Silk weaving business sustainability as a cultural heritage of Indonesia: a case study in Wajo Regency, South Sulawesi

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ABSTRACT – REZUMAT

Silk weaving business sustainability as a cultural heritage of Indonesia: a case study in Wajo Regency, South Sulawesi

This study was designed to probe into the sustainability of the silk weaving business as a cultural heritage in Wajo Regency, South Sulawesi, Indonesia, which is seen from the aspects of opportunities and challenges. To enact such a purpose, a case study was used in this research. Participants involved were silk entrepreneurs in Wajo Regency, South Sulawesi, Indonesia. Data were garnered through three stages: 1) observation, 2) documentation, and 3) semi-structured in-depth interviews. Findings suggest that the silk weaving business as a cultural heritage continues to grow and gives an identity to Wajo Regency as a city of silk and a centre for selling silk fabrics in Indonesia. This is evidenced by a large number of silk weaving business units and the large number of workers absorbed, especially women, who can contribute to regional income and economic growth. This finding is influenced by several factors that provide opportunities, such as family economic education which continues to be passed down from generation to generation, capital assistance from banks, gender equality for weavers, and the adaptability of silk entrepreneurs. However, there are challenges in the sustainability of the silk weaving business in terms of limited local raw materials and the use of the Gedogan traditional loom which is rarely used even though it is a typical loom in silk weaving and is a cultural heritage in weaving. Based on the findings, the study suggests adaptive skills training for silk entrepreneurs and making silk weaving as an educational tourbe.

Keywords: Gedogan traditional loom, Alat Tenun Bukan Mesin (ATBM), adaptability, gender, informal economy education

Sustenabilitatea afacerilor cu țesături din mătase ca moștenire culturală a Indoneziei: un studiu de caz în regența Wajo, Sulawesi de Sud

Acest studiu a fost conceput pentru a investiga sustenabilitatea afacerii cu tesături din mătase ca moștenire culturală în regența Wajo, Sulawesi de Sud, Indonezia, care este analizată din punctul de vedere al oportunităților și provocărilor. Pentru a realiza un astfel de obiectiv, în cadrul cercetării a fost utilizat un studiu de caz. Participantii implicati au fost antreprenori în domeniul mătăsii din regenta Waio. Sulawesi de Sud. Indonezia. Datele au fost colectate în trei etape: 1) observație, 2) documentare și 3) interviuri detaliate semi-structurate. Rezultatele sugerează că afacerea cu țesături din mătase ca mostenire culturală continuă să crească și dă o identitate regentei Wajo, ca oraș al mătăsii și centru pentru vânzarea țesăturilor din mătase în Indonezia. Acest lucru este dovedit de un număr mare de unități de producție a tesăturilor din mătase și de numărul mare de muncitori absorbiti, în special femei, care pot contribui la veniturile regionale și la creșterea economică. Această constatare este influențată de mai mulți factori care oferă oportunități, cum ar fi educația economică a familiei, care continuă să fie transmisă din generație în generație, asistența de capital din partea băncilor, egalitatea de gen pentru tesători și adaptabilitatea antreprenorilor din domeniul mătăsii. Cu toate acestea, există provocări în sustenabilitatea afacerii cu țesături din mătase, în ceea ce privește materiile prime locale limitate și utilizarea războaielor de țesut tradiționale Gedogan, destul de rar, deși acestea sunt războaie de țesut tipice pentru teserea mătăsii și reprezintă o moștenire culturală în domeniul teserii. Pe baza constatărilor, studiul sugerează formarea abilităților de adaptare pentru antreprenorii din domeniul mătăsii și realizarea țeserii mătăsii ca un tur educational.

Cuvinte-cheie: război de țesut tradițional Gedogan, Alat Tenun Bukan Mesin (ATBM), adaptabilitate, gen, educație în economia informală

INTRODUCTION

The silk weaving business is one of the world's industries that produces luxury fabrics [1]. In particular, the silk weaving business of Wajo Regency, South Sulawesi, Indonesia, is an intangible cultural heritage that has been endorsed by the Ministry of Education and Culture [2]. This is in line with the opinion of the Creative Economy Agency [3] that traditional woven fabrics are cultural heritage works that are the pride of society and are intellectual works of the nation's children that need to be preserved as they have a major impact on local identity and have a close relationship with creative industries [4]. Thus, the silk weaving business needs to be preserved since it is a local cultural heritage [5].

