



Pathway of Building SMEs Performance in Cluster through Innovation Capability

Faisol¹, ²Sri Aliami, ³M Anas[✉]

^{1,2,3}Faculty of Economics and Business, Universitas Nusantara PGRI Kediri

Article Information Abstract

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The purpose of this study is to investigate the impact of business strategies and social capital on the performance of small and medium-sized firms (SMEs) that operate in small industry clusters. An emphasis is placed on examining the function of innovation capability in mediating this interaction. Data was acquired by sending questionnaires to various clusters in East Java, Indonesia, utilizing multi-stage sampling. The study then found 98 SME owners who had completed all of the surveys. The Partial Least Square approach was then utilized to evaluate the hypotheses using SmartPLS. The findings show that business strategies have no direct impact on performance. The impact of business strategy on performance appears to be mediated by innovation capabilities. On the other hand, social capital, as measured by bridging and linking social capital, has a direct impact on firm performance. As a result, this study suggests that SMEs improve their performance through increasing cluster social capital and increasing innovation capability. We recommend further research to replicate this study on large industry clusters. It is expected that the interplay between business strategies and social capital to performance will explain different result for the development of industry clusters.

INTRODUCTION

Building Small and Medium Enterprises (SMEs) in cluster becomes a common phenomenon in enhancing firm's competitive advantage and performance (Paiva *et al.*, 2020); (Franco & Esteves, 2020). In East Java, this approach is intended to optimize geographic concentration of interconnected manufacturing SMEs. Among other benefits, the clusters are also expected to develop innovation capability which will improve firm performance. According to (Sara Foghani, Batiah Mahadi, 2017) industry clusters facilitate the success of SME inclusion in productivity growth and global distribution networks. Other experts such as (Gudda *et al.*, 2013), (Price *et al.*, 2013), and (Madhoushi *et al.*, 2011) have emphasized that SME clustering is able to enhance product innovation. To achieve this product innovation, (Tristão *et al.*, 2013) indicated that the innovation must be based on knowledge.

In the disruptive era, an ever-changing environment creates new products that direct a sufficient innovation capability to respond this progress. As such, a firm strategically has to innovate for obtaining competitive advantage either locally or globally. Viewed from strategic perspective, (Dogan, 2017) underlined that innovation development relates to culture, structure, systems, and process. Therefore, firms are driven to formulate the process that involves data collection and continuous exchange of information (Nwachuku *et al.*, 2017). However, efforts to improve performance are not only depended on the technical aspects of appropriate strategy. In terms of social relations, cooperation among SMEs and networking with other institutions are also needed for SMEs. (Staveren, 2006) proved that *bonding*, *bridging*, and *linking* social capital play an important role to improve clustered SMEs in developing countries such as in Vietnam and Ethiopia.

Little attention has given to the social aspects such as social capital. (Jalali *et al.*, 2013) proved that social capital affects in activate the

resources, strengthen the coordination with partners and facilitate the flow of information. The interplay between business strategies and social capital reflects a joint action among SMEs in obtaining collective efficiency as argued by (Sara Foghani, Batiah Mahadi, 2017), (Gudda *et al.*, 2013), and (Pagani, 2016). Within these circumstances, cooperation strategy might be viewed as the best strategy for SMEs (Jankowska, 2013), (Vučić, 2009). These collaborative actions are expected to improve their performance. Business strategies reflect some strategic orientations in adapting to external conditions. Differs from large firms, however, business strategies applied by SMEs are characterized as informal, unstructured, and flexible. (Tayfun Turgay, 2012) indicated that business strategies are depended on entrepreneurs' decisions. These strategies can be grouped functionally in short-term activities in marketing, finance, human resources management, and production. (Vu & Doan, 2015) highlighted that innovation in products, production process and marketing are the key for innovation and better performance in SMEs context.

