



# Transformation of women's leadership through producing natural-dyed hand-woven fabrics (ethnographic study on Palue weavers)

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## ABSTRACT

**Objective:** The purpose of this study was to find an explanation for the transformation process of the Palue female weavers' leadership, which changes along with changes in the use of color materials in the sarong from chemical colors that are harmful to health and not in accordance with tradition to natural color materials that are safer and in accordance with tradition.

**Methods:** An ethnographic approach was used in this study. Data collection was carried out for 17 months through direct involvement in the activities of producing natural-dyed and hand-woven traditional fabrics done by 15 families.

**Result:** The results showed that a transformation of leadership took place in each of these families.

**Conclusion:** Replacing chemicals with natural ingredients that are safer in sarong coloring, not only makes women healthier but also makes them a leader in the home industry as well as becoming more empowered and daring to pass on their sarong-making skills to the next generation because natural color materials are safe for children. Women are the managers of the home industry of making naturally dyed hand-woven fabrics, involving their husbands and children. There has been a cultural change in which husbands have been willing to help their wives with the dyeing and weaving works. Leadership by women in this home industry has an impact on the decision-making process in the family, cooperatives and community.

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## Introduction

Studies have shown that women need to get intervention so that they have empowerment in the health sector.<sup>1,2</sup> There have not been many studies explaining how local wisdom possessed by special communities naturally triggers empowerment for women, including being leaders in the context of a patriarchal culture. Studies have shown that women are less likely to be leaders as compared with men.<sup>3–5</sup> These studies were carried out in established organizational forms but they did not research women's leadership in organizations that were not yet established. In addition, researches on women's leadership have been carried out in a broad cultural context such as in the Asian,<sup>6,7</sup> Scandinavian,<sup>8</sup> African<sup>9</sup> contexts. Yet, they lack a focus on culture on a narrow scale, resulting in an inaccurate generalization process because each tribe has its own uniqueness. For example, on the island of Flores, the ethnic groups vary and there are tribes with a patriarchal culture and several tribes with a matriarchal culture so that they cannot be generated as a cultural characteristic of the island of Flores. Thus, it is

necessary to conduct research in a narrower emic context so that it can capture in detail the uniqueness of women's leadership in a particular tribe, so it is necessary to conduct qualitative studies to understand women's leadership in certain tribes with all its uniqueness.

Leadership literature understands a work as an inseparable context from leadership so that men who play a greater role in work are highlighted as leaders than women<sup>10</sup> who have traditionally focused more on caring and managing the household.<sup>4</sup> Researches on women's leadership explain more about the factors that hinder women from becoming leaders,<sup>8</sup> and about the style or characteristics of women as leaders.<sup>5,11</sup> They do not explain about how women become leaders and at the same time, they attempt to change perceptions, stigma or negative myths that place women as gender incompetent to lead. Such conditions make it necessary to investigate the process of how women become leaders. The lack of studies on women's leadership in the early phases of organization, and on women's leadership in certain ethnic groups through an emic approach, as well as on the initial process of how women become leaders is the background that shows the importance of this paper.

## Methods

Ethnographic approach was used in this study. Data collection was carried out for 17 months by directly participating in the activities of producing natural dyed hand-woven clothes in 15 families living in Hewuli Village, West Alok District, Sikka Regency, East

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Nusa Tenggara Province, Indonesia. The Researchers directly participated in the production and sales. The researchers lived with these families, taking part in solving problems in production, problems in sales, problems in the weaver group, and problems experienced by each weaver's family. They listened and suggested solutions. These families considered them as parts of the families. Together with the researchers, the weavers revitalized their group's organization with a cooperative organization model. They began with raising capital, then developed a savings and loan business, and provided their members with materials such as yarn and natural dyes. In collecting data, the researchers carried out observation in a natural setting and interviews with the weavers, and collectively with them developed their organization. The data analysis was done qualitatively and descriptively.

## Result

Palue is a volcanic island located in the Flores Sea. The island has an area of approximately 41 square kilometers with a population of 9,749 people. Mount Rokatenda has a very important meaning for the Palue people. Although it is an active volcano that often erupts, they do not see it as a threat, but instead as a source of life, which brings fertility to the land.<sup>12</sup>

Mount Rokatenda itself is a young volcano that continues to grow by creating new craters. It has six craters. History shows that the volcano once erupted in 1928 and killed more than a hundred people due to the tsunami caused by the eruption. According to the Palue people, the cycle of the eruption of Mount Rokatenda is every 20 years. In the 1960s and 1980s, the volcano erupted again. The government of Sikka Regency relocated the affected residents to refugee shelters. In 1980, refugee shelters were built in the Hewuli area on the island of Flores, 8 km from the town of Maumere. After the situation returned to safety, the residents who fled returned to Palue, and the refugee shelters were changed into second homes for Palue children who studied in the city. From 2012 to 2013, there was a series of eruptions. The residents who had a direct impact were relocated again to the same place and on the Big Island. After the situation returned to safety, some of the displaced people returned to Palue and some others remained in the evacuation area.