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Silk woven cloth has been used for generations and has become the mandatory clothing for the Bugis people in traditional activities such as weddings and other traditional activities [6]. Silk cloth has religious motifs and colours that can describe the social status of the community. In addition, the silk weaving business is a local potential that cannot be found anywhere else. Although it has the same main material, namely silk, each region has its characteristics that contain a profound philosophy and are influenced by the geographical environment and the potential of natural resources [7]. Silk fabrics in South Sulawesi have traditional motifs, namely Balo tettong, Mallobang, Ballo Renni, Cobo, and bombang.

The silk weaving business is one of the economic activities of the Wajo community, apart from farming and gardening. Initially, silk weaving business activity became a side job. This can be seen from the working hours which are generally carried out at night. After the household, activities are finished and weaving is done by women. Along with its development, the silk weaving business has become the main source of livelihood for the Wajo people. There are 22 large and medium industries in Wajo Regency, and 13 were oriented to the silk industry [8]. This indicates that the silk industry in Wajo plays an important role because it can create new jobs and absorb labour. Therefore, it needs to be maintained and developed so that the silk weaving business can provide benefits to the community in a sustainable manner [9].

Recently, silk entrepreneurs have to compete fiercely in business competition with modern clothing, although the use of traditional clothing is part of preserving culture [10]. Thus far, previous research has only focused on the production process of silk weaving and how to acquire knowledge of weaving without paying attention to the sustainability of the silk weaving business as a cultural heritage. To fill such a void, the present study looks into the exploration of the silk weaving business as a cultural heritage that focuses on challenges and opportunities. This is done considering that silk weaving is one of the cultural heritages that need to be preserved [5].

METHOD

This study employed a qualitative approach with a single case study design. The analysis technique used qualitative analysis techniques [11], including data reduction, data presentation, concluding, and verification. This study specifically looks into the challenges and opportunities of the issue of sustainability in the silk weaving business as a related cultural heritage. The research was conducted in Wajo Regency, South Sulawesi, Indonesia. Five silk entrepreneurs consisting of the silk weaving business which has the largest and oldest business were invited to attend semi-structured interviews. Data in this study were collected within three stages: 1) observation, 2) documentation, and 3) semi-structured in-depth interviews.

Observations were conducted to observe various phenomena that occur during the study. These observations were done in the form of direct visits to the object and research subject to see how silk weaving business activities were carried out and to explore the living conditions of silk entrepreneurs within the research sites. Documentation was done by collecting data through written information related to the research questions. Data obtained from related agencies such as the Wajo Regency Industry Service in 2015–2019 was also documented.

In-depth semi-structured interviews were conducted using the participant's national language while the transcripts were then translated into English. This research interview led to the depth of information obtained through direct dialogue with research participants about how the silk weaving business as a cultural heritage focuses on challenges and opportunities.

RESULTS AND DISCUSSION

The silk weaving business in Wajo Regency, South Sulawesi, Indonesia, has increased annually, as seen from the growth in silk business units and labour as well as regional income. Such data is outlined in table 1.

			Table 1
DEVELOPMENT OF THE SILK INDUSTRY IN WAJO REGENCY, SOUTH SULAWESI, INDONESIA			
Year	Business unit	Labour	Locally-generated revenue
2015	5806	17396	100 M
2017	5940	18308	118 M
2018	6093	18510	135 M
2019	6116	18510	134 M

Source: Central Statistic Agency, Wajo Regency, South Sulawesi, Indonesia, 2015–2019.

Based on table 1 [12–15], the silk weaving business can absorb labour and contribute to regional income and increase economic growth [16]. The silk weaving business in Wajo continues to develop and gives impacts the welfare of silk entrepreneurs and local communities. This business also plays an important role in the economic development throughout the country. This fining portrays how the silk weaving business sustainability as a cultural heritage and how it deals with challenges and opportunities within the business activity. The detailed findings are discussed in the following sections.

What are the challenges in the sustainability of the silk weaving business as cultural heritage?

