

# Value chain analysis of batik wood craft in Bobung tourism village

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**Abstract.** Bobung Tourism Village is one of the tourism villages in Gunung Kidul Regency which has batik wood craft as its unique products. Batik wood craft originated from the existence of innovation in wood masks which were used as one of the properties of mask dance as a local culture of Bobung. Batik wood craft is growing and need to improve the competitiveness to keep the existence in the market. The aim of this research is to find out the actors involved from the beginning of the process to the marketing activities presented through the value chain. This study used primary data obtained through structured interviews with 18 studio owners in Bobung which analyzed using descriptive analysis. The results showed that the actors involved in the wooden batik craft of Bobung Tourism Village were suppliers of raw materials, distributors of raw materials, wood batik industry players, product collectors and retail traders. The existence of differences in the value chains in some wooden batik studios has an impact on differences in the way of marketing products which also affect the pattern of distribution of batik wood commodities and turnover obtained by craftsmen.

## 1. Introduction

The growth of industrial sectors pushes the competition in the business sector. To maintain business existence, various kinds of efforts are required to create high product competitiveness in the market. Various processes from raw material acquisition to product marketing to consumers need to be carried out effectively and efficiently, so that the products possess high competitiveness.

The value chain is one essential component in running a business. Value chains describe all the activities needed to maintain a product from conceptualization, the production process that converts raw materials into a product, so that it can be utilized by consumers [1]. Value chain analysis can be an approach to see interactions between various economic agents involved in a business activity [2]. The purpose of this analysis is to identify weaknesses occurring along the value chain from raw materials to consumer goods. It will encourage the companies to understand their position in the product value chain to increase competitive advantage [3].

The multiple benefits of the value chain make this analysis one of the analyzes needed by every business, including for the batik wood craft business in Bobung Tourism Village. Value chain analysis at this sector is important to maintain the existence of cultural heritage as well as economic improvement of the community in Bobung because they depend a lot on the handicraft sector. In



addition, the many handicrafts that appear on the market make entrepreneurs in this region need to carry out their production activities effectively and efficiently so that the products are extremely competitive.

The value chain analysis on batik wood craft products is systematically able to map the economic actors participating in the production, distribution, marketing and product sales processes. Batik wood craft from the Bobung Tourism Village also need to be analyzed in the value chain to be able to assess the current business and highlight opportunities for increased competitiveness on demand both on a national and international scale. The objectives of this study are: 1) identifying the characteristics of batik wood craft business in Bobung Tourism Village and 2) analyzing the value chain of batik wood craft products from Bobung Tourism Village.

## **2. Methodology**

The location of this study is in Bobung Tourism Village. This study used primary data which collected from structured interviews addressed to 18 studio owners in the Bobung Tourism Village. The data were analysed using descriptive analysis. The analysis was carried out to illustrate the flow of value chains that occurred in batik wood craft products and analyse the marketing distribution of craft products of Bobung Tourism Village.

## **3. Result and discussion**

### *3.1. The characteristics of wooden batik craft bussiness in Bobung tourism village*

Bobung Tourism Village is one of the tourism villages which has Batik Wood Craft as the main attraction. This village is located in Putat Village, Patuk District, Gunung Kidul Regency. In the beginning, the number of batik wood craft studios in Bobung is only three location as It is initiated by 3 people. Currently, It has grown to 18 studios that have produced various shapes and motifs such as kawung, parangrusak, garuda, sidorahayu, and sidomukti. In this area, the location of wooden batik studios was not only in Bobung but also extends to the Batur-the area next to Bobung. Among the 18 studios, 16 studios are located in Bobung, and two others are located outside Bobung.

