

# 3 chapter

## Rural clustering at incipient stages of economic development: hand-weaving clusters in Lao PDR

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Spatial agglomeration of economic activity is an ineluctable corollary of economic development, and this presents a major policy concern regarding rural-urban disparity. Conventional economic theory predicts that higher factor prices in the agglomerated area create a dispersion effect. In developing economies, however, the urban-to-rural trickledown effect has not delivered satisfactory results. For this reason, building prosperous rural industries constitutes an effective step toward achieving more equitable economic growth (Otsuka, Estudillo, and Sawada forthcoming).

Rural nonfarm industries can be classified into two types: one based on exogenous manufacturing technologies and the other based on indigenous technologies. The first appears as a result of the spillover of urban industrial activities in accordance with differentiated factor prices. This type of rural industrialization occurs only at the periphery of cities as a byproduct of urban industrialization and only after industrialization has generated a rural-urban disparity in factor prices.

The second type consists of industries that were originally artisan manufacturing industries producing low-quality commodities intended for self-consumption or, at most, local markets. They are sluggish by nature and unable to raise their competitive edge sufficiently to embark on a commercial drive into wider markets. These features of rural industrialization give rise to the argument by Hymer and Resnick (1969) that rural industry is bound to wither as the commodities

produced by modern technologies penetrate the rural market. Several papers, however, reveal that rural nonfarm household industries based on indigenous technologies (hereafter, rural indigenous industries) intensify in tandem with economic development, especially at its incipient stages.

Added to this, a large number of studies reveal that rural industrialization takes the form of clustering (Itoh and Tanimoto 1998; McCormic 1999; Ohno 2001; Sandee and Rietveld 2001; Weijland 1999). The dominant form of industrial cluster in developed economies is the large company that controls networks of small suppliers, while the dominant form of rural cluster in developing economies often is a mere geographic concentration of independent household producers. As Weijland (1999) points out, as long as rural households produce small quantities of goods, attaining sufficient economies of scale to attract traders is a major advantage of rural clustering.

In Lao PDR numerous weaving clusters emerged after economic liberalization. They produce cloth intended for urban and overseas markets. These clusters are village based in most, if not all, cases. In the neighboring villages of a weaving cluster, only a few weavers earn enough to support a minimum standard of living. The difference between villages in a cluster and neighboring villages is the presence of master weavers. These master weavers take the role of traders for the cluster and work under a putting-out contract. Individual weavers in neighboring villages, in contrast, must sell their own products in the

marketplace. Traders thus play an important role in the emergence of rural clusters.

This chapter investigates the weaving clusters of Lao PDR with reference to the role of traders. It is based on unique case studies of weavers surveyed from 1995 to 2006. Hand weaving is a typical rural indigenous industry, and it opens the way for supporting industries, such as sericulture, cotton growing, silk reeling, cotton spinning, dyeing industries, and the like. Promoting this type of industry is a more effective measure for alleviating poverty in wider rural areas than promoting an industry based on exogenous technologies. This chapter argues that the role of traders in rural weaving clusters is more than what the Weijland thesis envisages and that the multimodal characteristics of traders lead to various growth trajectories of weaving clusters. In addition, this chapter emphasizes peculiar conditions for rural clustering in a society at an incipient stage of development.

### Market segregation at an incipient stage of development

Rural and urban markets are often segregated, especially at early stages of development. Transportation costs and transaction costs are the two major elements of segregation.

Lao PDR is a landlocked, resource-scarce country with the lowest per capita income in Asia. Market development—the integration of rural markets into urban markets or even into overseas markets—remains at an initial stage. Lao PDR has not yet reached high levels of urbanization. However, as a result of the ASEAN (Association of South East Asian Nations) Free Trade Area (AFTA) regime, the Lao economy has been integrated into the Thai economy at a rapid pace. In addition, there exists little difference between Lao and Thai languages. Agglomeration in the Lao context thus needs to be considered within a wider regional perspective.

#### *Transportation costs*

After the communist takeover of 1975, Lao PDR was sealed off from the outside world. However, rapid social transformation of the countryside did not take place, and the rural economy remained largely the natural economy (Evans 1995). In November 1986

Lao PDR opened its doors under the rubric of the New Economic Mechanism.

Being a mountainous country, Lao PDR has high internal transportation costs, which have hindered the formation of a unified national market. The main road—Route 13—that links northern, central, and southern Lao PDR was unpaved and poorly maintained until the turn of this century. This constricted regional commerce, especially during the rainy season. This still holds true for the most remote areas, many of which are cut off from the rest of the country during the rainy season. Commerce with rural economies thus incurs high transportation costs. Reducing transportation costs would contribute a great deal to market integration.

#### *Transaction costs*

Asymmetric information and the resulting opportunistic behavior in market exchanges impede efficient market exchanges by raising the level of transaction costs. The lack of effective sanction mechanisms aggravates the problem (Humphrey and Schmitz 1998; Mead 1984; Schmitz and Nadvi 1999).

In a society at an incipient stage of development, as is the case for Lao PDR, formal sanction mechanisms such as the justice system and the police are either absent altogether or, at best, available only in urban areas and, even then, to a limited extent. However, recent studies reveal that, even without formal sanction mechanisms, the existence of informal trust-based mechanisms checks agents' opportunism.

#### *Trust*

To bolster trust, sanction mechanisms are required. The mechanisms range from village ostracism, bad reputation, or humiliation to the simple termination of business relationships. It is useful to distinguish between two types of trust: *process-based trust* and *community-based trust*.

Process-based trust arises through long-term recurrent transactions, as the tit-for-tat strategy dictates (Axelrod 1984). This trust emerges in a dyadic relationship. Community-based trust, on the other hand, rests on the norms of obligations and cooperation that are rooted in social similarity, such as

ethnicity, being native to the same place, and the like. Community-based trust is reliable because it involves social sanction mechanisms as a collective punishment. Thus once any pair of traders recognizes that they share social similarities, community-based trust comes into play without the need for frequent interactions.

