

SOCIAL NETWORK, EXPLORATORY AND EXPLOITATIVE LEARNING IN ETHNIC MINORITY ENTERPRISES : CASE STUDIES OF LOCAL CULTURAL PRODUCT, NORTHERN THAILAND

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Abstract

The network of Micro and Small Enterprises Development Policy in Thailand was formally launched in 2003 with the government supports, though, during the 20 years of development, some of them were no longer sustained especially during the Covid-19 pandemic. This study explored the elements of sustainable Ethnic Minority's Micro and Small Enterprises Network (MSEs) and mapped out of the networking model by using the network analysis tool to explain the learning outcomes of the firm: the exploration or exploitation that will help them sustained until now. The research used a mixed-method. The data were collected by an in-depth interview, two MSEs networks in northern Thailand were selected as case studies. 30 people were interviewed; 15 members per network. Data were analyzed by using content analysis, constant comparison and confirmed by descriptive statistic for analyzing Social Network by using the number of network relationships from UCINET (2022). The research findings found that these two MSEs networks represented the characters of the Industrial Districts (IDs) Model; the geographical location, the coordination & competition, the network alliance, and new inventions. For the network development, each network had an external relationship with other institutes. However, internally, each network had different types of ties, levels of strength of strong/weak ties. One case was the business network the other one was social embeddedness. It confirmed by a number of network relationship for 0.4 and 0.7 of 1. These reflected the type of learning outcomes of networks as explorative and exploitative of knowledge respectively. This research results demonstrated that the sustainability of MSEs in this context came from the relationships in the networks and the innovative development of their products both exploration and application of the traditional knowledge.

Keywords: Micro and Small Enterprises, Social Network, Learning Outcome of Firm, Ethnic Minority, Local Cultural Product

Introduction

One of the important elements of the sustainable competitive advantage of firms whether it large or small is the managing of knowledge (Porter 1990 and Carbonara, 2002). The knowledge management is understood to be the transfer of knowledge and successful of learning outcomes of the knowledge. New knowledge means the creation of new product or methods of carrying out the firms' activities. The characteristics of knowledge transfer and learning in large and small firm are different. For, micro and small enterprises tend to focus on using their own tacit knowledge because it characterized as informal, marginal for economic development (Woolcock & Narayan, 2000).

Micro and Small Enterprises (MSEs) are considered as broadly leading economic development approaches in many countries (Ibid.). The small enterprises turned out to be the leading economic strategy for example the Industrial Districts Model (IDs) in Italy which is an economic model that Italy used to entering to G8 summit. The growth of small firms can be seen in some countries that have a cultural heritage of producing craft products (Piore & Sabel, 1984). Small enterprises occupied the largest portion of economic activities and it provides a chance for job creation. Thailand is one among the country that is well known for MSEs development as one of the prototypes of government involvement in MSEs development (Pasaribu, 2007). MSEs in Thailand are prevalent in the agricultural sector where the agricultural product is converted to craftwork. The Local people run home-based enterprises in rural areas by employing family members and distant relatives (Allal, 1999). The production used the local knowledge and resources. There is no single definition of the MSEs and the defined number of employees in Thailand until the One Tambon (Subdistrict) One Product (OTOP) Policy was launched in 2003. Then, the number of employees to join the MSEs and MSEs network was defined and it turned into the identifying category for receiving the loan, the fund, and assistance from the government (Community Development Department, 2019). Recently, the existing of MSEs in Thailand has the following characteristics; 1. The similarity of product identity and 2. The number of employees and type of business, whether single owner or networking (Office of Small and Medium Enterprise Promotion, 2019) Even, the government provides support for network development, though, the successful one turns to be the single owner rather than the network group (Community Development Department, 2019). This is because they can easily make a decision and rapidly decide for allocating of resources. In addition, it is always the case that the small firm network is exploited by the large firm for sub-contracting activities (Scase and Goffee, 1980). Finally, the recent Covid-19 affected the small enterprises' network in the world. Major victims of the COVID-19 outbreak are MSEs (Shafi et al., 2020), For Thailand, the GDP growth was only 1.3 percent and the country lost 2.5 billion baht in tourist revenue or approximately 0.09-0.13% of GDP where the tourists are the main target for purchasing local cultural products (BBC News, 2021). Unfortunately. some of MSEs networks are no longer

sustained. From the above, it reaches to the research question that “What elements help sustaining the MSEs network”

The understanding of the elements of sustainable competitive MSEs network will be beneficial for the government organizations, the network itself and the stakeholders to be able to develop and improve those successful elements as a leading economic paradigm for the country like the Industrial Districts Model.

