VALUE CHAIN ANALYSIS OF BAMBOO CRAFT INDUSTRY: STUDY ON STRENGTHENING CREATIVE INDUSTRIES IN BANYUMAS DISTRICT, INDONESIA

Abdul Aziz Ahmad 1), Bambang 2), SofiatulKhotimah 3)

1) Economic and Business Faculty, JenderalSoedirman University, Purwokerto, 53122, Indonesia / E-mail: rekan.aziz@gmail.com
2) Economic and Business Faculty, JenderalSoedirman University, Purwokerto, 53122, Indonesia / E-mail: punakawan_cirebon@yahoo.co.id
3) Economic and Business Faculty, JenderalSoedirman University, Purwokerto, 53122, Indonesia.

ABSTRACT: This research purposes to find out some strategic policies to encourage the development strategy of industrialization based creative economy in the district of Banyumas, also to support the bamboo utilization for creative industries to it region. Specifically, it will explain general outlook of micro and small enterprises of bamboo handicraft, explain the scale of economic, and describe the chain value. This study will map the production path from the upstream phase to the downstream phase (marketing). The method of analysis in this study will be more qualitative, through interviews with bamboo handicraft businesses in some areas in Banyumas. The results indicate that the craft of bamboo in Banyumas has the potential to be developed. It is associated with a unique product, craftsmen effort to create innovation, the product differentiation which is high enough and the good image of the final product so well known as the original commodity Banyumas. However, some problems still cover the handicraft entrepreneurs who are the industry with this small and microscale category. The low level of promotion, the low carrying capacity of financial institutions, minimum government aids, and the lack of active cooperation among craftsmen become problems in encouraging the development of the bamboo manufacturing.

Keywords: bamboo handicrafts, value chain, tourist village

INTRODUCTION

The creative industries are part of an important economic activity. Referring to the data of UNCTAD, creative industries contributed 3.4% of total world trade, with export value reaching $ 424.4 billion in 2005 and showed the trend of increasing (Leah, Arabic, and Beaker, 2009). One of the countries that successfully adopt creative economic activity in the economy is the United Kingdom. The creative economy sector in the UK has the most significant share of the creative economy sector in the European Union, and the relative is the largest in the world. More than 1 million Britons were working in the creative sector and generate employment rate of occupation of about 800,000 units. This sector also continued to grow in the UK (The Work Foundation, 2007).

In addition to the benefits of macro level, the creative industry has an important role in stimulating the economy at the community level. UNDP (2013) states that the creative economy is a development effort that puts people at its center (people-centered development). It indicates that in the era of modern economic development at this time is more characterized in inclusive development, in which the character and ability of resources in the local area is the most critical capital to promote prosperity. One strategy for inclusive development is through the efforts of creativity that makes the different characteristics of a commodity results in the region compared to other regions. Creativity unique traits of economic activity have prompted the competitive ability of the region.

One of the critical sub-sectors in the creative industries is a craft. Craft industry has a function in both rural and urban regions, operating at the level of micro and small businesses and has been developed in both developed and developing countries. This craft subsector has unique advantages regarding the needs of traditional craftsmanship and creativity capabilities that can survive in the market and is capable of providing stable employment opportunities and income in various communities at different levels of education (UNIDO, 2002).
Craft-based economic development pattern should also be associated with tourism activities. Tourism activities and crafts leverage increased revenues for the poor. The report from the Overseas Development Institute (2009) detects indirect correlation in commodity supply chains craft. Capable of transferring the travel destination tourist spending in low-income communities.

UNIDO (2002) noted that consumers in developed countries give particular attention to the products of handicraft. It is one of them carried out by the United States that has made the import of some kinds of handicrafts sourced from wood and non-forestry products which include bamboo, coconut, pandanus, rattan, and daffodils.