The two types of trust provide different sanction mechanisms. Processed-based trust is attached solely to a relevant trading pair, so the cheated will sanction the cheater by terminating their business relationship. Community-based trust entails sanctions by other members of the community. In a community, once sanctioned, the member loses future opportunities to do business with other community members. Fear of such censure works as a self-enforcing norm that ensures compliance with informal contracts.

### Severance of trust

The discussion so far suggests that urban and rural societies maintain incompatible sanction mechanisms.<sup>1</sup> This incompatibility is assumed to disturb the transactions between urban and rural societies.

Table 3.1 shows the level of villagers' trust for different groups of economic agents. There exists a distinct severance of trust between insiders and outsiders. Higher trust of insiders suggests the existence of informal sanction mechanisms, while higher distrust of outsiders predicts difficulties in transactions between villagers and outsiders due to the lack of effective sanction mechanisms. For this reason, commerce beyond the village boundary has to cope with transaction costs associated with distrust between trading parties. In urban markets, urban traders have a marked advantage over villagers in the sphere of market information and negotiation skills.

The following anecdote tells how the severance of trust hampers the ability of villagers to transact with outsiders. In the largest public market in Vientiane City, *Talaat Sao*, there are approximately 100 cloth shops.<sup>2</sup> Many weavers come to the city to sell their cloth to these shops. Some weavers from remote areas, however, hesitate to sell their products themselves. Instead, they use an

**Table 3.1 Trust of villagers in various economic agents in Lao PDR**  
percent

Economic agent	Trustworthy	Cannot say	Not trustworthy	Total
<b>Insiders</b>				
Relatives	81.6	14.6	3.8	100.0
Village people	54.2	32.3	13.5	100.0
Village retailers	41.1	30.3	28.6	100.0
Village traders	36.4	42.4	31.2	100.0
<b>Outsiders</b>				
Retailers in towns	10.2	28.3	61.5	100.0
Traders coming from towns	9.2	31.5	59.3	100.0

Source: Author's survey.

Note: The number of respondents is 826. Arranged by level of trust.

arbitrage trader to sell their products, while they wait near the market. The weavers pay the arbitrage trader a mediation fee of 1 percent of the sales price. The arbitrage traders are migrants to Vientiane from the same area as the weavers: the weavers consider them to be insiders.

Urban and rural markets in developing economies are assumed to be regulated by a different nexus of institutional arrangements. Urban agglomeration can be viewed as a systematic integration of various commercial customary laws as well as formal legal regulations. This accumulation of consuetudinary law in urban society curtails transaction costs and accelerates further agglomeration. In rural societies, community sanction mechanisms govern transactions within a community.

Business dealings are, in principle, much easier among people who share the same institutional arrangements, because trading parties "speak the same language" (Hicks 1969). In contrast, dealing with outsiders is hindered by the severance of trust, which works as a force of segregation.

### Hypotheses on the emergence of traders

Traders have been evicted from the mainstream textbooks of economics. Recently, however, there is growing recognition that traders play a critical role in market development (Fafchamps and Minten 1999, 2001). Research on the emergence of traders in peasant societies classifies traders according to three hypotheses: the insider, the outsider, and the culture broker hypotheses. This classification is

deeply associated with the distinct sanction mechanisms mentioned above.

- The *insider hypothesis* (Hayami and Kawagoe 1999; Landa 1994) argues that the difficulty of performing business transactions under imperfect information can be mitigated when trading partners are fellow villagers, because information among villagers is relatively symmetrical and informal sanction mechanisms ensure the enforcement of contracts. Thus insiders have a better chance of trading successfully with villagers than outsiders do.
- The *outsider hypothesis* suggests that peasants in traditional societies are too passive to be entrepreneurial traders and they are disadvantaged when it comes to having access to urban markets. Thus innovators emerge from the outside world, such as the overseas Chinese, the Parsees of India, and the like (Geertz 1963; Weber 1930). The notion of the trader's dilemma also endorses the outsider hypothesis (Evers and Schrader 1994). The dilemma argues that insiders are often required to share income with their fellow villagers according to the social norms of the peasant community. Insiders are thus subject to social constraints on the maximization of private profits. In contrast, remaining an outsider allows traders to operate a business without being constrained by the community norms of peasant societies.
- *Culture brokers* facilitate and mediate relationships among different cultures. The culture broker hypothesis stresses that in developing economies neither urban traders nor village producers are familiar with the rules and norms of the other world. Thus interpreters familiar with both worlds play a pivotal role in the commercial integration of rural and urban economies. Such a marginal person is referred to as a culture broker (Neale 1984).

These hypotheses are not mutually exclusive. A field study on which this chapter is based found that a wide variety of traders endowed with different socioeconomic characteristics are actively conducting business by using their respective advantages to over-

come transactional difficulties. Investigating how these traders engage in their business throws light on the emergence of various types of rural clusters and their different growth paths. Taking the severance of trust into account, it is possible to hypothesize that culture brokers play the most crucial role in integrating rural markets into urban and overseas markets.

### Profile of the Lao PDR hand-loom industry

This section profiles the Lao hand-loom industry. It discusses income from nonfarm activities, offers a brief history of Lao textiles, and discusses techniques for weaving Lao cloth.

#### *Income from nonfarm activities*

Table 3.2 shows annual sources of cash income for rural households in Lao PDR (N = 826, surveyed in 2003). A major portion of cash income comes from self-employed businesses, while agriculture yields only 18 percent of cash income. This indicates the importance of self-employed businesses for poverty reduction. These businesses are made up of a variety of rural industries, such as hand weaving, basket making, brewing of indigenous drinks, bamboo mat making, and so forth.

