

Perception of Craftswomen Toward Stagen-Based Innovation Products

Dian Retnaningdiah^{1*}, Retno Ika Sundari², Djandjang Purwo Sedjati³, Titiana Irawani³

¹ *Department of Management, Universitas Aisyiyah Yogyakarta, Indonesia.*

² *Department of Accounting, Universitas Widya Mataram Yogyakarta, Indonesia.*

³ *Department of Textile Craft, Institut Seni Indonesia Yogyakarta, Indonesia.*

**Corresponding author. Email: dian_rdh@yahoo.co.id*

ABSTRACT

This study is aimed at investigating to what extent the awareness or willingness of artisans in the village Argosari toward 9 innovation products made of stagen. Descriptive analysis was employed to reflect the data obtained from the process of identifying HR and products. Chi-square analysis was used in this study to find out that innovative products from stagen materials were favoured evenly or not by artisans. The findings of this study indicate that the proportion of respondents responses to the 9 innovation products: food pads, bags, purses, multipurpose boxes, room dividers, s, tissue boxes, pillowcases and for newspapers compartment where the questionnaires around the average result showing Agree (S) and Strongly Agree (SS). The total score obtained by each factor is still close to the perfect value, so in general it can be concluded that respondents tend to have a good perception on the products. The results of the chi-square calculation of each factor indicate that the proportion of respondents' answers is not evenly distributed, so the results support the conclusion that respondents tend to have a good perception of the 9 products. This shows that the hypothesis is proven, in the sense that the 9 products are in demand by artisans.

Keywords: *artisans, craftswomen, innovation products*

1. INTRODUCTION

Bantul as one of the tourism areas in Yogyakarta, has several potentials, including as a beach resort, pottery producing area and also as a producer of textile raw materials. One of the regions producing textile raw materials is the Argosari region. This area has been known as the producer of stagen fabric. But unfortunately, this potential is not supported by sufficient innovation capability in its production. So far, the stagen fabric craftswomen have obtained basic materials in the form of warp threads and pakan originating from a collector who lives nearby. The yarn is brought home and then processed by using Non-Machine Looms (ATBM) to produce stagen cloth which is then resold to the collectors or other producers, then purchased by a textile company from the cities of Solo and Surabaya to be used as industrial materials.

The production of stagen consists of 4 types of qualifications based on its density and fineness produced. Stagen artisans are generally in their late 40s and 60s, while young labors start leaving stagen manufacturing businesses because they are bored or lazy because of earning minimum wages. The business, which has been running for 40 years, turns out to be gradually being touched by innovation, even though it is still just coloring. Stagen fabric, which was originally only black and white, has now begun to be made of various colors, for example maroon, orange, green and dark blue. Based on this fact, it is necessary to do

empowerment, especially for women who have the status as craftsmen, as well as young women who have not yet found work. This was done in order to prevent them from leaving the village and looking for work in other regions.

Collaboration with the government also began to be fostered, for example with the extension of Disperindagkop for entrepreneurs (owners), but it was still in a broad scope, meaning that it was not focused on stagen production. Based on the explanation above, it is necessary to conduct study that reveals in depth and comprehensively the problem of the need for study that reveals the innovative role of stagen fabric craftswomen in the Argosari area, which is followed by efforts to increase product value added which ultimately brings improvement to the welfare of artisans. This requires a model of assistance to entrepreneurship. Product and process innovation require different skills for implementation: products innovation requires appreciation of customer's needs, design and production, while innovation process is related to the application of technology to improve efficiency in the development and commercialization of the products [1].

In this study, design identification and documentation is carried out to become the basis for the creation of new innovation products that still reflect local identity and wisdom. This is important in an effort to participate in preserving and elevating local cultural arts to be better known at national and international levels, as well as to uphold the noble values of Indonesian culture. Innovation is the basis for economic growth and can be a source of sustainable competitive advantage, being fundamental for organizations that want to remain in focus in the market [1]. This study is expected to be able to help the existence of MSMEs in global competition so that MSMEs are also able to absorb labor, reduce unemployment, improve welfare

especially expected to reduce poverty. For developing countries, even though the development is very low in terms of the innovation products, surprisingly it brings a significant contribution in absorbing labors and thoroughly improving marketing performance [2].

