Growing Competitiveness of Fashion Cluster

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Abstract—**This paper aims to explore factors enhancing and factors hindering competitiveness of fashion cluster in Bandung. What are supporting factor to increase competitiveness of fashion cluster? And what are hindering factors to increase competitiveness of fashion cluster? Literature review study will be conducted to explore the factors influence competitiveness in fashion cluster both supporting and hindering factors. This paper is the initial step to propose the strategy for increasing competitiveness of fashion cluster in Bandung. Innovation cluster is one of the strategy could be adopted to develop competitiveness of fashion cluster. Clustering as an important way for enterprises to develop regional and national competitiveness by broaden and enhance industrial linkage together vertical and horizontal relationship. Moreover, cluster industry potentially increasing productivity, increasing innovation, and stimulating of new business.**

Keywords—*innovation cluster; small and medium enterprise; fashion cluster*

I. INTRODUCTION

Bandung known as the center of fashion city in West Java Indonesia. Fashion products in Bandung are including apparel, shoes, bag, and knitted are potential to develop. In Bandung also found many clusters in fashion industry, such as knitted cluster in Binong Jati, shoes cluster in Cibaduyut, and shirt cluster in Surapati Street. Unfortunately, rapid imported products from overseas potentially give the negative effect for the existence and sustainability of fashion industry in Bandung. Moreover, majority of this business is in micro, small and medium scale enterprises (MSMEs) which difficult to compete with multinational enterprise. Based on the data from Cooperatives, Small and Medium Enterprise, and Trade Office, 2017 the increasing number of enterprises in fashion industry have been declining since 2015.

Whereas, fashion cluster has big opportunity to penetrate global market since many trade agreements established. As example, ACFTA (ASEAN China Free Trade Area) establish in 2005 and in 2007 AKFTA (ASEAN Korean Free Trade Area) was implemented. Then, the latest in 2015 Indonesia have faced the ASEAN Economic Community (AEC). One of facilitates of agreements for member is low tariff even free tariff and no barriers. Fashion cluster can use this opportunity if their can compete with other countries. The problem is the competitiveness of fashion cluster still low compare with other countries. Mainly, fashion cluster in Bandung consists of many MSMEs. So that, the problem faced by fashion cluster relates

with constraints faced by SMEs. The majority constraints of MSMEs are productivity, human resources, technology, marketing, financing, and networking. Therefore, we have to find out the strategy for increasing the competitiveness of fashion cluster.

SMEs have to overcome the competitiveness challenge. In Indonesia, regarding to the competitiveness of SMEs, there are already some research finding the problem in SMEs like: innovation and strategy [1], the problem of standardized production, the adoption of technology, marketing and promotion, financial [2], networking [3] and human resource [4,2].
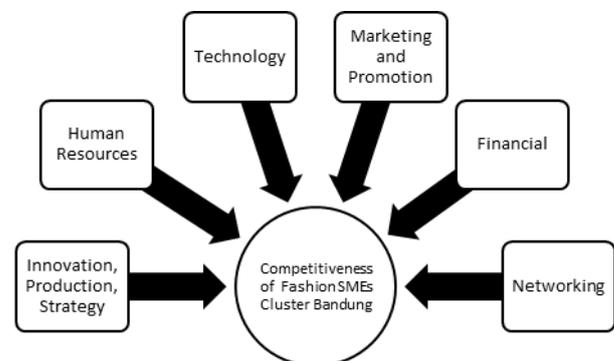

Fig. 1. Constraint factors of competitiveness SMEs fashion.

Within this context, the present paper aims to propose a conceptual framework for the evaluation and comparison of cluster competitiveness. To arrive at a framework, theoretical, conceptual and empirical papers on the clusters and competitiveness have been reviewed. The study is organized into three sections. The first is introduction following with the literature review of clusters and competitiveness. The third section covers a conceptual framework and discussion.

