cognitive legitimacy perception arises when the other party's activities or behaviours align with their cultural models. Based on quotes of the association's representatives, they understood that the agent's president had strong attachment to the Ono region, including the cluster and the bladed tools. The association representatives recognize that their values and those of the agent's presidents are aligned, retaining the traditional manufacturing techniques and helping the cluster survive.

4.5. Agent's Legitimacy Status

Table 2 shows the quotes indicating the agent's legitimacy status for the association. At first, the agent's pragmatic legitimacy for the association was not high. Although the agent accepted a job request from the association, the president was uncertain about the project's profitability. However, during the exhibition, they were able to obtain subsidies to introduce products to overseas markets and find sales opportunities. The project could then be monetised.

Definition	The Agent's Legitimacy for the Association		
Pragmatic Legitimacy Organization's perception that its audience puts the expected value on it (exchange)	Initial stage	"There was some concern about earnings." (President)	
	After middle stage	"Unexpectedly we heard about the subsidy when attending the Interior Lifestyle Exhibition We already received the money by the time the Paris exhibition was held in September." (President)	
Moral Legitimacy Organization's perception of appropriateness of its audience's procedure (procedural)	Initial and after middle stage	"In the case of the association, the chairperson really took the stance of leaving everything to me. That stance was probably good." (President)	
Cognitive Legitimacy Organization's perception that its audience actions align with cultural models in its institutionalized value system (comprehensibility)	Initial and after middle stage	"I realized that the numbers of craftsmen and women who know everything in minute detail are disappearing. Oh no. I had a vague feeling that this was a serious problem. I realized that if this industry disappeared, there would be many other craftsmen working in other fields who wouldn't be able to do business. That's what lit the fire in me. I've come to think that we need a real craftsman and not just a worker" (President)	

Table 2: Agent's Legitimacy for Association

Definitions of each legitimacy are based on Suchman(1995)

Meanwhile, the agent's moral and cognitive legitimacies with the association were at a high level. The association left a lot of decision-making to the agent, which implies that there was a high perception of the agent's moral legitimacy. In other words, allowing the agent to make important decisions was an appropriate procedure for the association. As for cognitive legitimacy, it was significant that the president of the agent realised that the loss of bladed tools would affect the work sustainability of professionals in other industries. This implies that the role of products in this region, as work tools, is significant in its cultural value, and the intense sense of cognitive legitimacy may have led to the agent and its president being proactive.

5. Discussion

5.1. Complementary relationship among three legitimacies

Based on the case study, difficulties exist when the inter-firm cluster network and the new actor start to collaborate. Before finding external actors, the association faced high costs of searching for new collaborators and uncertainty about what to do and with whom. Even after finding potential collaborators, the association and the agent both perceived low pragmatic legitimacy in each other. The association did not feel that the price of products had increased or that the sales in overseas markets had a chance of success. The agent was concerned about the profitability of the project. While pragmatic legitimacy is considered the most fundamental factor in the exchange of resources in a network (Human & Provan, 2000; Kumar & Das, 2007; Persson et al., 2011), it was not secured at an early stage.

The perception of low practical legitimacy indicates that both players recognised the fulfilment uncertainty: whether the collaboration would lead to success or not (Ford & Mouzas, 2010). Particular attention should be paid to the low pragmatic legitimacy of this association. Raising prices and selling products abroad were different from the style they had employed in the past and something they had not experienced, which led to the perception of strong uncertainty and low pragmatic legitimacy to the agent's proposal. The agent had already gained some success in another (Soroban) industry, but it did not positively affect the association's perception of practical legitimacy. This low level of pragmatic legitimacy could have also been because the actors involved are SMEs. Since SMEs tend to constrain their resources (Agostini et al., 2015; Bocconcelli et al., 2018; Nieto & SantamarÃa, 2010; O'Donnell, 2014; O'Dwyer et al., 2009), especially knowledge and experience of collaboration, it may be more difficult to recognise the other party's pragmatic legitimacy. In other words, SMEs tend to have a greater problem of pragmatic legitimacy perception in the early stages of collaboration.

The low perception of pragmatic legitimacy on both sides suggests that they might abort collaboration at that point. However, both players decided to invest resources in moving the project forward. The association spent a large amount of money to participate in the international exhibition, and the agent also invested resources in creating advertisements and preparing exhibitions. The investment of resources under low pragmatic legitimacy is attributed to the high perception of two other legitimacies, moral and cognitive.

Both parties' perceptions of moral legitimacy were high because the work procedure and attitudes were favourable. Each cognitive legitimacy was also high due to the alignment of their views on sustaining the traditional bladed tool industry in the region. This high legitimacy would have been an impetus for collaboration in the early stages, which compensated for the low practical legitimacy.