More specifically, according to the potential of tropical Indonesia, handicrafts made from bamboo giving importance to the economy of the community, especially in rural areas. It is in line with the results of Ud Din (2014) on a case study in India that bamboo craft is some major Indian handicrafts. The craft center is located in West Bengal, Assam, and Tripura. In India too, the art of bamboo crafts is at the craft. As an art that is eco-friendly, bamboo craft developed in India. Bamboo crafts in Bastar region of India to work for the needs of cups, teapots, vases, tote bags, baskets, mats, wastebaskets, and a variety of other household utensils (Tiwari, 2015). Research from Halim, Young, and Amin (2011) also resulted in a similar conclusion that bamboo craft industry is also well known in Malaysia. As in Indonesia, bamboo crafts in Malaysia made an essential contribution to the income of the people in rural areas.

Bamboo is also one important element in art crafts activity in some developed countries. In Taiwan, bamboo is one of five arts of main handicraft. A fifth of the art includes the art of silver (from the element metal), bamboo (from the wood element), weaving (water element), sculpture (the element of fire) and handicraft precious stones (elements earth) (Chen, et al., 2014). Lee et al. (2010) surveyed ten bamboo handicraft expert craftsmen also in Taiwan. The study found that regarding bamboo craftsman, craftsmanship (hands-on skills) is the main component in the production of bamboo handicrafts. The study recommends that the development of bamboo handicrafts in Taiwan need to use elements and elements of local culture as well as see the development trend of information and international needs.

The bamboo industry also contributes incomes across gender. Research from Greijmans, Oudomvilay and Banzon (2007) in Lao PDR case says women have a role in the value chain of the bamboo industry in collecting processing until the sale of bamboo, bamboo processing into handicrafts as well as a source of labor in semi-processing activities at the processing plant bamboo.

Banyumas become the object of study in this research. In this area, there is a high potential for creativity dig native culture and local wisdom to be able to produce economic value high of bamboo handicrafts. It is not independent of the topography of the area Banyumas which is in the mountains with the most important potential processing industry comes from wood and other forest products, as well as bamboo included in this sub-sector (BPMPP Banyumas, 2011) The data from the Department of Industry, Trade and cooperative Banyumas (2012) states that there are 1,808 bamboo handicraft business unit that is capable of producing commodities processed as many as 3,047,246 pieces of bamboo in 2010.

This study aimed to detect the value chain of the bamboo craft industry. This research also aims to support the bamboo utilization for creative industries to develop tourist villages in Banyumas. The value chain analysis is essential to understand the market, the relationship between the company and the critical constraints on the level of industry competition and growth, particularly in small and medium micro enterprises, or Micro, Small, and Medium Scale Enterprise (MSME) (AFE, 2014). In the case study of bamboo handicraft in Banyumas Regency, is used to detect the value chain of bamboo handicraft businesses, production activities, production constraints, business development to intra-relationship businesses bamboo industry.

METHODOLOGY

The value chain is defined as all the activities and services of traders to bring the product or service from concept to end-users. This value chain will be useful to help identify the function of a specific level of primary producers, processors, product makers, retailers to exporters and also identify strengths and weaknesses at each stage of production (MEDEP, 2010).

In this value chain analysis model, the initial stage is to map the value chain in the form of relationships between market participants. The interviews are a key element to get an overview of the relationship between agents in the market. Such interviews include the identification of the constraints within the area of market access, input commodities, technology development products, activities and organizational management, policy, financing, and infrastructure. These elements need to be combined with the governance structure and the level of competition with similar companies (AFE, 2014).
The value chain analysis has been applied to a wide range of research in the various countries. In its report on the development of handicraft sector in Haiti, AusAID (2006) reported a market actor craft industry value chain in Haiti include; handicraft factory large scale (craft factories), the craft business small scale (craft workshop), the craft workers metal (metal artisans), supervision of production (production contractors), traders or exporters (intermediary agents/traders), agent NGO, and product designers (designer/producers). The report mentions the existence of obstacles in the industry which include lack of access to the design of products and span of market information on new product development, lack of capacity to identify the buyers all over the market, the low and access to raw materials, and lack of access to finance production.

