

# Chapter 7

## SME Development in Lao PDR

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## **Chapter 7**

### **SME DEVELOPMENT IN LAO PDR**

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#### **Abstract**

Small and medium-sized enterprises (SMEs) play a very important role in enhancing economic development in Laos. However, SMEs in Laos are small and lack competitiveness. The inflow of foreign direct investment (FDI) and trade liberalization in Laos bring opportunities and challenges for SMEs in Laos. Moreover, issues of SMEs and assessment of SMEs promotion policy are not well understood for lack of studies.

This paper study provides an overview of the current situation, issues, and policies confronting SMEs in Laos. It evaluates the impact of FDI and trade liberalization on SME development. Although the government of Laos has defined policies and strategy to support SMEs, it lacks specific programs that could flesh out these policies. SMEs are thus faced with the problems of high tax collection, high inflation, unstable exchange rate, and inadequate funding. Moreover, SMEs are confronted with problems of innovativeness, lack of competitiveness, limited market, and networking. FDI provides SMEs with opportunities to increase their production through subcontracting production linkages. The impact of trade liberalization on SMEs is not well understood but trade liberalization seems to have negative impact rather than positive impact on SMEs.

#### **INTRODUCTION**

Laos joined the Association of Southeast Nations (ASEAN) in 1997 and ASEAN Free Trade Area (AFTA) in 1998. As part of its commitment under the AFTA agreement, Laos has to reduce the tariff rates to 0 to 5 percent in 2008. Reducing tariff rates would increase imports, and have a negative impact on domestic economy.

Moreover, increasing FDI is expected to play an important role in increasing SME productivity. On the other hand, FDIs may reduce the number of domestic investments, especially those of SMEs. Most SMEs in Lao face challenges and constraints, such as lack of financial support and inadequate skilled labor, and low level of competitiveness.

It is widely accepted that SMEs play a very important role in Lao's economy. In 2004, medium enterprises numbered about 722 and small enterprises, 25,271. In term of employment, SMEs offer more than 60,000 job opportunities, which accounted for 40 percent of the country's total employment. To save Lao SMEs from the adverse impact of globalization, it is crucial to identify the issues confronting SMEs and evaluate the government policies and the impact of trade liberalization and FDIs on SMEs.

Notwithstanding the important role that garment SMEs play in SMEs in Laos, the termination of the Agreement on Textiles and Clothing (ATC) in December 2004 caused a shift in the global textile and garment industry in terms of trade and investment flows. The export value and employment of the garment industry was expected to decline (UNIDO 2003). Moreover, the safeguard policy will be eliminated in 2008 and China will pose an even greater obstacle to Lao garment exporters. The government of Laos (GoL) would do well to formulate appropriate policies to support garment SMEs and enhance their competitiveness.

For lack of studies, however, on SMEs and assessments of SMEs promotion policies in Laos, existing policies and programs toward SMEs are not well understood. In this regard, this paper provides an overview of SMEs in Laos and assesses SMEs promotion policies in Laos. The specific objectives of this paper are as follows:

- a. To provide an overview of the government policies concerning SME development and their present situation
- b. To study the innovativeness, market expansion, competitiveness and networking involving Lao SMEs;
- c. To assess the impact of trade liberalization and FDI on SME development; and
- d. To identify the factors affecting SMEs productivity.

This paper is divided into two sections. The first provides a general picture of SMEs, and an assessment of promotional policies, impact of trade liberalization, and FDI on SMEs, using secondary data and previous study results. General innovativeness, market expansion, competitiveness and networking of SMEs in Laos are also discussed in the section. The next section focuses on garment SMEs and presents primary data from surveys. Current situations and issues hounding garment SMEs are also explained alongside issues of innovativeness, market expansion, competitiveness and networking of garment SMEs.

## **2. LITERATURE REVIEW**

SMEs in Laos have been the subject of quite a few studies. Kyophilavong et al. (2007) conducted a survey on SMEs in Laos using more than 16,000 samples. The study sought to find the factors determining the performance of SMEs in Vientiane and other provinces. The Logit model and multiple regressions were the main methods used in their analysis. The study found that unstable exchange rates, and domestic ownership have negative effects on the performance of SMEs while those of capital, labor, state-owned companies, and private companies are the reverse (Kyophilavong et al., 2007). However, the study could not show the performance of subsectors such as handicraft, wood processing, and the like. The Ministry of Industry and Handicraft and United Nations Development Organization (UNIDO 2001) conducted surveys on SMEs in Vientiane and other provinces with 200 of sample size. They showed that SMEs were still faced with many constraints such as lack of access to finance and production inefficiency. Furthermore, they recommended that SMEs should improve management and skills and technological capability to become more competitive. A combined study by the Asian Development Bank and the World Bank (2007) looked into the investment climate. This was based on an Investment Climate Survey (ICS) carried out in 2005. Still, there was no study on the Innovativeness, Market Expansion, Networking and Competitiveness of SME in Laos. Such is the gao that this paper aims to fill.

