Abstract

Cluster approach is very important as one approaches considered for improving SMEs, the approach is better than the individual approaches. Small-medium entrepreneurs have never had a meeting with other similar companies in their environment. SMEs individually are usually not able to capture market opportunity as a result they often miss the opportunity to exchange information and experiences as well as opportunities for product development collaboration to work on the existing market potential. Business networks are proved effectively to increase business competitiveness due to synergy. In the cluster approach, supporting (both technical, management and financial) distributed to the group rather than individual SMEs.

This study aims to analyze the dominant factor effecting the development of business clusters and model development on bamboo crafts industry in Tasikmalaya District using factor analysis. Bamboo industry chosen because it is one of the leading industry in Tasikmalaya district that has a strong brand image and a lot of local employment.

The data used primary and secondary data, primary data was collected through stakeholder discussion forums, questionnaires, and interviews with relevant actors, namely local government, educational and training institutions, financial institutions, research and development, business associations, as well as business units which include the workforce in it. Observations directly to the business units also performed to determine the production process and business conditions, particularly in capturing information about the obstacles faced. While the secondary data used are policy documents at the central and local, regional statistical data, and relevant literature.

Key Words: The Micro, Small And Medium Enterprises, Cluster Business, bamboo crafts industry

INTRODUCTION

Business cluster development of Small and Medium Enterprises (SME) is one of the alternative solutions in order to optimize available resource. SME business cluster approach can improve the effectiveness of founding development. Through business cluster will facilitate the transfer of technology, transfer of information, and increase SME access. Cluster approach can also be used to build a strong company service industry. If an area asking about a program that was once in five years to promote SMEs in the long term, it should be selected to build the infrastructure (physical) to exist company industry service cluster in strategic places in a city. It will be a center of business development services through the market and grow in one compact location as part of the city supporting services. If you've managed to build the infrastructure they would be prosecuted manage well.

Cluster as an approach is proven gaining acceptance in the development approach that involves grouping patterns. Therefore, the cluster approach will be a part of the development of the business development model for SMEs in each region in Indonesia. The problem is the
optimal agglomeration should generate synergies for efficient and sustainable progress for competitive, successful clusters brought efficiency and sustain progress for better competitive strength. Advocacy on cluster can basically be started at different levels of both promotion and protection, in the context of promotion we have learnt a lot from our own experience, which generally occurs in enterprises development in the industrial sector.

The purpose of this study is to provide an analysis description of clusters development of bamboo handicraft business at Tasikmalaya district and the dominant factors in the development of those craft business clusters.

Definition of SMEs

Small and medium enterprises (SMEs) play a crucial role in the development of the Indonesian economy. Micro, Small and Medium Enterprises (MSME) has contributed an important and substantial in providing employment and income for the community. Therefore, empowerment and sustainable development needs to be done to it so that SMEs are not only growing in number but are also growing in quality and competitiveness of products. Micro, Small and Medium Enterprises (SMEs) play an important role in the economy of Indonesia. SMEs have a proportion of 99.99% of the total businesses in Indonesia or as many as 52.76 million units (BPS, 2009). Central Statistics Agency (BPS) in 2009 also shows that SMEs is proven account for 56.92% of total Gross Domestic Product (GDP) of Indonesia or equivalent Rp1.213, 25 trillion. In addition, SMEs have the ability to absorb labor (absorbing 97.3% of the total labor force who works) and has a large amount of the total units in Indonesia as well as a substantial contribution to investment in Indonesia it is Rp222, 74 trillion or 51.80% of total investment in 2008 (Bank Indonesia, 2010).

About the notion of SMEs in Indonesia, according to Law No. 20 of 2008 on SMEs, there are several criteria that are designated as SMEs. Micro is a business that has a net worth of at most 50,000,000 00 (fifty million rupiah) excluding land and buildings, or having an annual sales turnover of Rp300,000,000, 00 (three hundred million rupiahs). Small Business is a business that has a net worth of more than 50,000,000.00 (fifty million dollars) to the most widely of Rp 500,000,000, 00 (five hundred million rupiahs) excluding land and buildings, or b. has annual sales of more than Rp 300,000,000.00 (three million rupiahs) to the most widely of Rp 2,500,000,000, 00 (two billion five hundred million rupiahs). Medium Enterprises are businesses that have a net worth of more than Rp 500,000,000. 00 (five hundred million rupiah) to the most widely 10,000,000,000, 00 (ten billion dollars) not including land and buildings, or b. has annual sales of more than Rp 2,500,000,000, 00 (two billion five hundred million rupiah) to the most widely Rp 50,000,000,000, 00 (fifty billion dollars). Those criteria and the nominal value can be changed in accordance with the economic development that is regulated by the President. Central Statistics Agency (BPS) provides a definition of SMEs based on the quantity of labor, i.e for small businesses have employers about five to 19 people, while medium-sized businesses have employers around 20 to 99 people.

