# Product Innovation Development in The Creative Industries Aren Handicraft in Jember Regency Tutul Village

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# ABSTRACT

*Purpose:* The purpose of this research is how the process of developing product innovation in aren handicraft.

**Design/methodology/approach:** This type of research uses descriptive methods with a qualitative approach. Researchers use the model developed by Urich & Eppinger for the product innovation development process.

*Findings:* The results showed that in phase 5 (Production Ramp Up) workers were able to produce new products from hyacinth raw materials and wood waste with a variety of innovations.

Research limitation/implications: The Research is limited to aren handicraft in Village Tutul Jember.

*Practical implications:* This research can be used as a guide for several interested parties, namely lecturers, students and the craft industry

Originality/value: This Paper is original

Paper Type: Research paper

Keywords: Aren Handicraft, Descriptive, Product Innovation, Qualitative.

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## I. INTRODUCTION

The creative economy has contributed 7% of Indonesia's gross domestic (GDP) growth. This figure is a sign that the creative industry is ready to become a new force in national economic development, given its growing growth. Not only that, with a variety of unique and much needed businesses, the creative industry can provide its own benefits. For example, in the textile business, such as batik business, design business, in the field of food drinks with various types or animations that are now growing, and other types of creative businesses. With the advantages that are owned, it can be enough to consider the business opportunity of a craft business.

East Java is an area of agriculture, trade and industry that deserves to be developed, the processing industry made from wood and waste has not been widely developed in east Java, even though many people who have skills in the field of crafts, it is necessary to have training in developing community skills to be more skilled and independent. Craft is one of the cultural elements of ten (10) cultural elements that become

a tourist attraction in tourism activities. Shaw, (1994) formulated the ten elements, namely language (language), community traditions (traditions), food and eating habits (foods and eating habits), music and art (art and music), the history of a place (history of the region), how of work and technology (work and technology), religion (religion) expressed in the story or something that can be witnessed, the shape and characteristics of architecture in each tourist destination (architectural characteristic in the area), and local/traditional clothing.

Jember Regency spotted village is a craft center village, a lot of handicraft products in the village of leopards are crafts from beads, tasbih and even crafts from wood. Aren Handicraft is a craft industry of wood and waste that provides household appliances and kitchen appliances that are all made of wood. Raw materials used include palm wood, mahogany, teak wood and some products are made from waste. Products produced such as cobek, trays, plates, rice spoons, and others. In addition, it also provides some products for souvenirs, hampers and some products for photo props. Products from waste such as decorations from hyacinths, banana pellets, wall hangings and others.

In this case aren handicraft has problems in terms of product innovation development, this is due to the limited human resources and low skills of workers, and incomplete equipment. The products produced are limited to household appliance products that are all from palm wood, there are no other hand made variants that they can produce from raw materials other than palm wood, although there are products from hyacinth but the product is not homemade but the result of buying and resale. In addition, the utilization of wood waste is not used and wasted, this should be another opportunity when pieces of wood and wood powder can be utilized into other craft products of economic value. Based on the picture and problems in aren handicraft, it is necessary to develop product innovation, so that the products produced are more diverse by utilizing unused wood waste.

The product development process according to Ulrich, K, T., & Eppinger, (2012) in their book entitled Product Design and Development consists of six phases namely:

1) Phase 0: Product Planning

Planning activities are often referred to as "zero phases" because these activities precede project approval and the actual product development launch process;

2) Phase 1: Concept Development

In the concept development phase, target market needs are identified, alternative product concepts are resurrected and evaluated, and one or more concepts are selected for further development and experimentation;

3) Phase 2: System Level Design

System-level design phase includes the definition of product architecture and product description into subsystems as well as components;

4) Phase 3: Detailed design

Phase includes the complete specifications of the shape, materials, and tolerances of all unique components of the product and identification of all standard components purchased from suppliers;

5) Phase 4: Testing and Repair

Phase testing and repair involves the construction and evaluation of various early production versions of the product.

6) Phase 5: Early Production

In the initial production phase, the product was made using a real production system. The purpose of this initial production is to train the workforce in solving problems arising in the actual production process. The transition from initial production to actual production is usually stage by step. At some point during this transition, the product was launched and began to be made available for distribution.