In a cluster, SMEs are faced into dual conditions combining competition and cooperation. Within this situation, making networking is viewed as a part of strategies that collaborate between SMEs' strategies and cluster social capital (Miller *et al.*, 2007). This strategic network facilitates SMEs to share vision and resources that enable them to achieve business success. (Antonelli & Taurino, 2011) perceived that collaboration among SMEs as a collection of many factors in which each factor can boost competitive advantage to SME networks. Moreover, (Rezazadeh, 2017) emphasized that business innovation and collaborative entrepreneurship provide some benefits for evaluating firm performance. Business strategies are also directed to augment innovation capability. According to (Ejdys, 2014) innovation capability relates to a reaction to the actions of competitors, a capability to tackle market demands or response to emerging opportunities.

(Donkor et al., 2018) underlined that innovation capability is a higher-order mix ability. A firm having this capability can manage their different capacities and incorporate them to effectively empower performance. As such, SMEs owners have to start taking serious business strategies for achieving their objectives. An effective strategy provides the owners with a clear vision and mission of the firm. This strategy also enables them to identify the capabilities on which the firm focuses in certain targets. Within clusters, developing business strategies is needed to elevate SME competitiveness.

In term of social capital, the previous studies have provided various understandings of social capital. The essential concept of social capital is social connections or networking based on the norms of accepted behavior and trust (Hjerppe, 2003), (Miller et al., 2007). In economic models, (Hoq et al., 2017) indicated that social capital related to the social links that are perceived as economic asset for individuals and groups. Hence, social capital refers to the pattern and quality of relationships among individuals, firms, or other institutions which are expected to provide economic effects.

In recent years, the concept of social capital also has become important to considerate the development of SMEs. For example, in order to generate innovation among firms (Filiari & Alguezaui, 2014) emphasized that social capital provides many benefits for knowledge transfer. (Agyapong et al., 2017) proved that social capital positively influences firm innovation and performance. Moreover, (Ahn & Kim, 2017) stated that social capital mediates individual knowledge to the innovation capability of a firm.

In order to operationalize social capital in a cluster, (Staveren, 2006) specified it in micro, meso, and macro levels. At micro level, social capital will emerge in the form of inter-firm linkages among SMEs. The firms then move to mesolevel, namely, building value chains among them. Meanwhile, a national policy for developing social capital in a cluster is provided at macro level. During the phases of

industrialization, (Staveren, 2006) emphasized that SMEs have to transform from *bonding* to *bridging* and *linking* social capital. *Bonding* social capital is reflected by similar characteristics that are binding individuals or groups. A firm which is managed by family members, for example, denotes this type of bonding social capital. Meanwhile, *bridging* social capital relates to cooperation among SMEs in creating value chains, whereas *linking* social capital refers to the linkages with policy makers.

In business cooperation, networks which are defined as a set of relationships between individuals and companies facilitate the exchange of goods, services, and information for firms (Cvetanovic et al., 2015). The network usually starts personally as the entrepreneur establishes relationships with relatives or friends. After that, a more formal network was formed between firms, governments, and other professional institutions. (Jalali et al., 2013) proved that social capital influences firm success to access more resources in finance, information, and R&D. (Ozigi, 2018) found that cognitive, relational, and structural social capital has positive effect on firm performance. However, there is a form of social capital that has negative side. (Nishikant Singh, 2016) called it as negative social capital which leads to the problem of social exclusion. For example, social networks that are too binding can diminish the creativity of SME entrepreneurs by ties that are too strong in the networks.

Previous studies have shown the role of innovation capability. (Saunila, 2020) provided the systematic review of innovation capability in small business context. She pointed out that innovation capability has positive relationship with the performance of SMEs. (Hossain & Kauranen, 2016) made a systematic review on open innovation (OI). They found that most of studies on OI in SMEs were conducted within geographical ecosystem. In accordance with firm performance, OI brings some benefits such as connectivity, awareness, and reputation. (Bayarçelik et al., 2014) proved that management

skills become the most important factors that influence to innovation process. These skills relate to entrepreneurial activities in SMEs context by making the firms to be open minded and supporting collaboration. Other researchers such as (Radziwon & Bogers, 2019), (Huang & Rice, 2013), (Lan & Zhangliu, 2012) undermined the role of open innovation to the performance of SMEs in clusters.