In general, there are many limitations possessed by SMEs in developing a business such as low quality of human resources, financial capacity and low competitiveness. The allocation of resources is done tends to be carried out in order to achieve short-term goals, which frequently leaves them to respond to external Influences as they occur rather than taking a proactive approach (Heather C. Banham, 2010). It is therefore necessary guidance to SMEs in order to increase their competitiveness among the national, regional and international levels.
Cluster Concept

The cluster concept has gained increasing prominence on the agenda of international development organizations over the last decade. The foundations of this paradigm can be traced back to the work of the economist Alfred Marshall, who in his *Principles of Economics* (1890) described the phenomenon as “the concentration of specialized industries in particular localities” and noted that these agglomerations of small-scale businesses enjoyed economies of scale comparable to those of large firms (*UNIDO, 2010*).

In its traditional form, clustering refers to the process in which geographically proximate producers, suppliers, buyers, and other actors develop and intensify collaboration with mutually beneficial effects. However, in its most advanced form, according to a widely accepted definition proposed by Porter (2000), a cluster is a geographically proximate group of interconnected enterprises and associated institutions in a particular field, linked by commonality and complementarity. Under this definition, a cluster may include suppliers of inputs, or extend downstream to regular buyers or exporters. It also includes government institutions, business associations, providers of business services, and agencies that support clustered enterprises in such fields as product development, production process improvement, technology, marketing information (for example, on new market and designs), vocational training, and so on (*Tambunan Tulus, 2005*).

Some understanding of the elements in industry clusters are as follow (*Nugroho Bhinukti Prapto, 2011*):

1. **Core industries**, industries that are the focus of attention or thematic and is usually used as an entry point assessment; may constitute industrial centers; advanced Industries (characterized by innovation).
2. **Supplier Industry**, other industries that supplies core industries (special products); specific Supplier (specialist) is supporting the advancement of industrial clusters. The supplies include the main raw material; additional material; Accessories.
3. **Buyers**, Can be a distributor or direct users; Buyers are very "claimant" is hyper advancement of industrial clusters, the Purchaser is comprised of distributors; retailers; users.
4. **Supporting industries**, including: industrial goods and services, including service, finance (Bank, Venture Capital), supporting industries, among others, consist of: Financing (Bank, Venture Capital); Services (Transport, Distribution Business, Business Consultant), Infrastructure (Roads, Telecommunication, Electrical); Equipment (Machinery, supported Equipment); Packaging; Business Development Service Providers (Business Development Services Provider / BDSP).
5. **Related industry**, are industries that use the same infrastructure; industries that use resources from the same source (eg, an expert group). The term of “linked” here is somewhat different from those used every day. Related industries not directly related to business. Related industries, include competitors; complementary; substitution.
6. **Supported institutions**, government institutions in the form of policy makers or performing a public role; Association professions who work for the benefit of members; Non-government organization Developers that work on the specific areas that support.

The Importance of Cluster for SME Development

In general, SMEs have many limited growing, including limited capital, market access, low skills, lack of innovation and others. For that guidance to SMEs should be done in order to enhance the competitiveness of SMEs. One of the approach to developing SMEs are considered to be successful is through a group approach. In a group approach, the support (both technical and finance) are disbursed to the group of SMEs and not per individual of
SME. A group approach is believed better because (1) individually SMEs are usually not able to capture market opportunities and (2) business network that formed is proved effectively to improve business competitiveness because it can work in synergy. For supporters, a group approach is also better because the identification process and the empowerment of SMEs become more focused and efficient. From the cases successfully (success story) is known that SMEs development in the group is success to increase the capacity of the competitiveness of SMEs, to optimize human resources and the potential of local natural resources, expand employment opportunities, and improve productivity and add value to SMEs.

