

Superior Product Development Results Cultivation Ecoprint Based Silkworm

Riska Nurmayani., *Muhammad Rakib., Asmayanti., Nur Halim

Universitas Negeri Makassar, Indonesia

*Corresponding Author

DOI: https://doi.org/10.51584/IJRIAS.2024.908039

Received: 31 July 2024; Accepted: 13 August 2024; Published: 11 September 2024

ABSTRACT

This research aims to develop superior products from silkworm cultivation in Sabbetta Village, Soppeng Regency. Descriptive and mixed methods approaches were used in the research methodology. Information was collected through field observations, in-depth discussions with silkworm producers, as well as secondary data analysis from related literature. The research results show that the development of a superior product from cultivating silkworms, namely sabbe sarongs, by farmers in Sabbeta Village lies in its design which combines traditional Bugis motifs with modern innovations such as the *ecoprint technique*, which uses natural dyes from local plants to create unique patterns and environmentally friendly. This product development was carried out by exploring the initial potential of the sabbe sarong and identifying what was lacking, namely in terms of motif durability and renewable motif design using the *Ecoprint method*. This research resulted in the development of superior products, namely traditional textiles that are sustainable, aesthetic and functional, meeting the demands of a modern market that increasingly cares about sustainability.

Keywords: Product Development, Featured Products, Ecoprint

INTRODUCTION

One of the economic sectors that helps increase the country's foreign exchange earnings is agriculture. By improving the economic performance of most of the supporting subsectors, this growth can be achieved. The forestry subsector is one of the agricultural subsectors that makes a significant contribution to the country's foreign exchange earnings because it helps agro-industrial companies obtain raw materials (Raza et al., 2023). The growth of silkworms on mulberry farms is one group that plays an important role in this development. Regarding cocoons, threads and finished goods, natural silk is a commodity that can be used to meet domestic needs and increase exports. Natural silk is essentially the result of various cross-cultural efforts, including mulberry production and sericulture, which includes processes ranging from egg harvesting to cocoon collection. Weaving with silk thread is the next step in the spinning process, which involves handling cocoons until they are spun into thread (Lopez-Marigorta, 2023). Weaving with silk thread is the next step in the spinning process, which involves handling cocoons until they are spun into thread infrastructure and facilities, appropriate planting methods, and guaranteed product development are needed to support natural silk operations to achieve the best results. The participation of the private sector and farmers is expected to demonstrate the possible impact of increasing silk yields and quality in the social and economic fields, including increasing farmers' income from sericulture, creating jobs, and improving the welfare of local communities.

One of the leading commodities in the South Sulawesi region is natural silk, which is a non-timber forest resource that has quite large potential. The people of South Sulawesi have an innate culture of using natural silk. Even though South Sulawesi is currently the largest silk producing area in Indonesia, almost the entire natural silk business system is still run conventionally, on a small scale, and using a subsystem pattern. The natural silk industry in South Sulawesi Province is developing very erratically and is declining from year to year. The decline in cocoon and thread production every year shows that the current approach to cultivating and cultivating natural silk has not had a significant impact (Amir & Syamsuddin, 2022) . In South Sulawesi



Province, the natural silk industry has developed very erratically and is declining from year to year. The decline in cocoon and thread production every year shows that the current natural silk farming and cultivation approach has not provided significant results in increasing cocoon and thread production. According to a research report published by the South Sulawesi Provincial Forestry Service and ISPEI regarding the facilitation of natural silk research in the province, implementing participatory technology development and sustainable agriculture with low external input (LEISA = Low-External-Input and Sustainable Agriculture) is something that needs to be done . one of the steps to make South Sulawesi a national silk production center. Future agriculture refers to agricultural practices that maximize the use of locally available natural and human resources, while remaining economically viable, environmentally friendly, culturally appropriate and socially just. Outside input is not completely excluded; on the contrary, it serves to increase the use of local resources. In this way, there will be no damage to the environment or depletion of non-renewable resources (Andadari et al., 2017).