#### *Brief history of Lao textiles*

Lao cloth is broadly classified into figured cloth woven in the northern and central part of Lao PDR and *ikat* (*mad mii*) woven mainly in the southern part. This chapter deals solely with the former, which is hereafter referred to simply as "cloth."

**Table 3.2** Source of income of rural households in Lao PDR

Source of income	Amount (1,000 kip)	Percent
Agriculture	1,854	18.00
Agricultural wage	388	3.77
Self-employment	4,149	40.55
Salary	2,851	27.67
Remittance		
Domestic	83	0.81
Overseas	558	5.41
Other income	418	4.06
Total income	10,305	100.00

Source: Author's survey.  
Note: US\$1 = 10,500 kip.

Lao cloth is patterned with ample designs using supplementary wefts: nonstructural threads added to the basic weave. The patterns of Lao cloth reflect the cultural, religious, and ritual symbols of ethnic groups, regions, and even villages. When cloth is woven for home consumption or traded within a local community, villagers only need to weave cloth with indigenous patterns specific to their ethnic group or local community. In reality, weavers know only a few ancestral patterns.

For centuries Lao weavers spun cotton and reeled silk, dyed fabrics with plants, and wove mainly for personal use rather than for commercial ends (Connors 1996). Hand weaving declined rapidly in the 1950s as a result of stiff competition from imported machine-woven cloth. After the communist takeover, this situation changed drastically, as the isolationist policy was conducive to revival of the hand-weaving industry.

The recent history of Lao PDR has been turbulent. Greater contact between ethnic and regional groups during the turbulence blurred the historical and cultural significance of traditional patterns, making them merely fashionable designs.

In November 1986 Lao PDR opened its doors to the international market economy. This affected the hand-weaving industry in two significant ways. First, new markets were brought to the industry by the overseas Lao who left the country at the time of the Civil War, the Thais who share a similar culture regarding cloth making, and foreign tourists. Second, imported factory-spun yarns enabled weavers to produce high-quality cloth. These two events led to a weaving renaissance in Lao PDR.

Although the emergence of the new markets presented income-generating opportunities for the villagers, it also imposed new constraints on them, such as the need to obtain information about patterns demanded in the market and to secure funds to purchase high-priced imported yarns. Rural weavers seldom have formal training or education, and they face severely constrained working capital. Thus rural artisan clusters are deemed to be passive by nature and unable to break into wider markets by themselves. If this is true, what explains the

mushrooming of weaving clusters since Lao PDR opened its doors? As shown in this chapter, traders did much for the prosperity of the weaving clusters by coping with the constraints.

### *Weaving techniques of Lao cloth*

The organization of production and structure of marketing vary considerably with the type of commodity and thus involve distinct transactional difficulties (Siamwalla 1978). Lao cloth is woven on a hand loom with the help of a vertical heddle.<sup>3</sup> A vertical heddle is the lacy mesh with pattern rods above the warp, which reflects the number of changes required to make figured cloth with complex patterns. While weavers can produce a vertical heddle of a few traditional patterns, pattern designers can produce various patterns to be produced on a vertical heddle.

A vertical heddle helps less experienced weavers to produce cloth with a twill and satin weave design. In addition, it makes patterns transferable. Weavers can produce a vertical heddle by referring to a sample cloth, although doing so is arduous work. They copy the information on the pattern of sample cloth by counting the number of warp yarns that appear on the surface for one weft yarn at a time and transfer the information onto a vertical heddle through the reverse action of the weaving process. With this method, weavers can infringe on patterns, causing post-contractual problems. As the quality of cloth can be visually inspected with ease, adverse selection is not a serious problem. Thus moral hazard is the major contractual problem inherent in cloth transactions.

### **Marketing and contractual arrangements**

This section describes marketing channels, the taxonomy of contractual arrangements, and contractual choice.

#### *Marketing channels*

The majority of weavers are women living in villages, because hand weaving is a side business for farm households. Master weavers either employ weavers at their workshop (hereafter referred to as workshop weavers)

or deal with weavers working at home (hereafter referred to as home weavers), or they use a combination of the two (see figure 3.1). Master weavers, who are generally pattern designers, furnish market information on patterns in the form of vertical heddles.

Retailers, basically town-based traders, have their shop in an urban marketplace. Other traders observed in our research are itinerant traders and commission traders. The former reside in a village and deal with fellow villagers, while the latter cover several villages. Independent weavers deal directly with retailers without relying on intermediaries. They reside in the vicinity of consumption centers. They purchase yarns at their own expense and weave cloth of traditional patterns they have inherited. The cloth is generally of low quality.

**Taxonomy of contractual arrangements**

Contractual arrangements observed in this field study are found along a spectrum that has “make or buy” as polar cases (see figure 3.2). Various relational contract systems exist in between. They can be classified into three contractual arrangements: the putting-out system, the yarn-on-credit system, and the advance-order system. On

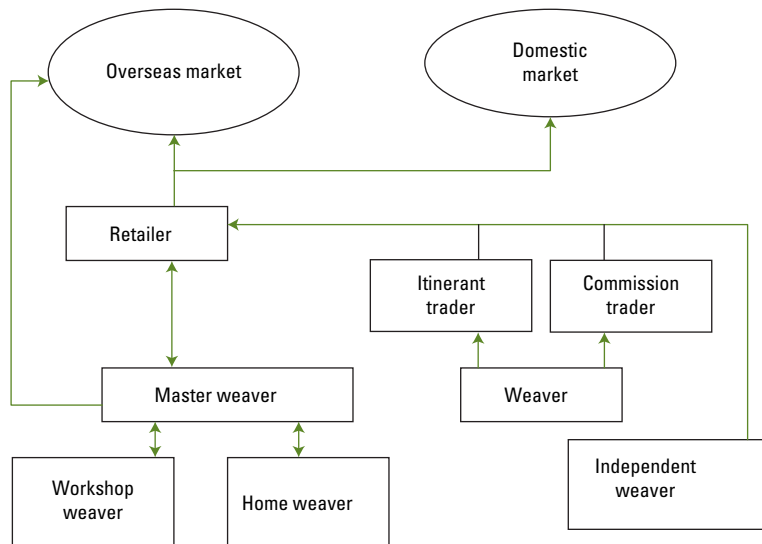
the continuum of transactions from the spot market to the factory system, the putting-out system is closer to the factory system, while the advance-order system is most akin to spot-market transactions.

