

## Improving Competitiveness of Traditional Textile Industry of Lurik through the Utilization of Intellectual Property Rights

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**Abstract:** Lurik is one of the Indonesian indigenous traditional woven types of cloth. This objective of this article is to describe the utilization of Intellectual Property Rights (IPR) to improve the competitiveness of traditional lurik woven cloth through the use of industrial trademark and design. The use of industrial trademark and design is able to improve the selling point of traditional lurik woven cloth.

**Key words:** revitalization; traditional lurik woven cloth; and Intellectual Property Rights (IPR)

**JEL code:** D

### 1. Introduction

Lurik is one of the Indonesian indigenous traditional woven types of cloth. The main motif of lurik cloth takes the shape of stripes which suggests the modesty of Javanese people in accordance with the origin of the word “lurik” which comes from *lorek* (in Javanese language). The existence of lurik cloth is getting marginalized by the presence of modern textile industry day by day. If this is not taken into serious account, then it is not impossible that the industry of lurik cloth will extinct within the next five years. The extinction of this industry will not only deprive the source of living for the people of the villages, but also eliminate one of the heritages of indigenous traditional work of Indonesian people. The industrial centers for traditional lurik woven cloth currently exist in some areas, such as Klaten, Yogyakarta, and Sukoharjo.

Lurik woven cloth has a very long history in Indonesia, particularly in Java, in accordance with the data from Sonobudoyo Museum of Yogyakarta as quoted by the Javanology Institute of Research and Community Service Institution of Sebelas Maret University (2012). The data from the inscriptions, literary works, statutes, and temple reliefs state explicitly that the tradition of woven cloth has been existing in Indonesia since the mid ninth century AD. It is stated in the inscription of King Erlangga (1033 AD) that there was lurik woven cloth with the *tuluh watu* motif (glittering or shining stone in Javanese language). This is confirmed by the finding of terracotta statues adorned in lurik woven cloth in the temples in Trowulan, East Java.

The researcher has gone through difficulties in finding the output of any previous research on lurik woven cloth through cyberspace tracking. It is nearly able to say that there is not any scientific research on lurik yet. The discussions on lurik have just been limited to those in the news of printed and electronic media. So, it can be said that this research is a pioneer in the field of the development of traditional lurik woven cloth.

The industry of traditional lurik is a small-scale business which has become one of the pillars of national

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economic security. The research conducted by Sulistyastuti (2004) indicates that the Small and Medium Enterprises (SMEs) hold an important role in the national economic sector of the developing countries. The existence of SMEs in a developing country is related to the efforts made by its government to overcome various problems, either economic or social, namely: reduction of unemployment, eradication against poverty, and equity of income.

The research conducted by Triyanto (2012) in Klaten and Yogyakarta points out that some efforts have been made in order to develop the industry of traditional lurik. Such development is conducted in terms of improvement in the quality of fabric and product diversification. However, such development has only been conducted in Klaten and Yogyakarta. Meanwhile, the industry of traditional lurik in Sukoharjo which is dominated by “crude” lurik has not received development assistance. Sukoharjo has escaped the attention since most people think Klaten and Yogyakarta are the only centers for lurik.

This paper focuses itself on the development of lurik in Sukoharjo regency by utilizing the system of Intellectual Property Rights (IPR). Such a utilization is made by changing the industry of traditional woven cloth into creative industry. The approach of IPR is made in the form of creating the works of industrial design with the fabric of traditional lurik. Industrial design is one of the forms of IPR which is very important to the industrial world.

The expediency of IPR on the economic development has been undoubted. The Washington Post 28 April 2001 reports that “. . . if there is one lesson in the past half century of economic development, it is that natural resources do not power economies, human resources do”. This statement reminds us that human resources hold more important role than natural resources in the economic growth. An expert on modern economy, Tapscott (1998) puts forward that “...the new economy is a knowledge economy and the key assets of every firm become intellectual assets ...”.

The objective of this research is to put forward a new perspective to the craftsmen of traditional lurik woven cloth so that they are willing to keep up with the advancement through time by making improvement and innovation on their industry. These revitalization and innovation are expected to make the selling point of lurik products able to increase in such a way that it can enhance the welfare of the village people. The increase in the selling point can also attract the interest of people of young generation to occupy themselves diligently with the industry of lurik. More than that, the preservation (pelestarian) of the industry of lurik implies the preservation of national asset as well.

## **2. Review of Literature**

The role of IPR in the economic development is already undoubtedly significant since the countries in possession of the non-physical asset (intellectual asset) or the type of asset on the basis of science and technology contributes wealth much more than those physically-based asset or natural resources in accordance with a lot of data. The developed countries, such as the United States of America, were in possession of the sources of revenue from the intellectual asset on the basis of science as much as 36.5% of their Gross National Product (GNP) in 1980. So were Japan, Korea, and Singapore. They have been more developed than Indonesia which is rich in natural resources (Junus, 2003).