South Sulawesi, which is one of the provinces in Indonesia which produces a lot of natural silk thread, especially Sengkang City which is famous as the Silk City because it produces a lot of woven fabrics from silk and even ready-made clothes consisting of various models for both women and men. However, many people do not know that one of the districts that supplies silk thread comes from Soppeng District, especially in the area called Kampung Sabbe, Pising village. Soppeng City is also known as a city that produces silk thread because Soppeng City, especially in Sabbeta village or Pising village, has large areas of mulberry plantations so that it can absorb silkworm eggs and produce lots of cocoons. Most of the people in Pising Village work as silkworm farmers, they cultivate silkworms from caterpillar eggs to cocoons that are ready to be spun into silk thread. Pising Village is a village that is used as a business place for raising silkworms and spinning thread. Silkworm management consists of two stages: caring for small caterpillars and implementing giant caterpillar treatment. The production of thread and cocoons in Pising Village must be developed well because cultivating silk worms from eggs to producing cocoons must go through management and development stages or procedures based on references and standards that have been obtained from the agricultural service, namely how to cultivate silk worms so that they can produce silkworms of good quality.

Sabbeta Village is the main location for the development of silk production from the beginning to the end of the process. The name "Sutera Village" was adopted because the majority of the population was involved in cultivating silkworms and processing them into silk cloth. The problems faced by silk farmers in Sabbeta Village in developing this village include product development problems, low productivity and cocoon waste management. Most farmers only focus on silk thread production, while silk cloth production is carried out in Wajo Regency. In this study, the superior product in question will be developed through the cultivation of silk tools, namely Sarung Sabbe, a product from Wajo district which has developed into other areas with the characteristics of the Bugis tribe. This production will be developed into a superior product in Sabbeta Village. Sabbe sarongs are produced from silk thread produced by the Batu Tungke'e farming group in Soppeng Regency. This sabbe sarong is known for its distinctive motif and the manufacturing process which involves traditional weaving techniques. However, traditional methods of textile production and dyeing are starting to be questioned, as is the longevity of current themes, as awareness of the importance of environmental sustainability increases. The environment and human health can be harmed by chemicals used in traditional textile dyeing techniques. The use of synthetic dyes, for example, has the potential to pollute water and soil and affect the health quality of textile workers. In this context, a more environmentally friendly and sustainable alternative is needed.

LITERATURE REVIEW

A. Entrepreneurship

role of innovation in driving the economy is that it depicts entrepreneurs as agents of change who not only create new businesses, but also create new trends through the introduction of new products, processes or business models that change market dynamics (Mulyana, 2023). Innovation is a fundamental source of economic growth, because it opens up new opportunities, creates new markets, and allows companies to experience significant growth spurts (Daraojimba et al., 2023). He identified several types of innovation, including product, process, market, organizational, and financial innovation.



It has been proven that entrepreneurship contributes to a country's economic development (Rauf et al., 2017). Entrepreneurship is one approach that Indonesia can take to reduce the unemployment rate, which is necessary to improve the country's economy and ensure the welfare of its people. With the help of education or entrepreneurial learning which may be able to change a student's thinking process, behavior and tendencies, he can then enter the world of business and choose to pursue entrepreneurship as his profession (Rakib & Syam, 2016). In reality, most entrepreneurship is learned through parental advice and experience running a company, outside of formal learning procedures such as education (Rakib, 2010). It also highlights the important role of government in creating an environment that supports entrepreneurship through appropriate public policies. This includes government efforts to provide access to capital, relax regulations, provide fiscal incentives, and support innovation.

Product Development

Product development involves studying existing items to improve them and make them more favorable and useful to consumers. This study can be conducted in two ways: in the business laboratory as a laboratory study, or in the field through consumer surveys. Data on the product to be developed will be sought in field research. Adapting to customer preferences can result in improvements in quality, usability, and other aspects. The new product development model theory provides a comprehensive framework for managing the new product creation process from conception to launch (Mutiara & NH, 2017). The first stage is identifying unmet market opportunities, which is then followed by formulating a product concept that suits customer needs. After that, the product concept is thoroughly evaluated to ensure its feasibility and potential for success before the product development stage which involves detailed product design, development and testing.