Research Objectives

The research objectives were (1) To understand the elements of sustainable Ethnic Minority’s MSEs and (2) To map out of the networking model by using the network analysis tool to explain the learning outcomes of a firm that reflected the exploration or exploitation.

Research conceptual Frameworks

It came from the assumption that the way of forming the network based on history and ethnicity background corresponded with the relationships within each network (Piore and Sebal, 1984). It helped govern the network’s management and relationships (Granovetter, M., 1985; Marouf, N. L., 2007). It also led on to the view that the learning outcomes to product the explorative or exploitative of knowledge is different among different types of networks formed (March, 1994) as the following figure 1.

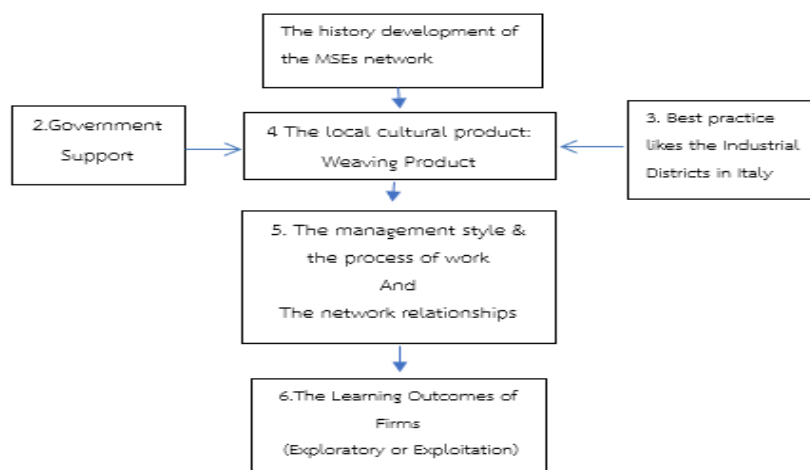


Figure 1 shows Research conceptual Frameworks

Research Methodology

Step 1. The selected cases study

The case of the networks which still performing their businesses up until now is used in this research because it aims to compare how the network sustain. Anyhow, the well-known producer of northern Thailand, which is considered to be a unique product is a cotton woven fabric. Each province in northern Thailand possesses a different weaving style.

Chiang Rai and Chaing Mai are the two big provinces that had the highest number of weaving production to be registered with the Department of Agriculture (Community Development Department, 2019). These two provinces are considered to be the no. 5th and 6th of the country where the 1st to 4th come from northeastern provinces; Khonkhen, Buriram, Udon Thani, and Kalasin respectively (Community Development Department, 2019). Two selected cases are the weaving networks that still perform their businesses from Chaing Rai and Chaing Mai. Their weaving is considered to be the local cultural product that reflects the best-known product of the province. Also, their products represent the indigenous knowledge of that area. Distinctively, these two networks have no relationship to one another which is a good point for comparison. Also, each case is different in terms of ethnicity, social, historical, economic settings, and geographical proximity.

After reviewing the literature and survey for the MSEs network in northern Thai to find case studies, the networks which still performing their businesses and have the characteristics mentioned above are:

1. The Sridonchai Women Weaving Network, at Sridonchai subdistrict, Chiang Khong district, Chaing Rai province.
2. The Anonymous Network in Mae Jam district, Chaing Mai province.

Step 2. Population and Samling

After indicated the cases to be studied, the researcher used the purposive sampling to selected the key informants. This first network had 280 members in 2021. However, the indigenous members were 12 people plus with the key stakeholders. So that 15 key informants were identified. The second network had around 30 people, purposive sampling of 15 key informants was conducted by using snowball sampling.

Step 3. The data collection

The research used the in-depth interview by using semi-structured interview questions. The context of the interview questions was extracted from the objectives of the research and the literature review. The interview context will be related to the activities and perceptions of the members before and after joining the network, the relationship with the network, other members, and their perception towards the relations of its network with other external networks.

Step 4. The data analysis

The data analysis processes in this study were as follows;

1. To analyze based on objective 1 and 2, the content analysis by using manual coding were employed. The text from interviews with similar meanings will group together based on research question, objective and literatures reviews. In order to represent the themes that can be used to describe the history, development the formation and the structural of work of the ethnicity network. Also, the constant comparisons, the repetition of

the behaviors will be counted to extract pattern of working process both before and after joining the network. The repetition of the name of member also helped identified the 'Node' and 'ties' in the social relations.