The putting-out system often appears as an interim stop between the craft shop, or the guild system, and the factory system (Wardell 1992). Landes (1969) finds the reasons for the transition in “the usual difficulty of compelling performance by cottage workers” and “the poor quality of hand work,” which are collectively referred to as “the frictions inherent in putting-out.” However, hand weaving is a side business for women, mostly married, in rural households. They weave when they find time outside of household chores. Little needs to be said about the difficulty of guiding such weavers into a centralized unit. Hence, relational contracting is the rule in the cloth market.

The relational contract is subject to the agents’ opportunism, as Landes points out. Three major problems are related to Lao cloth: (1) infringement of patterns that principals develop; (2) sale of the covenanted cloth to other traders who offer a higher price than the agreed-upon one; and (3) embezzlement of yarns provided by a principal.

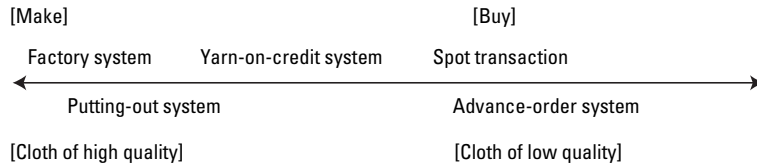
This section begins by describing the contrast between the putting-out and the yarn-on-credit system. Under the former, a principal provides his or her agents with yarns for processing and later collects woven cloth for a piece-rate payment. The provision of yarns is not merely for the convenience of the agents, who face severe constraints on working capital; rather, it is also advantageous to the principal, as it binds his or her agents to deliver the cloth with the patterns to which the principal can claim title. Furthermore, the fact that the principal can claim ownership of the provided yarns also makes the exclusive delivery binding on the agents. Although the agents’ opportunity to sell the covenanted cloth is deterred, embezzlement of yarns remains a serious problem, as the agents (weavers in this case) are tempted to embezzle the provided weft yarn by reducing the number of picks or by saying that not enough weft yarn was provided to weave the covenanted amount of cloth.

Figure 3.1 The marketing process



Note: The thickness of the lines corresponds to the volume of transactions. The two-headed arrow denotes that market information on fashionable patterns flows from principal to agents in a dyadic relation.

**Figure 3.2 Contractual arrangements along a “Make or Buy” spectrum**



Under the yarn-on-credit system, in contrast, the principals sell yarns to the agents on credit in return for stipulating the purchase price of cloth. When the cloth is delivered, the agents are paid the remaining balance of an agreed-upon price after deducting the price of yarns advanced. The principals check the quality of the delivered cloth and may reduce the price if the quality is found to be unsatisfactory. The possibility of punishment for embezzlement of yarns is built into the contract in the form of reduced payments after inspection of the delivered cloth. However, this contract attenuates the moral obligation of the agents to deliver cloth exclusively to the principal, because the agents can claim ownership of the yarns. Therefore, the infringement of intellectual property rights on cloth patterns or the sale of covenanted cloth to a third party is more likely to be serious.

Under the advance-order system, the principals only guarantee the purchase of the products at a stipulated price. As yarns are not advanced, the agents have to purchase them at their own expense. Therefore, the agents cannot help but use low-quality yarns due to their weak financial position. Needless to say, yarn embezzlement does not take place in this system. However, agents are vulnerable to the temptation to sell the products to traders offering higher prices. Therefore, under this system the principals refrain from furnishing their agents with market information on patterns, and the cloth remains of low quality.

Besides these relational contracts, spot-market transactions are common. Although no post-contractual problems take place in spot transactions, the cloth transacted is of very poor quality.

**Contract choice**

Rural weavers cannot afford to purchase high-quality yarns due to working capital

constraints, and they find it difficult to obtain market information on fashionable patterns in urban and overseas markets. Therefore, it is hard for weavers to produce good-quality cloth by themselves, even though it yields higher profits. Therefore, to obtain high-quality cloth, traders need to advance appropriate yarn and furnish weavers with fashionable patterns. However, this triggers post-contractual problems, such as infringement of patterns, embezzlement of yarns, and sale of the covenanted cloth to a third party. Traders have to cope with these problems to run a successful business.

These contracting systems have distinct features with respect to post-contractual problems (see table 3.3). This chapter considers community-based trust and the ability to place a hold on patterns to be the sanction mechanisms that constitute the principal’s ascendancy over an agent.

A hold on patterns depends on the private information of the principals. Master weavers, when they are principals, can preserve their hold on patterns because they are the designers as well. Urban retailers as principals can preserve a hold on patterns as a result of day-to-day contacts with consumers. As cloth with an attractive pattern enjoys stable orders and higher prices, the agents contracting with principals who have a strong hold on patterns can secure constant orders. Hence, the threat of termination of the business relationship deters the agents’ opportunism. Process-based trust is not considered here, because relational contracting generally involves recurrent transactions.

**Table 3.3. Post-contractual problems under the different contracting systems**

Contracting system	Sale to others and pattern infringement	Yarn embezzlement
Putting-out system	Weak	Large
Yarn-on-credit system	Medium	Medium
Advance-order system	Large	None

Source: Author’s survey.

