



# Improving The Competitiveness of The Rote Ndao Ikat Weaving Industry

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#### Abstract

Many ikat weaving crafts are found in Indonesia, including Rote Ndao ikat weaving in East Nusa Tenggara Province. To survive global competition, ikat weaving must have a competitive advantage over other weaving. This research will analyze the competitiveness of Rote Ndao ikat weaving. The method used is SWOT Analysis, which explores strengths, weaknesses, opportunities, and threats. The results showed that Rote Ndao ikat weaving has a unique and classy appeal to motifs and patterns. However, the design that is owned tends to be dark. In contrast, many consumers want lighter colors. Ikat weaving at a lower price is now widely found on the market. Thus, MSME players must diversify products and innovations so that the Rote Ndao ikat weaving motif can be accepted in all market segments. The local Government must also provide a positive climate to support Rote Ndao ikat weaving to become one of the leading products in East Nusa Tenggara Province.

**Keywords:** SME, SWOT Analysis, innovation, competitive advantage

## 1. Introduction

Rote Ndao Regency is a regency in the province of East Nusa Tenggara located on the southernmost porch of Indonesia (Indrasari, 2023). The capital of the district is located in Baa. This district has an area of 1,280.10 km² and a population of 165,807 people (2020). Rote Ndao Regency is the southernmost district and region in Indonesia, even the Asian continent. The district has 107 small islands, and six of them are inhabited islands. The main area of this district is on the island of Rote, the largest island among the 107 islands included in the administrative region of Rote Ndao district. The other six small inhabited islands are Usu, Ndana, Ndao, Landu, Nuse, and Do'o.

The livelihoods of the Rote people are farming, raising livestock, fishing, tapping sap, and palm handicrafts. Land that has irrigation is made into rice fields or rainfed fields. The main agricultural products are field rice, corn, and cassava, while the primary livestock are buffalo, cattle, horses, and chickens (Luji, 2020; Tallo et al., 2022).

The development of small industries, especially Ikat Weaving MSMEs in East Nusa Tenggara (NTT), began to increase because ikat weaving products have become the needs and fashion trends of the community that are in demand by local communities, people outside NTT to foreign countries (Bako et al., 2020; Panta et al., 2022). This encourages ikat weaving





business actors to grow to meet customer needs. Traditional ikat weaving has a uniqueness, namely the provision of colors and motifs related to the history of Rote island in ancient times, beliefs, and the philosophy of life of Rote residents (McIntosh, 2023; Salim et al., 2023). This can distinguish it from other traditional ikat weaving in the NTT region.

The COVID-19 pandemic that hit Indonesia affected the economy, including the ikat weaving industry in Rote Ndao Regency. The Government carries many strategies so that this industry will soon recover and become the livelihood of the local population. This study will evaluate the strategy and competitiveness of ikat weaving to continue to provide income for the community amid the economic shock caused by the Covid 19 pandemic.

#### 2. Research Method

This research uses an approach with descriptive methods and SWOT Analysis. This research is also descriptive analytical so that the field of study is not only limited to the description of the object of study but also conducts in-depth analysis. The research will be conducted at the Rote Ndao District Micro Small Mengah Business on Ikat Weaving. This data was obtained from sharing sources of tie-weaving MSME actors, stakeholders, and the Rote Ndao district government.

There are at least three stages in this research. First, identify the problem by interviewing business actors or ikat weaving craftsmen, commercial entrepreneurs, and users. After that, an analysis of strengths, weaknesses, opportunities, and threats is carried out. Next, the team will conduct a Focus Discussion Group /FGD and analyze the results. In the final stage, the team will provide recommendations for business actors. To analyze competitiveness, we use SWOT Analysis (Beohar et al., 2022; Retnaningsih, 2017; Sultanov, 2022).

## **SWOT Analysis**

SWOT is usually used to evaluate opportunities and challenges in the business environment or the internal environment of the company. SWOT can also be used to see the performance of SMEs (Lestari, 2010). To make it easier to conduct a SWOT analysis, a matrix is needed so that various strategies needed by each element can be formulated. The SWOT matrix can be seen in Table 1 (Beohar et al., 2022; Retnaningsih, 2017).





**Table 1. SWOT Matrix Analysis** 

	STRENGTH (S)	WEAKNESS (W)	
	Strategy SO	Strategy WO	
OPPORTUNITIES (O)	List of all identifiable	Use all your strength to take advantage	
	opportunities SO Strategy	of the WO opportunity strategy	
	Strategy ST	Strategy WT	
THREATS (T)	List of threats as a	Use all forces to avoid all WT threat	
	consideration of opportunities	strategies.	