The development or creation of product design needs to be done, because people need innovative, creative products to showcase a nation's local cultural arts.

This study developed stagen-based products that have not been conducted by any prior research in conducting empowerment programs. Empowerment in the manufacture of weaving, regeneration of weaving craftsmen and marketing of weaving products are not yet fully oriented to the development of product innovation [3]. Cintya's research (2016) aimed to find out the weaving craft innovation in Dusun Gamplong through the approach of creativity, organizational culture, environmental conditions and socioeconomic factors. Although people's creativity has a positive influence with the creation of simple innovations, but it does not on innovations made from stagen-based weaving product. Since stagen has a distinctive size. So that stagen innovation products still have characteristics that will not obscure the original form of stagen. Innovative products will go through a sewing process if the width exceeds the size of the stagen (width 15 cm with a length ranging from 8 m, 10 m and 15 m) [4].

This study is expected to help MSME units, especially stagen producers, to develop innovative products. The findings can be applied by stagen craftswomen in Argosari region, even if it is possible to apply it to craftsmen in other regions by highlighting the distinctive characteristics of each region

This research is supported by previous research, showing that in Argosari Village found that the entrepreneurial spirit of belt / stagen weaving craft ideas in partial or simultaneous factors containing creativity and innovation had a significant effect on the level of entrepreneurial spirit of craftswomen [5].

The level of entrepreneurial spirit according to the Minister of Training, the Business Consultation Center by the Ikopin Small Entrepreneurship Development Center (1996) is opportunity and innovative search, persistence and perseverance, adherence to work contacts, demands on work quality and efficiency, risk taking goal setting, information seeking, systematic planning and monitoring, persuasion and network creation, self-confidence, innovation, and knowledge [6]. This definition shows that the level of entrepreneurial spirit is a standard of the best guarantee to be an entrepreneur who is able to meet needs, take risks, take advantage of business opportunities, innovative, confident, and willingness to conduct strong business activities so that the entrepreneur is able to maintain strength in the face of competition creating high profit growth, and ensuring survival.

Retnaningdiah (2010) in a study in Sumber Rahayu Village regarding the quality of entrepreneurial spirit of weavers who used raw materials of fragrant roots and water hyacinth stated that innovation had a significant effect on the quality of craftsmen's entrepreneurial spirit [7].

MSMEs are a business group that is resistant to the impact of the economic crisis, this is supported by a high spirit of entrepreneurship in the business world. SMEs are proven to

have a role and contribute to Indonesia's development. In 2009 MSMEs recorded a contribution to Indonesia's GDP of 45% or IDR 2.000 trillion. Whereas in 2010 MSMEs were expected to contribute even more to Indonesia's GDP, which amounted to IDR 3.000 trillion. The amount of contribution can also be seen from the high employment absorption of MSMEs, which amounted to 91.8 million or 97.3% of the total workforce in Indonesia [8].

In 2010 the number of MSME units reached 52.2 million business units spread throughout Indonesia. This amount reflects the large potential that can be developed and improved for MSMEs to be able to contribute more in this country. MSMEs are able to withstand several waves of crises that have occurred in this country, such as the economic crisis in 1997-1998 and the 2008 global economic crisis. When many large companies collapsed and broke employment relations, MSMEs were able to absorb the unemployed to work again. At present, the Ministry of Cooperatives and Small and Medium Enterprises plans to create 20 million new small and medium enterprises by 2020. In 2020 there will be a time that promises so many opportunities because in that year what the ASEAN leaders dream will be realized in the Bali Concord II [9].

Study on Innovation has been conducted in large companies, mostly associated with multinational companies [10]. The rise of innovation from small companies is relatively new, while large companies have innovation advantages in intensive industrial capital with economies of scale, while small companies are recognized as important innovators in the fields of high technology such as computers and biotechnology and in other aspects [11].