The case study showed that the three legitimacies can be complementary, while some studies noted that pragmatic, moral, and cognitive legitimacies are interrelated (Emmoth et al., 2015; Kumar & Das,

2007; Persson et al., 2011). Existing studies have examined the relationship between the three legitimacies in the long run. Kumar and Das (2007), discussing legitimacy in alliances, found that when moral relationships are undermined, efforts on alliances are lost and outcomes are poor. This result will lead to a perception of low pragmatic legitimacy. Persson et al. (2011) stated in their study of an inter-firm network in clusters, that when players lost pragmatic and moral legitimacy, they also lost the sense that they collaborate under shared value, which means a decrease in cognitive legitimacy. However, in a limited period of the initial stages of collaboration, the three legitimacies show a complementary relationship and contribute to overcoming the difficulties of collaboration.

5.2. Impact of moral and cognitive legitimacy in a cluster inter-firm network

This case study also highlights the importance of moral and cognitive legitimacy. Moral legitimacy has been important in addressing concerns of opportunism and the lack of cooperation among other parties (Kumar & Das, 2007). In collaborations involving SMEs, such concerns are more serious due to their lack of information and experience, which contributes to resolving these concerns about collaboration. Thus, moral legitimacy is more significant in collaborations involving SMEs.

Cognitive legitimacy also plays a significant role. The initial collaboration progressed in part by both parties' recognition of the significance of traditional clusters. The association appreciated that the agent's president had a passion for revitalising the region and had a strong interest in their products. The agent's president also said that it was important to recognise that the cluster's products had an essential value. Both positively evaluated their partners and their activities in terms of their cultural values.

Existing research states that cognitive legitimacy is recognised only after a certain amount of time has passed in collaboration (Kumar & Das, 2007; Persson et al., 2011). This is because cognitive legitimacy is recognised only when both parties feel that each partner is necessary to the accumulated collaboration experience. This argument is assumed to be 'taken-for-granted legitimacy' in cognitive legitimacy (Suchman, 1995).

Meanwhile, in collaboration with the traditional cluster, cognitive legitimacy is recognised in the early stage of the initial collaboration based on the common cultural background that has been formed within the cluster. This is 'comprehensibility legitimacy', which is based on the prevalent cultural model (Suchman, 1995). Cognitive legitimacy plays a significant role in the initial collaboration of inter-firm cluster networks.

5.3. SMEs' scarce resource impact

Previous studies have suggested that the reluctance of clusters' inter-firm networks to engage with

external actors is related to high search costs, which arise from strong bonds. However, we did not observe strong bonds in the case study, although the inter-firm network incurred high search costs. In clusters that have been in existence for a long time, the connections seem to weaken as activity moves toward inactivity. Rather, factors of SMEs' scarce resources, such as information of external actors and experiences with them (Agostini et al., 2015; Bocconcelli et al., 2018; Nieto & SantamarÃa, 2010; O'Donnell, 2014; O'Dwyer et al., 2009) might increase search costs and reluctance to collaborate.

The scarce resources for SMEs have also affected the perception of uncertainty associated with collaboration. Lack of information and experience can negatively affect perceptions of uncertainty, how to deal with the problem, with whom the relationship will be effective and whether the relationship will achieve the expected outcome (Ford & Mouzas, 2010), and decision-making about collaboration at the initial stage. This indicates that the SMEs' perception of the legitimacy of the partner plays a more important role in inter-firm network collaboration because it overcomes the barrier of resource constraints of SMEs.

5.4. Implication and limitation

In summary, a cluster inter-firm network tends to be reluctant to collaborate with external actors due to high search costs and perceived uncertainty. When it collaborates with them, it may shape the weak perception of pragmatic legitimacy to the partner and the moral and cognitive legitimacies may work complementarily to it, which influences the progress of collaboration. Moral legitimacy is important in the collaboration of SMEs, and high cognitive legitimacy plays a significant role, even in the initial stages of collaboration, in a cluster with a long history.

These arguments contribute to a deep understanding of inter-firm networks in a cluster. In the initial stages of network collaboration, the perception of the three legitimacies for the partner is thought to drive collaboration, and moral and cognitive legitimacy, which have not received much attention, are of particular importance. The perspective of legitimacy should apply, not only to a cluster inter-firm network, but also to the analysis of other network collaborations. Three aspects of legitimacy can provide useful analyses, especially in the early stages of collaboration.

This paper's research into legitimacy would be of significance to empirically evaluate pragmatic, moral, and cognitive legitimacies in terms of inter-partner legitimacy in detail, and deeply assess the impact of moral and cognitive legitimacies. In addition, the study of the inter-partner legitimacy of a new form of relationship, that is, between an inter-firm network and a new actor, may also be significant as legitimacy research.