Recently, policy interest in SME clusters in Indonesia has grown considerably. Both the Ministry of Industry and Trade and the State Ministry for Cooperatives and Small Enterprise Development have strengthened their programs for the development of clusters. International agencies, such as the Asian Development Bank (ADB), Japan International Development Agency (JICA), and the International Labour Organization, have promoted SME cluster development. Therefore, cluster enterprises are able to achieve higher and sustained growth rates, for synergies and collaborative linkages allow them to pool resources and efforts together for the achievement of shared economic goals. Collective efficiency gains can be further enhanced when the institutional and policy frameworks are responsive to the firms' needs and supportive to their efforts (Tulus Tambunan, 2005).

There are essentially two components to cluster development; the first is the cluster creation, the second cluster upgrading. Some experts claim that 'any effort to build clusters from scratch is doomed to failure'. Others believe that 'SME agglomerations [can] be created in green field areas. There are certainly very interesting experiences around the world of dynamic export processing zones or technology Incubators that have delivered sustainable results' (UNIDO 2006). In the future, efforts to grow central business cluster of SMEs which is facilitated need to be directed to create, equip, improve, and strengthen it in order to run well to achieve the goals of SMEs clusters formation healty and dynamicly.

Some benefits of clusters in developing SMEs business are:

1. **Increased economies scale**
   The existence of clusters in industry has encouraged the cooperation among enterprises. The cooperation could be in the supply of raw materials, markets, and others. Cooperation in the
supply of raw materials will provide economic benefits by cheaper raw material prices. Cooperation in the supply of market produce economic efficiency by lower production costs so the price of per unit produced goods become cheaper.

2. **Improving innovation**

   Innovation can occur because of social interaction, the interaction between co-workers or interaction among SME workers with larger companies. The SMEs which are in large corporate environments as well as suppliers of raw materials or buyer of finished goods are possibly occur the process of learning through learning by doing and knowledge transfer. In the development of innovation, SMEs rely depends on the other, they are less able to get knowledge independently. Innovation happens in SMEs tend to be due to the transfer of knowledge between individuals.

3. **Vertical and horizontal integration**

   Through horizontal cooperation, for example with other SMEs, has the same position in the value chain (value chain) collectively. The firms can achieve economies of scale beyond the reach of smaller companies individually. Through vertical integration (with other SMEs and the major companies in the supply chain), companies can focus on the core business and allow the division of external labor. The cooperation among companies also provides learning opportunities collectively to improve product quality and move to a more profitable market segments. Business networks and local policy makers can support the establishment of a shared vision local development and strengthening collective action to improve the competitiveness of SMEs.

4. **Improving human capital**

   Along with the interaction between SMEs and larger firms will drive an increase in human capital. Clusters facilitate interactive learning when they support the acquisition and transfer of knowledge (human capital and knowledge provision and social capital). By this reasoning the policies should target of the interactive learning between the firms in the cluster (including both SMEs and TNCs) and the creation of the relevant bodies for providing the relevant knowledge for the industries in question (Chaminade, Cristina; Vang, Jan; 2006).

The Development Model of Bamboo Craft Cluster in Tasikmalaya District.

   Bamboo handicraft business has long been occupied by part of the population from generation to generation at production centers location. Bamboo handicraft production process activities are done by using a simple tool that is very easily done by anyone, including housewives. It is approximately 20% of bamboo handicraft products set for export compliance as Japan, Italy, Germany and Hungary. Types of bamboo crafts that are liked were household appliance such as a cake plate, a fruit container and so on. To satisfy foreign consumers is agreed joint marketing with handicraft exporters who are members of the Association of Indonesian Handycraft Branch Tasikmalaya and some exporters are located in Cirebon. Consumers typically come directly to the artisans coming from Tasikmalaya or coming from outside the region such as Bandung, Jakarta and Bali.

   Potential production centers (business units) bamboo spread in 39 villages covering 20 districts, namely District Salawu, Mangunreja, Bojongambir, Sukaratu, Puspahiang, Bojongasih, Ciawi, Jamanis, Tanjungjaya, Pagerageung, Singaparna, Sariwangi, Leuwisari, Sukahening, Cisayong, Cigalontang, Cikatomas, Pancatengah and Salopa which is the largest business unit located at Cisayong District. Along with the increased in production of bamboo crafts it will increase welfare. The largest production is sub-district Leuwisari and Salawu, both contribute production at 44,65. Bamboo craft Industrial roles in providing an employment and improved welfare. Labor is generally derived from bamboo handicraft center area where it is located and only few craftsmen from outside the district Tasikmalaya. The
main raw material of bamboo craft is bamboo rope (apus), which is supplied from the District Tasikmalaya, Garut and Ciamis and Kebumen. Garut and Ciamis are supplying bamboo in the form of bars, while the raw materials are from Kebumen in shape of semi-finished materials (woven). Fulfilling the needs of bamboo raw materials in general have not been fully met, many requests both from in and outside the country are not being met.