For Palue people, custom is a way of life.<sup>12</sup> The custom guides them to carry out daily activities, manage relationships with nature, organize kinship relationships between relatives in the family and in large groups. Custom also regulates husband and wife relationships and extended family alliances that overshadow the husband and wife's household. Custom governs the entire life cycle of the Palue people from birth, marriage to death.<sup>12</sup> One of the generally accepted rules for regulating the relationship between Palue people and others, nature and the highest form is termed *phije*, which is a set of prohibitions that regulate the behavior of the Palue people at certain times.<sup>13</sup>

Each *tana* is led by a *lakimosa* who acts as a political leader as well as a leader in customary rites. *Lakimosa* is the guardian of traditions, leader who organizes indigenous peoples and people who make important decisions related to the lives of indigenous peoples (*wai wolo ana alo*). In exercising his authority, *lakimosa* is assisted by a group of traditional elders called *Ina* as advisors.<sup>14</sup>

Customary rules containing local wisdom are one of the ways of adapting the Palue people collectively. Individually, the Palue community adapts to natural conditions by becoming someone who has the ability to do more than one job, in the local language, it is termed the phrase *kua puna*. An individual can work as a farmer, fisherman, rancher, construction worker, weaver, and a nomad. All work is carried out by individuals according to the cycle or season, which has been determined according to natural conditions.<sup>12</sup>

Making natural-dyed Hand-woven fabrics has been a tradition of Palue for a long time. There is no definite time when the Palue community began to produce this type of fabric. It is not merely a leisure time activity but also a ritual that is carried out with certain standards and a symbol that shows the quality of the weavers themselves. For example, while doing the production activities, the weavers are not allowed to say any dirty words, otherwise the work will fail because the yarns will be eaten by rats. Another example, a girl who helps with the process of production should not be treated like a servant or slave but she must be regarded as someone of high value so that the weaver should give her a special meal. Making natural-dyed hand-woven fabrics is an important ritual because the fabrics produced will be the materials for them to make their traditional sarong, which they must wear in every customary ceremony.

In Palue, the works of dyeing and weaving yarns are only done by women. A Palue woman must be able to cover her body as a symbol of female honor with fabrics that she makes by herself. A woman who can weave is deemed fit for marriage. If she cannot weave, she is not considered an adult woman to marry. The quality of Palue women is measured by their skills of dyeing and weaving. If a woman can dye and weave to produce good quality sarongs in terms of motifs, composition and coloring, she is considered good at taking care of her family and taking care of the fields so that it will provide good benefits for the prospective husband and the extended family of the prospective husband. A woman like her deserves to be bought with a high-quality *Koma* (Palue's Gold Earring). On the other hand, if a woman does not have the ability to dye and weave, it will become a source of ridicule. Saliva (without salivating) was an extremely painful form of taunt for the Palue woman who cannot weave. The concepts and teachings of the dyeing-weaving tradition like this one decadence over time. The standard of the quality of a woman is no longer measured by the quality of the woven fabric she can make but by the level of education and employment as an office employee. The dyeing of the sarong with a chemical from the factory, undermined Palue's weaving tradition. The coloring process becomes more instantaneous, meaningless, damages the human relationship with the environment and is unsafe in terms of health. The weavers call the chemical dyes "harsh drugs" which are uncomfortable for them.

During the eruption of Mount Rokatenda in 2013, several Palue residents fled from Palue Island and lived on another island, namely Flores Island. Displaced from remote areas to suburban areas, the refugees were required to adapt to new conditions. Palue women relied on weave making as their only source of income. There was a change in the pattern of dyeing-weaving work. In Palue, weaving used to be a secondary job. The main occupation of Palue women was farming, so that in a year the weavers produced one sarong only, which was made of yarn colored with using chemical dyes. When living in the refugee shelters, they made a living by making natural-dyed hand-woven fabrics; they produced at least one sarong a week and sold it in a weekly market.

Initially they used chemical dyes, which were relatively easy to apply so that they could do the dyeing process by themselves. They did not need help from others, neither from family nor from other weavers. Besides, they then got new knowledge to remodel the sarong in natural dyes as done by the ancestors. Sarongs made of natural colors are harmless, restoring the weavers' relationship with nature and ancestral traditions. In addition, it makes the weavers pass on the tradition to the children more quickly, because natural colored materials are not harmful to health and the process involves many people, namely husbands and children. Sarong with natural dyes turned out to be more expensive than with the chemical ones. The process of producing natural-dyed sarongs was more difficult, so they needed help from others. As a result, their final products were priced higher so that their income increased.