This study is also significant in examining SMEs' collaborations with external partners in terms of legitimacy. The case study illustrated that SMEs may have greater difficulties in recognising pragmatic legitimacy for collaboration due to lack of resources and experience, while they may also have greater

concerns about opportunism and lack of collaboration with their partners. We can recognise SMEs' difficulties in collaborating with external actors from the perspective of legitimacy.

A managerial implication of this study is that collaboration with external actors can be an important way for cluster inter-firm networks with a long history to overcome stagnation. As the case study shows, the inter-firm network can find a new direction to add knowledge and capability to a new actor. In doing so, they need to be careful when assessing each perception of pragmatic legitimacy at the initial point. Since the assessment of the practical legitimacy of the collaboration may affect the progress of collaboration, it is necessary to fully discuss why they collaborate.

In addition, it is important to pay attention to each other's behaviours (moral legitimacy) and to have a mutual understanding of the value and objectives behind the collaboration, reflecting on the history of the cluster and recognising its contemporary significance (cognitive legitimacy). These efforts to gain moral and cognitive legitimacy should have a significant impact on the steady progress of collaboration, even when pragmatic legitimacy may be sufficient. The importance of such efforts is likely to be even greater if the actors involved are SMEs.

The limitation of this study is that the examination is limited to a single case of a Japanese bladed tool cluster. It is necessary to continue to empirically examine other cases, especially those in other industries and countries. We can more deeply understand the theoretical and practical implications by accumulated research into multiple cases. Efforts may also be needed to quantitatively measure the three types of legitimacies: pragmatic, moral, and cognitive. We assessed legitimacy by interpreting qualitative interview data but classified the degree of legitimacy as high or low in this study. If quantitative measures could be used to assess the legitimacy, we can elaborate further on the concept of the three types of legitimacy and their uses in a wider range of phenomena.

References

- Agostini, L., Filippini, R., & Nosella, A. (2015). Brand-Building Efforts and Their Association with SME Sales Performance. *Journal of Small Business Management*, 53, 161–173.
- Andrésen, E., Lundberg, H., & Roxenhall, T. (2012). Designing for commitment in regional strategic networks. *Management Research Review*, 35(6), 531–552.
- Bathelt, H. (2005). Cluster relations in the media industry: Exploring the "distanced neighbour" paradox in Leipzig. In *Regional Studies* (Vol. 39, Issue 1, pp. 105–127).
- Bocconcelli, R., Cioppi, M., Fortezza, F., Francioni, B., Pagano, A., Savelli, E., & Splendiani, S. (2018). SMEs and Marketing: A Systematic Literature Review. *International Journal of Management Reviews*, 20(2), 227–254.
- Bunduchi, R. (2017). Legitimacy-Seeking Mechanisms in Product Innovation: A Qualitative Study*. Journal of Product Innovation Management, 34(3), 315–342.

Burt, R. (1982). Structural Holes: The social structure of competition. Harvard University Press.

- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48, 147–160.
- Duncan, R. B. (1972). Characteristics of Organizational Environments and Perceived Environmental Uncertainty. Administrative Science Quarterly, 17(3), 313–327.
- Eisingerich, A. B., Bell, S. J., & Tracey, P. (2010). How can clusters sustain performance? The role of network strength, network openness, and environmental uncertainty. *Research Policy*, 39(2), 239–253.
- Eklinder-Frick, J., Eriksson, L. T., & Hallén, L. (2011). Bridging and bonding forms of social capital in a regional strategic network. *Industrial Marketing Management*, 40(6), 994–1003.
- Eklinder-Frick, J., Eriksson, L. T., & Hallén, L. (2012). Effects of social capital on processes in a regional strategic network. *Industrial Marketing Management*, 41(5), 800–806.
- Eklinder-Frick, J. O. (2015). Development, production and use in policy initiated innovation. *Journal* of Business and Industrial Marketing, 30(8), 973–986.
- Emmoth, A., Gebert Persson, S., & Lundberg, H. (2015). Interpartner Legitimacy Effects on Cluster Initiative Formation and Development Processes. *European Planning Studies*, 23(5), 892–908.
- Felzensztein, C., Gimmon, E., & Aqueveque, C. (2012). Clusters or un-clustered industries? Where inter-firm marketing cooperation matters. *Journal of Business and Industrial Marketing*, 27(5),
- Florida, R. (2002). The Rise Of The Creative Class: And How It's Transforming Work, Leisure, Community And Everyday Life. Basic Books.
- Ford, D., & Mouzas, S. (2010). Networking under uncertainty: Concepts and research agenda. *Industrial Marketing Management*, 39(6), 956–962.
- Gargiulo, M., & Benassi, M. (2000). Trapped in Your Own Net? Network Cohesion, Structural Holes, and the Adaptation of Social Capital. *Organization Science*, 11(2), 183–196.
- Granovetter, M. (1983). The Strength of Weak Ties: A Network Theory Revisited. *Sociological Theory*, *1*, 201–233.
- Håkansson, H., & Ford, D. (2002). How should companies interact in business networks? *Journal of Business Research*, 55(2), 133–139.
- Huggins, R. (2001). Inter-firm network policies and firm performance: Evaluating the impact of initiatives in the United Kingdom. *Research Policy*, 443–458.
- Human, S. E., & Provan, K. G. (2000). Legitimacy Building in the Evolution of Small-Firm Multilateral Networks: A Comparative Study of Success and Demise. *Administrative Science Quarterly*, 45(2), 327–365.
- Jauch, L. R., & Kraft, K. L. (1986). Strategic Management of Uncertainty. The Academy of Management Review, 11(4), 777–790.
- Komiya, K., & Akiyama, S. (2018). Branding of the blade and edged tools industry in Ono city:

Expanding to overseas markets with "Banshu Hamono." University of Hyogo, Institute for Policy Analysis and Social Innovation, Discussion Paper, 105, 1–13.

- Komiya, K., Urakami, T., Inoguchi, J., & Woonho, K. (2011). Report on Questionnaire Survey on Apparel Manufacturing Industry. *Kagawa University, the Institute of Economic Research, Working Paper Series*, 126, 1–13.
- Kumar, R., & Das, T. K. (2007). Interpartner Legitimacy in the Alliance Development Process. *Journal of Management Studies*, 44(8), 1425–1453.
- Low, B., & Johnston, W. (2008). Securing and managing an organization's network legitimacy: The case of Motorola China. *Industrial Marketing Management*, *37*(7), 873–879.
- Meyer, J. W., & Rowan, B. (1977). Institutional organizations: Formal structure as myth and ceremony. *The American Journal of Sociology*, *83*(2), 340–363.
- Milliken, F. J. (1987). Three Types of Perceived Uncertainty about the Environment: State, Effect, and Response Uncertainty. *The Academy of Management Review*, *12*(1), 133–143.
- Molina-Morales, F. X., & Martínez-Fernández, M. T. (2009). Too much love in the neighborhood can hurt: how an excess of intensity and trust in relationships may produce negative effects on firms. *Strategic Management Journal*, 30(9), 1013–1023.
- Nieto, M. J., & SantamarÃa, L. (2010). Technological Collaboration: Bridging the Innovation Gap between Small and Large Firms. *Journal of Small Business Management*, 48(1), 44–69.
- O'Donnell, A. (2014). The Contribution of Networking to Small Firm Marketing. *Journal of Small Business Management*, 52(1), 164–187.
- O'Dwyer, M., Gilmore, A., & Carson, D. (2009). Innovative marketing in SMEs. *European Journal* of Marketing, 43(1/2), 46–61.
- Persson, S. G., Lundberg, H., & Andresen, E. (2011). Interpartner legitimacy in regional strategic networks. *Industrial Marketing Management*, 40(6), 1024–1031.
- Piore, M. J., & Sabel, C. F. (1984). *The second industrial divide: possibilities for prosperity*. Basic Books.
- Rao, R. S., Chandy, R. K., & Prabhu, J. C. (2008). The Fruits of Legitimacy: Why Some New Ventures Gain More from Innovation Than Others. *Journal of Marketing*, 72(4), 58–75.
- Saxenian, A. (1994). Regional Advantage: Culture and Competition in Silicon Valley and Route 128, with a New Preface by the Author by AnnaLee Saxenian. Harvard University Press.
- Siggelkow, N. (2007). Persuasion with case studies. Academy of Management Journal, 50(1), 20-24.
- Suchman, M. C. (1995). Managing Legitimacy: Strategic and Institutional Approaches. *The Academy* of Management Review, 20(3), 571–610.
- Uzzi, B. (1997). Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly*, 42(1), 35–67.
- Verleye, K., Perks, H., Gruber, T., & Voets, J. (2019). The Long and Winding Road: Building

Legitimacy for Complex Social Innovation in Networks. *Journal of Product Innovation Management*, 36(6), 695–720.

Yin, R. K. (2014). Case study research : design and methods (5th ed.). Sage.

Zimmerman, M. A., & Zeitz, G. J. (2002). Beyond Survival: Achieving New Venture Growth by Building Legitimacy. *The Academy of Management Review*, *27*(3), 414–431.