In the interest of brevity, the discussion is limited to the choice of contract between weavers and master weavers. A similar picture can be applied to the choice of contract in other transactions.

For rural weavers, the putting-out system is the first choice, because the principals, who are master weavers as a general rule, advance good-quality yarns and furnish market information on fashionable patterns. In addition, the principals guarantee the purchase of the processed products. For the principals, this effectively protects their intellectual property rights on patterns, as this system assures exclusive delivery of the products. Thus the putting-out system provides the best conditions for both agents and principals.

The agents' opportunism is, however, an inherent problem in the putting-out system. It can be assumed that the principals who have strong ascendancy over agents are more likely to choose the putting-out system. As a natural corollary, traders who adopt the putting-out system rather than conducting business through spot transactions can establish prosperous weaving clusters.

When the principals can rely on only one or the other sanction mechanism, meaning that they have weak ascendancy over agents, post-contractual problems arise. The problem of yarn embezzlement surfaces first, because a sense of guilt is weaker for yarn embezzlement than for the sale of cloth to a third party. The principals are obliged to choose the yarn-on-credit system to cope with yarn embezzlement, even though the agents' moral obligation of exclusive delivery is weak.

When the agents' opportunism is more hazardous, the advance-order system is

chosen even though only weaker benefits can be obtained by linking rural producers to urban markets. Spot-market transactions prevail when the principals are unable to restrain the agents' opportunism, and the quality of cloth deteriorates accordingly.

### Weaving clusters and traders

Among numerous weaving clusters in Lao PDR, this study selected 11 clusters that show distinct growth trajectories (see table 3.4). It is assumed that the dynamics at work can be explained by the ability of traders to use different sanction mechanisms.

#### *Why does space matter?*

We start with two cases in which distance determines the features of clusters. Xam Nua and Xam Tai of Houa Phan province, the most remote region of Lao PDR, are renowned for their hand weaving (see figure 3.3). Xam Nua is three days by bus from Vientiane, while Xam Tai is four. The consequence is that the margin between the wholesale price and the purchase price is about 5 percent for the Xam Nua trader and 47 percent for the Xam Tai trader. This difference reflects the distance of "an extra day."

The distance of "an extra day" does not denote a mere increment of transportation cost, because the bus fare is too small to explain the difference in profit margin. Traders in Xam Nua, mostly master weavers, take orders from urban retailers in a recurrent manner, receiving product information on fashionable patterns and colors under the advance-order system.<sup>4</sup> Some master weavers have constant orders from Thai retailers who specify patterns and colors in detail.

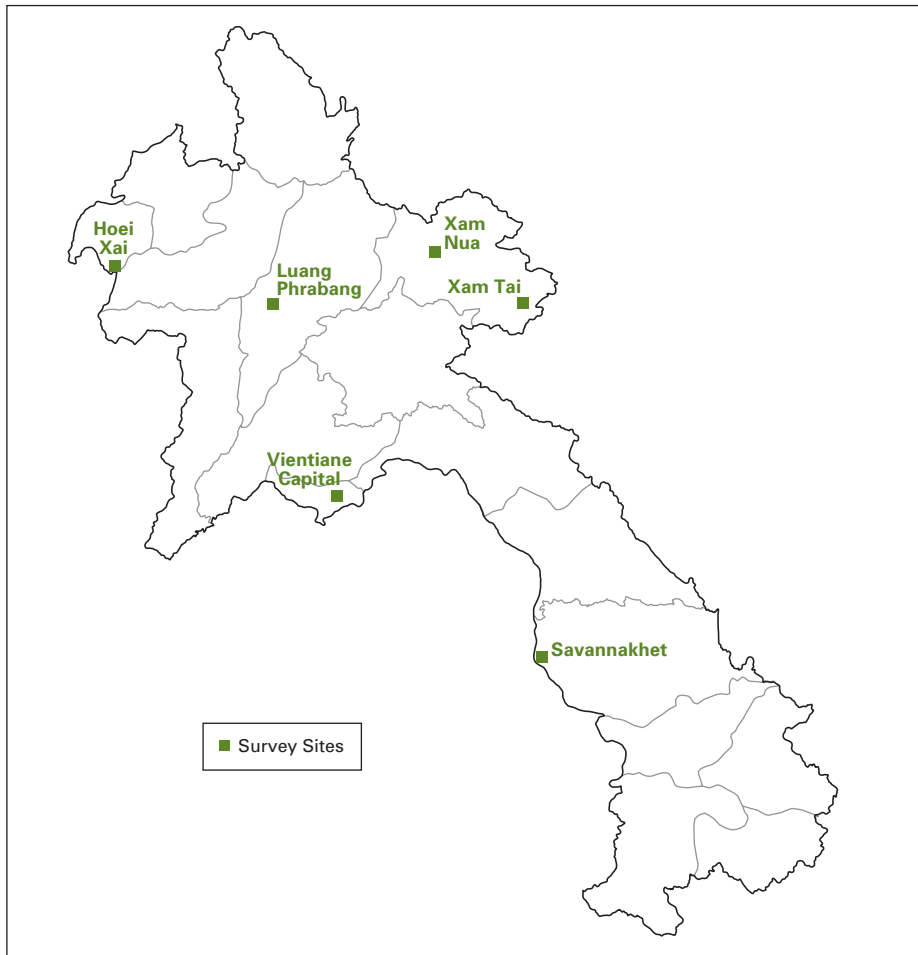
In Xam Tai, master weavers do not exist. Xam Tai weavers consign their cloth to commission traders, setting the price limit. The traders sell the products to urban retailers in Luang Prabang and Vientiane. Although Xam Tai weavers are known to be highly skilled, they weave cloth of low quality. When asked why they do not weave quality cloth, they responded that they fear the risk of frozen stock. It takes several months to weave a piece of high-quality cloth. This makes them risk averse. The same holds true for the traders. Distance of "an extra day" does not impose prohibitive transportation

**Table 3.4** Surveved clusters in Lao PDR

Cluster	Province
<b>Distance matters?</b>	
1	Xam Tai in Houa Phan province
2	Xam Nua in Houa Phan province
<b>Traders having weak governance</b>	
3	Itinerant trader in Vientiane province
4	Commission trader in Vientiane
<b>Master weavers in different settings</b>	
5–8	See table 5 for details
<b>Three contrasting clusters in Luang Prabang</b>	
9	Village X: Several insiders exporting to Thailand
10	Village Y: No effective traders
11	Village Z: A public marketplace for cloth



Figure 3.3 Map of survey sites in Lao PDR



costs, but it affects the attitudes of the weavers as well as the traders in association with risk. Thus distance hampers the emergence of master weavers.