2. To analyze based on objective 2, a quantitative analysis which used the fundamental binary value of affiliation (1) and non-affiliation (0) among group members in the relationship adjacency matrix. (UCINET, 2022) was used to confirmed level of relationships in the networks.

The validity & reliability

For the validity, 1. The validity review from the variety of answers gained from the 30 people with the consent form provided, 2. Visualization helps explain the social network, network visualization is used as a way of analyzing data. This study will construct network models of the two cases to clarify the relationship of the social relations in the network.

For reliability, the accuracy of transcription (grammar and spelling) should be reviewed. This research was carried out across cultures; ethnic minorities, local in a different region. The script will be translated from northern Thai dialect into central Thai and from Thai to English.

Research Results

Objective 1. The results showed the finding of the background of the case study both in terms of socio-cultural context and the operating system that made them survive until now as follows;

1.1.Sridonchai Women Weaving Network, Sridonchai subdistrict, Chiangkhong district, Chiang Rai province.

Sridonchai Women Weaving Network is situated at Srimongkol Village (Village no.14), Sridonchai subdistrict, Chiangkhong district, Chiang Rai province. The Tai Lue ethnic minority group in Sridonchai Subdistrict migrated from Sibsongpanna territory in south China to Thailand in 1912 after China turned into a republic. They moved to Sridonchai Subdistrict in Chiang Rai Province. Tai Lue of Sridonchai came from Oui town that is quite different from other Tai Lue groups in other provinces. They possess different Tai Lue's weaving styles called the Num Lai weaving (a tapestry weaving technique). From the interview the Tai Lue at Sridonchai claimed that they inherited the complicated Num Lai weaving technique with verities of motifs which also can be seen in Huay Xai in Lao PDR rather than in Thailand.

The establishment of the weaving in 1989 came from the demand of the weaving among government officers from an initiative of Queen Sirikit (the Queen Mother) which local people grouped together to produce the weaving product. 12 members, a group of friends; the alumna in the same primary school, grouped together. At that time, the management style tended to be loose. All members rotated to work in every production process. After the self-establishment, the MSEs gained support for a loan with low interests rate from the

government to build the group center. Then, many Tai Lue women from 4 Tai Lue villages joined the group. The structural working style was formed and the controlling the quality was strengthening. Grouping as a network provides more chances to see and seek comments. In addition, gathering as a network enhances the social relationships among the villagers because they prefer to come to network to talk with other members rather than keep working at home.

The external network forming started later since the OTOP policy has launched. The other Thai Lue villages in Sridonchai subdistrict; village nos.12 & 15, then agreed to establish their own weaving group. However, they got a hard time finding their market. Then, the two weaving villages found the way out by serving as a sub-contractor for weaving for the Sridonchai Women Weaving Network. At this time, the structure of the group had changed to a division of labor based on the specialization of each member as the main product can be divided into 2 types; 1) the Tai Lue tapestry weaving which imitated the ancient style as one network members did the cloth by researching from the ancient sources and then the other members also helped comments and did additional research for the product, and 2) Tai Lue cloth which this network claimed itself as the first network who launched the traditional Tai Lue cloth by using the western pattern to the market.

Furthermore, the group changed its strategy from “to make”; the utilization of natural yarn and natural dye to “to buy” strategy by order of cotton yarn from others as it was easy to control the quality and the customer’s preferences. Recently, Sridonchai Women Weaving Network still functioning by focusing on the local market and international markets by both direct contacts with Laos PDR and Online marketing with China. The external network relations with other institutes are as follows; for traditional sarong weaving, other self-own shops are ordered from the network, and for the Tai Lue cloth, some Tai Lue weaving groups in other places are also ordered regarding the quality. Moreover, Sridonchai Women Weaving Network has the good connection with the government. The network attends exhibitions for promoting OTOP activities in many places. Sridonchai Women Weaving Network takes the products of other weaving shops along with. This is the collaborative strategy because they can succeed together. It is not considered to be a competition as the products are different. Actually, it provides more opportunities for selling the products of every network or shop. From this, other networks or shops are willing to cooperate with Sridonchai Women Weaving Network as they gain reciprocal relations. Finally, the recent activity, which generates income for the members, is totally different from many self-own businesses in the same area. That is, helping the local temples to weave for Chula Krathin ceremony. The reputation for its skillful and benevolent mind helps to get a job of weaving demonstration at the ceremony in many temples. As the more demands for the demonstrations, Sridonchai Women Weaving Network calls for help from other weaving networks or shops. The network gains well

support because everyone would love to help with the Buddhism activity. This activity helps strengthen the relationship with other external networks and weaving shops.