The present study portrays challenges in the sustainability of the silk weaving business, such as the availability of raw materials, which is an essential factor in the manufacture of silk fabrics. Although several places in Wajo Regency provide raw materials, they have not yet been able to meet the demand for silk

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production. Also, the price of imported raw materials is inexpensive than the local raw materials. This encourages entrepreneurs in Wajo Regency to use the imported raw materials. This finding is evident by the interview data with the participants: *"For silk fabrics, I mostly use imported raw materials because they are cheaper, easy to obtain and available in large quantities. It is different from local raw materials which are more expensive and available in limited quantities so that they cannot meet the demand for silk thread".*

About this issue, the role of the government, especially MSMEs and the Cooperative Office, is required to preserve silk cloth as a cultural heritage, as silk weaving is a leading sector in Wajo. Thus, it needs serious attention in the supply of raw materials since it is a problem that often occurs [16]. Further, entrepreneurs need to be given knowledge about the production of silk raw materials to compete with imported raw materials with the quality and quantity that suits their needs. This can hamper local entrepreneurs to be dependent on imported materials, even when disaster hits the regions.

This study also documents that the use of looms used by silk entrepreneurs, which are dominated by ATBM (Alat Tenun Bukan Mesin)/non-machine loom, is also another challenge [17]. Meanwhile, the traditional Gedogan loom, which produces high-quality silk and is an original cultural heritage loom, is only used for special orders (figure 1). This is seen from the interview with the local entrepreneurs. They share that: *"For looms, I use ATBM because it is more efficient and practical. Even if I use the traditional Gedogan weaving tool, only if there is a special order because the processing time is quite long, namely a month to only produce one silk sarong, although in terms of quality it is much better".*

The use of traditional Gedogan looms should be by the use of ATBM. This is because silk entrepreneurs only focus on production without paying attention to the sustainability of the silk weaving business, which has a distinctive competency that can produce genuine silk fabrics of good quality [18]. In addition, the use of traditional looms is an effort to preserve cultural heritage [19].

What are the Opportunities for the Sustainability of Silk Weaving Business as a Cultural Heritage?

In the sustainability of the silk weaving business in Wajo, South Sulawesi, several factors become opportunities, such as family economic education where the knowledge of weaving silk cloth is naturally unstructured and unsystematic. It occurs in a family environment without being limited by the time [20]. Children are directly involved in weaving activities, such as providing raw materials and marketing, leading to an economic learning process [21]. In providing weaving knowledge, there is no compulsion so that children are more comfortable and easier to understand. This is shared by the participants in the interview: "The process of weaving culture inheritance I got indirectly. Where initially I was invited to help manage a silk weaving business after school or in my spare time. I was taught from spinning silk threads so that I could produce silk fabrics of different patterns and colours, and I was involved in exhibition activities. So, at first, I didn't understand, gradually I understood".

The economic behaviour of silk entrepreneurs is indirectly formed from economic education in the family. This leads to the existence of the silk weaving business and is one of the main sources of livelihood for the Wajo community because the inheritance process continues from generation to generation, this has directly become a form of cultural inheritance.

The activity of weaving silk cloth is generally only done by women so some women become the backbone of the family [21]. The silk weaving business is a sustainable and labour-intensive economic activity for women [22] since women can develop ideas in producing silk motifs and colours in the management of the silk weaving business. Thus, it can be said that the role of women in the weaving business is proven to have a significant effect on the business world and welfare [23]. This is in line with interviews with most of the participants in this study: *"Weavers that are*



Fig. 1. Photo of looms used by silk entrepreneurs in weaving silk fabrics: a – Gedogan traditional looms; b – Alat Tenun Bukan Mesin (ATBM)



employed are women because weaving is a woman's activity that has been going on for generations. Weaving is also the identity of Bugis women so it should not be done by men because it must be done gently and with feeling".

Women have a big share in the silk weaving business because weaving has become an identity for Bugis women. Along with the development of the business, silk weaving entrepreneurs have empowered men as weavers from the island of Java. This was done to open the mindset of the Wajo people who consider weaving as a women's activity. By involving men, the work will be more efficient and effective, considering that they are stronger and faster than women because weaving silk requires greater energy. In addition, it has an impact on reducing unemployment in Wajo. As time goes by, recently there are male weavers from Wajo whose numbers are fairly minimal. This is based on the results of an interview with one of the participants: "Most of the weavers who work come from the surrounding community, which consists of house neighbours and village neighbours. However, some come from outside the island of Sulawesi. For weavers from outside Sulawesi, I employ men because they are more agile, strong. Apart from that, I hope that the male weaver I recruited can change the mindset of society that thinks silk weaving is women's work. And this is successful because there are already two male weavers who come from Wajo".