### *Clusters producing low-quality cloth: itinerant and commission traders*

An itinerant trader, Ms. P deals with approximately 300 weavers under the yarn-on-credit system, covering several villages in Vientiane province about 80 to 90 kilometers north of Vientiane City. As the weavers know only a few indigenous patterns, there is weak demand for that line of cloth.

Itinerant traders facilitate the market activities of weavers in remote areas. They cover wider areas than commission traders or master weavers do. However, wider coverage itself inevitably entails a drawback in that

the traders do not share a similar social background with the weavers. Therefore, itinerant traders cannot resort to community-based trust for resolving conflicts. As Ms. P is from a village renowned for hand weaving, she possesses market information on fashionable patterns. However, she hesitates to furnish the information to her weavers, because she cannot count on them to deliver cloth exclusively to her: she has no power over them.<sup>5</sup> Thus Ms. P trades cloth of low quality.

Ms. Q, a commission trader in a village about 40 kilometers from Vientiane, contracts with 56 village weavers under the yarn-on-credit system. She also runs a small general store. As there is neither a pattern designer nor a master weaver in the village, the villagers weave cloth with a few indigenous patterns that fetch low prices. The products go mainly to local markets. Ms. Q not only

advances yarn on credit but also sells daily necessities to the weavers on credit to secure the delivery of cloth from them. In addition, she lends money to her weavers without charging interest and accepts repayment in cloth. The credit-tying contract is a device that allows the commission trader to secure the delivery of cloth from the weavers.

Although Ms. Q shares a similar social background with the weavers, she suffers from the weavers' opportunism. Four to five weavers per month sell their cloth directly to retailers in the market without delivering it to Ms. Q. As she knows the cloth pattern of each weaver, such opportunism is easily detected when she visits the market in Vientiane. However, Ms. Q thinks there is no way to prevent this from taking place. Because she is not a pattern designer, her ascendancy over the weavers is weak.

Itinerant and commission traders have weak ascendancy over their agents in that the former cannot resort to community-based trust and the latter have a weak hold on patterns. Thus they are subject to the agents' opportunism. Even though they contribute to the formation of weaving clusters, the clusters produce low-quality cloth. So long as these traders do not furnish market information on patterns, they cannot be a substitute for the master weavers.

### *Clusters producing products intended for overseas markets*

This section reviews three of several documented cases of master weavers who contributed to the formation of weaving clusters in which the products are intended

for overseas markets (see table 3.5). Two of them reside in Vientiane, and one resides in Savannakhet, the second largest town in Lao PDR. Each master weaver contracts exclusively with her own weaving cluster on a large scale. As the table shows, the master weavers are not insiders: they live in urban areas and are medical doctors or graduates of foreign universities. They have acquired the rules and norms of urban society. At the same time, they contract with migrant weavers from their native area, with the exception of Ms. C.

Ms. A migrated to Vientiane from Houa Phan province during the Vietnam War. She quit a government post (as a medical doctor) due to low wages and started a weaving business in 1986 when Lao PDR opened its doors. She deals exclusively with more than 200 weavers from two villages under a putting-out contract. The villagers migrated from Houa Phan province for the same reason as their principal. Ms. A is known as an eminent pattern designer in Vientiane. She provides her weavers with vertical heddles embodying patterns that she has designed and silk yarns that she has dyed. During the dry season, Ms. A accepts the delivery of an average of 500 to 600 pieces of cloth from her weavers. The number drops to about half during the rainy season when farm work reaches its peak. Her weaving business brings monthly earnings of 8.19 million kip (US\$8,712 in August 1996) in the dry season. Her success is due to community-based trust and her strong hold on patterns.

Neighboring villages are different from villages with a weaving cluster, even though they

**Table 3.5 Social characteristics of the large-scale master weavers surveyed in Lao PDR**

Name and birthplace	Description	Social similarity with weavers	Number of weavers under control
Ms. A. (Hua Phan)	A medical doctor and an eminent pattern designer	Yes	219
Ms. B. (Saravan)	Has a long-term contract with a large cloth shop in Japan; lives in Savannakhet and runs a weaving workshop there	Yes	More than 200
Ms. C. (Savannakhet)	University graduate (France) and can communicate in French and English	No	57

Source: Author's survey.

have similar historical backgrounds. While almost all of the households in the cluster engage in weaving, only some households in the neighboring villages weave. This is because the weavers there do not have a contract with master weavers. They do not have access to the fashionable patterns desired in urban markets. In addition, they lack working capital and can only afford cotton yarns. Cotton cloth has a narrow profit margin compared to silk cloth. Master weavers who are also traders thus have an important role to play in the formation of weaving clusters.

