

Factors Affecting the Knowledge of Women on Traditional Hand-Woven Fabric Products in Hongsa District, Xayabouly Province, Laos

Kitsana Chanthakhoun,⁺ Khanthavanh Phomlasaboud⁺⁺ & Vongpasith Chanthakhoun³ (Lao PDR); Phutthisun Kruekum,⁴ Nakarate Rungkawat⁵ & Saisakul Fongmul⁶ (Thailand)

Abstract

This study aimed to investigate the knowledge of traditional hand-woven products and the factors influencing this knowledge among 184 farmers in Hongsa District, Sayabouly Province, Laos. Data were collected through questionnaires and knowledge tests and analyzed using descriptive statistics and multiple regression analysis. The results showed that over 62.5% of the participants—most of whom were women—had a moderate level of knowledge about traditional hand-woven products. Several factors had a statistically significant positive relationship with knowledge ($p < 0.05$), including income earned from weaving, frequency of contact with neighbors, education level, and time spent on weaving activities. Conversely, age was found to have a significant negative effect on knowledge levels. These findings suggest that younger, better-educated individuals who are more socially connected and spend more time weaving tend to have higher levels of knowledge. Therefore, interventions aiming to sustain and conserve traditional hand-weaving practices should focus on strengthening knowledge-sharing among community members, improving access to education, and offering targeted training programs. Such efforts could enhance local income opportunities and support the long-term preservation of traditional cultural practices.

Keywords: Women's knowledge, Traditional Hand-Woven Products, Laos

⁺ Kitsana Chanthakhoun, Grad Student, Faculty of Agriculture and Forest Resource, Souphanouvong University, Luang Prabang, Lao PDR. email: noth856@gmail.com.

⁺⁺ Khanthavanh Phomlasaboud, Prof., Faculty of Agriculture and Forest Resource, Souphanouvong University, Luang Prabang, Lao PDR. email: khantavanh2009@gmail.com.

³ Vongpasith Chanthakhoun, Prof. Faculty of Agriculture and Forest Resource, Souphanouvong University, Luang Prabang, Lao PDR email: vongpasith@yahoo.com.

⁴ Phutthisun Kruekum, Dean, Faculty of Agricultural Production, Maejo University, Thailand. email: rungsun14@hotmail.com

⁵ Nakarate Rungkawat, Major of Resources Development and Agricultural Extension, Faculty of Agricultural Production Maejo University, Thailand. email: rungsun14@hotmail.com.

⁶ Saisakul Fongmul, Prof., Rural Resource Department, Faculty of Agricultural Production, Maejo University, Thailand. email: saisakul_tor@yahoo.com.

Introduction

Hand-woven is a valuable cultural heritage and the woven fabrics used as clothing still have a unique identity that can be found everywhere in Lao PDR. The production of woven fabrics is considered a steaming occupation that can generate income for villagers in many communities especially the group of women farmers. Woven cloth is a symbolic medium of people in each community. However, for all Lao women, there must be Chin cloth to wear because when they go to work, go to school, or attend traditional events, and rituals Lao women must wear Chin cloth as a rule that must be adhered to in all government offices, the hand-woven cloth is therefore tied and connected with religious ceremonies, and is one of the ways of life of the Lao people until now.

Hand-woven fabrics are One district one product (ODOP) of Laos, which has handicrafts representing 56% (136 units, 616 products) Ministry of Industry and Commerce (2020); Xayabouly province has woven fabric products which are important products of ODOP products in the province because there is a licensed product mark one city, one national product, a total of 13 units, there are 49 products, products of 13 villages, 6 towns in the whole province, which has handicraft products, which is a woven fabric product 30% Xayabouly province of Industry and Commerce (2020).



Figure 1. Top, products of local weaving fabrics in Hongsa District, Xayabouly Province, Laos. Below, Natural fabric dyeing methods. Source: Photographs by Ms. Kitsana Chanthakoun, February 15, 2020.