Small companies face special problems in the formulation of innovation strategies, they are related to deficiencies that arise due to limited resources and coverage of technological capabilities. Risks in responding to markets and technological opportunities and choosing the right time (not too early or too slow) actions make innovation strategies a major challenge for their management [12]. Small and large companies have different roles in innovation activities depending on the resources and skills needed [13]. Small companies have a number of unique features such as scarce resources, low influence on the market and informal communication which is used as a determining factor in decisions to adopt innovation strategies carried out by large companies. The characteristics inherent in small and medium enterprises can be a force that actually inhibits (growth constraints).

Innovation is one of the main keys that lead to competitive advantage. Therefore innovation and its relationship with resources and organizational capabilities require further study [11], [12].

Strategy is a process that is very important in order to overcome various critical activities of the company and face future conditions that tend to be uncertain and difficult to predict. With strategy, it means that the company tries to dig deeper into the potential to maximize the final findings to be achieved and at the same time develops adaptation to very rapid environmental changes.

The existence of the AFTA and CAFTA has made Indonesia as the main destination for foreign markets. Moreover, currently China's products are almost 75% in control of the Indonesian market, ranging from food and

beverage products, textiles, children's toys to communication devices in the form of mobile phones [9], therefore it is very important for SMEs to innovate if they want to achieve success in good competition in both national and international level.

The emphasis of the study was on product innovation. The existence of stagen products as one of the traditional clothing products has a potential prospect to be developed into commodity materials that are able to enhance the image of tradition with better product packaging, for example by being used as bags, room divider, newspapers compartment, tablecloths, multipurpose boxes and tissue boxes.

By all means the innovation of stagen products is not only conducted in a very short period. For this reason, the need for studying on product innovation must be planned in detail. At the beginning the identification of HR and products will be carried out, then the questionnaire will be distributed to determine to what extent which innovations have been carried out by stagen craftsmen and to find out product innovations that can be developed and designed and made prototype. In making this design and prototype a touch of innovation and creativity are employed by converting stagen into processed products, for example by being made into bags, room dividers, magazines or newspapers, placemats and multipurpose boxes.

Empowerment is empowered to give a greater influence locally and nationally. Through describing it as a process that involves the relationship of power (strength) changes between individuals, groups, social institutions [14]. It is also stated that empowerment is a process of personal change because each individual takes action on behalf of themselves to understand how to act within the area of their environment.

Women labors or often called informal women labors are women who work without a work agreement that regulates age, wages and orders. Informal women labors work based on the growing need for necessity and require women to work because of something they must play as the head of the family and earn a living.

Informal labors are those who work in the informal sector and work outside of employment relations, which means there are no employment agreements governing employment, wages, and orders [15]. Informal activities are attempting or working alone at their own risk with the help of precarious labors, and working unpaid like those who help someone earn income or profits, but do not get wages or salaries in the form of money or goods. Informal sector labors are workers who work for all types of work without protection of the state and for those businesses that are not subject to taxation [16]. Also defined are all types of jobs that do not generate permanent income, workplaces that do not have job security, and workplaces that have no permanent status for the work and business units or institutions that are not incorporated. Whereas the characteristics of informal activities are easy to enter, meaning that everyone can at any time enter this type of informal business, relying on local resources, usually family-owned businesses, small-scale operations, labor intensive, skills obtained from outside the formal school system and unregulated and competitive market.