There are several advantages which can be obtained from the system of IPR in the economic development (Junus, 2003; Priharniwati, 2004):

- (1) To create conducive climate for investors;
- (2) To accelerate industrial growth, create new employment, boost economic growth, improve the quality of life of human beings by fulfilling the needs of human beings in widely;
- (3) To provide legal protection as well as to drive the creativity of the people;
- (4) To promote the dignity of human beings and Indonesian people;
- (5) To improve the productivity, quality, and competitiveness of the product of the economy of Indonesia;
- (6) To raise the position in trade and investment;
- (7) To develop technology;
- (8) To drive companies to compete internationally;
- (9) To help the commercialization of an invention;
- (10) To maintain international reputation for the importance of export.

The utilization of IPR for SMEs holds an important role in business development. This is in line with the opinion of the Head of IPR Division of Bandung Technology Institute Nyoman Pugeg Aryatha who states that there are actually many advantages for the doers of SME to register their product for IPR, such as protection to prevent any other party from taking advantage without permission from the proprietor of the right. In addition, product patent right will affect the increase in the selling price of the product. The registration for IPR also holds the role to prevent piracy which can inhibit the development of SMEs (*bisnisJabar.com*, 2011).

As released in *bisnisukm.com* (2012) the utilization of IPR for SMEs is highly important in their business development. There are more than 60 million technologies which can be accessed for free by making use of IPR regime. So, businessmen can learn, make use of, and develop them. The potency of business activities of SMEs for IPR globally includes such rights as copyright, trademark/service mark, industrial design and even patent and simple patent. An SME which operates in the field of shoe-making industry, for instance, has such existing potencies for IPR as the copyright for the pictures of its designs of shoe, the protection of industrial design for its designs of the shoes, the protection of trademark for the trademark labelled onto its shoe product.

The utilization of this system of IPR for the industry of traditional lurik woven cloth can be started by registering trademark. The word “lurik” has been registered as a trademark to the General Directorate of IPR of the Ministry of Justice and Human Rights. The trademark “LURIK Suyatmi” has also been registered in order to help its craftsman to promote the business. Such an administration of trademark is important in order to have the branding of a product. In addition to trademark, IPR is utilized in the creation of industrial design as one of the IPR regimes (Triyanto, 2012). The definition of Industrial Design in accordance with Law Number 31 Year 2000 is as follows:

“a creation on the shape, configuration, or composition of either line or color, or both line and color, or their combination which comes in three-dimensional or two-dimensional shape, gives aesthetic impression and can be manifested in three-dimensional or two-dimensional pattern and used to produce a product, stuff, industrial commodity, or handicraft.”

### **3. Methodology**

#### **3.1 Type of Research**

This paper is the output of research and development (R&D). Research and development is the method of research used to generate a certain product and to test the effectiveness of the product. The research with research and development type includes the steps elaborated as follows (Sugiyono, 2008):

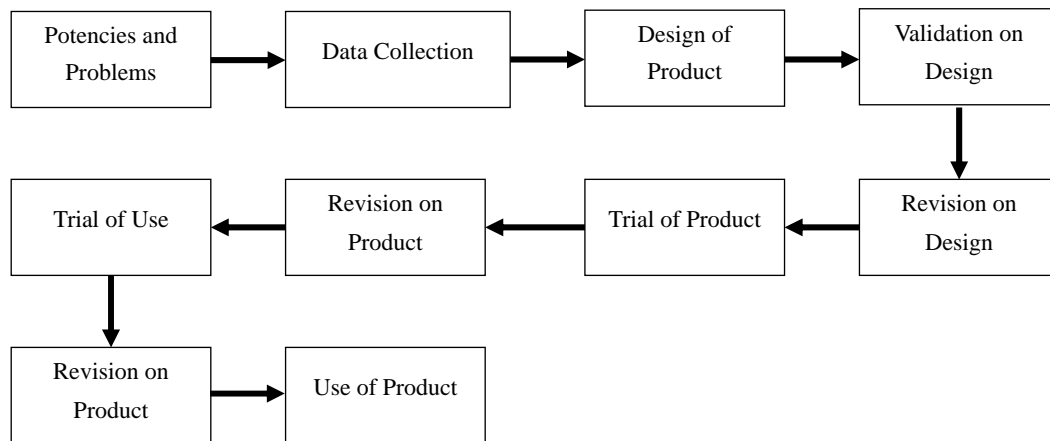


Figure 1 Steps in Research & Development (R &D)

### 3.2 Data Collection

The data of this research were gathered through library research, observation, and interview. Library research is the search for literature information which describes both of the previous and current views on the topics of the researches contained in the journals, books, and other like documents. Library research is also useful to gather the literature relevant to the topic of the research (Creswell, 2008). The instruments used in the documentation study took the form of the documents containing the outlines or the category with the data searched.