Essentially the strategic alternatives taken should be directed at efforts to use the strengths and weaknesses of touch, take advantage of economic opportunities, and anticipate threats. From the SWOT matrix, four strategy groups will be obtained, namely SO strategy, WO strategy, ST strategy, and WT strategy.

## 3. Results and Discussions

NTT Ikat Weaving is a fabric made from the weaving process by the people of East Nusa Tenggara. Weaving creates fabric by inserting weft threads horizontally on warp threads, tying them first, and then dipping them in natural dyes. These natural dyes are usually made from tree roots; some use leaves. Weaving, developed by each tribe/ethnicity in NTT, is an art created or handmade by local women with a traditional weaving system (Mamulak, 2020; Tamelab, 2023). This handicraft has been passed down for generations to posterity for the preservation of the art of weaving. The woven motif used by a person will be known as a characteristic of a specific tribe or island where a person comes from and always feels happy and proud when wearing weaving from his tribe. Producing a weave requires accuracy and patience.

Ikat weaving produced in the Rote Ndaos Regency community has three types or forms of ikat weaving production. The three forms of ikat weaving are cloth, shawl, and blanket. Of the three types of Ba'a ikat weaving production, only woven fabrics are discussed in this study. This type of production has a very strategic role in the lives of the people of Rote Ndao Regency in each tribe, in general, it can be described some functions of woven fabrics in the Rote Ndao Regency area where almost everyone uses it.

Ikat weaving MSMEs in Rote Ndao Regency are spread in several sub-districts in several villages, namely Namo Ndao Village, Namodale, Lobalain District, Rote Ndao Regency as a cultural tourism village of ikat weaving with a traditional weaving process Spinning cotton into yarn is done manually. This means that the spinning of yarn is done by the hands of mothers, with girls assisting. Then the equipment used for yarn spinning was made from local materials such as wood and bamboo.





Table 1. Nusuk/Tribe and Manek in Rote Ndao Regency

No	Nusak	Manek	No	Nusak	Manek
1	Landu	Yohanis	11	Dengka	Tungga
2	Ringgou	Daud	12	Delha	Ndun
3	Oepao	Sium	13	Oenale	Giri
4	Bilba	Lenggu Dan Ngek	14	Ndao Nuse	Kotten
5	Diu	Manfe	15	Keka	Malelak
6	Termanu	Amalo	16	Talae	Saudale
7	Korbaffo	Manubulu	17	Loleh	Zacharias
8	Ba'a	Mandala	18	Bokai	Dupe
9	Lelain	Bessie	19	Lelenuk	Daik
10	Thie	Mesakh			

Ikat weaving produced in the Rote Ndao community has three types or forms of ikat weaving production. The three forms of ikat weaving are cloth, shawl, and blanket (Bria et al., 2023; Wibowo et al., 2023). Of the three Rote Ndao ikat weaving production types, only woven fabrics are discussed in this study. This type of production has a very strategic role in the lives of the people of Rote Ndao. others in the East Nusa Tenggara (NTT) region. Based on the official website of the Rote Ndao Regency government, there are 19 Nusak / Tribes in Rote. However, no source explains the 19 Nusak with each of their motives (see Table 1).

## **Rote Ndao Ikat Function**

Some of the functions of ikat weaving include clothing in traditional dances and traditional ceremonies, dowry in marriage in regional languages referred to as "belis" nikah, giving in death events and as a form of appreciation, social status indicators, tools to pay punishment in case of imbalance, barter/transaction tools, as a form of stories about myths and stories depicted in each woven motif and a form of appreciation for guests who come to visit.

Initially, Rote Ndao ikat weaving was used only for the people's basic needs at that time. This is in harmony with the poem in one of the prophecies in Rote, "pele pou ma ba lafa" (James, 1960:20). It literally means to cover the body using a sarong. Pele berate is an obstructed view, while the meaning of pou is sarong. As for the word ba has the meaning of blocking and lafa is a blanket, which when combined becomes blocking one's view of the human body by wearing a blanket. Ikat weaving also has another function that is seen in Figure 1, as clothing used in traditional ceremonies or when dancing traditional dances.



