Development Design Quality of Craft Industries in West Java

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Abstract— This study aims to describe and analyze the design development of the craft industry in West Java, especially the ceramic handicraft industry in the city of Bandung. Data sources were obtained through interviews with entrepreneurs, industry heads and related craftsmen. The method of research analysis is done by comparing 2 products from two different producers, to find the same and different factors from the results of the analysis. The aim is to find factors that can drive the progress of the design competitiveness of the handicraft industry in West Java. And based on the results of observations and analysis, it can be seen that some of the handicraft production in West Java still does not utilize the design and management aspects of workers' creative abilities to improve the quality of their products. Of course this which makes the majority of the handicraft industry, is less competitive with large industries.

Keywords - strategy, quality, design, product, industry

I. INTRODUCTION

Handicraft business activities or product industries based on natural resources and labor, is one of the efforts to increase the country's foreign exchange. Also included in providing employment and increasing regional income.

Unfortunately, not all industries have good prospect & market potential. Some of them still have to overcome various obstacles, such as the production system, the number of workers and the most important thing is that quality control needs to be improved. In general, the products produced by this type of industry are secondary products, so that attractive designs or aesthetic advantages that are in line with consumer tastes will be the determinant of competition in this industry. But this is still not realized by some Indonesian handicraft producers.

Efforts to improve the quality of the design of handicraft products have also been echoed by educators and design activists, since the era of the 1970s. Various activities aimed at increasing the appreciation of design in the community have been carried out. However, this is still not in line with expectations. The lack of appreciation from the producers is still a major obstacle. Most manufacturers feel that they don't need the design or development of new products.

Basically there have been many efforts and various research papers to develop the local handicraft industry in Indonesia. But there are still very few, which specifically discusses the development of aesthetic designs and values on local handicraft products. Therefore, researchers only took five journal references for this study, including: Crafts in Indonesian Culture by Edy Sedyawati, Development of Crafts through Community Empowerment [1], Marketing of Handicrafts to the American Market [2], Exploring the Concept of Crafting Tradition for the Excellence of Indonesian Fine Arts in the Future [3], as well as Design in Utilitarian, Aesthetic and Symbolic Contexts [4]. Even though it has the same core. However, this research is different from some of the studies that have been mentioned, this research emphasizes more on the comparison between two handicraft products, using the principle of totality and value from Mayal (1979), to find a function-aesthetic factor for a simple effort in developing local handicraft products. This research is specifically aimed to find out and identify the potential of craft-based in West Java. And To find the role of design in improving the quality of Craft-based industry products in West Java [5].

II. METHOD

A. Design and Comparison of 2 Object

The method used in this study, is a descriptive-comparative research method, where research is focused on the comparison of various products, from each industry grouped into a category. This is based on knowing the character and effort built by each producer in increasing their market potential, ex:

<table>
<thead>
<tr>
<th>A</th>
<th>Criteria</th>
<th>Artefact</th>
</tr>
</thead>
<tbody>
<tr>
<td>History</td>
<td></td>
<td></td>
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<tr>
<td>Economy</td>
<td></td>
<td></td>
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<tr>
<td>Process Production</td>
<td></td>
<td></td>
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<tr>
<td>Function</td>
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<tr>
<td>Aesthetic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distribution</td>
<td></td>
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</tr>
</tbody>
</table>

Fig.1. Examples of Product Comparison Chart, based on Indonesian Design Center (2001).
III. RESULTS

Design is a human effort to define, design, process and produce objects or tools to complement complex human life. In the product design also contains the principle of totality which can be understood as a principle that emphasizes the relationship of an object with the function / serviceability and aesthetic / appearance character.

Design has many things that are interrelated with each other, but with this principle of totality the complexity can be observed more objectively. A simple example like a stone used as a cutting tool in prehistoric times. The stone is a first generation cutting tool, the principle of totality in this object is very easily determined. First of all, the polar character of the functionality that explains the main task of this object is predetermined, namely the power cut function. And then an aesthetic factor that explains the most non-technical aspects at the other end. Between these two poles are stretched the spectrum of characteristics produced by the study object due to the interaction of this object with the user and its environment. From each characteristic that is produced, will be able to see what intrinsic elements interact with the external character of the object. It is very possible that an intrinsic element like a mass will affect more than one characteristic of the object at once.