Informal women labors are women who work without a work agreement that regulates the elements of work, wages,

and orders. Informal women labors work on the basis of the growing need for necessity and require women to work because of something they have to play as the head of the family, making a living. The hypotheses that can be taken in this study are:

- a. Making stagen into an innovative product in the form of a food pad is favored by artisans evenly
- b. Making stagen into an innovative product in the form of bag is favored by artisans evenly
- c. Making stagen into an innovative product in the form of a purse favored by artisans evenly
- d. Making stagens into innovative products in the form of multipurpose box is favored by artisans evenly
- e. Making stagen into an innovative product in the form of room divider is favored by artisans evenly
- f. Making stagen into an innovative product in the form of curtain is favored by artisans evenly
- g. Making stagens into innovative products in the form of tissue box is favored by artisans evenly
- h. Making stagens into innovative products in the form of pillowcase is favored by artisans evenly
- i. Making stagen into an innovative product in the form of a newspaper compartment is favored by artisans evenly.

2. METHOD

This study employed quantitative methods. The study site was focused on Argosari village with the consideration of the potential of women to be quite dominant so that they were expected to be able to become a model of women's empowerment. The populations in this study were all stagen artisans in the village of Argosari. Sampling uses purposive sampling method, with the criteria that craftsmen aged 16 to 50 years are still running this business until now. Sources of data from this study were obtained from respondents through interview techniques and questionnaires. Questionnaires were given directly to respondents. In addition, the data were also obtained through archival search (documentation) from the local village monograph. Development of instruments through questionnaires to 9 groups, namely group I about food pads, group II about bags, group III, wallet, group IV about multipurpose boxes, groups V about room divider, group VI about curtains, group VII about tissue boxes, group VIII about pillowcases, groups about compartment of newspapers. "Product Moment Correlation" was employed gain validity for the questionnaire. Then "Cronbach Alpha method" was employed to gain reliability. The commitment of craftsmen to make products is reflected in the study variables which include food pads, bags, wallets, multipurpose boxes, room dividers, curtains, tissue boxes, pillowcases, newspaper boxes. The scale used in the preparation of the questionnaire is an ordinal scale or likert scale, where study on respondents is given a certain score, ranging from 1 (one) to 5 (five).

Data analysis techniques used include descriptive analysis, the analysis in this study describes a descriptive analysis of the answers given and presented in the form of tables and inductive analysis that was used to analyze data from study that had been done and draw conclusions on the problem under study [17]. This study applied Chi-Square analysis

tools to reveal whether the answers given by respondents are evenly distributed or each possible answer has the same distribution.

3. RESULTS AND DISCUSSION

3.1. Descriptive Analysis

This study will describe the condition or existence of products and HR or stageny artisans consisting of 30 artisans in the village of Argosari, Bantul Regency. The first stage of collecting questionnaires in the process of distributing questionnaires is done by dividing the questionnaire during meetings and the filling process directly.

Description of the characteristics of respondents analyzed in this study based on sex and the level of importance of product innovation for each type of innovation product to the findings in this study, the respondents describe women as 30 or 100%. It is possible that the level of tenacity and perseverance possessed by female artisans is higher than that of male artisans.

3.2. Assessments of Validity and Reliability

Validity testing is done using the Pearson Product Moment Correlation technique, through the SPSS computer program. The correlation findings (r count) of each statement are compared with the Critical Value (r table) at the 5% significance level. And questions are considered valid because r count $>$ 0.3610. The findings of the validity test show that the nine variables are valid because the value of r count $>$ 0.3610. The reliability test findings show that all statement items on the feeding factor, bags, wallets, boxes, curtains, tissue boxes, pillowcases and where newspapers have levels high reliability which is on the second scale between 0.734-0.889. This proves that the data or instruments used have a high level of trust.

3.3. Assessment Stages

This study was conducted through study stages with Likert Scale Distribution Factors, Factor Scores, Chi Square Factor Analysis, Chi Square Statistics Test on the variables used.