Ms. B was born in a village in Saravan province and moved to Savannakhet (the capital of Savannakhet province) after her marriage. In 1998 she started a weaving business with support from a Japanese dyer who recommended indigo dyeing. Since 1999 she has contracted with a medium-size cloth shop in Japan that furnishes designs for the cloth. What is noteworthy is that Ms. B contracts with the weavers of her native village about 70 kilometers away from her residence. She adopts the putting-out system, even though monitoring is difficult. The cloth woven in this case is plain, unlike the figured cloth of other master weavers. Thus Ms. B does not provide vertical heddles to her weavers. Her strong hold on product specifications is derived from her long-term business relations with the foreign retailer. This relation and community-based trust enhance her ascendancy over the agent weavers.

Community-based trust helps to curtail monitoring costs. Ms. C, a master weaver from Vientiane, illustrates the role of community-based trust. Ms. C graduated from university in France and exports her products to France as well. She is a migrant from the southern province of Savannakhet where weaving is not prosperous. In Vientiane and its environs, she is unable to find weavers from her native village, which has forced her to deal with migrant weavers from Houa Phan province. Due to the lack of community-based trust with the weavers, Ms. C has to employ three local people to monitor the weavers' opportunistic behavior. She is the only master weaver discussed here to rely on such supervisors; the others rely instead on community-based trust.

In conclusion, the master weavers who are involved in rural weaving clusters on a large scale are those who can exploit an ambivalent position as outsiders as well as insiders. They are socially differentiated from their agent weavers in that they are highly educated and have urban experience. They are culture brokers. As they reside in or in the vicinity of large towns far from their agent weavers, their businesses are less likely to be constrained by the community norms that demand income redistribution. Although direct monitoring is difficult, community-based trust and a strong hold on patterns deter the opportunistic behavior of agent weavers. This allows the master weavers to conduct a large-scale weaving business.

The discussion so far reveals the two faces of community norms. While the community norms often facilitate efficient transactions by producing community-based trust, the community may impede capital accumulation in the hands of inside traders, creating a trader's dilemma. It is the culture broker who can maneuver through these two faces of the community most effectively.

### *Three clusters taking distinct trajectories in Luang Prabang*

A final set of weaving clusters are from Luang Prabang, the former royal capital and a World Heritage site that lies on the upper Mekong River. On the fringe of the town, there are three weaving clusters: clusters X, Y, and Z. The residents of clusters X and Y were on the side of the ousted regime. After the communists came to power in 1975, they were forced to settle on the Mekong riverbank, where little farmland is available. A typical picture of proto-industrialization emerged there.

In 1994 a weaver of cluster X (Ms. E) was approached by a Lao trader, who was a broker for Thai traders from Hoi Xai, a trading post on the opposite shore of Chiang Kong in Thailand. The trader travels by boat along the Mekong River. The weaver entered into a contract with the broker and embarked on a weaving business as a master weaver. Several weavers in cluster X followed the same path as Ms. E.

At the end of the 1990s, a road to Nan (Nan province of Thailand) through Xayabury

province was opened to traffic. Master weavers in cluster X began to transact directly with cloth retailers in Nan. Ms. F had worked as a broker of master weaver Ms. E. She brought the cloth to a retailer in Nan and conveyed to Ms. E the information on pattern and color specified by the retailer. In the course of her work, Ms. F became a trader and spun off, taking some of the weavers away from Ms. E. In the meantime, several other master weavers emerged in cluster X.

In cluster Y, no master weavers emerged. This is possibly because there are more weavers in cluster X, which consists of several villages located on the riverbank. This scale-economy effect may explain why Hoi Xai traders first approached cluster X. In the meantime, the weaving activities of cluster Y were absorbed by the traders of other clusters.

Cluster Z followed a different pathway. In 1978 the provincial government constructed a market hall for selling cloth to tourists on the condition that the villages sell their products only at the hall. The hall was renovated in 1991 and has 73 seats at present. Some villagers collect cloth from other areas, including cluster Y, through spot transactions. As the majority of customers are foreign tourists who buy indigenous cloth as a souvenir, the weavers do not have to take into account the taste of wider markets. This cluster does not foster entrepreneurship. While the weaving industry of cluster Z has stagnated, several shops opened in cluster X to cater to the growing tourist traffic. This is because the weavers of cluster X are capable of taking in market information on patterns and colors, especially those of Thais. They were quick to seize the opportunity to weave high-quality cloth.

The above contrast emphasizes the importance of traders in facilitating rural clusters. In addition, any policy intervention that blocks the transmission of market information will not promote rural clusters.

### Decline of trust

As trust in trade is calculating by nature, it may decline as the level of punishment decreases or the level of profit from a breach of contract increases. Decline of trust occurred during the economic turmoil in

the second half of the 1990s. The kip depreciated sharply against the U.S. dollar, with wide fluctuations, from US\$1 equivalent to 940 kip in August 1996, 2,150 kip in December 1997, and more than 10,000 kip in 2000. Consequently, the price of imported yarns as well as the wholesale price of cloth rose drastically. This is particularly true for quality silk yarns for warps imported from China.

The devaluation of the kip over a prolonged period made agents think that the profit from one-shot opportunism would outweigh the future benefits obtained from recurrent transactions. In addition, several traders started to offer higher prices for cloth, encouraging weavers to breach their contracts.

This section considers the example of master weaver Ms. A to illustrate the decline of trust and consequent institutional changes. Although Ms. A is an eminent pattern designer who contracts with weavers with whom she shares a similar social background, she could not avoid the turmoil. During a subsequent interview in 2000, after the turmoil had subsided, she said that she had changed from using putting-out contracts to using the yarn-on-credit system. She introduced contract letters that have the following four provisory clauses: (a) a person who receives advanced yarns is required to weave the stipulated sheets of cloth; (b) the cloth delivered needs to be inspected, and substandard quality leads to a reduction in the agreed-upon price; (c) breach of this contract incurs penalty charges worth twice as much as the stipulated price of cloth; and (d) when the pattern provided by the principal is transferred to a third person, 50,000 kip has to be paid as a fine. It is a good guess that Ms. A has suffered from agents' opportunism.