According to (Gilbert *et al.*, 2008) that SME interconnections in introducing new products will affect performance. (Saunila & Ukko, 2014) indicated that the significance of innovation for SMEs is an opportunity to overcome their obstacles and then create a value. (Saunila, 2014) proved that two aspects in innovation capability namely ideation and organizing structures are positively affect financial and operational performance. (Sulistyo & Siyamtinah, 2016) insisted that some improvements in innovation capability will influence firm performance. (Rajapathirana & Hui, 2018) stated that innovation capability significantly gives the clustered SMEs a space to improve firm performances. Moreover, (Abdu & Jibir, 2018) pointed out that SMEs are more innovative in product, organizational, and marketing than large-scale firms. (Franca Obunike & Aka Udu, 2019) showed that innovation capability which is reflected in product and process oriented innovativeness contribute to sale, employment, and market shares of SMEs. Due to some obstacles faced by SMEs, (Bel Hadj & Ghodbane, 2019) pointed out that the networks and the quality of relationships contribute to the acquisition of innovation capability. Furthermore, (Wahyuni & Sara, 2020) underlined that SME entrepreneurs have to enhance their capacity in market orientation, learning orientation and entrepreneurial orientation. All these capacities significantly influence firm performance through knowledge competence and innovation.

However, measuring firm performance in SMEs context is a complex job due to the absence of formal data. Since SMEs are usually reluctant

to provide recorded data objectively, it is suggested to use subjective measurements. The entrepreneurs are demanded to respond the data in line with their perception. In this regard, Chong (2013) suggested that entrepreneurs can use hybrid approach that combines both financial and non-financial measures. (Blackburn *et al.*, 2013) indicated SME performance in terms of turnover, employment growth, and profits.

Researches on the performance of clustered SMEs in East Java have been conducted by (Ismanu & Kusmintarti, 2019), (Prihadyanti, 2017), and (Hoetoro, 2014). Nevertheless, such previous researches still leave a gap in literatures that should be addressed. These researches did not obviously reveal the role of innovation capability and social capital in achieving the performance of SMEs operated in clusters.

This paper accordingly attempts to answer four research questions: 1) do business strategies directly influence firm performance? 2) does cluster social capital directly affects firm performance? 3) does innovation capability mediate the relationship among business strategies and firm performance? And 4) does innovation capability mediate the relationship between social capital and firm performance?

The contribution of this research is defined from internal and external understanding on how SMEs in clusters obtain superior firm performance. Viewed from coopetition strategy, cluster social capital provides many benefits for the clustered SMEs in congruent with their business strategies. Nevertheless, the specific contributions of business strategies and social capital for SMEs operate in clusters need to be highlighted.

The findings of this study exhibit the role of innovation capability and social capital for the performance of clustered SMEs in East Java. Within clustering framework, the collaborative practices of SME strategies with cluster social capital can more improve firm performance. Hence, this findings provide a comprehensive understanding on SMEs operate in various small industry clusters.

This paper begins with the topic of research, the background of study and research gaps that should be addressed. This part is then followed by a section that presents a theoretical base of factors which are contributing to the performance of SMEs operate in small industrial clusters. Accordingly, the research explains the data and research method in hypotheses testing which is followed by a discussion of the results and recommendations. Finally, conclusion and limitation are presented.