3.4. Discussion

Factor I Analysis (food-based innovation products) Question no. 1 regarding the desire of artisans to provide added value to stagens for food pads. In this statement as many as 21 people (70%) stated strongly agree, 7 people (23.3%) agreed, as many as 1 person (3.33%) expressed disagreement and 1 person (3.33%) stated strongly disagree. Question 2 concerning the ability of artisans to find alternatives that are useful for the development of stagen. In

this question, 8 (26.67%) people strongly agreed, 20 people (66.67%) agreed and 2 (6.66%) expressed doubt. Question # 3 concerning the ability to find new methods / techniques when proceeding to turn stagens into food pads. In this statement, 10 (33.33%) people stated strongly agree, 16 people (53.33%) agreed and 1 person (3.33%) expressed doubt and as many as 3 (10%) stated no agree. Question number 4 regarding the perseverance of artisans in making dinnerware. In this question as many as 10 (33.33%) people stated strongly agree, as many as 16 people (53.33%) agreed, 2 people (6.67%) expressed doubt and as many as 1 person (3.33%) states disagree and 1 person (3.33%) states strongly disagree. Question number 5 regarding the ability of craftsmen to minimize errors in the process of packing food pads.

In this statement, as many as 13 (43.33%) people stated strongly agree, as many as 14 people (46.67%) agreed, 2 people (6.67%) expressed doubt and as many as 1 person (3.33%).) Statement No. 6 concerning the ability of craftsmen to make new variations (models, shapes and colors in making food pads. In this statement 15 (50%) people strongly agree, 12 people (40%) agree, 2 people (6, 67%) expressed doubts and as many as 1 person (3.33%) expressed disagreement and 2 people (6.67%) stated strongly disagree.

Furthermore, the respondent's answer was given a score to find out the respondents' perceptions in general. The findings of scoring for factor 1 indicate that Factor 1 scores a total of 766 while the maximum score is 90. Average score is 4.26 (766: 180). This score is high because it approaches the maximum value, namely 5. The answer given by the craftsmen as a whole to factor 1 is that innovation on food pads ranges from agreeing and strongly agree, so it can be concluded that artisans have high innovation power on stagen processing to become food pads. To support this conclusion, statistical tests were carried out using Chi Square analysis tools. In the Chi Square Test, it was wanted to know whether the answers given by the artisans had the same distribution. If the findings of the Chi Square calculation showed a number smaller than the value of α , then the stagen processed product into a feeding base had an unequal distribution. Chi Square analysis for factor 1 is as follows based on Chi Square test findings obtained a significance value of 0,000 $<$ 0,05 indicating that H_0 is rejected which means that the population distribution is not homogeneous, or the craftsman apparently does not have an aspect of innovation in food pad products.

4. CONCLUSION

The distribution of the population is not homogeneous, or the craftsman apparently does not have an aspect of innovation in the products of the food pad. The population distribution is not homogeneous, or the craftsman apparently does not have an aspect of innovation in the bag product. The population distribution is not homogeneous, or the craftsman does not have an aspect of innovation in wallet products. The population distribution is not homogeneous, or the craftsman apparently does not have an aspect of innovation in the versatile box product. The population distribution is not homogeneous, or the

craftsman apparently does not have an aspect of innovation in the space partition product. The distribution of the population is not homogeneous, or the craftsman apparently does not have an aspect of innovation in the curtain product. The population distribution is not homogeneous, or the craftsman does not have an aspect of innovation in tissue box products. The distribution of the population is not homogeneous, or the craftsman does not have an aspect of innovation in the product of the pillowcase. The population distribution is not homogeneous, or the craftsmen apparently do not have an aspect of innovation in the product of newspaper container.

This study provides recommendations on the following matters: 1.) Crafters should continue to improve the quality of their entrepreneurial spirit to always innovate. Existing innovation products must continue to be developed. 2.) In the next study can expand the object of study or make comparisons with other study objects. 3.) Design and prototypes that have been realized are expected to be able to do further study by conducting a prototype experiment involving craftsmen and students as an effort or forum to develop the ideas and creativity of artisans. 4.) Management experiments and market tests at the next stage are carried out to determine the extent to which superior innovation products can be received in local, national and international markets.

Besides the conclusion and recommendation elaborated above, concerning to the limitation of the study, this is a pilot project dealing with innovation of stagen product. As a result, the previous studies are insufficient to make an explanation, comparison or reference for this study. Hopefully this study is able to be a breakthrough in conducting further research.