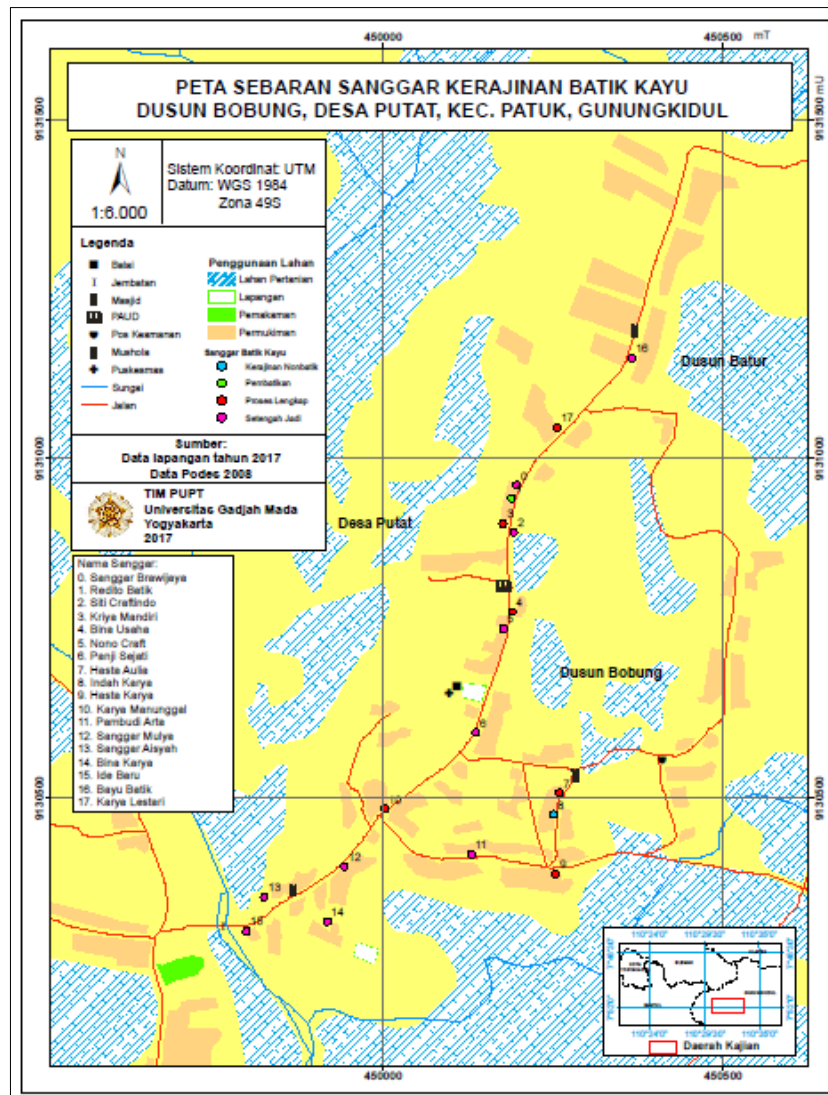


Figure 1. The distribution map of batik wood craft studios in Bobung Tourism Village

The studios in Bobung Tourism Village produce various products as each of them has certain Activities. The results of the survey showed that 6 studios (33.3%) were the studios with full production processes started from making shapes to coloring process. A total of 10 studios only produce up to semifinished stages, without doing the coloring process, while two studios only do the drawing batik and coloring process. The full production process studios do all of their activities individually. While, the half-finished studio production, will use the coloring services of other studio that provide it in Bobung.

The studios in Bobung Tourism Village distribute their products in various ways. Table 1 shows the sales methods carried out by them. Direct sales to consumers are done by one studio and sales through intermediaries are done by seven studios. Sales of products through directly to consumers and through intermediaries conducted by 10 studios. Direct sales to consumers are generally done by studios in a complete or half-finished process, whereas the sales through intermediaries are carried out by studios that only doing drawing and coloring batik or half-finished studios.

The studio with a full production process has a more diverse way of distributing products. Direct sales to consumers are supported by the showroom and customer facilities owned by the studio, so there is no need for intermediaries. The half-finished studios production can sell products directly to

consumers and are usually only given paint furnishings to beautify the shape of wood, while products sold through intermediaries are generally orders from other studios.

**Table 1.** Production and distribution types of batik wood craft

Production	Product Selling			Total	Total (%)
	Direct do consumers	Direct to consumers and through intermediary	Through Intermediary		
Drawing dan Coloring	0	0	2	2	11%
Full Production Process	1	3	2	6	33%
Half-Finished	0	7	3	10	56%
Total	1	10	7	18	
Total (%)	5.5%	55.5%	39%	100%	100%

### 3.2. Value Chain Analysis of Wooden Batik Craft in Bobung Tourism Village

**3.2.1. Raw Materials Input** The main material of batik wood craft is wood. The wood which used to make the craft consists of various types and it is not only from Bobung. The characteristics of wood chosen for batik are those that have soft physical characteristics, the color tends to be more white and easily absorb water. These physical criteria make wood easily to be shaped, absorb color to produce better colors of the batik. In one studios, they use more than one type of wood. The amount is adjusted to the type of product to be made as well as requests from consumers related to product price and quality. The majority of wood used by Bobung craftsmen is Sengon wood, which mostly obtained from Putat Village (27.8%). Sengon wood was chosen because the price is relatively cheaper compared to Pule wood.