B. Featured Products from Silkworms

The development of superior products from silkworms involves various efforts to create innovation and added value in the use of silk fiber. This can include the creation of new textiles, health and beauty products as well as skincare, luxury goods and the environment. In this context, sustainable agricultural practices, production technology and brand story-based marketing can be important factors for product success. Seeking further information from scientific literature, industry reports, and related resources can provide in-depth insight into the trends and potential for developing superior products from silkworms (Chauhan & Tayal, 2017). An important framework in understanding how innovation, including the development of superior products, spreads among market members (Kisno & Fatmawati, 2023). The superior product in question is the sabbe sarong product, which is usually produced by the Bugis people, who have a strong weaving tradition that has been passed down from generation to generation. The process of making Sabbe sarongs involves the use of traditional looms and ikat techniques, which produce geometric and symbolic motifs that are rich in cultural meaning (Farid et al., 2024). These sarongs are known for the beauty and complexity of their motifs, which often reflect the values and philosophy of life of the local community (Parman et al., 2024). The skill in making Sabbe sarongs also reflects the dedication and expertise of the craftsmen, who make each sarong a unique and valuable work of art (Halija & Rahmawati, 2019). The motifs on Sabbe sarongs are very diverse, including geometric patterns as well as naturalistic themes such as leaves, flowers and animals. Each pattern has a deep metaphorical meaning (Amir & Syamsuddin, 2022).

C. Eco-Print

Ecoprint technique is method printing natural that uses leaves, flowers, and materials experience other for produce motifs on fabric. Because it does not use material chemistry dangerous, procedure This friendly environment. In Sarung Sabbe, a traditional Bugis cloth, this technique begins with choosing a cloth made from natural fibers such as cotton or silk, so that the colors from the natural material can be absorbed well (Ramdhana et al., 2021) . Leaves and flowers which have strong pigments are then arranged on the cloth according to the desired motif. After that, the fabric is rolled up tightly using wood or plastic pipe, and tied with string to produce a clear and detailed print. The next process is steaming the rolled fabric for several hours, which allows the pigments from natural ingredients to soak into the fabric fibers. After steaming and cooling, the cloth roll is opened and the remaining leaves and flowers are removed. The fabric is then rinsed with cold water and dried in the shade to avoid color fading due to direct sunlight. The ecoprint technique on



the sabbe sarong not only maintains its traditional beauty but also adds aesthetic value and is environmentally friendly. While challenges such as colorfastness and availability of natural ingredients can arise, the use of appropriate mordants and exploration of various botanicals can help overcome these issues. Thus, the ecoprint sabbe sarong becomes a unique, exclusive and attractive product for fashion and textile art lovers.

RESEARCH METHODS

A. Types of research

This research uses a qualitative method by conducting descriptive research. Researchers use the Research and Development (R&D) development model as a research framework. The process of creating and testing items to be used in the educational sector is called research and development (Amali et al., 2019).

B. Data collection technique

Observation, interview and documentation methods were used in this research to collect data. Visiting the research location directly and observing the problems being studied in Sabbeta Village is the observation in question. Then interviews were conducted to collect various information related to opinions on other aspects of individuals in the organization. Researchers conducted direct interviews with farmer groups in Sabbeta village, namely *the owner of* Sabbeta Ecoprint. In addition, the process of documenting a company's development through silkworm cultivation involves collecting various facts and information from various sources, including books, data, journals or scientific publications.

C. Development style

The Borg and Gall model, modified through various processes, is the subject of research at level 1. Here, the product design is the only thing that is produced; not produced or tested outside the company (field test), only internally (using the opinions of experts and practitioners). This is done to produce complete, unbiased, current and valid data; This data is then used in the product design process. In general, Figure 1.1 below illustrates this research model:



Figure 1. Steps to Use Research and Development (R&D) Methods

The lowest level 1 positions in research and development, as shown in Figure 1, involve conducting research but not producing products or conducting field testing.