ACKNOWLEDGMENT

The greatest gratitude goes to the Ministry of Research, Technology and Higher Education who has provided funding sources. An appreciation also goes to the village head of Argosari. A great appreciation also goes to Rochmat Susanto, a lecturer from UMY who gave contribution in translating this manuscript.

AUTHOR CONTRIBUTIONS

Conceptualization (D.R, D.P.S); Material research preparation (D.R, R.I.S, D.P.S, T.I); Methodology (D.R,R.I.S, D.P.S, T.I); Data collecting (D.R, R.I.S); Data analysis and visualization (D.R,R.I.S); Writing—original draft (D.R, R.I.S); Presentation (D.R).

REFERENCES

- [1] C. K. Padilha and G. Gomes, "Innovation culture and performance in innovation of products and processes: a study in companies of textile industry," *RAI Rev. Adm. e Inovação*, vol. 13, no. 4, pp. 285–294, 2016.
- [2] F. Indriani, "Studi Mengenai Inovasi Produk Pada Usaha Kecil Kerajinan Ukiran Di Jepara," *J. Sains Pemasar. Indones.*, vol. 7, no. 2, 2008.
- [3] Astuti, "Pemberdayaan Perempuan Pengrajin Tenun Suku Sasak (Studi Kasus Di Desa Batujai, Lombok Tengah)," 2017.
- [4] C. Arnisita, "Innovation Of Loom Craft For Community Empowerment In Gamplong, Moyudan, Sleman," No. 1, Pp. 1–14, 2016.
- [5] D. Retnaningdiah, D. P. Sedjati, and T. Irawani, "Analisis faktor yang berpengaruh terhadap kualitas jiwa kewirausahaan perajin stagen inovasi," *Telaah Bisnis*, vol. 16, no. 1, pp. 47–58, 2015.
- [6] Mahrinasari, "Faktor-faktor yang Mempengaruhi Kualitas Jiwa Kewirausahaan Usaha Kecil," *J. Entrep.*, vol. 1, no. 2, pp. 101 – 113, 2003.
- [7] D. Retnaningdiah, "Faktor-faktor yang Mempengaruhi Kualitas Jiwa Kewirausahaan Wanita Nelayan di Kabupaten Bantul," in *Prosiding Seminar Nasional hasil Penelitian Dosen Kopertis Wilayah V Yogyakarta*, 2009.
- [8] "No Title." [Online]. Available: www.depkop.go.id.
- [9] Anonim, "Usaha Kecil dan Menengah," 2011.
- [10] R. W. Vosen, "Relative Strength and Weaknesses of Small Firms in Innovation," *Int. Small Bus. J.*, vol. 11, pp. 1–24, 1998.
- [11] A. Hadjimonalis, "An Investigation of Innovation Atecedent in Small Firms in the Context of A Small Developing Countries," *J. R&D Manag.*, vol. 30, no. 3, pp. 62–79, 2000.
- [12] A. Hadjimolis and K. Dickson, "Inovation of SMEs in Cyprus Small Developing Countries," *Int. Small Bus. J.*, vol. 18, no. 4, pp. 62–79, 2000.
- [13] A. Rizzoni, "Technological Information and Small Firm Taxonomy," *Int. Small Bus. J.*, vol. 9, no. 3, pp. 31–42, 1991.
- [14] O. Anggraini, D. Retnaningdiah, and M. Agus, "Kajian Evaluatif Retrospektif Prospektif Pemberdayaan Wanita Nelayan dengan Mengoptimalkan Swamitra Mina Integratif Program Pemberdayaan Ekonomi Masyarakat Pesisir di DIY," *Laporan Penelitian Hibah Bersaing*, 2007.

[15] P. Midjan, "Pemberdayaan Pekerja Informal Perempuan di Pedesaan," 2007.

[16] "No Title." [Online]. Available:
www.menegpp.go.id.

[17] S. Saleh, *Statistik Induktif*. Yogyakarta: UPP AMP YKPN, 1996.