Along with some phenomena and the illustration above, Tasikmalaya regency government concern towards the development of business clusters bamboo craft. Through the cluster system of bamboo handicraft business in Tasikmalaya district will encourage innovation and creativity activities that grow and compete with similar products in the national market, regional and even international. Existing condition indicates that the design of the product in accordance with skills / human resources meets stipulated requirements, but has not been able to meet the needs of the market optimally, this is due to lack of infrastructure support, especially in the raw material.

The results of the identification of bamboo handicraft cluster profiles based on the key variables that have been found by Markusen (Kuncoro, 2002) are as follows:

Table 4.Identification Tabel Of Cluster Pattern Of Bamboo Handicraft Industry

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Investment Decisions</td>
<td>Business Structure and Economy Scale is dominated by small industries and households</td>
</tr>
<tr>
<td>Contracts and Commitments between Buyer and Raw Materials Provider</td>
<td>Relatively strength</td>
</tr>
<tr>
<td>Level Cooperation and Interrelationship among fellow entrepreneurs in the Cluster</td>
<td>Relatively Strong</td>
</tr>
<tr>
<td>Level Cooperation and Linkages among Entrepreneurs out Clusters</td>
<td>Relatively Strong</td>
</tr>
<tr>
<td>Markets and Labour Migration.</td>
<td>Plentiful and labor migration into the bamboo clusters is quite high</td>
</tr>
<tr>
<td>Linking Local Cultural Identity</td>
<td>Almost all entrepreneurs display characteristic of the product in accordance with local needs</td>
</tr>
<tr>
<td>Unit / The Borrowed Funds</td>
<td>No</td>
</tr>
<tr>
<td>Role of Local Government</td>
<td>Relatively Strong</td>
</tr>
<tr>
<td>Role of Trade Associations</td>
<td>a trade association</td>
</tr>
</tbody>
</table>

Source: Primary Data 2012, prepared

In general, the model of cluster development are 4 types, namely (1) model of joint production, (2) sub-contract models, (3) vertical integration model, and (4) horizontal integration. Observations showed that the successful central growing its business clusters characteristic have a model of vertical integration, or often referred to as core-plasma, in the implementation of its centre product. The core is built by cooperation which is managed and run well professionally, while Plasma is MSMEs in the center which works well, as a group, teamwork, turn on the institutions together to support the supply chain of products and develop / understand the business plan are made in a participatory manner with the cooperative as core (Lester, 2008).

Cluster development model made by craftsmen bamboo craft is a model of sub-contracts. Sub-contracting involves buying supplies from another firm and working closely on detailed specifications for a complex product (M. Nureldin Hussain, 2000). To meet the growing demand from overseas markets in general purchase by order. The exporters and foreign consumers carry a certain design, while the artisans / entrepreneurs also have the design anyway. Furthermore, the process of discussion between them until agreed fix design.
The next stage is price agreement. To meet domestic market, some by supplying number of stores in Tasikmalaya District, partly by order. Figure 2. Industry Marketing Pattern of Bamboo Weaving

![Diagram of Industry Marketing Pattern of Bamboo Weaving]

**Figure 2. Cluster Pattern in bamboo Handicraft Industry**

**Dominant Factors Effecting Business SME Cluster Development on Commodity Bamboo Craft**

Potential handicraft business in the District of Tasikmalaya is pretty good, it is seen by the number of business units engaged in handicraft business. Craft business units spread across districts, with various types of handicraft business. Each of these business units operates their activities with the use of labor from in and around business unit location. Role of handicrafts sector in regional development is quite meaningful, as it can contribute to local revenues, create new jobs, being stimulant of the emergence of other business units related to craft activities. To analyze the dominant factors that influence the development of business clusters bamboo craft using factor analysis. The types of data that used consist of primary data and secondary data. Primary data were obtained from direct observation to entrepreneurs / craftman of woven bamboo industry. Secondary data obtained from the study results, articles, journals and data from official publications, institutions associated with this study. Identification of the factors expected to influence the development of business clusters bamboo craft industry through focus group discussions involving relevant stakeholders including the Department of cooperation, industry and commerce, the Forest Service, Regional Development Planning Board, Chamber of Commerce, Association of Tasikmalaya district.