RESEARCH METHODS

This paper attempts to investigate the research questions based on the conceptual model (Figure: 1), that was constructed based on the theory of functional business strategies in SMEs context (Erdem & Erdem, 2011); (Kotey et al., 2013). Cluster social capital is based on (Knorringa, Peter and Staveren, 2005). Meanwhile, innovation capability refers to firm ability in responding innovation and business opportunities. Referring to (Blackburn et al., 2013), firm performance is indicated by the growth of asset, employment, sale and order which are subjectively asked to the respondents.

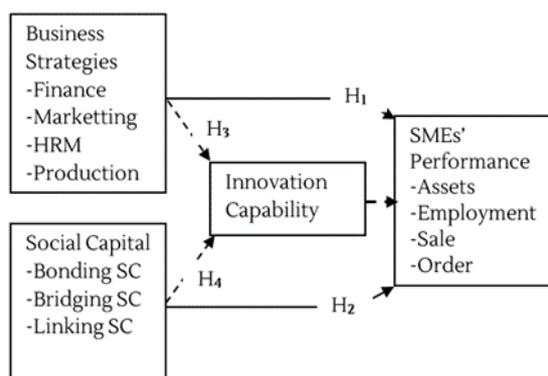


Figure 1. The Conceptual Model

Source: Author Illustration, 2022

Based on Figure 1, it is known that SMEs in clusters activate functional business strategies. In this regards finance, marketing, human resource management (HRM), and production strategies are expected to directly influence the

performance (Tullao et al., 2018). Therefore, the first hypothesis can be stated as follows:

H1. Business strategies directly influence firm performance.

Together with their own business strategies, SMEs in clusters also need to cooperate. They realize that making a network and collaborative actions with other firms and related institutions are important in achieving firm performance. Therefore, utilizing cluster social capital becomes the best choice. (Kim & Shim, 2018) stated that creating social capital positively implicates enhance competitiveness of SMEs. Other researches such as (Felzensztein et al., 2019), (Ozigi, 2018), (Hoq et al., 2017), and (Staber, 2007) undermined the role of social capital for SMEs operate in clusters. Hence, the second hypothesis can be formulated as follows:

H2. Social capital directly contributes to the performance of SMEs.

SMEs operate in clusters need to augment innovation capability for improving performance. (Bel Hadj & Ghodbane, 2019) proved that innovation performance are dependent on networks and the quality of relationships. (Maldonado-Guzmán et al., 2019) stated that enhancing innovation capability is important for SMEs as it can improve performance. (Saunila, 2014) pointed out that innovation capability will influence financial and operational performance. Therefore, it is expected that the function of innovation capability for SMEs in clusters play a mediating role for this collaborative strategy to performance. Departed from this, the last two hypotheses are presented as follows:

H3. Innovation capability positively mediates business strategies to firm performance.

H4. Innovation capability positively mediates social capital to firm performance.

By using multi-stage sampling, this research obtained 98 SME owners as respondents. The data were collected by distributing questionnaires to clusters in East Java, Indonesia which consist of two parts namely questions related the respondents'

characteristics and the main variables. These characteristics can be seen in Table 1 below:

Table 1. The profile of respondents

| Regions | Clusters | n = 98 |
|-----------|-----------------------------|--------|
| Madura | Batik handicraft | 16 |
| Mojokerto | Leather shoes | 15 |
| Sidoarjo | Leather Bag and accessories | 20 |
| Pasuruan | Furniture | 15 |
| Malang | Food processing | 17 |
| | Ceramic Processing | 15 |

Source: Data Processed 2020

Table 2. The profile of respondents

| Category | Frequency | % |
|--------------------------------------|-----------|-------|
| <i>Gender of Entrepreneurs</i> | | |
| Male | 64 | 65.31 |
| Female | 34 | 34.69 |
| <i>Periods of Firm establishment</i> | | |
| 1982-1990 | 12 | 12.25 |
| 1992-2000 | 28 | 28.57 |
| 200-2010 | 35 | 35.71 |
| 2011-2020 | 23 | 23.47 |
| <i>Number employees</i> | | |
| 1-4 (micro enterprises) | 39 | 39.80 |
| 5-19 (small enterprises) | 45 | 45.92 |
| 20-99 (medium enterprises) | 14 | 14.28 |