1.2. Anonymous Network at Mae Jam District, Chaing Mai Province.

From the research found that this network is different from the first one. It is not a network of only one subdistrict like the first case study. This anonymous network focused on the usage of natural resources. This network comprises of villagers from many subdistricts who join together. There are nine subdistricts in Mae Jam, but the interview indicated that only villagers from three subdistricts that considered to be a skilled weaver for producing 'Jok: the picking up technique of Tai Yuan or local Lanna people. In addition, Mae Jam district is situated near Mae Hong Sorn province in which many hill tribes with skillful in embroidering traditional motifs live here.

The network was set up by the villagers in 2003 after receiving the information of OTOP Policy. This network has joined the program. However, apart from seeking help from the government like many networks, the network tried to find assistance in terms of product development and training for the dyeing from the NGOs because the network would like to find the organization, that may suit the network's view. The network preferred to work with an organization that concerned with copyright, ethics protecting ancient knowledge, preserving the natural environment, maintaining local wisdom, helping the senior villagers and the villagers who are the descendant of the hill tribe to have jobs. This idea goes along well with the green enterprise which is the model of almost of non-profit organizations. However, accepting help from other organizations does not mean that the network had to depend on that organization. It likes exchanging knowledge.

After joining the network, each family works as a sub-contractor for the network rather than the co-op style. The network leader takes all action and decisions for the members as the network members, in a common geographical boundary, have a heterogeneous society and each village of this network works in different production units and is comprised of the most skillful production units. So that they knew their duties well and focused mainly on their responsibility. The main members came from two subdistricts; Chang Kheng and Tha Pha. In fact, Tha Pha subdistrict gained support from the government to build the OTOP centre as this subdistrict is well-known for Jok weaving by using the artificial yarn assorted with gold and silver yarn which provide the different style of the sarong. However, it had a marketing problem. Then, Tha Pha network turned to work as a weaving cluster of this network. It is possible to say that their relationship is the sub-contractor as the weaving use different material and Tha Pha Network is still functioning.

For the production unit, the research found that the headquarter of the network and the main production units are in Changkheng subdistrict. The production units can be separated into the cotton plantation, the dyeing leaves plantation, the dyeing unit, the plain

cotton woven fabric unit, the style's motifs woven fabric unit, the hill tribes' embroidering unit, and the sewing unit. These production units can be called clusters.

The network's product can be divided into 2 main types, firstly, the applied style top which applied all motifs of each hill tribe together by distributing the finishing plain cotton cloth to embroidering by each hill tribe group. More than four motifs have to be embroidered onto the shirt. This is the explorative learning outcome of the network. The new products are invented by applying four traditional embroidering styles together. The network leader and the head of the four clusters together design it. The cluster leaders have to explain clearly to the people in their cluster. For one shirt may comprise of different embroidering styles which will distribute to the different clusters that embroider for each style. This is because this embroidering skill is inherited from ancestors who were a hill tribe of each cluster. Therefore, the one top will be circulated to many sub-clans for embroidering their own styles. Each group has a cluster leader who takes the responsibility for distributing, collecting, and controlling the quality of the products before sending them to the network headquarter. The cluster leader will responsible for checking the quality and discussing with the network leader. Secondly, the Jok weaving. Mae Jam district is well known for Jok or picking up weaving technique. The main production area of this product is situated in Tha pha subdistrict. Also, the control system is based on the cluster leader before submitting to the network leader at Chaingkeng subdistrict.

For network relations with government organizations, from interviewing the external network in San Kum Pang District that served as the marketer of this Network found that the network prefers to work with NGO rather than the government. This is because once the San Kum Pang's Municipality received the fund for building the OTOP centre in the district, which is considered to be a famous tourist destination. The municipal invited many handicraft networks including this network to send the product to sell and work as a committee for taking care of the OTOP centre. Unfortunately, the new main road alters the direction away from the OTOP centre, the networks which work as a committee have to survive by themselves by rotating to work in the OTOP centre without any salary. The government offers only the building, while, all infrastructures, maintenances, and marketing are provided by the committee.

Objective 2. The results of the mapping out the network models, the research uses the framework from the network's literatures on as a background to draw on an understanding. Then, the visual picture presents the 'Node' (the actors in the network) which the location of nodes (core and periphery) helps analyze the possibility of effectively making contact with other networks and people outside a network (Contractor et. al., 2006).