Hongsa has been known as a city with a distinctive culture of elephants and textiles for a long time, woven fabrics of Hongsa are exported both domestically and internationally, whether it's Japan, Thailand, Vientiane Capital, Luang Prabang, etc. The name is licensed of product, mark one city, one product, national, a total of 2 units, there are 18 products Office of Industry and Commerce Hongsa District (2020); But in terms of sales, they are still sold in a narrow range or only in groups of old customers who buy for themselves, consign, sell, and those who buy to resell, in a state where costs and expenses operate more the price of the fabric is still unable to set a high price. The growth of fabrics that are processed into products in various forms has become more popular and sold through more online platforms, causing some weavers to become hired weavers instead of Inventing, transmitting, and developing local wisdom.

Therefore, to make the production of woven fabrics by women farmers group beautiful and maintain unique and good quality, therefore it is very necessary to study the level of knowledge, and factors related to the knowledge level of women farmers to make the weaving career another profession that generates income that is consistently engaged, the most important thing that women must have knowledge and ability to transform into products in various forms that can be exported and are in demand in the domestic market.

Research Methods

Population and Sample

The population used in this study was women female farmers who produce traditional weaving fabrics and live in Hongsa district, Xayabouly province, Lao People's Democratic Republic (Lao PDR.) The sampling was divided into 2 steps, details as follows.

Step 1. Calculated the sample size. Using a calculation method from the formula (Taro Yamane, 1973) at a confidential level of 95% and a deviation of 0.05 was set to determine the size of the sample of women from Vieng Keo village. and Na Kaen Kham Village, a total of 340 people Hongsa District Industry and Commerce Office (2019)

Step 2. Calculated the sample from women in Hongsa District, which included 2 villages: Ban Vieng Keo and Ban Na Kaen Kham. A total of 184 samples were obtained randomly from the total number of women in 2 villages, using simple random sampling (Sample Random Sampling) by drawing lots. Because the population in each village was not equal. Therefore, it was necessary to find the proportion of the sample size. The sample size was proportional to the total population according to the equation Kanlaya Wanitchbuncha (2005).

Tools and Data Collection

This research study used a questionnaire and a knowledge test as a tool for collecting data from 184 women farmers in Hongsa district, Xayabouly Province, Lao PDR, in 2020. The data collection details were divided into 2 parts: chapter 1 information about personal basic characteristics, economics, and society of farmers, and Chapter 2 Knowledge of traditional weaving and fabric production of women farmers with a total of 20 questions, where the knowledge test has Cronbach's alpha reliability coefficient.

Data Analysis

The data analysis was a quantitative analysis by using a software program for social science research to help analyse which are as follows:

1. Data on basic personal characteristics, economy, society, and knowledge about local weaving fabrics were used in descriptive statistics to analyse the data, namely percentage, mean, and standard deviation.
2. In analysing the level of knowledge about traditional weaving fabrics of women farmers, women farmers were required to specify the answer to each question with 2 options, i.e. Correct, representing the code in the analysis as 1 and Incorrect, by representing the code in the analysis is 0, then collecting knowledge scores of individual farmers. To categorize farmers according to the score range and level of knowledge about food security at the household level as follows:

Score range knowledge level

15-20 means knowledge at a high level

8-14 mean knowledge at the moderate level

0-7 means a low level of knowledge

3. An analysis of factors affecting the knowledge of female farmers' traditional weaving fabric production. Statistical analysis using Multiple Regression Analysis (Enter type) Kanlaya (2005), which was a statistical analysis to find the relationship between at least 2 independent variables and 1 dependent variable Waro (2010) that the variables Which independent variable was significantly related to the dependent variable at the 0.05 level and how much was the degree of correlation. In this analysis, there were 16 independent variables as follows: Age, status, education level, ethnicity, number of household members, labour used in weaving, main occupation, total household income, revenue from the production of woven fabrics time spent on weaving fabrics, sources of capital, amount of capital spent on weaving, the social position being a member of a village group, experience in weaving, having contact with neighbors for weaving, work obtaining information from various media about weaving which from the study of the relationship between each pair of independent variables. By using the Pearson Correlation analysis method (Pearson Correlation), it was found that none of the independent variables had a correlation (r) greater than 0.80 that would cause a high correlation between the independent variables. (Multicollinearity), which violates the preconditions of multiple regression analysis Suchart (1993).