Source: Data Processed 2020

Table 1a and 1b display that the firms are distributed in shoes, furniture, batik handicraft, leather bags, food processing, and ceramic clusters which are located in selected regions of Madura, Mojokerto, Sidoarjo, Pasuruan, and Malang cities. The data showed that male entrepreneurs (65.31%) dominate the business than female entrepreneurs (34.69% for female). Around 85.72% of the entrepreneurs operate micro and small enterprises (MSEs), whereas 14.28% entrepreneurs manage medium enterprises (ME). Table 3 show the model constructs for this research, By using 5-Likert's scale, the respondents can choose 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree for replying the questions presented in Table 3:

Table 3. Items of indicators

| <i>Business Strategies (BS)</i> | |
|---|--|
| Finance | |
| FBS01 – I search the cheapest sources of capital | |
| FBS02 – I reserve part of profit for working capital | |
| FBS03 – I use production cost efficiently | |
| FBS04 – I allow customers to make debt | |
| Marketing | |
| MBS01 – I utilize direct selling | |
| MBS02 – I also use online selling | |
| MBS03 – I ask customers' opinion on my product | |
| MBS04 – I respond customers' complaint | |
| Human Resource | |
| HMS01 – I involve the workers in decision making | |
| HMS02 – I evaluate workers' performance | |
| HMS03 – I provide incentive for my workers | |
| HMS04 – I provide special training for my workers | |
| Production | |
| PBS01 – I prioritize the quality of products | |
| PBS02 – I anticipate customers' taste | |
| PBS03 – I renew working equipment | |
| PBS04 – I renew working methods | |
| <i>Social Capital (SC)</i> | |
| Bonding | |
| BoSC01 – My family supports my business | |
| BoSC02 – I employ my family to support the business | |
| BoSC03 – Family helps to solve my problems | |
| Bridging | |
| BSC01 – Among the entrepreneurs, we help each other | |
| BSC02 – My friends can be trusted | |
| BSC03 – The network of entrepreneurs are effective | |
| Linking | |
| LSC01 – Government policy makes easy the business | |
| LSC02 – Government provides production techniques | |
| LSC03 – Government's supports are suitable with firms | |
| <i>Innovation Capability (IC)</i> | |
| IC01 – I always produce new model of product | |
| IC02 – I follow the development of technology | |
| IC03 – I work with high flexibility | |
| IC04 – I always follow the change of customer's taste | |
| <i>Firm Performance (FP)</i> | |
| FP01 – My assets increase more than previous years | |
| FP02 – My workers increase more this year | |
| FP03 – The orders of product increase more this year | |
| FP04 – Final sale increases more this year | |

Source: Data Processed 2020

In order to measure the validity of indicators, this research uses SmartPLS 3.1.8. This research then measures Cronbach's alpha

(α), composite reliability (CR), average extracted variance (AVE) and loading factors (λ). Table 4 presents the initial constructs of model as follows:

Table 4. The Initial Constructs of Model

| Constructs | α | CR | AVE | λ |
|-------------------|----------|-------|-------|-----------|
| FP | 0.891 | 0.925 | 0.755 | |
| FP01 | | | | 0.911 |
| FP02 | | | | 0.806 |
| FP03 | | | | 0.879 |
| FP04 | | | | 0.877 |
| IC | 0.793 | 0.862 | 0.616 | |
| IC01 | | | | 0.593 |
| IC02 | | | | 0.831 |
| IC03 | | | | 0.920 |
| IC04 | | | | 0.759 |
| BS | 0.810 | 0.849 | 0.280 | |
| <i>Finance</i> | 0.528 | 0.722 | 0.422 | |
| FBS01 | | | | 0.612 |
| FBS02 | | | | 0.807 |
| FBS03 | | | | 0.771 |
| FBS04 | | | | 0.261 |
| <i>Marketing</i> | 0.607 | 0.755 | 0.484 | |
| MBS01 | | | | 0.597 |
| MBS02 | | | | 0.370 |
| MBS03 | | | | 0.848 |
| MBS04 | | | | 0.852 |
| <i>HRM</i> | 0.729 | 0.831 | 0.553 | |
| HMBS01 | | | | 0.698 |
| HMBS02 | | | | 0.759 |
| HMBS03 | | | | 0.836 |
| HMBS04 | | | | 0.671 |
| <i>Production</i> | 0.524 | 0.734 | 0.415 | |
| PBS01 | | | | 0.658 |
| PBS02 | | | | 0.764 |
| PBS03 | | | | 0.464 |
| PBS04 | | | | 0.653 |
| SC | 0.740 | 0.813 | 0.330 | |
| <i>Bonding</i> | 0.709 | 0.837 | 0.632 | |
| BoSC01 | | | | 0.832 |
| BoSC02 | | | | 0.776 |
| BoSC03 | | | | 0.775 |
| <i>Bridging</i> | 0.759 | 0.861 | 0.673 | |
| BSC01 | | | | 0.826 |
| BSC02 | | | | 0.794 |
| BSC03 | | | | 0.841 |
| <i>Linking</i> | 0.899 | 0.937 | 0.831 | |
| LSC01 | | | | 0.910 |
| LSC02 | | | | 0.921 |
| LSC03 | | | | 0.904 |

Source: Data Processed, 2020

RESULTS AND DISCUSSION

First of all, we need to do a validity and reliability of indicators. After eliminating some irrelevant indicators, the constructs satisfy the values of α , CR, AVE, and λ as suggested by (Joseph F. Hair Jr., G. Tomas, M. Hult, Christian M. Ringle, 2014). They recommended that the cut off for α , AVE, and CR are more than 0.6, whereas for λ is more than 0.5. The measurements of indicators are depicted in Figure 2 below.

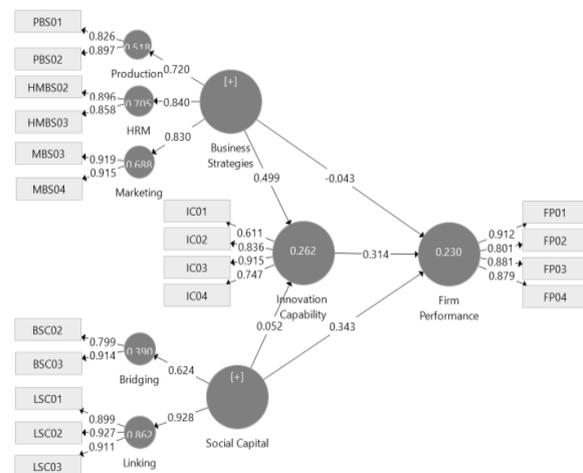


Figure 2. The research models

Source: Data Processed, 2020

Figure 2 displays that marketing, human resource management (HRM), and production are a part of business strategies applied by SMEs operate in industry clusters. Meanwhile, bridging and linking social capital are employed for the advance of firm performance. The presence of innovation capability then mediates business strategies and social capital to firm performance.

Table 5. Hypotheses testing

| Category | B | Mean | SD | P-values | H-Results |
|-------------|--------|-------|--------|----------|-----------|
| BS=>FP | -0.046 | 0.10 | 0.0682 | 0.682 | Rejected |
| SC=>FP | 0.34 | 0.351 | 0.09 | 0.000 | Accepted |
| BC=>.IC=>FP | 0.15 | 0.160 | 0.07 | 0.026 | Accepted |
| SC=>IC=>FP | 0.01 | 0.015 | 0.03 | 0.678 | Rejected |

Source: Data Processed 2020.