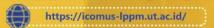




Figure 1. The function of ikat weaving as a traditional dance

Another function of ikat woven fabric is as a dowry or, in Rote custom, as a belis. In addition, it is also used as a betel cover. In Rote Ndao culture, ikat woven cloth is one of the items mothers bring to their children when their children migrate or are about to marry. Men will highly value women who have expertise in weaving.

Ikat woven cloth can also be used as traditional wedding clothing. Ikat weaving often has deep meaning and symbolism in the local culture (de Jong et al., 2021). Its use in wedding attire can enrich the ceremony with traditional and cultural values. In some cultures, ikat weaving is considered a suitable material for formal attire, including wedding attire. It can give a classic and cultural feel to the bridal outfit.

## **Rote Ndao Ikat Woven Fabric Making Process**

As in verse in Nusak Diu, Rote Ndao ikat woven cloth is literally used as a body covering. Before the entry of yarn processing, Rote residents used *kaloro*, a body covering made of woven leeks. Rote people call it hakenak, after being called *lambi tei the* cloth is in the NTT Museum with a description. When the writer interviewed one of the secretaries of Edu Pellondou sub-district in East Rote, he confirmed the existence of *wicket* fiber used as an ingredient in making *lambi Tei*, he learned from his grandmother's story, which, according to his grandmother, existed around the 15th-18th centuries. In 1994 the survey team and museum collection collectors conducted a survey to Boni village, Rote Barat Daya district, they found one grandmother who was still wearing her body covering using the wicket fiber. Before the entry of ropes from the fastening factory, motifs also use gewang leaves or also called *heknak*. Its use is





also divided into two: one that is white and smooth in color is used for the ikat woven fabric while for brown ones are used for everyday use.

In the 1940s, weaving began to be taught to the public or people outside the royal family. Haning (2016) explained that previously people used patterned ikat woven fabrics not for daily activities unless they were old or worn. Because every motif is considered to have a history or myth, people usually only wear blankets/sarongs (*lambi tei*) without motives. Also, weaving becomes one of the standards when a girl wants to get married or is referred to as *misominta*. It determines whether to continue the next level or not. It depends on the girl's ability to weave. The amount of the girl's weave became a standard of honor.

## Various Motifs of Ikat Rote Ndao Woven Fabric

In other areas, motifs or in the Rote Ndao language called animal and human *dulak* are used as visual sources, for example, in East Sumba areas with animal motifs there such as horses, shrimps, deer and others. Meanwhile, Rote Ndao motifs or patterns can be grouped as follows:

1). *Zoomorphic motifs* (fauna forms), namely lamak nen is the form of locust children, animals that roam in the fields, Mada Karoko is a sea thorn or tek, and Hua analangi motifs, 2). Anthropomorphic motifs (human forms/figures), 3). Flora motifs (distillation of plants such as eight flowers or called black motifs or dula *nggeok*, flower stalks called dula dula bunak, *trees called dula* aik, *and seaweed called* dula *latu dok*), 4). Motifs of geometric shapes (cones, half-parallelograms called *dula pendik*, triangles and others), and 5). Replica fabric motif from India (Patola).

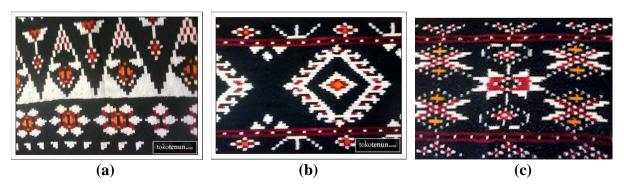


Figure 2. Some motifs of Ikat Woven Fabric

Rote Ndao's ikat weaving motif is rooted in people's beliefs and livelihoods. There is a ritual of worshiping ancestral spirits and asking for the support of ancestors to help make a ritual cloth motif called *songgo-songgo*. Because motives are also hereditary, others cannot do certain motives. Especially for people who do not have a bloodline, the weaver will usually be sick for days if he works on certain motifs. What else if you don't have permission from the owner of the motive. The Western Rote motif is inspired by pandan fruit, the motif is in the form of leaves or





parallelograms which are larger in size than the Eastern Rote motif. The West Rote motif is further divided into three streams, namely: Thie, Dengka, Dela, Oenale: Pending motif, Ndao Nuse: Hua Ana Langi and Mada Karoko motifs (Hua Ana Langi is the King's motif), Ba'a Lelain, Keka, Talae, Lole, Bokai, Lelenuk: Large leaves motifs (in Ndao language: "roa' ju", in Ba'a "su'u"

Ikat woven fabric has several motifs including motifs (Figure 2a), Henak Anan Motif (Picture 2b) and Lamak Nen Motif (Figure 2c). Lafa Langgak is a characteristic of all Rote weaving in the form of a blanket head in the form of a combination symbol of candles and crosses. The Henak Anan motif means pandan child, and the Lamak Nen motif is a pattern in the shape of a grasshopper child, an animal that roams around the farm.