Field observation was conducted by the researcher in order to pay particular attention, see, and listen carefully. The researcher used all senses to record what was seen, listened to, smelled, felt, and touched. The researcher became the instrument to obtain information on field (Neumann, 2006). This research was conducted by making direct observation. The direct observation was conducted in this research in order to see the process of making, selling, and distributing lurik woven cloth in the market. The locations of the observation consisted of Sukoharjo, Klaten, and Yogyakarta.

This research used two interview models. Those models were structured and unstructured interviews. The instrument of written guide for interview was used prior to interviewing and the informant was previously informed by the researcher of the agreement on the place and time of interview as well as the hints of content of the interview in this research. Meanwhile, there was not any standard guideline used in the unstructured interview. The researcher was going to ask, listen, feel, and record all that was informed by the informant naturally/informally (Neumann, 2006).

### 3.3 Data Analysis Technique

This research used qualitative data analysis technique. Such a data analysis consisted of three stages conducted simultaneously, namely: data reduction, data display, and conclusion drawing/verification. The data reduction was the process of selecting, focusing, simplifying, abstracting, and transforming the “crude” data gathered from the field notes. Data reduction is a type of data analysis which aims at sharpening, classifying, focusing, omitting the unnecessary data, and organizing the data to have the final conclusion. Data display was made by presenting a group of information arranged in a simplified unity of form with selective configuration which is easy to use in order to be possible to make a decision. After the data are presented well in an organized way, conclusion drawing or verification is conducted (Miles & Huberman, 1984). The interactive analysis model of Miles and Huberman can be seen in Figure 2.

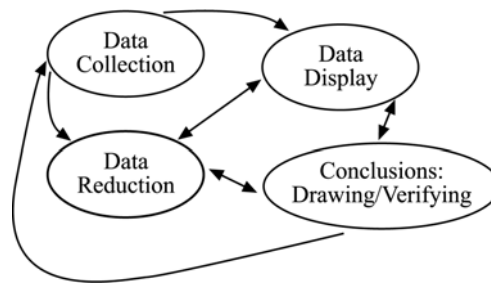


Figure 2 Components of Data Analysis: Interactive Model

## 4. Results and Discussion

### 4.1 Constraints in Development of Traditional Lurik Woven Cloth

The results of the research conducted by Triyanto (2012) in Tawang village, Weru subdistrict, Sukoharjo regency point out that the development of the industry of traditional lurik woven cloth goes through some constraints viewed from the aspects of production process, quality, product diversification, selling point, marketing, and regeneration.

#### 4.1.1 Technological Constraint

Traditional lurik woven cloth is created through a very complicated and long process which involves handwork with a lot of exertion. The process starts from buying cloth, and then washing, dying, starching upon the cloth, vaporizing the starch, and then drying, spinning, first rolling, second rolling, and weaving the starched cloth. All of the process is done manually by relying on the handwork with a lot of exertion.

The lack of technological support becomes the general problem faced by SMEs (Sudaryanto, 2005; Mizar et al., 2008). Such a problem faced is related to the utilization of science and technology which is still for minimum in the world of such an industry. This is caused by some factors. The still limited access to the sources of information and technology as well as the service of science and technology are to mention but a few. The other problem which become the constraints for SMEs in increasing their business scale is among others the low quality of the resources (physical, mechanical/equipment, human, and fund) as well as the management (Ministry of Industry and Trade, 2005).

The use of technology in the industry of traditional lurik woven cloth is not intended to replace Non-Machine Weaving Equipment (NMWE) since we may not eliminate the particular characteristics of the traditional woven cloth produced by using NMWE. Modern technology is needed in the preparation process toward the weaving process with the use of NMWE. Thus, the production line can be cut in such a way efficiency in the production process can be made.

#### 4.1.2 Quality Constraint

The product quality still becomes the major problem in the development of SMEs in accordance with the research conducted by Sriyana (2010). This also happens in the industry of lurik woven cloth in Sukoharjo. The lurik woven cloth produced in Sukoharjo is different from that produced in Klaten and Yogyakarta. Such lurik cloth is the type of lurik cloth which tends to be coarse due to the use of coarse thread from tetron/TC fabric. In addition, the weavers in Tawang village in majority are elderly people and less skilled. Even though they have been given fine (cotton) thread, their lurik product is not maximal in quality. The weavers in Sukoharjo has escaped the attention of various parties all this time in such a way that they still cannot grow for maximum. The attention to the industry of lurik woven cloth has been focused more on those in Klaten and Yogyakarta all this time.