Similarly the design of an object can be assessed for its quality using the Value Analysis method. Like the principle of totality, it has two essential poles, namely use value and pride value. Use value or use value is related to the basic function of an object. A chair for example, has enough use value if it has the ability to be occupied by its users. The value of pride or esteem value is a value that shows how well the designer or manufacturer works in making the object capable of achieving its basic functions. The characteristics of a product can be linked to one another using relative values that have qualitative benchmarks. For example, the slate that has been analyzed above can be sorted all the characteristics it has based on the level of value, if cutting capacity is changed to performance, handling quality becomes ergonomics, then the characteristics of a cut stone can be compared to the characteristics of a knife. Fig.2, to explained about principle of totality and value.

![Comparison of Characteristics stone and axe stone, based on Value Principles](image1)

**Fig.2.** Comparison of Characteristics stone and axe stone, based on Value Principles [6].

**Fig.3.** Shows more detail about the comparison of 2 objects, which are based on the principle of totality and value.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>cutting capacity</th>
<th>handling capacity</th>
<th>aesthetic appeal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharpness</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Edge length</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Strength</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Mass</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Size</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Shape</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Texture</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Colour</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

**Fig.3.** Product Comparison Table [12]

Fig.3 shows that the cut stone and knife have the same priority in the character of performance, this means that these two tools have a high use value or use value. While other characters if integrated will form higher values such as pride. How to measure the value of pride or esteem value - or aesthetic value in other cases - tends to be qualitative, difficult to measure quantitatively, but easier to assess by users, because this value is more abstract.

IV. DISCUSSION

Craft and design are two different concepts, but both have a close relationship and both produce a product. In the process of making a product, a craft worker sometimes sketches the product design (design process). Whereas in design products which are generally mass products, most companies make trials of their products through chiral principles and are truly made with hand skills [7].

In this regard, the craft phenomenon in Indonesia in recent years has become a concern. The existence of postmodern discourse on the one hand has opened up opportunities for ideologies and cultures based on locality, ethnicity, and the like to revitalize this potential, becoming a highly competitive product. Craft-based industries one by one have now been seen emerging and reviving national culture-based products. From an economic point of view, this phenomenon can be addressed as a positive response, given the diversity of businesses opening up new opportunities for investment in the craft field that are considered able to provide answers to the community, not only in Indonesia but also the global community, will search for past identities with the shape of the future now. The thirst for these answers is answered in a hurry and encourages the emergence of euphoria and at the same time creates a culture of panic. Culture is no longer translated through the reflection of philosophical values or symbols but is presented to the public as a testimonial of the past and then becomes a design reference for their products, so what happens now is the aesthetic form and design of today's craft products qualify as past cultural representation, but these products become confused when questioned by their identity. In addition, the majority of products are produced solely to meet consumer demand. As a result, crafts actually experience setbacks only as a craft art and even tend to be classified as kitschy objects.
One of them is ceramic craft, which has now begun to take a new position. In the past the gap between large centers and industries was very deep and resulted in a striking contrast between mass-produced products that were able to produce high-quality ceramics with handmade ceramics made by craftsmen. Now the gap can be said to be narrowed down by the role of practitioners and academics who focus on developing ceramic craft, which is specifically done through innovation in design, material, and business management. In this case, they are able to scientifically design to develop their products not only based on market demand but also on a consistent identity, able to maintain their characteristics, so that the market easily recognizes the products they make. To find out the difference, then it will be explained about the different picture of the ceramic handicraft industry in Bandung, West Java.

A. Ceramics Handcraft in Bandung

Bandung, West Java has long been known as a city that produces many Creative Industries, even known as a city barometer of the development of creative industries in Indonesia. The establishment of two big halls namely, the Great Hall of Ceramics and Textiles in the City of Bandung has given a major influence on the development of fashion and decorative ceramics in Bandung, especially for the Ceramic Industry area in Kebon Jayanti, Kiaraccondong, Bandung.