## **SWOT Analysis Tenun Ikat Rote Ndao**

Based on interviews conducted on artisans, users, and local governments, internal factors consisting of *strengths* and weaknesses of Ikat Woven Fabric as Rote Ndao Cultural Tourism were presented. SWOT Analysis is presented in the following table 2.

## Strength

Ikat woven fabric has a unique and classy appeal. Rote Ndao ikat weaving has a variety of motifs and patterns that are dominant in dark colors, but in its development, innovations have begun to be made in the form of ikat woven fabrics with bright colors. Various ikat weaving motifs that have their own meanings and meanings. The process of making traditionally woven fabrics that will continue to be preserved has the potential for educational tourism and cultural tourism.

The ikat weaving industry is very developed in Rote Ndao Regency, especially in Ndao Village, West Rote District, there are 197 business units from 215 business units throughout Rote Ndao Regency. Some of the Ikat Weaving industry centers include the Ikat Ndao Weaving Center in Ndao village, the Yellow Janur Ikat Weaving Center in Namodale Village, the Della Ikat Weaving Center in Nemberala Village, the Faifua Ikat Weaving Center in Faifua village, the Onatali Ikat Weaving Center in Onatali Village, the Edalode Ikat Weaving Center in Edalode village, the Serubeba Ikat Weaving Center in Serubeba village. All existing business units can produce 24,030 shares with a value of IDR. 978,000,000 - This industrial sector absorbs a workforce of 252 people.





Table 2. SWOT analysis matrix of ikat woven fabric in rote ndao district

<ol> <li>Sangar ikat woven fabric artisans are not so much in demand by the community in Rote Ndao Regency and also lack of interest.</li> <li>Ack of introduction and education about ikat woven fabric and the importance of preserving ikat woven fabric culture to the community, especially in the younger generation.</li> <li>The interest of the younger generation to become ikat woven cloth artisans is very low, considering that until now, woven cloth artisans have been the majority of mothers over 45 (forty-five) years.</li> </ol>
trategy S-O: Strategy W-O:
kat Woven Fabric is used as tourism of Rote Ndao training on how to make ikat woven cloth and incorporated the art of ikat weaving in extracurricular activities in Rote Ndao District schools. The goal is to be better known and arouse the younger generation's interest in ikat weaving.  2. Empowering weaving studios in Rote
h





looms can speed up the production			
process of ikat woven fabric.			

- 4. Foreign tourists favor this fabric.
- work together to build and preserve ikat weaving through national and international scale activities.
- 4. Semi-modern looms are held for more production capacity and faster production processes.
- preservation of ikat weaving.
- 3. Raising the potential of Namo Ndao Village, Namodale, Lobalain District, Rote Ndao Regency as supporting attractions, such as local MSMEs that can support woven fabrics' marketing and distribution process.

# Threat (T):

- 1. Public interest and concern, especially by the younger generation, are shallow regarding preserving ikat woven fabric production.
- 2. The production process takes up to months with traditional looms.
- 3. The promotion and introduction of Rote Ndao Ikat Weaving Fabric have not been optimal.

## **Strategy S-T:**

- We are establishing weaving studios in the area and urban areas to improve the knowledge and ability of the community and the younger generation to learn how to make ikat weaving.
- 2. There is a need for government support for both small and large studios to preserve woven fabrics as cultural tourism in the form of providing capital, production facilities, assistance for natural dye tree seeds, etc.
- 3. Cooperation between the Government, academics, and the community is needed in an effort to promote ikat woven fabric optimally, be it through *regional*/state events, social media, exhibitions, and so on.

# **Strategy W-T:**

- 1. It created an organization that focuses on the cultural preservation of Rote Ndao Ikat Weaving Fabric.
- 2. Socialization and training in making woven fabrics for the younger generation are often carried out by involving innovative young figures or academics in the arts.
- 3. Conduct intensive promotion through social media, regional or state events, and exhibitions at national and international levels.