Women became the main source of family income, shifting the role of husbands. This situation then affected the patterns of the husbands' occupations. Husbands, who were generally fishermen, migrant workers or uncertain manual laborers, turned to help their wives with the works of producing natural-dyed hand-woven fabrics. They picked up raw materials, rolled the yarn and escorted the wives to sell the fabrics in the market. The children were also involved in the production. Woman arranged the whole process. It can be said that she was the manager who regulated the production of natural-dyed sarongs by involving husband and children. A cultural change took place; men who traditionally were fishermen and migrant workers, did women's work, being involved in the making of natural-dyed hand-woven fabrics. Men were no longer ashamed of doing women's work.

The external environmental conditions that required everyone to adapt made these women leaders of their families. They managed not only the production and sale of sarongs but also the decision-making regarding their children's school fees, daily living costs, and customary fees. Thus, they were not only housewives who took care of household necessities such as cleaning the house, cooking, and washing, but also the managers of household economy in charge of the production and sale of natural-dyed hand-woven fabrics, and of the use of income to meet the needs of their households and home industries.

The production of natural-dyed hand-woven fabrics provided them with opportunities to interact with fellow weavers in study groups to improve their competence and skills. There was a process of sharing, exchanging information, which encouraged them to form a group or organization with a leadership structure consisting of a chairperson, treasurer, secretary, and members. Initially the group was a working group without binding rules, and then it developed into a cooperative whose function was to control the quality of the weaves and selling price, to provide financial support through loans from mutual savings. The cooperative became the incubator in which the women learned to develop and organize their works of producing weaves. With the production of traditional textiles done by the displaced families, the refugee camp turned into a tourist attraction. The weaver group that had turned into a cooperative became a driving force for the transformation of the camp into an international tourist attraction. In this process, the weavers become agents of change who brought prosperity to their community and at the same time made the community change.

The leadership transformation in Palue women occurred naturally, after they started to produce their traditional textiles using natural dyes and manual weaving technique as a means of making income. The increased income made them have a high bargaining position in making decisions related to meeting the needs of family life. This position allowed them to influence their husbands and children to take part in the production process. The group work process gave them a strong influence on community decision-making.

## Discussion

The results showed that besides the external factors caused by the natural disaster that forced the women to adapt to the situation, their works of producing traditional fabrics with natural color ingredients had encouraged them to play a leading role in their lives. These works gave them space to engage to learn interactions. In learning interactions, natural leaders can provide learning like other women to become leaders.<sup>15</sup> The existence of learning interactions is the initial phase of women's organizations that place women as leaders. This study found that women become leaders in the economic field in line with women's research on patriarchal culture, which shows that women are accepted as leaders in business.<sup>16</sup> In addition, this study also shows empowerment in the

economic sector which is closely related to empowerment in the health sector, such as research conducted by.<sup>1</sup>

The Palue culture places men as leaders. Men are tasked with making a living by becoming fishermen, craftsmen or migrant workers. Women generally work in farming, take care of the house, take care of children, and weave traditional fabrics. Following the eruption of Mount Rokatenda in 2013, they were evacuated to new places, and the women kept producing the traditional fabrics. However, this time they did weaving work as a means of gaining income since they could not work their farming and their men did not work. The women could ask their men to take part in the process even though they were embarrassed. Men started to open up and accept the role of women as economic leaders. Such condition is in line with research showing that female leadership has been accepted and female stereotypes cannot lead to disappear in small tribes.<sup>17</sup>

The results of this study indicated that women are more adaptive in facing new environments and becoming leaders for families and communities to overcome the crises due to natural disasters. Acceptance of women as leaders can occur by changing environmental situations.<sup>16</sup> Women as the main source of family income have an impact on the decision-making process in the family, which places women as the more dominant persons in the family decision-making process. This finding is in line with other studies, which show that economic factors are one of the triggers for women to play a more role in the decision-making process in the family and community.<sup>18,19</sup>

Changes in the environment and weaving works have erased the stigma that women cannot be leaders. In critical situations, women appear as the individuals who can first adapt to the new environment. The urge of women to survive leads them to change the work of producing traditional fabrics as a leisure activity to an income-generating activity. They at first were not used to selling their weaves but then they venture into the market and sell their products. The different treatment of men and women in the Palue tribe may be the reason why Palue women are more adaptable to new situations. Women tend to experience a more difficult life than men because in addition to taking care of the house and raising children, women also farm for a living, while men tend to become fishermen, craftsmen and migrant workers who leave their families for a long time. This difficult experience makes it easier for women to adapt and become leaders in changing situations.<sup>20</sup>