Based on the identification of the survey, and then analyzed in order to obtain the variables formulation influencing the development of business clusters woven bamboo, namely:

<table>
<thead>
<tr>
<th>No. Question</th>
<th>The Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>The production cooperation between business units</td>
</tr>
<tr>
<td>P2</td>
<td>group of business units</td>
</tr>
<tr>
<td>P3</td>
<td>The cooperation in marketing</td>
</tr>
<tr>
<td>P4</td>
<td>Advanced technology that used</td>
</tr>
<tr>
<td>P5</td>
<td>Required Skills labor</td>
</tr>
<tr>
<td>P6</td>
<td>Market expectations</td>
</tr>
</tbody>
</table>
Based on the results of data processing by using software SPPS 17, 13 these variables can be grouped into four factors, as shown in the following table:

<table>
<thead>
<tr>
<th>FACTOR 1</th>
<th>P3</th>
<th>P5</th>
<th>P6</th>
<th>P9</th>
<th>P12</th>
<th>NAME OF FACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cooperation in marketing</td>
<td>Required skills labor</td>
<td>Market expectations</td>
<td>Combination of resources and competencies</td>
<td>Competitiveness</td>
<td>ABILITY TO MEET CUSTOMERS FOREIGN</td>
</tr>
<tr>
<td>FACTOR 2</td>
<td>P2</td>
<td>P4</td>
<td>P11</td>
<td>P13</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The existence of the business unit</td>
<td>Level of technology that used</td>
<td>Specialization</td>
<td>Willingness to increase investment</td>
<td></td>
<td>PRODUCT DIVERSIFICATION DEVELOPMENT</td>
</tr>
<tr>
<td>FACTOR 3</td>
<td>P7</td>
<td>P8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spatial concentration</td>
<td>There is interaction among firms</td>
<td></td>
<td></td>
<td></td>
<td>ESTABLISHMENT OPERATING LOCATION</td>
</tr>
<tr>
<td>FACTOR 4</td>
<td>P1</td>
<td>P10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Product cooperation between business units</td>
<td>There is interaction within the institution</td>
<td></td>
<td></td>
<td></td>
<td>BUSINESS NETWORK FORMATION</td>
</tr>
</tbody>
</table>

Based on the table, resulted that the dominant factor effect to the development of SME business clusters of bamboo crafts commodity are:

1. **The ability to meet foreign consumers**
   Resources owned by the craftsmen should be utilized as good as possible, through technology touch and expertise, so it can enhance the competitiveness of bamboo handicraft products.

2. **Development of product diversification**
   To retain customers in order not to saturate the products that we offer, it is necessary to diversify product, this can be done by training in making new designs. Utilization of technology that allows can improve the quality of the product.

3. **Establishment of business location**
Location is an important thing in developing SMEs, will facilitate the direct, concentrated location will improve efficiency and accelerate innovation as a kind of interaction between employers or employers' above. Besides that to facilitate the marketing of goods, we need a place where buyers and sellers can interact easily.

4. Establishment of networking
Creating the marketing networks is necessary to create new innovation, improve sales of Bamboo craft product. This is done by cooperative and interaction among Bamboo craft enterpreneurs, exhibition either national or international level.

Policy Implications
In the era of free trade and globalisation of the world economy, advanced technology, mastery of science, and the high quality of human resources (professionalism) are the three factors of competitive advantage that become dominant in determining good or prospects of a business. In other words, even if SMEs in Indonesia has many comparative advantages compared to large businesses such as large domestic market potential (see the fact that the middle class society is greater than the group above), labor intensive, and low dependence on imports, but it will be difficult to survive or developing small and medium business if Indonesia does not has the three competitive advantages. Even the Indonesian SMEs are threatened eviction from its own market segment by imported products at lower prices and quality and better design. Therefore, greater attention for SME in order to increase their competitiveness through cluster approach should be made intensively. There is strong evidence that forming alliances, clustering and networking help small firms to compete, grow and cooperate with large firms. By working together, firms can gain the benefits of collective efficiency, enabling them to link with larger producers and break into national and global markets. The key to success seems to be a customer-oriented focus, a mutually supportive approach, and a cumulative effort to ensure continuous, rather than discrete improvements.

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