Kotler, P., & Armstrong, (2010) mention that there are three attributes that attach to product innovation, namely:

- 1. Product Features, is something unique, special and a peculiarity that the product has as an additional selling point.
- 2. Product Design and Design, is a privilege that can affect not only the appearance but also the function of the product in terms of consumer needs.
- 3. Product Quality, is a product that is free from defects, has a conformity of performance and consistency of capabilities that are in accordance with its function.

# **II. METHODOLOGY**

The method used in this study is qualitative method. This research aims to generate new product innovations in aren handicraft by training employees to produce new products from hyacinth materials and unused wood waste. This research methodology is in accordance with the product design and development process put forward by Ulrich, K, T., & Eppinger, (2012) which is at the beginning of the process of problem identification, initial design evaluation and literature studies, redesign, concept selection, Production Ramp Up. The stages or processes of this study are as described as the following images:



Figure 1. Research methodology

The first stage of the study was to identify the problem. At this stage researchers conduct surveys to research objects related to problems faced by research objects. The second and third stages are evaluating the initial design by designing product innovations from various sources to get ideas internally and externally in order to obtain alternatives to the proposed design. The fourth stage is to do the selection of concepts. After obtaining several product innovation design proposals then evaluated and obtained a concept that will be further developed. The fifth stage is Production Ramp-Up. At the stage of training employees or workers and solving problems in the production process. At this stage, a re-evaluation of the shortcomings that still exist.

## **III. RESULT & DISCUSSION**

The results of the discussion to be discussed include: problem identification, initial design evaluation and product design, concept selection, production stage and evaluation.

## A. Problem Identification

In the early stages, a survey is conducted to the location of the research object, namely aren handicraft to get some information related to existing problems. Based on the results of interviews with business owners obtained information that aren handicraft has problems related to difficulties in the development of product innovation and does not have the tools used for the innovation process. In addition, employees who are still not skilled weed, so training is needed to produce new products from hyacinth raw materials. Weaning training is done by people who are already experts in weeding and have unique bag crafts from talikur material.

## B. Initial Design Evaluation and Product Design

The second stage is the evaluation of the initial design and product design. At this stage, the search for innovative ideas from business owners and researchers and employees is carried out. In addition, look for sources of product ideas from the internet to get new product innovations. After analysis by bringing together several ideas / ideas from each party and information obtained from various sources, then obtained several ideas of types of product innovations.

## C. Concept Selection

After obtaining several product innovation design proposals then evaluated and obtained a concept that will be further developed. This concept was chosen by considering the ideas and tools and skills of employees who are able to support to produce product innovation. After the availability of tools or graphics machines, the idea was obtained to make product innovations in the form of key chains from wood waste that can later be written according to buyers' requests. The idea of product innovation after employees are trained to wean then obtained product ideas from hyacinth in the form of placemates and various baskets. The idea of product innovation from wood waste is in the form of wall hangings or commonly called moorings.

#### **D.** Production and Evaluation Stage

At the production stage, the product is made using the actual production system. The purpose of this initial production is to train the workforce in solving problems arising in the actual production process. The transition from initial production to actual production is usually stage by step. At some point during this transition, the product was launched and began to be made available for distribution. At this stage, employees are trained to weed from hyacinth raw materials, then produce product innovations in the form of placemates and baskets. A new tool called grafir is already used for the production process and produces key chains from unused wood waste. In addition, wood waste is also used to make wall hangings (patching). After the production process is completed and produces product innovation then evaluated whether the product is worth market. The results of evaluation from several parties then the product is good and worthy to be marketed.

#### **IV. CONCLUSION**

Product innovation development process in aren handicraft with methods developed by Ulrich, K, T., & Eppinger, (2012) namely at the beginning of the process of problem identification, initial design evaluation and literature studies, redesign, concept selection, and production ramp up. In the final stage (Production Ramp Up) employees are trained to weed products from hyacinth raw materials and production processes using new machines, namely grafir tools. The results of product innovation produced include keychains, placemates, baskets, patching. Based on the results of the evaluation, it can be concluded that these products are worthy of market.

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