The illustration presents the type of 'Ties' in the network which helps understand the effectiveness of the networks by reviewing the density of a network. There are 2 dimensions of ties to review; 1. The strength of ties and 2. The type of tie. The ties provide

different kind of knowledge that is being transferred (Atsan, 2016). The strength of ties can be divided into two types; the strength of strong tie which corresponds to less new knowledge and product development, on the other hand, the strength of weak tie produces more new knowledge and product development (Granovetter, 1985). For this strength of ties, the illustration assigns the following colour codes as the representative of them.

The strength of strong ties: —————

The strength of weak ties: — — — — —

The two dimensions of strength of ties as mentioned above help understand the type of tie. Type of ties has important implications for action in a network (Contractor et. al., 2006). The type of tie differs according to whether it is one of friendship or profit's matter. The study can be done for an inside firm which called: arm's-length ties vs. embedded ties (Marouf, 2007) and at an inter-firm levels entitled : business ties vs. social ties (Uzzi & Lancaster, 2003).

For this type of ties, the illustration assigns the following colour codes as the representative of them. The inside firm level is indicated by using green colour. At the same time. the inter-firm levels, red colour is used as an indicator.

Arm's-length ties: — — — — —

Embedded ties: —————

Business ties: — — — — —

Social ties: —————

1.The mapping out of the model of Sridonchai Women Weaving Network.

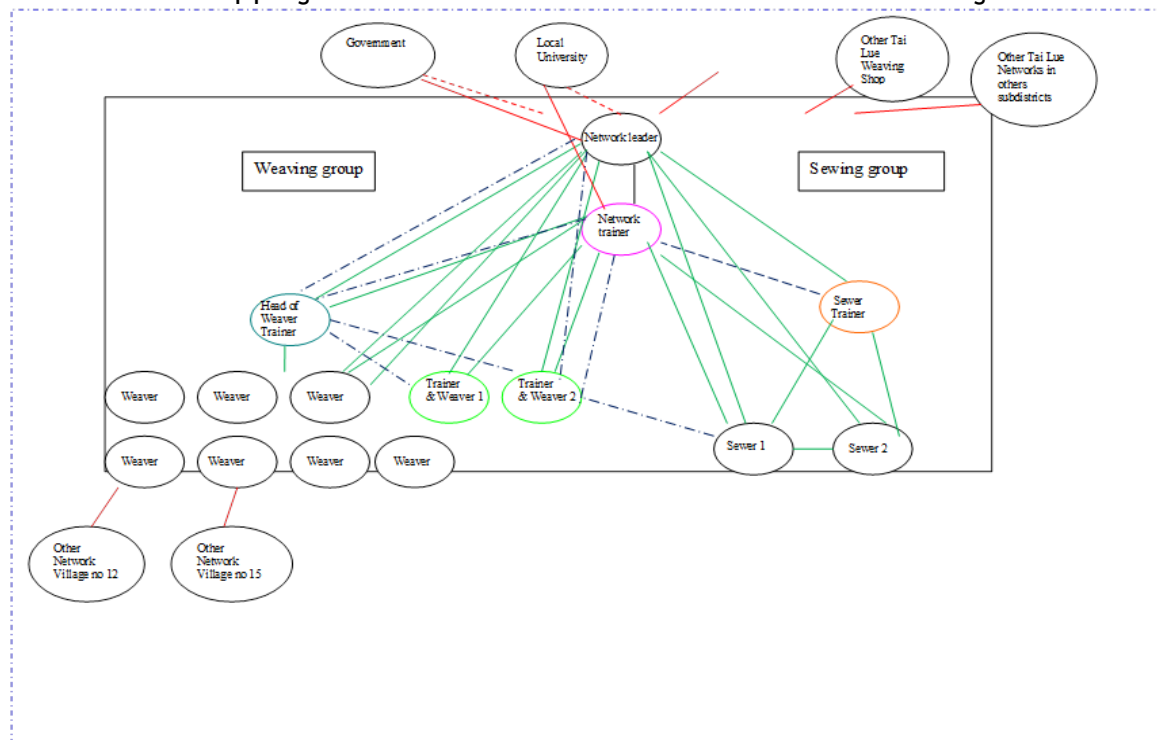


Fig. 1 shows the mapping out of the model of Sridonchai Women Weaving Network.

It is possible to say that the networking style of Sridonchai Women Weaving Network is the network with social ties with strength of strong tie or the high trust. For the connection with the external network, the network has the embedded tie which, considering the social relation rather than benefits. It confirmed by a number of network relationship a quantitative analysis which uses the fundamental binary value of affiliation (1) and non-affiliation (0) among group members in the relationship adjacency matrix. (UCINET, 2022) For this case the result found the number of network relationship for 0.7 of 1 which shows on table 1.