Table 4 shows that business strategies do not directly influence firm performance. As such hypothesis H1 is not supported. Public perception commonly signifies the positive relationship on business strategies to performance. Nevertheless, this study provides insignificant result for the direct relationship between business strategies and performance.

On another side, by forming bridging and linking social capital SME entrepreneurs in clusters can improve firm performance. The results show that cluster social capital directly contributes to performance ($\beta = 0.343$; ρ -value = 0.000). Therefore, hypothesis H2 is accepted.

Concerning to innovation capability, the result clearly shows its role as mediating variable. Innovation capability significantly mediates business strategies to firm performance ($\beta = 0.157$; ρ -value = 0.026).

In this regards, marketing, human resource management, and production strategies contribute to achieve this capability. Hence, hypothesis H3 is accepted.

However, innovation capability does not mediate social capital to performance. Its effect to performance is direct. As such, hypothesis H4 is not supported.

This study describes SMEs operate in small industry clusters and provides empirical results demonstrating that social capital directly influences firm performance. The data also reveal that innovation capability is able to mediate the relationship between business strategies and firm performance. By taking various clusters in East Java, this study provides different angle of view to comprehend the dynamics of SME clusters.

By understanding this dynamic, it is known that business strategies do not directly affect SMEs performance. Contrarily with common view on this effect, SMEs operate in clusters actually cannot utilize their own business strategies to influence the performance directly. Their strategic effects to firm performance must be mediated by innovation capability.

The presence of innovation capability factually creates different benefits for such clustered SMEs. Innovation capability only provides significant effects for mediating business

strategies to performance. Although the notion of cluster is usually directed to large industry, this study supports an argument on the role of innovation capability to the performance of SMEs operate in small industry clusters. This research is also in line with the result given by (Maldonado-Guzmán *et al.*, 2019); (Kafetzopoulos *et al.*, 2020); (Herlinawati & Machmud, 2020); (Ahmed *et al.*, 2020); (Alam & Adeyinka, 2021); (Faisol, Astuti, P., Winarko, 2021). They have proved that innovation in product, process, marketing and management significantly and positively influences the business performance of SMEs.

A direct effect to the performance will be obtained if SMEs utilize cluster social capital. By making bridging and linking social capital, the capitals directly contribute to firm performance. Since the business dynamics develop, making business networks among SMEs and relationship with local government effectively contribute to firm performance. This study supports the previous arguments that by constructing social networks, the capital will direct SMEs to boost performance (Boohene *et al.*, 2019); (Appiah-Gyimah & Boohene, 2018); (Agyapong *et al.*, 2017); (Pratono & Mahmood, 2015); (Faisol, 2017). A special attention is paid to (Boohene *et al.*, 2019) that stressed on the moderating role of emotional intelligence for the relationship between social capital and firm performance.

Therefore, if SME entrepreneurs want to improve firm performance, they have to augment their capability in innovation. Some improvements might be made in product, methods, and services that are demanded by customers. Firm strategies in production, human resource management, and marketing can contribute to strengthen this capability although in limited patterns caused by SMEs' obstacles when the entrepreneurs try to find what to sell and how to produce economically. (Sharma, 2014) pointed out that there are six aspects to observe SME innovations, namely; 1) product innovation, 2) process innovation, 3) product quality and standardization, 4) efficient use of inputs, 5) alternative materials, and 6) new production machines.

Meanwhile, social capital which is reflected by bridging and linking social capital cannot improve SME's innovation capability and consequently this capability does not mediate the relationship between social capital and performance. As have been discussed above, these effects of social capital are direct to firm performance.

This research obviously provides new insights for SMEs operate in small industry clusters. For instance, by understanding the mediating effects given by innovation capability, the entrepreneurs can more effectively formulate some appropriate strategies in order to augment this capability. The results of study reveal that improvement in human resource management, production, and marketing strategies will enlarge the firm's capability in innovation. Due to great heterogeneity in orientation and capabilities, (Shapira *et al.*, 2011) emphasized that not all SMEs are innovative.