D. Development Procedure

Ten step research and development presented by Borg and Gall in targeted mini courses for increase internal teacher skills eye lesson certain. Steps This created by the Far West Laboratory Teacher Education Program team for Educational Research and Development. When applying technique research and development (R&D), there is a number of explanation For stages research, including:

- 1) Potential and problems. To facilitate observation, a needs analysis is carried out before the start of the first stage of product development.
- 2) Gathering Information. Necessary supplies for investigation Now will be collected. They containing device software, device hard, and source Power necessary education.
- 3) Product Design. The first product development in the form of a concept and theoretical basis that supports the product is carried out after collecting facts and information.



4) Design Validation. Determining process is something design product new will more succeed from the previous one known as validation design. One of method for validate design product is with request a number experienced media and materials expert for evaluate new product made. For now advantages and disadvantages something design, every media and materials expert requested for evaluate it.

E. Data analysis technique

A qualitative descriptive analysis approach was used to analyze this development research data. The approach used in developing ecoprint-based sabbe sarong items is qualitative descriptive analysis. It involves collecting, analyzing, organizing, and presenting data descriptively in written explanations and words.

RESEARCH RESULTS AND DISCUSSION

A. Research result

This research has the main objective, namely to examine the process of developing superior products from silkworm cultivation and how the development of superior products can improve economic welfare for the people of Sabbeta Village. Through interviews with *the Owner* of Sabbeta Ecoprint and the Head of Sabbeta Village, quite comprehensive information was obtained.

Potential and Problems

Reviewing the observations and interviews that have been carried out regarding the potential and problems that often occur in the production of sabbe sarongs, which are the result of cultivating silkworms, in Sabbeta village, Soppeng district, has significant superior potential, especially with the application of the ecoprint method. The ecoprint method, which utilizes natural dyes from leaves, flowers and other plant parts, gives sabbe sarongs a unique and environmentally friendly aesthetic touch. Research shows that the use of high-quality silk fibers from local cultivation produces sarongs with a soft texture, natural shine and superior durability.

These advantages, coupled with exclusive and authentic ecoprint motifs, increase the appeal of sabbe sarongs in local and international markets. In addition, the application of ecoprint as a coloring method strengthens the product's image as a sustainable and ecological choice, in line with the global trend of increasingly caring about the environment. With this potential, sabbe sarongs from Sabbe Village have a great opportunity to become a superior product that not only preserves local culture but also provides high economic value for the local community. Sabbe sarong products, which use the ecoprint method, face significant problems regarding color fastness. The natural dyes used in ecoprints are often less stable than synthetic dyes, so the colors on sabbe covers tend to fade more quickly with washing and exposure to sunlight. This reduces the aesthetic value and attractiveness of the product in the eyes of consumers.

| Potency | Problem |
|--|--|
| Environmentally Friendly: Usage dye natural and technical ecoprint from plant local minimize impact negative to environment, make Sarung Sabbe as more choices sustainable | Fastness: Dyes experience tend not enough longer lasting in comparison dye synthetic, and can fade or changed color from exposure ray sun and washing repetitive. |
| Unique Aesthetic: Natural colours and printed motifs ecoprint give touch a natural and unique aesthetic to the <i>Sarung Sabbe</i> , interesting interest caring consumers with products that have story and authenticity. | Stability Mold: Printed results ecoprint Possible not enough stable and vulnerable to damage consequence friction or use repeat, reduce Power stand product in a way whole. |
| Support Community Local: Production <i>Sarung Sabbe</i> with ingredients local produce impact positive | Availability: Not all plant local can produce dye natural, stable and affordable in a way commercial, |

Table 1. Potential and Initial Problems



| for economics and sustainability community local, creating synergy between industry creativity and sustainability environment | cause limitations in variation Available colors and motifs used in production <i>sarung sabbe</i> . |
|---|---|
| Wide market potential: Products superior from cultivation silkworms have wide market potential and power global attraction | |

Source: Primary Data (2024)