The changing in geographic location of residence affected the leadership in the people. Palue is a fertile island that provides easy food for its residents, and is supported by an indigenous system that continues to protect and preserve Palue's nature. When they had to move to a new place due to a disaster to a location, which is geographically very different from their original location, they had to adapt and struggle. The refugees had no more fertile land to cultivate. Therefore, they changed their livelihoods by running the home industry of weaving traditional fabrics and the tourism industry. In addition, the new residential area is a suburban area with a high cost of living while Palue is a remote area in which it is easy to save money. This fact shows that geographic and social changes make it possible to change the mindset of leadership in women.<sup>16</sup>

## Conclusion

Producing natural-dyed hand woven traditional fabrics had given Palue women living in evacuation camps during the natural disaster of Mount Rokatenda's eruption an opportunity to be leaders in the economic as well as health sectors. The place provided them with facilities to learn the techniques of natural dyeing and weaving, and to learn how to be leaders. Their production

of traditional fabrics with these techniques had increased their incomes and attracted tourists to their location. The increased income made them trustworthy to be the managers of their home industries, managing the production and those assisting them like husbands and children. They achieved a higher bargaining position in the decision-making process in the family and community. Geographical factors, social change, and traditional fabric making can contribute to raising women to be leaders in responding to crises due to natural disaster.

### Conflicts of interest

The authors declare no conflict of interest.

### References

- Sharma S, Mehra D, Akhtar, et al. Evaluation of a community-based intervention for health and economic empowerment of marginalized women in India. *BMC Public Health.* 2020;20:1–17.
- Cislaghi B, Denny EK, Cissé M, et al. Changing social norms: the importance of “organized diffusion” for scaling up community health promotion and women empowerment interventions. *Prev Sci.* 2019;20:936–46.
- Morley L, Crossouard B. Gender in the neoliberalised global academy: the affective economy of women and leadership in South Asia. *Br J Sociol Educ.* 2016;37:149–68.
- Surawicz CM. Women in leadership: why so few and what to do about it. *J Am Coll Radiol.* 2016;13:1433–7.
- Walker RC, Aritz J. Women doing leadership: leadership styles and organizational culture. *Int J Bus Commun.* 2015;52:452–78.
- Cho Y, Li J, Chaudhuri S. Women entrepreneurs in Asia: eight country studies. *Adv Dev Hum Resour.* 2020;22:115–23.
- Im E, Broome ME, Inouye J, et al. An emerging integrated middle-range theory on asian women apos; s leadership in nursing. *J Transcult Nurs.* 2018;29:318–25.
- Ottosen CL. Lucky to reach the top?: gendered perspectives on leadership acquisition across Qatar and Denmark. *Gen Manag An Int J.* 2019;34:541–53.
- Poltera J. Exploring examples of women's leadership in African contexts. *Empower Women Gen Equity.* 2019;33.
- Bierema LL. Women's leadership: troubling notions of the “deal” (male) leader. *Adv Dev Hum Resour.* 2016;18:119–36.
- Guillet BD, Pavesi A, Hsu CHC, et al. Is there such a thing as feminine leadership? Being a leader and not a man in the hospitality industry. *Int J Contemp Hosp Manag.* 2019;31.
- Manalu D, Sunarso E. Dalam naungan rumah leluhur: Ketangguhan masyarakat Palue menghadapi ancaman gunung Rokotenda. Kupang: BPBD Provinsi NTT; 2015.
- Danerek S. Peran warisan lisan dan komunitas adat palu'e dalam perlindungan alam. In: *The IXth International Seminar and Oral Tradition Festival.* 2014.
- Vischer MP. Contestations: dynamics of precedence in an eastern Indonesian domain. *Precedence: social differentiation in the Austronesian world.* Cambridge: ANU E Press; 2009. p. 245.
- Nanton CR. Shaping leadership culture to sustain future generations of women leaders. *J Leadership Account Ethics.* 2015;12.
- Bullough A. Perceptions of women entrepreneurs in male-dominated leadership cultures: more positive support for women than many thought. *J Enterprising Cult.* 2013;21:359–74.
- Chamberlain C, Sinclair A, Asmar C. Traditional midwifery or 'wise women' models of leadership: learning from Indigenous cultures. *Leadership.* 2016;12:346–63.
- Saha B, Sangwan N. Credit where credit's due: the enabling effects of empowerment in Indian microfinance. *World Dev.* 2019;122:537–51.
- Sell M, Minot N. What factors explain women's empowerment? Decision-making among small-scale farmers in Uganda. *Womens Stud Int Forum.* 2018;71:46–55.
- Delgado MY, Ozuna Allen T. Case studies of women of color leading community colleges in Texas: navigating the leadership pipeline through mentoring and culture. *Community Coll J Res Pract.* 2019;43(10–11):718–29.