Table 1. Result of network relationship of Sridonchai Women Weaving Network

	leader	Network trainer	Hd of Weave tr	Wv Tr 1	Wv Tr 2	Saw tr	Sawer 1	Sawer 2 laundry& Dye	Monk	Gov	network 12	network 15	other net	local shop	Uni	sum	total density
leader	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	
Network trainer	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	13	
Hd of Weave tr	1	1	0	1	1	1	1	1	1	0	1	1	0	1	0	11	
Wv tr 1	1	1	1	0	1	1	1	1	1	0	1	1	0	1	0	11	
Wv tr 2	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0	11	
Saw Tr	1	1	1	1	1	0	1	1	1	0	1	1	0	1	0	11	
Sawer 1	1	1	1	1	1	1	0	1	1	0	1	1	0	1	0	11	
Sawer 2 laundry& Dye	1	1	1	1	1	1	1	0	1	0	1	1	0	1	0	11	
Monk	1	1	1	1	1	1	1	1	0	1	1	1	0	1	0	12	
Gov	1	1	0	0	0	0	0	0	1	0	1	1	1	1	1	8	
network 12	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	12	
network 15	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	12	
other net	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	
local shop	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	12	
Uni	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	3	
sum	14	13	11	11	11	11	11	11	12	8	12	12	2	12	3		
Density	1	0.9286	0.785714	0.785714	0.785714	0.785714	0.785714	0.785714	0.8571	0.57	0.8571	0.85714	0.142857	0.857143	0.21	11	0.78571429

2. The mapping out of the model of the anonymous network in Mae Jam.

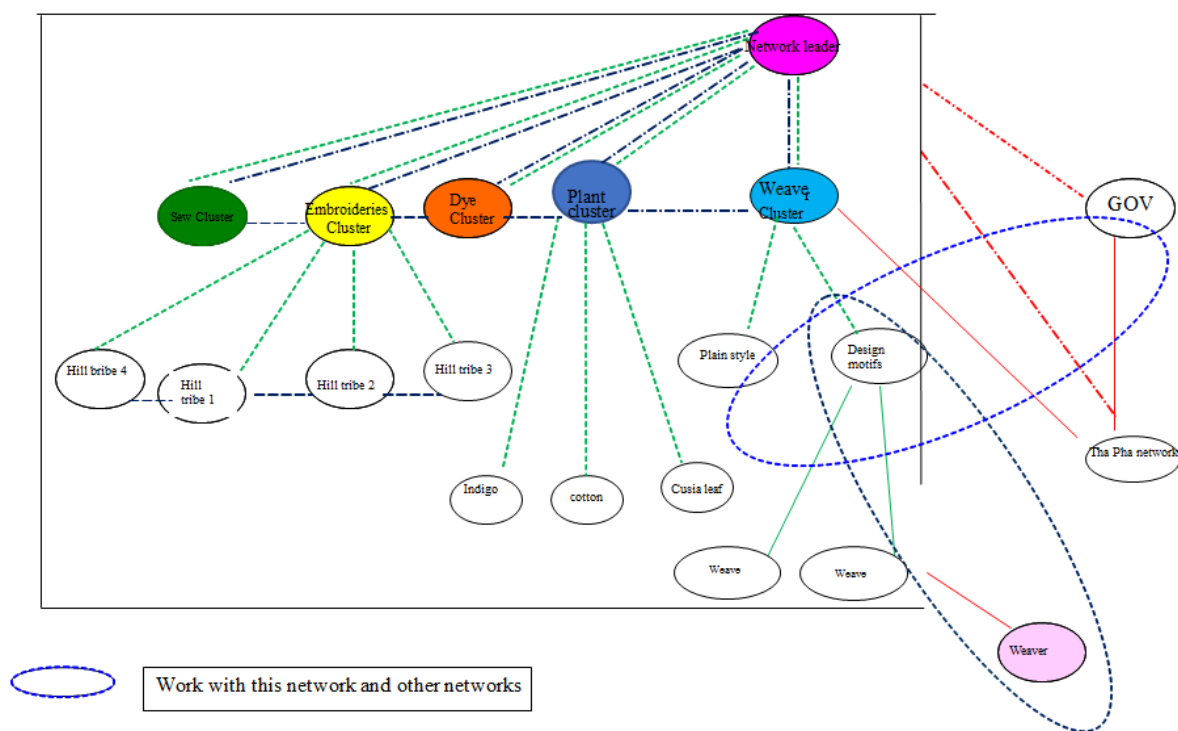


Fig. 2 shows the mapping out of the model of the anonymous network in Mae Jam.