Information Collection

Research on the cultivation of silk worms which are processed into sabbe sarongs in Sabbeta Village, Soppeng Regency, revealed that the practice of cultivating silk worms in this area has become an integral part of the lives of local communities. Silkworm farmers in Sabbeta use traditional techniques that have been passed down from generation to generation, with a focus on maintaining an optimal cultivation environment, including regulating temperature, humidity and feeding in the form of mulberry leaves. The production of sabbe sarongs involves careful processing of silk fibers, from thread spinning to natural dyeing and weaving using traditional looms. Interviews with local craftsmen show that sabbe sarongs from Sabbeta are valued for their high quality and distinctive motifs that reflect Bugis cultural heritage. However, the challenges faced include fluctuations in market prices and availability of raw materials. Statistical data shows an increase in production in recent years, although there is still a need for innovation in cultivation and marketing techniques to increase competitiveness in the wider market. Overall, the silk and sabbe sarong industry in Sabbeta Village makes a significant contribution to the local economy and the sustainability of traditional culture.

Silkworm production in *Sabbeta Village* has experienced a significant increase in the past five years. Data from the Soppeng Regency Agriculture and Plantation Service shows that in 2018, silkworm cocoon production was recorded at 1,000 kilograms. This figure increased to 1,200 kilograms in 2019, and continues to increase to 1,400 kilograms in 2020. This positive trend continues with production reaching 1,600 kilograms in 2021 and 1,800 kilograms in 2022. Finally, in 2023, production of silkworm cocoons recorded a figure of 2,000 kilograms, showing a total increase of 100% compared to the previous five years.



Figure 2. Data on Silkworm Cocoon Production

Product Design

From the results of the observations that researchers have made, the sabbe sarong product design highlights a combination of tradition and innovation, producing a product that is unique and of high value. Traditional designs rich in local ethnic motifs are maintained to maintain cultural heritage, while innovation is applied through the Eco Print Method which provides a contemporary touch. The following is a comparison of *sabbe sarong motifs* using the Eco Print Method.





Figure 3. Initial Motive for Using Eco Print

The initial motif for this *sabbe sarong* using ecoprint tends to use natural leaves that are usually found in the environment around Sabbeta Village. The existing sarong motifs look almost the same because they use green leaves and the shapes of various types of existing plants.

In utilizing this ecoprint method, the use of quality silk fibers from local cultivation provides a smooth fabric base, increasing the beauty of the motif applied. *Ecoprint* motifs that utilize natural dyes from local plants not only provide a unique and environmentally friendly aesthetic, but also reflect the natural richness and biodiversity of the area. The production of sabbe sarongs which are produced from cultivating silkworms in Sabbeta village, Soppeng district also pays attention to traditional weaving techniques and environmentally friendly dyeing. Ecoprint, which uses natural dyes from local plants and leaves, is applied to locally produced silk thread, creating unique and beautiful organic patterns on each sabbe sarong. This method not only improves the aesthetics of the product with natural colors but also reduces the environmental impact of the dyeing process. The motifs designed are inspired by local cultural elements such as flora, fauna and myth, offering a variety of designs ranging from geometric to abstract with harmonious color combinations. The uniqueness and exclusivity of each motif is achieved through meticulous detailing and innovative adaptations.

Based on previous product motifs which tend to use plant motifs which are easily obtained from existing leaves and flowers, with this the author tries to collaborate silkworms and rice into the motif elements of this sabbe sarong product which comes from the main commodity of Sabbeta Village. The following is an illustration of the design used in *the sabbe sarong innovation* using ecoprint.



Figure 4. Illustration of Design Motifs Using Ecoprint

This motif design uses natural materials from silkworms and rice as the form of the motif and natural dyes from leaves and rice itself through the production process. This motif design is considered interesting because it shows the uniqueness of Sabbeta Village. This motif is considered unique and interesting and can also follow



current fashion trends. This design can also be used on products other than sarongs such as bags, clothing and others.

This ecoprint design provides significant added value, making sabbe sarongs more attractive to consumers who care about the environment and culture. Support from local governments and special training programs have helped local artisans master ecoprint techniques, increasing the quality and variety of their products. As a result, Sabbeta's ecoprint sabbe sarongs are now known not only for the smoothness and strength of their silk, but also for their natural beauty and sustainability, opening up new opportunities in the domestic and international markets.