Results and Discussion

Basic Personal, Social-Economic Characteristics of Women Farmers in Hongsa District, Xaybouly Province, Lao PDR

The results showed that most sample women farmers were aged between 26-30 years old, representing 35.3%, with an average age of 44 years. They were married. 96.7 percent completed primary school education. or below the elementary school. Most of the farmers were Lue ethnic group, accounting for 72.3 percent. The main occupation was weaving estimated at 52.2 percent. There were 4.41 members of the average household. The average household

labour is 1 person with an average income of 262,412 baht per year. It takes 4-6 hours to produce traditional weaving. 72.3 percent of female farmers used their capital in weaving, 54.3 percent had an average of 15.85 years of experience in weaving, did not have a community or social leadership position 97.3 percent, had joined the group in the community was 51.6 percent. The sample female farmers didn't have contact with agricultural officials. Or didn't attend the training or study visits and have contact weaving work with neighbors an average of 8.99 times per month.

The Farmers' Knowledge of Food Security at the Household Level

The results found that the local woven fabric production of women farmers' knowledge at the middle level at 2.5, the higher level of knowledge at 28.3, and the level of knowledge about local woven fabric production was less at 9.2%, the details are shown below.

The level of knowledge about local woven fabric production of women farmers	no	%
High	52	28.3
Middle	115	62.5
Less	17	9.2
$\bar{x} = 12.16$ Min-Max = 5-17 SD = 3.06140		

Figure 2. Table showing the level of knowledge about local woven fabric production of women farmers in Hongsa District, Sayabouly province, Laos.

Factors Affecting the Knowledge of the Production of Traditional Women Farmers' Woven Fabrics of Women Farmers in Hongsa District, Sayabouly Province, Laos.

Factor analysis correlated with the level of knowledge of the production of traditional woven fabrics of women farmers in Hongsa district, Xayaboury province, Lao People's Democratic Republic, found that all 16 independent variables influenced the value of disparities that can be explained to the independent variables as the production of traditional woven fabrics was 88.3% ($R^2 = .883$). When considering the independent variables that correlated statistically significantly with the level of knowledge of the production of traditional woven fabrics of women farmers, positive correlations were found with 5 variables as incomes in addition to the production of traditional fabrics, incomes from the production of traditional fabrics according to the design, traditional methodology (Figure 1, and Figure 2) by getting in touch with a neighbor in weaving work, the level of knowledge and time spent on the production of woven fabrics, and the negative correlation as age (table 2.). the results of the analysis can be reviewed as follows:

1. Women farmers whose having higher incomes in addition to the production of traditional fabrics resulted in greater knowledge of the production of woven fabrics having a high income of farmers would have a cost to gain knowledge or an opportunity to access information on the production of woven fabrics, especially knowledge for dyeing fabric, new fabric pattern design if having more income for acquiring new technology for information as television, the smartphone with the Internet access and applications for searching information.