The networking style of the anonymous network tends to be the clustering with vertical integration rather than the network with alliance style. Each micro family business serves as a subcontractor with the network headquarter. There relations are business tie with the dimension of strength of weak tie which the members connect to other to sharing the information of quality control, comment on the product development by relying the same share value rather than the social connection regarding the same ethnicity likes the first network. It confirmed by the number of network relationship for 0.4 of 1 which shows on table 2

Table 2. Result of network relationship Total of degree of network's density of an Anonymous Network

	leader	saw clus	em clus	tribe 1	tribe 2	tribe 3	tribe 4	dye clus	plant clus	weave no mof	weave mof	network thapha	network sankumpang	Gov	NGO	Sum	Total density
leader	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	
saw clus	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3	
em clus	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	7	
tribe 1	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3	
tribe 2	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3	
tribe 3	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3	
tribe 4	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3	
dye clus	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	13	
plant clus	1	0	0	0	0	0	0	1	0	1	1	1	0	0	0	5	
Weave no mof	1	0	0	0	0	0	0	1	1	0	1	1	0	0	0	5	
Weave mof	1	0	0	0	0	0	0	1	1	1	0	1	0	0	0	5	
network thapha	1	0	0	0	0	0	0	1	1	1	1	0	0	1	1	7	
network sankumpang	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	
Gov	1	0	0	0	0	0	0	1	0	0	0	1	1	0	0	4	
NGO	1	0	0	0	0	0	0	1	0	0	0	1	1	0	0	4	
Sum	14	3	7	3	3	3	3	13	5	5	5	7	3	4	4		
Density	1	0.2143	0.5	0.214	0.214	0.214	0.214	0.93	0.357	0.3571	0.357	0.5	0.21428571	0.3	0.29	5.86	0.418367347

Discussions and Conclusion

1. The discussion on the research objective 1

The elements in that networks' models help those MSEs network sustain can be clarified by the description of the activities of the two network members. After joining the network, the members had controlled the quality of product better. The members join the network that suit to their value, i.e., the benevolent mind, and Buddhism oriented of the Sridonchai Women Weaving Network. Also, the anonymous network at Mae Jam has the green enterprise ideology as the use of natural resources, prolong the ethnical local knowledge and accepting the help of only the institute that suits to the network value. Based on the literature, there is an example of the small firm networks that corresponded with the findings entitled; the Italian industrial (IDs) model. The IDs are an area where the business structure might include almost all small locally owned companies (Marshall, 1922; Piore and Sabel, 1984; Weiss, 1988). Therefore, decision making is made collectively and locally. Italy is organizational model and its socio-economic development (Alberti & Pizzurno, 2015). This research illustrates some parallel development of these two case studies with the IDs. IDs have some main character that corresponded with the case studies as follows;

The two case studies correspond with this context of IDs in which the coordination between micro and small firms is governed by trust and co-operation. Because of this, the meaning of the industrial districts is interconnected closely to clustering and networking (Danson and Whittam, 1999). In addition, the characters of IDs are defined as dense networks of social relation where competition and cooperation between firm existed. It produces innovation for producing products. Our case studies have all of the elements mentioned about. Firstly, the geographical area, as the internal networks (micro family business) and external networks (other networks) of the case studies situated in the same geographical area. Secondly, the idea of being competitive with other networks in the same area is existed, but none of concession or fighting. On the other hand, the case studies tried to turn all the rivals to alliances. In the case of Sridonchai Women Weaving Network, it uses the connection with government that other external network did not have as a way of producing alliance. At the same time, this network employs the Buddhism value as a way of strengthening relation with other networks. For the anonymous network at Mae Jam, the network uses the idea of different style of product with Tha Pha subdistrict OTOP network to gain the trust as the Tha Pha subdistrict is an expert in weaving Jok more than our case study. Unfortunately, only the case of the social happens only Sridonchai Women Weaving Network. It is comprehensible with the IDs. Sridonchai Women Weaving Network bounded by the ethnicity, while, the heterogeneity of ethnicity found in the anonymous network at Mae Jam. Anyhow, both of the case studies can produce the new inventions which similar to IDs model.