Design Validation

Tests carried out show that natural dyeing not only provides unique motifs and rich colors, but also has good resistance to washing and exposure to sunlight. Consumers expressed high satisfaction with the natural appearance and uniqueness of each design, which cannot be found in mass products. Local craftsmen also report increased demand and job satisfaction thanks to the implementation of this technique. This validation strengthens that the integration of ecoprint in the production of sabbe sarongs is not only innovative from an aesthetic perspective, but also sustainable and economical, thereby expanding market opportunities both locally and internationally. The following are the results of validation of sabbe sarong products using the Eco print method.

Table 2. Design Validation

| Excess | Weakness |
|---|--|
| Unique Motif | Color Variations |
| "This ecoprint technique allows each sabbe sarong to have a different motif, creating an exclusive product that cannot be imitated en masse. This uniqueness is the main selling point for consumers who are looking for distinctive and personal products." | "Because the coloring comes from natural ingredients, the resulting color can vary between products. While this adds uniqueness, some consumers may desire greater color consistency." |
| Natural Color | Seasonal Ingredients |
| "With coloring experience give rich and aesthetic colors, adding mark art on every sarong. The resulting color from material experience often have the gradations and nuances are not can achieved with dye synthetic, giving more view organic and interesting." | "By using a silkworm motif design as a motif for the product, this is also limited according to harvest conditions and becomes a source of material for the sarong itself" |
| Durability | |
| "Try out this product design show that coloring experience own good resilience to washing and exposure ray sun, so product still seen interesting in period long time." | |

Source: Validation Results of the Founder of Sabbeta Village (2024)

The results of research on tested designs on sabbe sarongs from silkworm cultivation in Sabbeta Village, Soppeng Regency, reveal success in combining traditional techniques with modern innovation to produce high quality products. This research involved a series of laboratory and field tests to assess the strength of the silk thread, color fastness, as well as the comfort and aesthetics of the sabbe sarong. Apart from silk, nowadays the materials used can also extend to cotton, *viscose*, leather, paper and others according to the type of product produced.



DISCUSSION

The superior product produced from cultivating silkworms originating from Sabbe village is Sabbe sarong. Each sabbe sarong is characterized by an appealing aesthetic, with natural colors and motifs that reflect its rich cultural heritage. Sabbe sarongs from Sabbeta not only serve as beautiful traditional clothing, but also as a symbol of commitment to cultural preservation and environmental sustainability. The development of superior sabbe sarong products produced through cultivating silkworms in Sabbeta Village, Soppeng Regency, is a combination of innovation and preserving tradition. One of the steps taken in developing sabbe sarong products is improving the quality of raw materials by optimizing silkworm cultivation methods by selecting superior mulberry varieties and better maintenance techniques, to produce finer and stronger silk fibers. By using modern technology in raising silkworms to increase production efficiency and cocoon quality (Vasta et al., 2023). By applying ecoprint techniques using natural dyes from local plants, unique and environmentally friendly motifs are created. The diversification of sabbe sarong products produced by cultivating silkworms in Sabbeta Village, Soppeng Regency, has opened up various new opportunities and expanded market attractiveness. In addition, a more efficient distribution system has been implemented, including cooperation with logistics companies to ensure fast and safe delivery to various destinations (Mansouri et al., 2023).

All of this contributes to increasing sales and strengthening the position of sabbe sarongs as a superior product that the people of Sabbeta Village are proud of. The development of superior sabbe sarong products in Sabbeta Village, Soppeng Regency, has significant potential for the local economy and community welfare. Increasing demand for sabbe sarongs in both local and international markets can create more jobs for local residents, from silkworm cultivation, fiber processing, to production and marketing. Product diversification and innovation in design, such as the use of ecoprint techniques, add value to the final product, increasing profitability. The development of sabbe sarong products also plays a role in preserving local culture and traditions, creating a strong sense of pride and identity among the community.