Based on the origin of raw material acquisition, most of the wood is obtained within the village (local) and regional (in one district). Raw materials are still able to be inhabited from their own territory because Bobung is classified as fertile area so Pule Wood and Sengon can grow well. The availability of the local wood gives advantages to the craftsmen as they can reduce the transport cost of the materials.

One of the crucial ingredients for the coloring process of batik wood craft is the dye and coloring chemical. The powder dye is mixed with water then brushed on the wood.

The Bobung craftsmen who carry out the coloring process in their production obtain dyes from outside Bobung. All of these craftsmen buy dyes from stores in the city of Yogyakarta because there isn't color seller in Bobung.

The coloring process of batik requires a lot of water especially in cleaning and washing stages. Therefore, the availability of water becomes very important for the craftsmen. The average water needed for the coloring process is around 2-3 liters. Meanwhile, for the boiling process is more than 50 liters and for the washing process is more than 100 L. Most of the using spring flow as the source of water and from well.

The eight studios that use water, the two studios claimed feeling difficult to get water to support their business. Studio that uses wells has difficulty in obtaining water because the depth of the well in Bobung is deep enough (40 meters). Meanwhile, those who rely on springs feel difficult to get water due to uncertain spring discharge. When the dry season the water discharge will be relatively reduced compared to the rainy season.

**Table 2.** Raw materials of batik wood craft

Characteristics	Bobung	
	Total	%
<b>The origin of Raw Wood Material</b>		
Local	17	(47)
Regional	17	(47)
Another region	2	(2)
<b>The origin of the dyes</b>		
In the village	-	-
Outside the village	8	(100)
<b>Water Resources</b>		
Water Springs	5	(62.5)
Well	3	(37.5)

3.2.2. *Production process* The process of producing Batik Wood Craft in Bobung is carried out in the studio of each craftsman. This process is carried out by the craftsmen and also the workers from the local community. The making of batik wood craft was carried out through several stages. There are eight stages carried out from raw materials until being a product. These stages are the making of models/shaping of wood, preserving, making batik patterns, waxing, coloring, lighting and washing, drying and finishing as well as marketing.

In some stages of the process there will be solid and liquid waste. The form of solid waste is the pieces of wood waste obtained from cutting and carving steps. The volume of solid waste is up to four sacks (about 1.5 m<sup>3</sup>) each week. The pieces of wood that cannot be used for crafts will be used as fuel in the lighting process. In addition, if the amount is sufficiently large, it will be sold to timber traders. Another solid waste produced from the process of making wooden batik is wax. Waste wax is obtained from the remainder of batik and wood slitting process. Waste wax is generally reused by craftsmen for lighters to heat water in the lighting process.

3.2.3. *Marketing* The marketing process of batik wood craft in Bobung is done in variative ways, directly to consumers who come to the showroom, through distributors and traders; or directly to other craftsmen for that only produce half-finished goods. The differences products of each studio and the selling ways area carried out affect the marketing range of the craft. The survey shows that the range of marketing of batik wood craft in Bobung is on a local scale (among crafters in Bobung) to an international scale. On regional scale, most of them is in inter-regency areas in the Special Region of Yogyakarta. On this scale, they frequently distribute the product directly to consumers and also craftsmen mostly supply the goods to traders at existing tourism object to be re-sold to tourists. On a national scale, many products are delivered to consumers who come from big cities like Jakarta, Bali, Surabaya, and also Batam. For the International scale, the sales are made by craftsmen through trading services who will facilitate the transaction.