2. The discussion on the objective 2

The discussion was written by focusing on the network theory's literatures found that the Sridonchai Women Weaving Network had strong social ties with the network members which help adapting the new product (Tai Lue Cloth) and research on the traditional Lue motifs from the ancient sources. It confirmed the hypothesis that dimension of strength of strong tie has a tendency to repeated the product development or produced the exploitative learning outcomes. In addition, Sridonchai Women Weaving Network is a bounded network with a high degree of embedded ties with external networks. It is easy for the government to help form the network. However, the network contacts only the government as a source of information from outside. Alao, the relationship with the government is the dependent form rather than co-ordination. This is because the micro firms agreed to group under the government support regarding resource allocation. The social relations between network and the external network are high because the external networks that Sridonchai Women Weaving Network contacts with are also Tai Lue ethnicity. The network employed the traditional beliefs as an idea for creating trust by inviting them to join the weaving demonstration at Chula Khratin ceremony.

For the anonymous network at Mae Jam District, Chiang Mai Province, this network focuses on business ties rather than the social ties. This is because of the heterogeneity of the local community. The network members are from many subdistricts and with different ethnicity and background. Also, each family joins the network because it generates income and seek opportunity from the tax reduction of OTOP Policy. This network works differently from the concept of other networks as the micro enterprises inside the network are considered as sub-contractors of the leader firm. Also, the control system is clear by using the cluster leader. The network members have less chance to contact directly with the network leader. As the network leader stated clearly that we work like a firm rather than the co-op in the text. However, this network is considered as a strength of weak ties because even the network members came from different backgrounds, though, the members' passion of weaving and their pride in its own cultural heritage of each ethnicity influence the network to focus only on exploring of lost knowledge from a local area i.e., the applied style top that comprised of many hill tribes embroidering motifs. With the new product is developed, it confirms the hypothesis that strong ties in business ties' network provide opportunities for product development (Atsan, 2016). The finding of the latter network is comprehended with the literature. As such, it is confirmed that the strength of weak ties producing new innovation or explorative learning outcomes. For the external network relations, the anonymous network at Mae Jam tends to use arm-length ties. As such, other parties have less influence on the network development; for example, the network negotiates with NGOs rather than simply following the NGOs' advice. For the relation with the government, both government and network have reciprocal relations as the network intends to seek opportunity from OTOP Policy and the same time the government treats the network similarly as an example of less help the network at the OTOP centre case.

Knowledge from Research

The map out of knowledge from research can be seen as a figure 2 The diagram of the ethnical MSEs network in Northern Thailand's context as follows;

Categories	Chang Rai Network	Chaing Mai Network
The integration Vertical / horizontal	Vertical (One network as Node that governed other two different production group)	Vertical in the clustering form with different production units
Categories	Chang Rai Network	Chaing Mai Network
Strong tie	/	/
Weak tie		/
Strength of strong tie	/	
Strength of weak tie		/
Bounded (Embeddedness)	/	
Bridge network (Business)		/

Exploitative Learning	/	
Explorative Learning		/
Sustainable Development	1989- Now 2022	2003- Now 2022

figure 2 The diagram of the ethnical MSEs network in Northern Thailand's context

It is possible to say that the strength of weak ties that has the tendency for creating the explorative learning outcomes of the new inventing product does not consider to be the factor of the successful network of the Thai local cultural product networks for the reason that each country background and the types of knowledge transferring in the network of each context is quite unique. In addition, both of the two networks are still active and can compete in the market even during the COVID-19 situation.

Suggestions and Recommendations

Firstly, the recommendation for further research is the copyright. As these two networks claimed that they innovated new products which are Tai Lue cloths of Sridonchai Women Weaving network and the applied style top with hill tribes embroidering. From the interview the stakeholders and the external networks also confirmed this. Unfortunately, recently, the products of the two networks are copied and sell with cheaper price and has no copyright to protect. The researcher had contact with some experts for copyright protection once. The experts stated that as this is the ancient style, the network just took it to apply, there is no right to claim it. As such, the best way that they do is designing a new product and keep the high quality as a strategy. This is an area of business ethic and the value of customers to be studied further.

Secondly, the policy recommendation, from the research found that the government organisations should take care of the MSEs Network, which grouped based on the OTOP Policy more. The government helps the villagers only one time and gone. This is because once the new policy is launched, sometimes it affected directly to the networks, i.e. the logistic policy which builds new main road without concerning to the survival of the network that the government had supported. Also, in the case of Sridonchai area, an expanding of Asia Routh No. 2 also affected the MSEs network in the area. As such, the logistic and the economic policy that affect the local business should be studied further as well.

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