There is a cultural shift where weaving activities, which are generally only carried out by women, currently involve men even though the numbers are very minimal. Thus, it is necessary to understand that gender inequality is not only economically inefficient but also has social impacts that will affect the development of a nation [24]. This is because an effective workforce plays a positive role in determining economic growth [25]. This is an opportunity for the sustainability of the silk weaving business as a cultural heritage.

Apart from informal economy education and Human Resources (HR)/Weavers, capital is an opportunity for the sustainability of the silk weaving business. Initially, the capital is owned personally. Then, silk entrepreneurs received capital assistance from banks to develop a silk weaving business. This was demonstrated by the establishment of a silk Village BNI in

Wajo. However, over time, many entrepreneurs have been able to develop their businesses with their capital. This was confirmed by the participants in the interview: "In the beginning, this business used personal capital. After a few years, I got a loan from a bank that collaborates with a silk entrepreneur and establishes a silk village. With the given capital, I can develop a bigger business. But over time, I have now used my capital in developing a silk weaving business. So, I have to be careful to look at the market share so that the capital I spend can provide maximum profit".

Capital is one of the important aspects in the sustainability of the silk weaving business as a cultural heritage. The existence of capital assistance from both the government and the banking sector has proven to be able to advance the silk industry amidst competition and support sustainable economic development [26].

The adaptability of silk weavers is an opportunity for the sustainability of the silk weaving business in Wajo. In a globalized world, a mixture of cultures tends to occur. Thus, it needs the ability to adapt to other silk entrepreneurs. In this case, local wisdom can balance technology and market tastes by considering regional characteristics, climate, and environmental conditions [27]. The silks produced in the silk weaving business are not only original motifs but adapted to market tastes. Like the Lagosi motif, the modified motif is currently the most popular. Silk woven products are not only silked fabrics but in the form of wallets, tissue holders, and party bags that are tailored to the tastes of the market (figure 2). For wallets and tissue holders, most silk entrepreneurs use unused silk cloth. This has an impact on reducing the textile waste generated by the silk weaving business. This is in line with the issue of circular economy which proposes the reuse or recycling of unused woven fabrics to reduce their impact on the environment and recycling these items give a different appearance to cultural heritage [28, 29].

Silk product marketing in Wajo Regency is marketed through various media, starting from individual marketing, exhibitions to online marketplaces such as the internet, web, and social media. Thus, marketing is more practical. Utilizing online marketplaces in business activities can increase sales [30], thereby encouraging sellers to effectively integrate themselves into the global marketplace [31]. The use of social media can increase marketing, and online marketing has a positive impact on the marketing of the textile industry [32]. The internet changed the way silk entrepreneurs did business, making it easier for customers to access and select items to buy anytime and anywhere [33]. In addition, silk entrepreneurs who have good skills and are willing to innovate will



Fig. 2. Photo of silk fabric motif: *a* – Balo Renni (Traditional/Original silk fabric motif); *b* – Lagosi Motifs (Modification silk cloth motif)

increase silk weaving sales and increase profits [34]. Silk products have been marketed throughout the archipelago, such as Jakarta, Bali, Jogjakarta, Sumatra, the island of Java, and other regions and even abroad. This is conveyed in the interview by the participants: "For the silk motifs that I make, most of them are adapted to consumer demand, for example, the Lagosi motif. Apart from silk cloth, I also sell bags, tissue holders and wallets made of unused silk. For the marketing itself, there are those from around Sulawesi, Java Island, and even abroad such as Singapore, Malaysia, Japan, and Thailand. So that silk products are not only sold in stores but also through exhibitions and social media which make it easier for consumers to buy".

The adaptability of silk entrepreneurs by utilizing social media makes the silk cloth marketing process more effective and efficient, which is not limited by time and space. The adaptability of silk entrepreneurs not only adapts to market tastes but has an impact on the use of semi-modern looms in the production process. The use of semi-modern looms provides an opportunity for the sustainability of the silk weaving business as a cultural heritage in Wajo. It is shared in the interview as follows: "Currently, some of the looms I use semi-modern machine looms, although only on a small scale and are dominated by ATBMs because it is faster and more practical to produce 15 meters of silk in a day so that silk fabrics can be made in the form of clothes, not limited to fabrics. only".