II. LITERATURE REVIEW

A. Cluster Theory and Competitiveness

The geographic concentration of networks of organizations has been widely recognized in the literature as conducive to innovation and growth. After the influential contribution from Marshall [5], regional agglomeration of firms received a great interest among scholars in the1970s until the concept of clusters was popularized by Porter [6]. Porter address cluster effect competition in three broad ways: first, by increasing the

productivity of companies based in the area; second, by driving the direction and pace of innovation, which underpins future productivity growth; and third, by stimulating the formation of new business, which expands and strengthen the cluster itself [7]. Moreover, as part of Porter Book the Competitive Advantage of Nations, Porter developed the notion that innovative industrial clusters are integral to export learning and the generation of national competitive advantage. Porter's Industrial Cluster Theory argues that a nation's industry will be internationally competitive if a synergistic interrelationship exists between four important variables collectively known as the Diamond Factor Model.
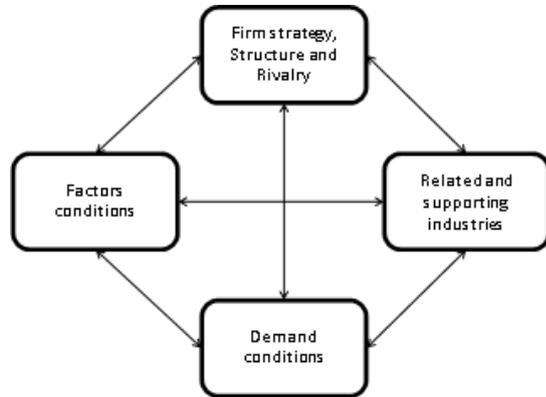

Fig. 2. Porter's Diamond factor model [6].

How cluster affect competition are based on three broad ways [7]:

1) Clusters and productivity: being part of cluster allows company to operate more productively in searching inputs; accessing information, technology, and needed institutions; coordinating with related companies; and measuring and motivating improvement.

2) Cluster and innovation: Some of the same characteristics than enhance current productivity have an even more dramatic effect on innovation and productivity growth.

3) Cluster and business formation: Individuals working within a cluster can more easily perceive gaps in products around which they can build business. Beyond that, barriers to entry are lower than elsewhere.

Cluster theory suggests that competitive advantage derives not just from firm-based resources and capabilities, but also from the resources and capabilities located in the firm's geographically proximate business environment [8]. Some empirical research has shown that clustering can produce significant positive effects on rates of new firm formation and firm productivity, innovation, profitability, and growth [9-12]. Eisingericha said that high performing clusters are underpinned by the economic efficiencies they confer on constituent firms, including increased specialization, reduced transaction costs and enhanced reputation [13].

B. Conceptual Framework and Discussion

There are several studies mention the factors affect the performance of industry cluster. Wharton and Brunetto, identified the role of government as significant factor affecting

business collaborative and innovative activities in some countries [14]. Singh and Shrivastava notion the factors such as proximity of companies, social capital, business environment, trust building and knowledge resources have positive relationship with firm performance located in cluster [15]. The relationship between cluster size and firm performance have stressed by Folta, Cooper and Baik [16]. The measurement of performance used in this study were firm operations, success of firm in raising capital, success in attracting strategic alliance and development of intellectual property.

III. METHODOLOGY

In this paper, measurement adopted by National Research Council, 2002 (NRC) [17]. NRC has designed an approach to analyses the strengths and weaknesses of the clusters in which it is involved, to support policy and industry actions to foster the development of clusters, and to measure the progress of the clusters over time. The approach divides into operationalize Current Conditions and Current Performance into a hierarchy of constructs, sub-constructs, and indicators. Current Conditions consists of three constructs that measure the cluster's supporting organizations (including NRC), the competitive environment of customers and competitors, and the factors in the environment of the cluster that influence all of these actors (e.g., availability of HQP, business climate, etc.). Current Performance consists of three constructs that measure the cluster's significance in terms of the number and size of core firms, the breadth of their responsibilities, and their reach to distant markets; interactions within the cluster and with the rest of the world; and the cluster's dynamism in terms of innovativeness and growth. The performance of the cluster as a whole is dependent on the success of the individual firms and moderated by the cluster factors, supporting organizations, and customers and competitors. There is a temporal disconnect between Conditions and Performance in that current conditions impact future performance, and current performance is the result of past conditions.
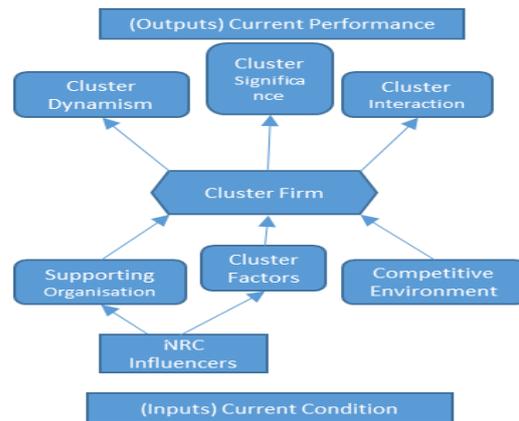