In concordance with their own strategies, the entrepreneurs can also utilize cluster social capital which is intended to improve firm performance. The research shows that social capital directly affects performance. In this context, the entrepreneurs create business networks among SMEs and relationship with local government. The benefits of social capital do not affect innovation capability, but this capital directly improve performance. This study supports (Knorringa, Peter and Staveren, 2005) that during the phases of industrialization, bridging and linking social capital are important in utilizing economic resources. These capitals help SMEs to more develop and integrate into a widely connection of supply chains.

Therefore, this study suggests SMEs to collaborate their own social capital strategies when they are doing business through clustering. This strategy is expected to achieve superior firm performance. In this regard, although business strategies cannot directly affect performance, but the strategies contribute to augment innovation capability. Meanwhile, social capital provides significant affect to firm performance directly. In line with (Patrick, 2017); (Ngo *et al.*, 2020); (Analia *et al.*, 2020); (Ha, 2021); (Tarighi *et al.*,

2022) they are argued that cooperation among SMEs in clusters can raise their productivity, innovativeness and profitability.

Here, it is clearly shown that efforts to develop SMEs are influenced by internal and external factors. The efforts cannot simply rely on internal factors such as on SMEs' business strategies and innovation capability for obtaining firm performance. Nevertheless, external factors such as utilizing social capital also provides certain benefits for SMEs performance.

Theoretically, this study implicates to incorporate social capital into local and regional development. During industrialization phases, social capital enables people to participate and consolidate development resources. Making networking, for instance, will benefit to optimize the resources which are needed in economic development. As such, this study academically provides some insights and contributes to development and industrial economics especially that relates to the improvement of small industry clusters.

This study practically implicates to policy makers that efforts in developing SMEs can be approached by SME clustering. Many development programs that are delivered to the SME clusters will strengthen the utilization of social capital, and thus, these programs can improve firm performance. Therefore, local governments have to facilitate SMEs clusters with collaborations and productive networks that help SMEs to enhance their competitiveness either locally or globally.

CONCLUSION

One of the objectives of SME clustering is to improve firm performance. Within the clusters, SMEs apply their own strategies and in the same time they also employ cluster social capital for obtaining high performance. The research that focuses on SMEs operate in various clusters in East Java obviously reveals this objective. The research also clearly exhibits the specific role of innovation capability in affecting firm performance. Basically, innovation capability are

considered merely intermediates business strategy to performance.

In the same time, the benefits of social capital enable the clustered SMEs to improve firm performance directly. In this sense, the clustered SMEs can build *bridging* and *linking* social capital. While SMEs in the clusters create business networks among them, they also need to form close relationship with other institutions such as other firms, financial institutions, organizations, and local governments. Since business strategies in SMEs context are specified as unstructured, flexible, and incremental the firms can strengthen their strategies by utilizing cluster social capital.

Therefore, this study recommends SMEs in clusters to collaborate their own strategies with cluster social capital in enhancing firm performance. The role of innovation capability is becoming as an intermediating variable for the relationship between business strategies and performance, while social capital directly contributes to firm performance.

Two limitations might be found in this study. *First*, the research more focus on small industry clusters rather than big clusters. A researches that focuses on big industry clusters is needed in order to scrutinize more deeply whether or not social capital plays a different function for cluster development. And *second*, due to some obstacles in obtaining the data given by clustered SMEs, this research employed the data subjectively. It means that the data are based on the subjective perception of respondents in replying the questionnaires.

Therefore, we recommend further research to replicate this study on large industry clusters. It is expected that the interplay between corporate strategies and social capital to performance will explain different result for the development of industry clusters. In doing so, we also suggest using objective data for achieving the targeted measurements more precisely.

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