#### Weakness

Some weaknesses that can be summarized from the interviews and FGDs include, first, not so many ikat woven fabric artisan studios, especially in the center of Rote Ndao Regency. Another factor is the lack of introduction and education about ikat woven fabric and the importance of preserving ikat woven fabric culture to the community, especially the younger generation in Kupang city. The third factor is that the interest of the younger generation to become ikat woven fabric artisans is very low, considering that until now, woven cloth artisans have been the majority of mothers over 45 (forty-five) years.

The external factors consisting of *opportunities* and *threats* of Ikat Woven Cloth as Cultural Tourism of Rote Ndao Regency are as follows:

# **Opportunity**

The Rote Ndao ikat weaving industry has several opportunities, including social media that can support the introduction of Rote Ndao Ikat Weaving Fabric nationally and internationally. Another opportunity is the support of the Government through the use of East Nusa Tenggara regional clothing at regional events, offices, and state events. Meanwhile, supporting technologies such as semi-modern looms can also speed up the production process of ikat woven fabric. Another opportunity is that Rote Ndao ikat woven fabric is in demand by foreign tourists. Government support for ikat weaving by opening a ikat weaving study program at Nusa Cendana University Kupang is also an opportunity to increase the competitiveness of Rote Ndao ikat woven fabric.

#### **Threats**

In addition to opportunities, the existence of the ikat woven fabric industry also has threats. These threats include low public interest and concern, especially by the younger generation, about preserving the production of ikat woven fabric. On the other hand, the production process that takes up to months with traditional looms also has a negative effect on the existence of ikat weaving. Another threat is the lack of promotion and introduction of Rote Ndao Ikat Woven Fabric in the global market.

## **Marketing Strategy of Rote Ndao Ikat Woven Fabric**

Marketing is a stage that greatly determines the sustainability of a type of craft. If the product can sell well in the market, then their business can continue, or even grow. The ikat weaving artisans have two ways to market. The first is to sell to the centers of the ikat weaving industry and the second is to sell itself to the community. These ikat weaving industry centers, in addition to producing their own ikat weaving, also function as collectors. They are the ones who then resell to the distributors. However, the ikat weaving industry centers only want to buy





fabrics considered good quality, while the fabrics that are not sold to the ikat weaving industry centers are sold by the craftsmen themselves at lower prices. The target of sales is to traditional markets or stalls because the market share is people who have low purchasing power.

The price of each ikat weaving has a price that varies depending on the color and pattern / motif of ikat woven fabric, the price for one ikat woven fabric is Rp.300.000,- / sheet while the production cost of 1 piece of cloth costs Rp.200.000,- namely to buy yarn, dyes, looms and other supporting facilities, on the other hand the community does not use natural materials that are increasingly difficult to obtain in the forest, And the process of spinning cotton into yarn that takes a long time is a reference for people to prefer to buy ikat weaving materials.

In the sales process, not all MSMEs have physical stores so that for sales, it is done by direct sales or through a second party. However, in pricing has not applied business interests and consumptive interests. The sales method carried out by MSMEs is 74% say selling directly to users and 26% sell through second parties. Sales made by MSMEs mostly sell directly to users are done conventionally because of limited market information and less skilled in utilizing digital technology. This causes MSMEs to only produce and sell to acquaintances and wait for orders. By utilizing digital technology, MSMEs can develop by marketing and selling independently without having to wait for orders from acquaintances.

## 4. Conclusion

Based on the research results, it can be seen that ikat woven cloth is an MSME that is still being maintained by the traditional art of the people of Rote Ndao Regency in East Nusa Tenggara Province. Initially, woven fabrics were made to meet daily needs such as covering clothing and body armor, then developed for traditional needs, and now have become clothing that can be worn and a livelihood for every MSME. The meaning of ikat weaving in the Rote Ndao community is greatly influenced by several things, including motifs, namely patola motifs, elephant motifs, martial ketupat motifs, flower motifs, Cross motifs, riding horse motifs, human motifs with a combination of black, white, yellow, dark red, and dark brown colors and the manufacturing process. The ikat weaving of the Rote Ndao community is one of the livelihoods passed down from ancestors. Ikat weaving produces three production types: sarongs, shawls, and blankets. All three types have essential functions for society. To maintain business continuity and marketing, SMEs should diversify products and improvise materials or motives to have selling power. The government is also expected to provide training and business assistance so that the ikat weaving industry can compete in the global market.





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