Product diversification and innovation in design, such as the use of *ecoprint techniques*, are valued more heavily in the final product, increasing profitability. This additional income can be allocated to improving local infrastructure, such as education and health facilities, which directly improves people's quality of life. The development of sabbe sarong products also plays a role in preserving local culture and traditions, creating a strong sense of pride and identity among the community. This has a positive impact on social cohesion and cultural sustainability, which ultimately supports sustainable development in Sabbeta Village. Overall, the development of sabbe sarongs as a superior product not only has a substantial economic impact, but also improves community welfare, elevates the quality of life, and preserves valuable cultural heritage. The development of sabbe sarongs as a superior product not only has a substantial economic impact, but also improves the welfare of society as a whole. With the increase in demand and sales of sabbe sarongs, the income of the artisan community increases, which in turn improves their quality of life. In addition, this initiative plays a role in preserving valuable cultural heritage, ensuring that traditional techniques and designs remain alive and known to future generations (Knapik & Krol, 2023) . Thus, the development of sabbe sarongs is not only profitable from an economic perspective, it also has significant social and cultural impacts.

CONCLUSIONS AND RECOMMENDATIONS

A. Conclusion

Reviewing the results and discussion in this study, the researchers concluded that:

- 1. The advantage of sabbe sarongs by farmers in Sabbeta Village lies in their design which combines traditional Bugis motifs with modern innovations such as the ecoprint technique, which uses natural dyes from local plants to create unique and environmentally friendly patterns.
- 2. The development of superior products for sabbe sarongs can improve the economic welfare of the people of Sabbeta Village with an increase in demand for sabbe sarongs both in local and international markets and can create more jobs for local residents, starting from silkworm cultivation, fiber processing, to production and innovation in motif durability. using ecoprint. As a result, household



incomes and unemployment rates will decrease and community involvement in various stages of production and marketing of sabbe sarongs encourages increased skills and knowledge, especially through training in modern weaving techniques, quality management and digital marketing. This capacity increase not only improves product quality but also strengthens the competitiveness of craftsmen in the global market.

B. Suggestions

Based on the existing conclusions, the author suggests the following:

- 1. The researchers provide guidance to farmers overseeing agricultural products on how to increase product efficiency and competitiveness by utilizing contemporary technology in production and marketing operations. The use of information and communication technologies, such as digital marketing and online inventory management, can help expand market share and increase visibility and long-term product durability.
- 2. Researchers also provide suggestions for continuing community empowerment efforts through collaboration between farmers, craftsmen, local governments and other related parties. This collaboration can create an environment that supports the growth and sustainability of the innovative product development industry in Sabbeta Village.

REFERENCES

- 1. Amali, K., Kurniawati, Y., & Zulhiddah, Z. (2019). Pengembangan Lembar Kerja Peserta Didik Berbasis Sains Teknologi Masyarakat pada Mata Pelajaran IPA di Sekolah Dasar. Journal of Natural Science Integration, 2(2), 191–202.
- Amir, S., & Syamsuddin, F. (2022). Eksistensi Kain Tenun Lipa'sabbe Dalam Masyarakat Suku Bugis Di Kota Sengkang Kabupaten Wajo Sulawesi Selatan. SULUH: Jurnal Seni Desain Budaya, 5(2), 35– 47.
- Andadari, L., Minarningsih, & Dewi, R. (2017). Peningkatan Produktivitas Sutra Alam dengan Penggunaan Murbei dan Hibrid Ulat Sutra Unggul. Pusat Penelitian Dan Pengembangan Hutan, 1(1), 15.
- 4. Chauhan, T. P. S., & Tayal, M. K. (2017). Mulberry sericulture. Industrial Entomology, 1(1), 197–263.
- Daraojimba, C., Abioye, K., Bakare, A. D., Mhlongo, N. Z., & Onunka, O. (2023). Technology and innovation to growth of entrepreneurship and financial boost: a decade in review. International Journal of Management & Entrepreneurship Research, 5(10), 769–792. https://doi.org/10.33096/ tamaddun. v19i1.74
- 6. Farid, M., Maryam, J., & Munir, M. (2024). MAKNA DAN IDENTITAS SOSIAL MASYARAKAT MANDAR DALAM LIPA'SABBE. Jurnal Ilmiah Ilmu Komunikasi Communique, 6(2), 89–98.
- 7. Halija, W., & Rahmawati, I. (2019). Pembelajaran Konsep Geometri Bangun Datar Melalui Eksplorasi Budaya Mandar "Lipa'sabbe." Jurnal Elementary, 1(1), 1–6.
- Kisno, K., & Fatmawati, N. (2023). Difusi Inovasi Aplikasi Quiver 3-D Berbasis Teknologi Augmented Reality Pada Lembaga Pendidikan Anak Usia Dini. Kiddo: Jurnal Pendidikan Islam Anak Usia Dini, 4(2), 29–48. https://doi.org/https://doi.org/10.19105/kiddo.v4i2.9929
- Knapik, W., & Krol, K. (2023). Inclusion of Vanishing Cultural Heritage in a Sustainable Rural Development Strategy–Prospects, Opportunities, Recommendations. Sustainability, 15(4), 3656. https://doi.org/https://doi.org/10.3390/su15043656
- Lopez-Marigorta, E. (2023). How al-Andalus wrapped itself in a silk cocoon: the tirāz between Umayyad economic policy and Mediterranean trade. Mediterranean Historical Review, 38(1), 1–23. https://doi.org/https://doi.org/10.1080/09518967.2023.2181525
- 11. Mansouri, B., Sahu, S., & Ülkü, M. A. (2023). Toward Greening City Logistics: A Systematic Review on Corporate Governance and Social Responsibility in Managing Urban Distribution Centers. Logistics, 7(1), 19. https://doi.org/https://doi.org/10.3390/logistics7010019
- 12. Mulyana, R. A. (2023). Kritik Atas Pandangan Inovasi-Kewirausahaan JA Schumpeter. Jurnal Pendidikan Ekonomi (JUPE), 11(3), 243–253.