#### **4.1.3 Product Diversification Constraint**

The lurik weavers in Sukoharjo sell their product in the form of sheets of greige. They bring their product directly to the nearest traditional markets. There are also some market merchants who come directly to the weavers to buy their lurik cloth. This kind of sale causes the expediency of woven cloth to be limited to the daily needs of the villagers, such as to carry basket, to be made the clothes of elderly people, and other purposes related to the daily activities of the villagers.

The significance of product diversification is in line with the result of the research conducted by Laksono (2004) which states that the ability of a company to generate profit increases significantly following the launching of its new product. It is concluded out of such an analysis that the policy of product diversification made by the industry has a positive effect on the business development.

#### **4.1.4 Selling Point Constraint**

The sale of lurik woven cloth in the form of sheets of greige has caused the its selling point to be very low. One sheet of cloth sized 60×300 cm, for instance, is only priced IDR 20,000.00 for maximum. Some certain types of cloth of the same size are even priced only IDR 8,000.00. The laborious effort and hard work of the weavers do not get proper appreciation. This is contrary to the fact that it is such a complicated process to make woven cloth which requires special skill and a lot of physical exertion.

#### **4.1.5 Marketing Constraint**

The utilization of traditional lurik woven cloth is dominated by the people from low social and economic class. They utilize lurik cloth for their daily needs, such as to carry goods when they go to the market or rice field and to wrap the goods bought in the market. The market segment of people from low social and economic class causes the selling price of lurik to become very low. As well, the weavers can only sell their product in local market. They have not had known where they should sell their product to obtain higher price. The problem in marketing is the problem which small and medium enterprises (SMEs) in general face. The research conducted by Sriyana (2010) on the SMEs in Bantul, Yogyakarta points out that marketing still becomes the major constraint in the development of SMEs.

#### **4.1.6 Regeneration Constraint**

The low wage and gloomy prospect causes the people of young generation to be uninterested in becoming weaver. The lurik craftsmen cannot afford to pay the weavers with proper amount of wage since the selling price of lurik is low indeed. The weavers in majority are elderly people at the present. The weaving activity is only intended to spend the leisure time while waiting for the harvest season when they reap their crop in the rice field. On the other hand, they prefer working in the rice field with the higher amount of wage when the harvest season comes. The industry of traditional lurik woven cloth in majority is currently getting into the last generation. If the industry is not sustained by the young generation, then it can be assured that this industry will immediately be left in the memory.

### **4.2 Utilization of IPR in Developing Traditional Lurik Woven Cloth**

This study focused two-utilization of intellectual property rights, namely patents and industrial designs. The use of patents and industrial designs are very useful to improve the efficiency of the industry and the increase in the value of the product.

Technology can reduce the use of human labor. Use of technology is not intended to replace the traditional weaving with modern machinery. Use of the machine is only used to reduce human labor before manual weaving.

#### 4.2.1 Patent Approach

The use of patent (modern technology) is not to replace traditional machines. The technology is used to reduce the use of human labor in the processing threads before weaving. The use of technology is expected to improve the efficiency of the industry. Traditional machine is still used because it has cultural values that need to be preserved. .

This study resulted in the use of technology to reduce manpower namely *winding machine*. This technology has been registered at the Directorate General of IPR and patent registration number S00201300316 dated December 9, 2013.



Traditional machine  
(before)



Winding machine  
(after)

**Figure 3 Winding Machine for Traditional Weaving**

#### 4.2.2 Industrial Design Approach

Utilization of industrial design aims to increase the sale value of traditional Lurik cloth. Previously the weavers only sell fabric in the piece of cloth with a lower selling price. Utilization of industrial design can increase the sale value Lurik traditional cloth by 50%.



Before (raw clothes)



After (art lamp)

**Figure 4 Industrial Design Development for Traditional Cloth of Lurik**

### 5. Conclusion

The improvement in the competitiveness of traditional lurik can be made by making use of the system of IPR. The trademark and industrial design are two regimes of IPR which can be utilized to have creation and innovation the industry of traditional lurik. The Sukoharjo lurik is more suitable to be developed into handicraft product on

the basis of its tendency to have coarse characteristic. If this lurik is intended to be produced as fashion product, then it would better focus itself on the production of clothes for segmented market target, which is middle and higher social and economic class in order to have proper selling price.

## **6. Recommendations**

Based on the research results and conclusions above, then to save the traditional weaving industry Lurik needs to be done the following things:

- (1) Lurik traditional weaving industry needs to get a 'touch' of IPR, especially brands, industrial designs and patents to increase competitiveness;
- (2) Lurik traditional products must be sold as a finished, not raw fabrics to obtain a fair price then;
- (3) Lurik traditional weaving industry needs to take advantage of the technology, especially in the process before weaving;
- (4) The younger generation needs to be introduced to the importance of maintaining traditional Lurik as one of the nation's cultural heritage.

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