Process-based trust can be obtained after engaging in time-consuming recurrent transactions, as the Nash equilibrium in the repeated prisoner's dilemma game (Axelrod 1984). This equilibrium can be maintained on condition that the payoff matrix remains stable. The currency turmoil affected the payoff over a long period of time, increasing the gains from one-shot opportunism. As the case of Ms. A indicates, the upheaval even destroyed community-based trust. After the

currency crisis, the trust-based contracts were in some cases replaced by spot transactions. Policy makers should take note: a stable macroeconomy is critically important for preserving informal sanction mechanisms, which support market development.

### Retailers as urban-based traders

This section shifts the focus to retailers, examining whether they contribute to rural clustering in a positive manner. The following is based on interviews with 13 cloth retailers in *Talaat Sao*.

Most retailers in *Talaat Sao* neither have a hold on patterns nor are able to rely on community-based trust. A typical example is Ms. K of Vientiane origin. She has been purchasing cloth from independent weavers residing on the periphery of Vientiane on a spot basis for more than 20 years. Over time, she has selected “skilled and reliable weavers” (in her words) one by one and entered into yarn-on-credit contracts with them.

In this case, recurrent transactions engendered process-based trust. Clientilism, however, does not always assure effective enforcement of contracts. An oft-heard complaint from retailers, including Ms. K, is that some weavers do not deliver the promised products even if the retailers advance yarns on credit. Embezzlement is also commonplace. According to Ms. K (interviewed in December 1997, just after the currency turmoil broke out), 7 agent weavers among 50 did not deliver the products. She visited them to urge delivery, but they pleaded illness or the like. She suspects them of selling off the advanced yarns for rice. To reduce such damage, she tries to contract with weavers of different villages as much as possible. This is because, according to her, when such a problem occurs with one weaver, it spreads to others in the same village. This is a case of contagious equilibrium.

Ms. K decided to replace the yarn-on-credit system with the advance-order system. Some retailers in *Talaat Sao* also switched from the yarn-on-credit system or even the putting-out system to the advance-order system. The main reason for this shift was the rise in agents’ opportunism, as the number of traders in the market increased. For

retailers who cannot rely on community-based trust, the relational contract is vulnerable to agents’ opportunism. Currency turmoil added momentum to this shift.

Urban retailers cannot be active market integrators because they do not share a similar social background with weavers and they do not design patterns. When the retailers adopted the relational contracting system, they gained a distinct selection of goods. Since the currency turmoil, however, things have turned around drastically. The retailers in *Talaat Sao* now sell a similar range of cloth, because they began to buy cloth on a spot-market basis. A retailer said that they now have to compete not on quality but on price.

### Conclusions

This chapter has shown that the emergence of traders is indispensable for the development of rural clusters; traders who can maneuver incompatible sanction mechanisms between rural and urban societies play a particularly important role. This notion is critically vital for the transaction of commodities, which entails post-contractual problems. The weaving clusters observed have followed distinct growth trajectories. This is largely explained by the multimodal characteristics of traders, who have different sets of sanction mechanisms.

Insiders such as commission and itinerant traders contribute to the establishment of rural clusters. However, they engage in cloth business on a small scale, dealing with cloth of poor quality intended for domestic markets. They are unable to access information regarding the taste of overseas consumers or are unable to resort to community sanction mechanisms. In addition, they are subject to the trader’s dilemma.

Culture brokers deal with quality cloth for overseas high-end consumers on a large scale. They not only have access to information on the taste of wider markets but also can resort to community sanction mechanisms. Thus they can furnish rural producers with information on fashionable patterns while evading post-contractual problems.

Hicks (1969) and North and Thomas (1973) argue that the evolution from personalized exchange to impersonal exchange, supported by legal sanction mechanisms, is

central to the process of growth and development. However, this chapter has discussed the evolution before formal sanction mechanisms have been implemented effectively.

The findings suggest that policies to foster traders need to specify a target. Fostering culture brokers is not an easy task. Educating able villagers from target areas in urban settings serves as the initial step. Education not only enhances the human capital of villagers, but also helps them to acquire the property of outsiders, including urban experiences when education is obtained in an urban setting. Thus education facilitates the emergence of culture brokers.

A possible measure is to hold trade fairs to assist local producers in establishing connections with urban and overseas businesses. Take the Japanese experience in the early Meiji period, for example, when numerous trade fairs were held all over the country. This disseminated information on rural commodities to urban businesses. Ohno and Jirapatpimol (1998) point out that some master weavers in northern Thailand gained a link with urban and overseas markets through such trade fairs.

Needless to say, informal sanction mechanisms need to be superseded by formal sanction mechanisms in the course of economic development. The implementation of formal sanction mechanisms needs to prioritize areas related to the transactions between foreign outsiders and domestic traders as long as the commodity possesses an international competitive edge.

Another important policy implication of this chapter is that economic uncertainty jeopardizes trust by inducing one-shot opportunistic behavior and leading to a payoff matrix and a prisoner's dilemma. A stable macroeconomy is thus an important ingredient of both process-based and community-based trust for economic development.

### Notes

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1. Transactions relying on community-based trust segregate rural communities, impeding the spillover effects of clustered activities in rural areas.

2. Vientiane City (hereafter Vientiane) is the capital of Lao PDR, while Vientiane province extends to the north of Vientiane.

3. Heddle is the name of the small cords through which the warp is passed in a loom after going through the reed and by means of which the warp yarns are separated into two sets to allow passage of the shuttle bearing the weft.

4. Urban businesses do not advance yarns to the weavers of Xam Nua because yarns are available in local markets. In the case of bulk orders, the urban principals advance money to the master weavers.

5. In spite of the weavers' opportunism, Ms. P has to advance yarns to secure the collection of cloth because several itinerant traders are doing business in the area.

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