B. Ceramics Handcraft at Kebonjayanti, Bandung

The area of the ceramic craft industry in Kebon Jayanti Kiaraccondong, is one of the largest craft centers in Bandung, West Java. Most of the residents of this region have expertise and work as ceramic artisans. The products produced are generally in the form of decorative plates, jars, and various souvenirs. The history of its development in the industry in this region has begun since the Dutch colonialization era, precisely in 1922, along with the establishment of Het Keramische Laboratorium as one of the city facilities which is located adjacent to the ceramics industry in West Java. Then this industry began to experience rapid development during the Japanese colonialization in 1942, precisely when Het Keramische Laboratorium was taken over by the Japanese government. The name Het Keramische Laboratorium was changed to Toki Yogyo Shikenjo, which means the Ceramic Laboratory. The existence of this laboratory greatly affected the development of the ceramics industry in Kiaraccondong, mainly as a major supplier of ceramic raw materials at the time. Products made at that time, generally are ceramics needed as building materials, such as pipes, tiles, new bricks and then develop in objects of worship needs such as jars and incense containers, as well as household appliances.

The industry in this region developed very rapidly in the late 1980s, where the number of craftsmen had increased, even many craftsmen were able to create new production sites around the Railway station, Kiaraccondong. Products that are in great demand at that time are decorative jars and prongs with a distinctive appearance in the style of Ancient China. The ceramics were successfully distributed to outside the island of Java, such as Kalimantan, Irian, to Aceh, and even managed to be exported to Japan. Unfortunately, this did not last long, since the era of the monetary crisis that hit Southeast Asia in 1997/1998, industrial development in this region has continued to decline.

Unlike the industry that has long been developing in the ceramics industry in Kiaraccondong, Bandung, Kandura Studio is one of the new ceramic producers established in 2005 in Bandung by 3 graduates of the Faculty of Art and Design, Bandung Institute of Technology, including Fauzi, Ghia and Tisa. The products they produce are unique products. The products they produce are varied, ranging from household and restaurant products to interior aesthetic elements.

C. Kandura Ceramics Handcraft Studio, Bandung

Starting from the capital of Rp. 15,000,000, currently Kandura Studio is successful in making a turnover of around 50-100 million per month. In contrast to most other MSME producers who focus only on the target of selling their products. This business owner realized that ceramics are not something that is easy to make, there are many variables and components and various techniques needed to make good product quality. They regret if the product cannot be useful and meet the needs of consumers or just piled up in the warehouse, let alone ceramics are products that are unpredictable. With this background, the owner finally focuses on developing ideal raw materials, as well as developing ideas to form distinctive design characters in the kandura studio products. In particular, the design goals themselves are to be able to make ceramics that can provide a new aesthetic experience for consumers. Therefore, the designs that are produced generally tend to appear with the feel of expressive designs, which are displayed through their physical form and motives.

D. Analisys

In this case the analysis was carried out based on the samples taken from each of the two producers' production results, namely one tableware: mug product, which was carried out through visual analysis (which appeared), and interviews with related sources/craftsmen, using the same method as the method done [6]. Table.1, will show the different between tableware product from Kebonjayanti and Kandura Ceramic Studio.

<table>
<thead>
<tr>
<th>Analysis Value</th>
<th>Product A</th>
<th>Product B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bpk. H. Oom Ceramic Prod. House</td>
<td>Kandura Ceramic Handcraft Studio</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Product Analysis Comparison Table, Kandura Studio and Bpk.H. Oom Ceramic Production House

Fig.5. Tableware sample by
### Design

| Material | Kaolin, which is imported from other city. Not obtained through the Center for Ceramics, because the price is not economical. | Composite clay, soil products which are separated from the rest of the production of the large ceramic industry in Tangerang. |
| Labor | The workforce used is a resident who does not have a permanent job but has the skills to make ceramics, which on average are high school or junior high school graduates. Most of the craftsmen got these skills from parents / passed down from generation to generation. Then retrained at Mr. H Oom's production house. | Founded by faculty of Fine Arts and Design, which is also an expert workforce - Founded by faculty of Fine Arts and Design, which is also an expert workforce. And the workforce are workers who have been trained to be skilled |

#### R&D

So far, the R & D has only been carried out on the stage to accelerate the production process, namely by making clay grinding machines, printing tools, ovens, and screen printing techniques on clay texture.

Conduct research, by looking at modern market trends and opportunities such as targeting young families as their market.

#### Function/ Perform

The resulting product has a pretty good performance.

The resulting product has a pretty good performance, although the product itself gives the impression of "reducing-function" to provide a different experience: this product is still a pleasant product.