https://doi.org/https://doi.org/10.26740/jupe.v11n3.p243-253

- Mutiara, F., & NH, D. A. (2017). Strategi pengembangan agribisnis Ulat Sutera Pemakan Daun Singkong di Kabupaten Malang Agribusiness development strategy of Cassava Leaves Silkworm Eaters in Malang District. Jurnal Ilmu-Ilmu Peternakan, 27(3), 24–38.
- 14. Parman, P., Sampara, N., & Fitra, M. (2024). Strategi Pemasaran Pada Produk Sarung Tenun Di Desa Lero Kecamatan Suppa Kabupaten Pinrang. Decision. Jurnal Ekonomi Dan Bisnis, 5(1), 22–29.
- 15. Rakib, M. (2010). Pengaruh model komunikasi wirausaha, pembelajaran wirausaha, dan sikap kewirausahaan terhadap kinerja usaha kecil. Jurnal Ilmu Pendidikan, 17(2), 121–129.
- 16. Rakib, M., & Syam, A. (2016). Pemberdayaan Masyarakat Melalui Program Life Skills Berbasis Potensi Lokal Untuk Meningkatkan Produktivitas Keluarga Di Desa Lero Kecamatan Suppa Kabupaten Pinrang. Jurnal Ilmiah Ilmu Administrasi Publik, 6(1), 96–108.
- 17. Ramdhana, F., Usman, J., & Mone, A. (2021). Strategi Pemerintah Desa Dalam Mengembangkan Kampung Sabbeta Desa Pising Kecamatan Donri-Donri Kabupaten Soppeng. Kajian Ilmiah Mahasiswa Administrasi Publik (KIMAP), 2(5), 1578–1594.
- 18. Rauf, R., Tawe, A., & Rakib, M. (2017). The Work Performance Analysis of Sea Fishing in Kolaka Regency. International Review of Management and Marketing, 7(1), 433–441.
- 19. Raza, M. Y., Wu, R., & Lin, B. (2023). A decoupling process of Pakistan's agriculture sector: Insights from energy and economic perspectives. Energy, 263(1), 125658. https://doi.org/https://doi.org/10.1016/j.energy.2022.125658
- 20. Vasta, S., Figorilli, S., Ortenzi, L., Violino, S., & Costa, C. (2023). Automated Prototype for Bombyx mori Cocoon Sorting Attempts to Improve Silk Quality and Production Efficiency through Multi-Step Approach and Machine Learning Algorithms. Sensors, 23(2), 868. https://doi.org/10.3390/s23020868