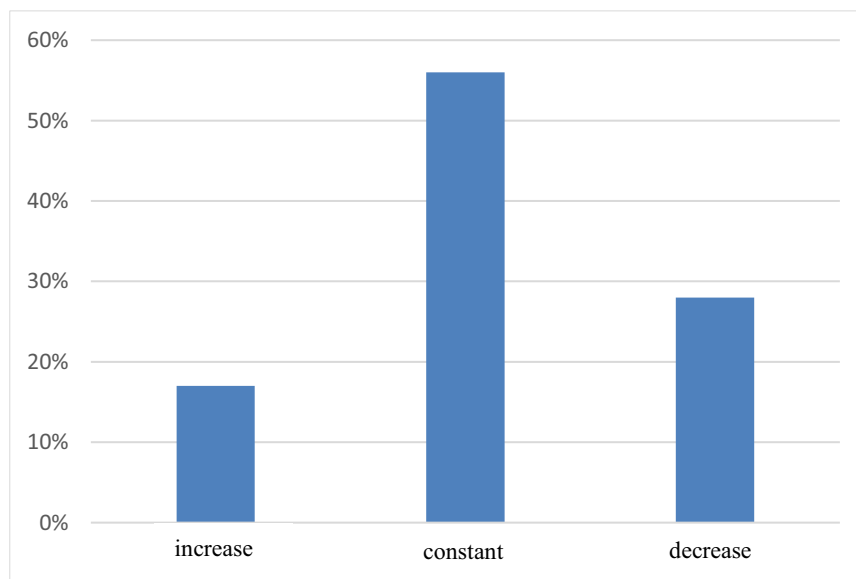
**Table 3.** The Batik Wood Craft Sales Range

Selling Scale	Amount of Studio	The Location of Market Target
Local	6	Bobung Tourism Village
Regional	7	Daerah Istimewa Yogyakarta Province Bantul, Sleman, Kulon Progo, Yogyakarta City
National	8	Around Indonesia Jakarta, Bali, Solo, Surabaya, Semarang, Batam, Bandung

Selling Scale	Amount of Studio	The Location of Market Target
International	9	<u>Abroad</u> Germany, Jamaica, Singapore, United States

To reach the target market, various ways are done by owners to expand their market networks. The methods used are by publishing via online media, participating in exhibitions arranged by the central and regional governments, and strengthening networks with parties who have collaborated with them in the hope that they will introduce products owned by craftsmen to other parties.

Market interest is an opportunity and challenge for batik wood craftsmen. According to the data, 56% (10 studios) the demand for the past 1 year tends to be constant. Meanwhile, 28% (Five studios) tended to decrease and 17% (three studios) relatively increased. The craftsmen, who has experienced a decline in their product demand explained that the reduction is due to a reduction in customers and has also begun to move to other non-handicraft sectors. Meanwhile, studios that experience an increase usually have a unique product and get a new partnership with the buyer. In addition, they also continue innovating their products so that the products sold to the market are unmonotonous and provide new appeal to potential customers.



**Figure 2.** Market interest in batik wood craft of Bobung

The income of the studio in Bobung Tourism Village is classified into three classes namely one to ten million per month, eleven to twenty million per month, more than twenty million per month, or experiencing fluctuations. Table 4 shows that 11 studios get the income of one to ten million/month, 4 studios have income eleven to twenty million/month, and 3 studios reach more than twenty million per month.

Based on the length of business, the studio which has been operating for 1 to 10 years has a smaller monthly income of between 1 and 10 million/month. The studio operating for 11 to 20 years has a diverse turnover but generally still ranges from 1 to 10 million per month, but there are 3 studios with turnover of 11 million to more than 20 million per month. There are only two studios that have operated more than 20 years and has a turnover of more than 20 million per month. The longer the business can more significantly increase the studio income because it has a wider range of consumers and usually has regular customers.

**Table 4.** The Omzet based on length of bussiness

Bussiness period	Omzet (million/month)			Total	Total (%)
	A (1-10)	B (11-20)	C (>20)		
A (1-10 years)	1	0	0	1	5,6%
B (11-20 years)	7	2	1	10	55,6%
C (>20 years)	3	2	2	7	38,9%
Total	11	4	3	18	100%
Total (%)	61,1%	22,2%	16,7%	-	