#### Aesthetic

Basically the product is still dependent on consumer demand, so the product characteristics cannot be ascertained yet.

Tend to be contemporary-modern, with cheerful color shades.

#### Style

Not yet developed, but looks like adopt simplicity design

Adopt "Piet Mondrian/The Stijl" by showing strong colors with popular modern culture.

### Distribution

<table>
<thead>
<tr>
<th>Price (in rate)</th>
<th>Rp.10.000 until Rp.20.000</th>
<th>Rp.125.000 until Rp.300.000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales are still based on consumer requirements, are not sold in pieces, or distributed to household appliances stores. So it can be concluded that there is no specific strategy in the sales process.</td>
<td>Sales of goods are carried out in 3 ways, namely: 1. Selling with your own brand, through online sales or outlets 2. Collaborating with restaurants, coffee shops, hotels as well as large foreign / industrial retail companies in Indonesia such as UNIQLO 3. Selling based on consumer demand</td>
<td></td>
</tr>
</tbody>
</table>

### E. Tangible Comparison of 5 Design Characters, Through Value Principles

Refers to [4], analysis of the principle of totality and the principle of value combined in a combination of stacked graphs in the form of one quadrant. In this quadrant, a "normal" area is defined which represents the suitability between the tangible aspects (represented by the characteristics of the form) and the intangible aspects (represented by character and ideology).

The concept of the quadrant character in its principle form is not far from the principle of totality and principle of value [6]. This quadrant is used to see the influence of intangible aspects (ideology and character) on the tangible aspect (shape design characteristics). By paying attention to the error of placing the object component in the quadrant of the shape of the shape, the possible placement area is used. The use of this laying area can actually guide to see how far the consistency of designers is influenced by ideology in their work.

![Diagram](image_url)  
**Fig.4. Value Analysis based on Tangible Aspects (5 Other Design Characteristics) [6].**

With this diagram, it can be seen that the ability of these two products is complementary. The advantages and
disadvantages of both products tend to contradict each design characteristic, except for performance. This certainly implies that showing both parties take an approach and have a different philosophy to achieve the same goal, to win market competition.

Same as explained by reference [8] state that in today’s modern market competition, every product is certainly required to have certain characteristics in order to win market competition. so it can be concluded that every manufacturer competes to improve the quality of the design of the products they produce. This then encourages the new need for a "new design concept", which presents the character and period of the age. Referring to future considerations and projects, market competition will demand the advantages of a more complex design concept.

V. CONCLUSION

The character of a product is certainly reflected in the aesthetic form of the product. This matter is also directly proportional to the process and efforts made by the producer in producing related products. So it can be concluded that the products made by Kandura are generally superior to the products produced by Mr.H. Oom. This is seen through the form (physical), value, price and process carried out by Kandura Studio which clearly shows the design position in the manufacturing production process. give more value than what is paid by consumers. The exposure and comparison above provides a general description of the condition of ceramic craft in Indonesia today which is divided into three sectors, namely the central sector, the independent studio sector, and the Industrial sector. From the studies conducted it was found that exploration of traditional forms or revitalization of traditional artifacts still faced obstacles. This is due to the fact that the commercial products of ceramic crafts are still dominated by the market, resulting from economic conditions from depending on the market, while the ability to form a separate market requires capital, both financially and intellectually sufficiently supported by courage in taking managerial and marketing measures. By obtaining this description, it is hoped that it can open up new insights about the potential that can be achieved from a work or ceramic craft product. The role of academics and practitioners is needed in all three sectors. Craftsmen still need a huge boost to advance their business and look for their identity so that what they produce can be remembered as a characteristic in the eyes of consumers. The industry also needs to be made aware that the abundant human resources in Indonesia are a huge potential in the ceramic craft industry. Many processes in production are only able to be achieved by the work of human hands and this is precisely what is sought by consumers today. This is evidence that the interaction between objects and humans with the product continues from the beginning of the object is made until finally used. With this it is clear, that design is a national asset that can play a cultural bridge. Between the past and the future of Indonesia, as a national economic factor. Through quality products and able to compete.

ACKNOWLEDGMENT

This research is intended as an appreciation to improve the efforts made in improving the quality of product design in the province of West Java. That is expected to further improve the quality of products in West Java Province. And thank you to those everybody who have helped complete this paper.

REFERENCES