The value chain analysis will be useful to detect the extent of the uniqueness of a product and level of innovation. One is the study of Aziz et al. (2014), which identifies key factors of local uniqueness based innovation to boost the competitiveness of creative industries in Bandung. By sampling a variety of creative industries, including bamboo craft. The key success factors are the encouragement of innovative ideas on the design and production of the final product, as well as commercialization. In more detail, these innovations include the development of a community, unique, creative human resources and material resources, the value of the benefits for consumers, accessibility of information through the media online, including the entrepreneurial spirit. Associated with product innovation efforts, Wu, Cheng and Chen (2014) concluded their developments in bamboo craft in Taiwan shown by imitation bamboo furniture models. They give a recommendation the need to preserve the cultural heritage Taiwan dan models also innovation model of Taiwan bamboo furniture.

One study on the identification of weaknesses and threats of the bamboo-based economy is the study of Setyagunget al. (2013) which detects the connection between idealism, economic perspectives, and concepts of science in the bamboo industry handicraft center in Bandung. The results of these studies explain that the ungklung, the main raw material of bamboo and is the cultural heritage of Indonesia, is a mix of commercial activities and ideals of art. However, there are weaknesses and threats of the bamboo craft is a less obvious target market, location is not sufficient, the performers (artisans) are limited in number, increasing market competition, low supply of bamboo and bamboo price increases.

In a case study in Tasikmalaya Indonesia, Kartika N (2014) conducted research on the bamboo industry, and bamboo conclude that the business has the potential of a sustainable competitive advantage. Long-term issues raised are related to the ability of human resources and the adequacy of raw materials. Kartika N (2014) suggest the need for regeneration of bamboo artisans and the need for local government regulations to protect the ecosystem of bamboo in Tasikmalaya.

Another study, Obiri, and Oteng-Amoako (2007) describe the sustainable development efforts of the bamboo industry in Ghana. In the country, the main obstacle in the development of the bamboo industry is a lack of necessary information and the opportunity to implement the bamboo into a commodity that has a higher economic value. They recommend that regulatory intervention is in the extraction process of the bamboo to improve the quantity and quality of bamboo products.

The value chain is also useful to detect the production of commodity marketing system. Jamir and Natarajan (2014) detected the marketing system bamboo handicrafts in Nagaland, Dimapur, India. There are three models of bamboo distribution (channels of distribution). The first is a merchant - a great trading center - consumers. Both are traders - local retailers - consumers. The third is the traders - the consumer.

The value chain analysis of bamboo processing enterprises in the district of Banyumas was conducted using primary data. Primary data needed to know the real condition of business problems which would then be sought alternative solutions to the problem. Primary data were collected by conducting interviews on selected samples implemented in engineering cluster, which was to determine the proportion of the sample based on the availability of data in each of the districts in Banyumas. Data was collected by using a questionnaire. Item questions in the questionnaire includes questions related to production activities (including the development of business, labor, input requirements and origin, as well as the value of expenditure of raw materials), product characteristics (design and uniqueness, aspect of imitation, promotion and development), consumer behavior of buyers, distribution and marketing, the level of competition, the role of government, as well as product distribution channels.

An analysis tool was used to detect the industry value chain, includes;

a. Descriptive method to describe the nature of something that happened at the time the research was done.

b. Cross-tabulation method to examine the causes of a particular symptom and the conditions that influence each other during the research process. This analysis is to determine the relationships between variables to be studied in the research.
c. Perception Method (Performance-Importance matrix) to look at the factors of SMEs regarding interest (Importance) and performance (Performance) to be able to analyze the condition of the aspects of SMEs and variables.