2. The level of knowledge, can be explained that women farmers with higher education were found that a higher average knowledge of the production of woven fabrics. It could be, that women farmers with a higher level of education had more opportunities to learn or more opportunities to access more information on the production of woven fabrics, and if farmers had high education, were brought new knowledge and techniques from other sources to adapt or adjust to the production and earning more income Supitcha Chotikhamjorn (2021).
3. The incomes from the production of traditional fabrics were explained that women farmers with more incomes from the production of traditional fabrics were found farmers having more knowledge of the production of woven fabrics; women farmers whose having more income from weaving works indicated that the more experience and knowledge, earning more income from the production of woven fabrics resulting to a higher point of knowledge having high knowledge were be designed new fabric patterns causing the higher price of woven fabrics, cost-effective for production, supporting market and income from the sale of fabrics can support the family, giving a household a year-round income Wanpiranya intho et al (2019).
4. Time spent on woven fabric production can explain to women farmers who have more time spent producing woven fabrics will increase their knowledge of traditional woven fabric production, this may be due to the increased time spent on woven fabric production, which makes women farmers focus more on woven fabric production and more on the research of new knowledge and techniques, as well as giving more experience in weaving, and accumulating more knowledge, resulting in more knowledge related to the production of woven fabrics.
5. The contact with neighbors for weaving work can explain to women farmers who have contacts with their neighbors in weaving effect to increase the knowledge of weaving fabric production. This may be due to contacting weaving with neighbors, allowing farmers to always exchange new knowledge to talk, contact a house in the field of weaving, and allowing to accumulate knowledge and techniques, which is up-to-date in the modern era were affected to greater access to knowledge related to weaving. It is consistent with the study of Narubet Leklang (2015) found that the approaches for developing knowledge of women farmers who weave cotton group members should be encourage to there is an exchange of learning about work to be able to work in every step to increase the skills of new knowledge, ideas, and experiences with knowledgeable people.
6. Age can be described as the Age of women farmers increased affected the knowledge of local weaving fabrics were decrease, this may be due to the increased age, allowing farmers to have more burdens, such as the burden of raising children, taking care of social burdens, so there is no time to study and search for new knowledge, it was affecting the limitations of the time that may result in access to knowledge related to knowledge is not as high as it should be this study is similar with Sutheemon Chongsiriroj (2016), which differs in demographic characteristics in terms of age and type of products, there were different mean opinions on factors affecting knowledge management in knowledge management of local wisdom: A Case Study of Don Luang Village, Mae Rang Subdistrict, Pa Sang District, Lamphun Province.

Independent Variable	Dependent Variable		
	Knowledge of local woven fabric production by women farmers		
	B	t	Sig.
1. Age	-.038	-2.626	.009 **
2. Marital status	.184	.280	.780
3. Education	.632	.086	.020 *
4. Ethnicity	.174	.606	.545
5. Occupation	-.385	1.433	.154
6. Income other than the production of woven fabrics	9.666E-5	7.248	.000 **
7. Income from the production of woven fabrics	3.919E-6	3.874	.000 **
8. The time it takes to produce woven fabrics	.298	3.857	.014 *
9. Funding source	-.146	2.487	.140
10. Funding used for woven fabrics	-6.613E-5	-1.482	.314
11. Social position	.926	-1.010	.201
12. weaving experience	.037	1.285	.122
13. obtaining information from various media about weaving	.023	1.555	.654
14. Having contact with neighbors about weaving	.227	.449	.002 **
15. Being a member of a village group	.293	3.113	.441
16. Other additional factors obtained from weaving	.590	.772	.228
Constant	5.667	6.581	.000 **
$R^2 = .877^a$ (87.7%)	F= 40.262	Sig. F = 0.000 **	

Figure 3. Table of the factors affecting knowledge of local woven fabric production of female farmers in Hongsaa District, Sayabouly province, Laos. Remarks: * There was a significant relationship at the level 0.05 ** There was a significant relationship at the level 0.01

Conclusion

In this study was concluded that more than half of female farmers had a moderate level of knowledge about folk weaving fabric production and it was higher significantly (positive correlation) of 5 variables, namely income other than the production of woven fabrics Income from the production of woven fabrics having contact with neighbors about weaving education level (negative correlation) of 1 variable namely age.

Recommendations

1. The Office of Industry and Trade should work closely with the office of the Women's Federation of Hongsa District, Sayabouly Province, Laos. Must be promoting training to improve more techniques and use appropriate technology for the women farmers on processes and markets. If farmers have the knowledge, information, wisdom, and Inheritance of Hand-Woven Fabric to increase the income of their families.
2. The office of the Women's Federation of Hongsa District, Sayabouly province, Laos. should organize training programs to provide knowledge about fabric processing for woven fabrics focusing on women farmers who do weaving so they can apply the knowledge to process their woven fabric products to increase their income.
3. Government agencies should have advertisements to educate about the conservation of woven fabric production in schools or educational institutions so the new generation to recognize and understand the importance of preserving the production of local weaving fabrics to preserve this good culture to last forever.

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