Fig. 3. NRC cluster framework.

The measures include the cluster's business characteristics, internal and external linkages, use of public infrastructure, creative behaviour, and market orientation. The cluster model comprises six constructs and thirty-three variables, yielding a conceptually grounded and easily replicable set of indicators.

Many of the indicators are measured as responses to statements on a five-point Likert scale.

TABLE I. MEASUREMENTS OF NRC CLUSTER

Concepts	Constructs	Sub-constructs	Indicators
Current conditions	Factors	Human resources	Access to qualified personnel
			Local sourcing of personnel
		Transportation	Quality of local transportation
			Quality of distant transportation
		Business climate	Quality of local lifestyle
			Relative costs
			Relative regulations and barriers
	Supporting organisations	Innovation and firm support	Contribution of other research organisations
		Community support	Government policies and programs
			Community support organisations
			Community champions
		Suppliers	Local availability of materials and equipment
			Local availability of business services
			Local availability of capital
	Competitive environment	Local activity	Distance of competitors
			Distance of customers
		Firm capabilities	Business development capabilities
			Product development capabilities
Current performance	Significance	Critical mass	Number of cluster firms
			Number of spin-off firms
			Size of cluster firms
		Responsibility	Firm structure
			Firm responsibilities
		Reach	Export orientation
	Interaction	Identity	Internal awareness
			External recognition
		Linkages	Local involvement
			Internal linkages
	Dynamism	Innovation	R&D spending
			Relative innovativeness
			New product revenue
		Growth	Number of new firms
			Firm growth

Cluster analysis enables accurate and effective policy and management intervention. An understanding of a cluster's internal workings – components, structures, processes, routines and development pathways – is critical to support the development of a successful cluster.

Because they are dynamically evolving systems, innovation clusters are moving targets for policy interventions [18]. In particular, clusters have life cycles [19]. Therefore, the NRC framework has been situated within a four-stage cluster life cycle, defined as follows:

- Latent. A region has a number of firms and other actors that begin to cooperate around a core activity and realize common opportunities through their linkages. Indicators for a latent cluster will include a small number of firms, low internal awareness and external recognition of cluster activities, and few linkages among stakeholders.

- Developing. As new actors in the same or related activities emerge or are attracted to the region, new linkages develop. Formal or informal institutes for collaboration may appear, as may a 'label' (such as 'Silicon Valley') and common promotional activities for the region. Indicators for a developing cluster will include developing linkages, internal awareness of regional strengths and other actors, and high innovation.

- Established. A critical mass is reached. Relations outside of the cluster are strengthened. There is an internal dynamic of new firm creation through start-ups, joint ventures, and spin-offs. Indicators for an established cluster will include a large number of firms (many of which will be 'spin-offs' of other cluster organizations), external recognition of the cluster's advantages, active linkages, and high innovation.

- Transformational. Clusters change with their markets, technologies, and processes. In order to survive, the cluster must avoid stagnation and decay. Transformation may be through changes in the products and methods, or into new clusters focused on other activities. Depending on the state of transformation, indicators may be mixed.

IV. CONCLUSION

To obtain the purpose of this paper, the measurement from NRC could be adopted to analyze the position of fashion SMEs cluster in Bandung. Based on the measurement will stressed what supporting and hindering factors affecting the performance of cluster. The result will give the information to stakeholders what kind of program suitable to develop Fashion SMEs cluster in Bandung.

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