RESULTS ANALYSIS
A. Industry and Business Development Actors
Actors bamboo handicraft industry in Banyumas largely the micro and small industries. It is identifiable from the number of manpower companies that ranged from 1 to 10 people. At the age of effort, the longest standing company in 1962. This latest effort in Sub Cilongok the main output manufacture of basket or tenggok, a kind of woven bamboo that looks big enough for a variety of purposes kitchen. In recent years, businesses have Banyumas bamboo crafts keep abreast of market trends. There are efforts to start a business in 2012 with refined craft cob bamboo and 2013 which resulted in a bird's nest commodities.

The bamboo industry in Banyumas shown improvement in the past year (2013-2014). As many as 75% of samples of bamboo handicraft business express business revenue growth. During the two-year period, businesses that increase business turnover accounted on average every effort to grow an average 42.5%. On the other hand, most business turnovers decreased by 17% with an average every effort of negative growth reached 55%.

B. Source Input and Output Production
Input final commodities processed bamboo requires capital and labor factors. Labor factor derived from Banyumas Kabupsten own territory. As for the capital, factor comes from within and outside the region. The main raw material is a commodity business Banyumas bamboo raw bamboo. Raw bamboo took from Banyumas itself (especially coming from the District of Banyumas, Cilongok, and Somagede) as well as from outside Banyumas (i.e. Brebes district mainly from the District Brits and Cilacap Regency namely from the region Semaiah and Karangpucung).

Craft processed bamboo required raw materials other than bamboo. Craftsmen used a mixture of raw materials according to the end of the commodities produced. Noted commodities secondary was required of them is rattan (from the Cilongok and Ajibaran Sub District and Cirebon District), wood (from Banyumas and Kebumen District), fibers (from the Somagede Sub District), canvas (Semarang District) and waste sponge (from Tangerang District. Input other support is also quite varied in accordance with the needs of craftsmen, including nails, sanding, painting paints, varnishes, thinners, wire, rafters, iron plate, and various kinds of plastic. Production equipment needed include planer machine, carving machines, drilling machines, saws, pangut, sirkel machine, a paint brush, and hammer.

Industrial Output
The result bamboo commodities produced relatively diverse artisans. However, the distribution of commodities produced is not too different between the sub-district in Banyumas. Based on the economic value of final output (in rupiah), figure 1 shows the economic contribution generated by each type of commodity bamboo finish.

<table>
<thead>
<tr>
<th>Product</th>
<th>Economic Value (%)</th>
</tr>
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<tbody>
<tr>
<td>&quot;Kentho...&quot;</td>
<td>53.69%</td>
</tr>
<tr>
<td>Gazebo</td>
<td>8.05%</td>
</tr>
<tr>
<td>Dining...</td>
<td>8.27%</td>
</tr>
<tr>
<td>Dimpan</td>
<td>4.30%</td>
</tr>
<tr>
<td>Basket</td>
<td>6.23%</td>
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<tr>
<td>Curtain</td>
<td>3.72%</td>
</tr>
<tr>
<td>Rope</td>
<td>2.86%</td>
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<tr>
<td>Flute</td>
<td>2.48%</td>
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<tr>
<td>Flute</td>
<td>1.03%</td>
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<tr>
<td>Flute</td>
<td>0.93%</td>
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<tr>
<td>Flute</td>
<td>0.25%</td>
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<tr>
<td>Flute</td>
<td>0.15%</td>
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<td>Flute</td>
<td>0.12%</td>
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</tbody>
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Figure 1. Proportion of Products Based on Economic Value of
The output of processed bamboo handicrafts contributed most Banyumas largest economy is a kind of bamboo chairs. The bamboo chair seat covers set with bamboo table. Capitalization of furniture output contributes 53.69% of the total value of commodities processed bamboo. The economic value of the two is kenthongan that contribute to the economy amounted to 10.90%. Kenthongan production is strongly associated with traditional kenthongan musical art that is still evolving in Banyumas. Consumers of these kenthongan not only from music and dance groups, but also from the general public for various purposes. Bamboo bird cage also provides important economic contribution with a contribution of 8.05%. Commodities birdcage Banyumas are not only in demand by the public fan of ornamental birds and chirping in Banyumas, but also from the territory of another district. On the other hand, the proportion of commodity sales accounting for smallest flute in providing economic benefits to the artisans, with a share of only 0.09% product.