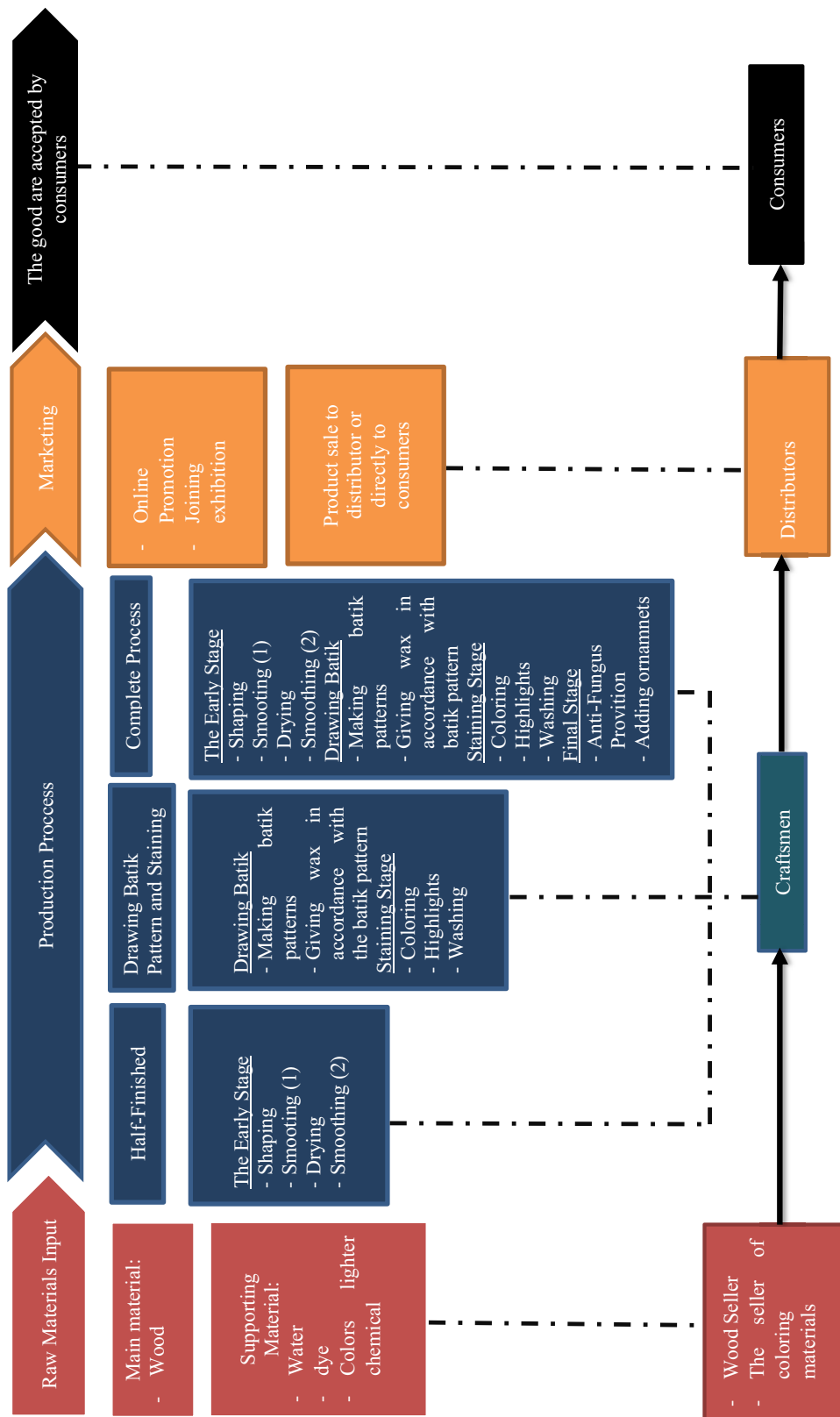


Figure 3. Value chain of batik wood craft in Bobung



#### 4. Conclusion

Analysis of the value chain of batik wood craft products illustrates how the acquisition of raw materials, production processes to marketing as well as the actors involved are the main raw material providers and supporting materials for the production process, craftsmen who process raw materials and supporting materials into batik wood craft products, distributors which distribute products to consumers, traders who sell products, and consumers as users of wooden batik products from the Bobung Tourism Village. Based on the whole process of value chain and product marketing distribution, all raw materials and wood batik handicraft production processes are mostly carried out in the Bobung Tourism Village and are still included in one region of Gunung Kidul Regency, but the products have been able to penetrate the international market. The dominance of production activities carried out in the local area, is an opportunity for craftsmen to improve the efficiency of the production process. The activities which carried out close together will reduce production costs that can be optimized to improve product competitiveness

#### References

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