The use of semi-modern looms in the production of silk fabrics provides changes both in terms of quantity and time efficiency because the use of sophisticated machines in the silk fabric production process can increase production [35].

Nonetheless, silk entrepreneurs still have to use Gedogan traditional looms in the process of making silk fabrics. The ability to adapt has an impact on the sustainability of the business from time to time [36], The silk weaving business is no exception so that the adaptability of silk entrepreneurs makes the silk weaving business able to compete and preserve the cultural heritage that exists in Indonesia because good culture is a culture that can adapt to changing times and can provide prosperity for people who is in it.

The present study documented that the sustainability of the silk weaving business is inseparable from internal aspects such as education in the family, raw materials, capital and Human Resources (HR)/ weavers and external aspects such as the ability to adapt to the face of globalization and be able to take advantage of opportunities so that the silk weaving business can continue to exist which can improve people's welfare and economic growth in Wajo Regency (figure 3). Therefore, the silk weaving business needs attention from the government, as the silk weaving business can have an economic impact and preserve cultural heritage since maintaining local wisdom is one way to preserve the values that exist in society [37]. The silk weaving business in Wajo Regency indirectly contributes to supporting the Sustainable Development Goals (SDGs) [38] (figure 4). SDGs 1 (poverty alleviation) can be seen from the standard of living of silk entrepreneurs, both in terms of adequate income and fulfilment of consumption. SDGs 5 (Gender Equality) can be seen

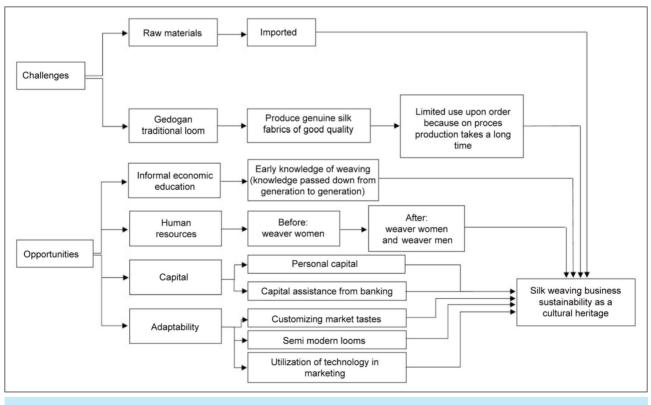
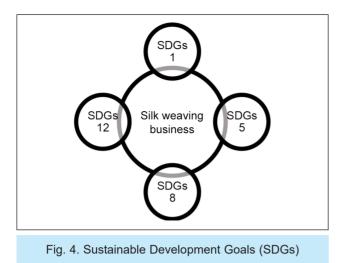


Fig. 3. Visualization of the sustainability of silk weaving business as a culture heritage

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from the participation of men and women in the process of weaving silk, SDGs 8 (Decent work and economic growth) can be seen from the weaving silk indirectly that promotes sustainable economic growth and can create decent jobs. In the production process, the remaining unused silk cloth is used as something of value for money, such as a wallet which indirectly also answers the objectives of SDGs 12 (responsible consumption and production).

CONCLUSIONS

The present study has attempted to portray challenges and opportunities that emerged in the sustainability of the silk weaving business in Wajo Regency. The good adaptability in the era of globalization encourages the sustainability of the silk weaving business in Wajo Regency. Adaptation is one of the factors that provide opportunities for the sustainability of the silk weaving business, such as family economic education, capital assistance, and gender equality in weavers. In this case, weavers are not only women but also men. However, there are several obstacles, such as limited raw materials and the use of the traditional Gedogan loom which is rarely used, even though it is a typical loom in producing silk.

Therefore, the silk weaving business needs serious attention from the government because the silk weaving business plays an important role in economic development and gives Wajo's identity as a strategic silk city for the marketing of silk woven fabrics. In developing the silk weaving business in the future, adequate planning is necessary to support the economy and become alternative educational tourism that has an impact on society and the government.

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