**Production and uniqueness of the product**

In the production and uniqueness analysis of the product, eleven points are used as the indicator. The indicator scale is 1 to 5, where value 1 reflects the worst rating, and the best is 5. This aspect provides an identification of weaknesses and strengths of the product. Commencing from eleven indicators there is only one that can be considered a weak point that the fulfillment of the production is based on a model or a growing trend. This indicator has a value of less than 3. The production of the most potent indicator of processed commodities bamboo is an attempt to renew the model (innovation), a variety of size and color of the product (product differentiation) and the hallmark of the commodity (uniqueness), with respective values of 4.08; 4.25; and 4.17. Indicators of production are relatively modest among other factors depending on the season sales, variations in the types of products for each business unit, as well as the similarities between employer models in Banyumas own. Figure 2 below provides information about the strength or weakness of production and the unique aspects of processed bamboo products in Banyumas.

![Figure 2. Assessment of Production and uniqueness of Products](image)

**Promotional**

To encourage business development, product promotion aspect is an important component in encouraging the strengthening of the bamboo handicraft business value chain. In the aspect of this promotion, bamboo craft entrepreneur showing weakness. Recorded four points indicator shows relatively weak promotional aspects. The majority of employers are not sufficiently active in the promotion, particularly the promotion of the use of cutting-edge media. Promotion is not done in the period of relatively frequent (monthly or weekly), less use of the media promotion of the newspaper/flyer/radio or via the Internet. The promotional activities are also not supported by the efforts to establish branch outlet. Figure 3 below presents the assessment of the promotional aspects and product development.

Craftsmen also considered not very active in establishing partnerships with agents or distributors. This indicator is important to show how the agency relationship in the production chain. The weakness in this indicator indicates the absence of a contractual relationship sales and distribution system (distribution channeling) in running the business. Strengthening the sales effort will require the
collaboration of the agency to ensure routines in order products and reduce the overflow of commodity stocks. Patterns of cooperation in the distribution system will also encourage better planning in the input-output activity of employers.

**Figure 3. Assessment of Promotion and Product Development**

On the other hand, although some indicators of the promotional aspects of the relatively weak, there is a tendency of consumer loyalty. This is reflected by the high value of the indicator information source products emerging from the mouth (of 4.27), the business has been well known in Banyumas (4.17), the interest of consumers to always revisit (4.25) as well as their efforts to entrepreneurs to increase sales by a method other than the promotion of (4.00). If the fourth aspect of this can be followed by a good media campaign and routine, bamboo handicraft business development Banyumas will undoubtedly give a higher added value.

**Distribution and Marketing**

Figure 4 shows the aspects of product distribution and marketing. The indicators look weak on this aspect is the low level of cooperation between traders. So far, the bamboo craftsmen Banyumas not conduct active cooperation as a joint effort to encourage the marketing of products low level of trust units of effort in marketing the product, including the lack of a cooperative or association of craft businesses, although the majority of entrepreneurs of processed bamboo aware of the level of competition in this business is relatively tight.

**Figure 4. Assessment of Distribution and Marketing**

Prospects commodity marketing relatively good bamboo handicrafts. It is also indicated from the high assessment scores on indicators of the efforts of employers to constantly improve the quality better than a competitor's product, or the sale which is not only limited in the district of Banyumas only.
Role of Government and Financial Institutions

To encourage the development of bamboo handicraft industry in Banyumas regency, the activity of donors is required. In this case, the government’s role as a shareholder, regulatory and financial institutions to support the venture capital aspect it is important to be involved. Field search results demonstrate the role of governments and banking institutions are still lacking a significant impact on the strengthening of bamboo handicraft business. The government is still limited to data collection without any effort to encourage business development. Figure 5 shows indicators that show low role of these institutions include:

1. The low frequency of technical assistance from the government to encourage business continuity.
2. Low efforts of employers to apply for loans to the banking sector.
3. Low levels of financial assistance/loans from banking institutions

On the other hand, bamboo handicrafts entrepreneurs need credit help from the government, the need for government to facilitate their cooperation or association bamboo handicrafts, entrepreneurs. Employers also require the production of technical assistance in the form of business training and focus on the banking sector. Although employers often get a business loan deals, there are still relatively few employers who utilize the services of bank financing. Barriers associated with access to credit for entrepreneur’s bamboo craft, it is necessary to do further investigation.

The results of this study are in line with the results of research from Setyagunget al. (2013) associated with broad market competition. This study is different from the results of Wu, Chend and Chen (2014) in which the production of bamboo furniture can be replaced with imitation materials.

Conclusion (Kesimpulan\telaupanjang)

Banyumas is an object of study that is interesting to study the craft sector. In this area, there is a high potential for creativity from native culture and local wisdom to be able to produce economic value high of bamboo handicrafts. This study aims to detect the bamboo craft industry value chain. In the case study of bamboo handicraft in Banyumas Regency, is used to detect the value chain bamboo handicraft businesses, production activities, production constraints, business development to intra relationship businesses bamboo industry.

Labor input bamboo handicraft industry in Banyumas able fulfilled from Banyumas district itself. As for the capital factor comes from within and outside the region with the main raw material of bamboo which is also derived from a variety of regions. For the output side, the result of bamboo commodity produced by artisan is relatively diverse. Output of refined craft bamboo Banyumas contributed biggest economy is to function furniture. Capitalization output furniture contribute to the
The economy accounting for more than fifty percent of the total value of sales of bamboo crafts Banyumas. Output next important contribution was in production kenthongan and birdcage.

On the production side and the uniqueness of the product, entrepreneurs still face disadvantage in terms of fulfillment of production based on a model or a growing trend. Likewise, product promotion activities are also still low. The majority of employers do not do promotions with the use of cutting-edge media, promotional frequency very rarely, an underutilization of the news media/brochures/radio or via the Internet. Craft industry is also not supported by the efforts to establish outlet. a branch

Banyumas bamboo craftsmen did not cooperate actively as a joint effort to encourage the marketing of products low level of trust in product marketing business units, including the lack of craft cooperatives and business associations, although the majority of processed bamboo entrepreneurs realize the level of competition in this business is relatively tight.

With regard to the benefits of processed bamboo commodities that contribute to the economy of local communities and the impact on the preservation of local cultures, the government needs to contribute actively to one of these creative industry sub-sectors. The policy required is not only to conduct data collection of employers for the needs of local statistics, but also to provide technical assistance with high frequency, issuing regulations at the local level to encourage the development of local small industries through capital strengthening, including providing access and encouragement to develop business associations or cooperatives.

REFERENCES


Leah, H, Arbic, A, and Beaker, G.(2009), Building the Creative Economy in Nova Scotia, Research Committee of the Nova Scotia Cultural Action Network
MEDEP (Micro Enterprise Development Programme), (2010), Value Chain Based Approach to Micro-Enterprise Development, Value Chain Analysis-Allo, Micro Enterprise Development Programme (MEDEP), Bakhundole, Lalitpur, February 2010


Overseas Development Institute, (2009), Value Chain Analysis and Poverty Reduction at Scale: Evidence from Tourism is Shifting Mindsets, Overseas Development Institute Briefing Paper, March 2009


Ud Din, T.M.(2014), Handicraft Production and Employment in Indian: An Economic Analysis, Global Journal of Human-Social Science: E Economics, Volume 14 Issue 4, Version 1.0, Global Journals Inc., USA


USAID (United States Agency for International Development).(2006), Haitian Handicraft Value Chain Analysis, Micro Report #60, USAID Haiti