### **3. DEFINITION AND SMES PROMOTION POLICY**

#### **3.1 SME Definition**

The definition of SMEs varies from country to country in terms of number of employees, value of total assets and total sales. A distinction is made between qualitative and quantitative definitions of SMEs. Quantitative approach uses the criteria of the number of workers or volume of sales, or a combination of both. These measures are simple and commonly used by developing countries. Qualitative approach is more flexible and relates to how enterprises differ in aspects of business development such as financial development, and technical or managerial capacity. For instance, if an enterprise has one or two persons responsible for managerial decisions it will usually be defined as a small firm. Qualitative definitions distinguish between different kinds of businesses and are more widely used in industrialized countries. In Laos, the definitions of SMEs have changed from time to time:

The Ministry of Industry and Handicraft (MIH) uses a quantitative definition to classify the size SMEs in Laos. In 1996, MIH-GTZ defined small enterprises as comprising one to nine workers, medium-sized enterprise 10 to 29 workers, and large enterprise more than 20 workers.

In 2000, MIH changed SMEs' definition when it gave definitions for factories in the processing industry. These defined 10 – 50 workers (or 10-50 horsepower) as small enterprise, 51-200 workers (or 51-200 horsepower) as medium-sized enterprise and more than 200 workers or 200 horsepower as large enterprise.

In 2000, the National Statistical Center echoed the then new definition put forth by the MIH, which has now become the standard among practitioners and academics working with micro/small enterprises in Laos. Based on its definition, small enterprises have one to nine workers, medium-sized enterprises 10 to 99, and large enterprises more than 99.

According to the Prime Minister's Office (2004), SMEs are independent enterprises that are legally registered and operating according to the prevailing laws of the Laos and are classified into the following size categories:

- a. Small enterprises are those having an annual average number of employees not exceeding 19 people or total assets not exceeding two hundred and fifty million kip or an annual turnover not exceeding four hundred million kip, and
- b. Medium sized enterprises are those having an annual average number of employees not exceeding 99 people or total assets not exceeding one billion two hundred million kip or an annual turnover not exceeding one billion kip (Table 1).

**Table 1 Definition of SME**

Enterprise category	Employees (person)	Annual Turnover (million kip)	Asset Value (million kip)
Micro	1 – 4	< 100	< 70
Small	5 – 19	< 400	< 250
Medium	20 – 99	< 2000	< 1200

Source: Prime Minister's Office (2004).

### 3.2 SME Promotional Policies

The Lao government began promoting gradual economic liberalization through the introduction of the New Market Mechanism in 1986. This was followed by the Law on Promotion and Management of Foreign Investment and Business Law in July 1994. To promote and provide more incentives to FDI, the Law on Promotion and Management of Foreign Investment was amended in October 2004. In addition, Lao government also began conducting the Business Forum in Laos to facilitate dialogues with the business sector.

Government efforts toward SME promotion were expressed in Primary Office Decree No. 42/PM, the goals of which were as follows: a) improve the regulatory environment; b) enhance the competitiveness of establishment; c) expand domestic and international market access; d) improve access to finance; e) encourage the development of business organization; f) enhance entrepreneurial attitudes and characteristics within the society.

The National Small and Medium Sized Enterprise Office (SMEPDO) was established by virtue of the Prime Minister's Decree No. 42/PM. Its main objective was to promote the establishment and sustainable development of Lao SMEs.

Even with the enactment of these policies, there were still no specific support programs to improve the managerial, technical, and entrepreneurial skills of SMEs alongside access to finance (GTZ 2006).

## 4. CURRENT SITUATION OF SMES

### 4.1 Performance and obstacles

In 2004, medium enterprises numbered about 722 and small enterprises 25,271. In terms of human development, SMEs have generated more than 60,000 job

**Table 2 Obstacles of SMEs**

	Vientiane Municipality		Other Provinces		Total	
	Count	%	Count	%	Count	%
Other	379	0.71	172	0.46	551	0.61
Lack of skilled labor	1451	2.72	856	2.30	2307	2.55
lack of labor	1300	2.44	1028	2.76	2328	2.57
Substitute production	1674	3.14	1090	2.93	2764	3.05
Suppliers of production factors	1866	3.50	1279	3.44	3145	3.47
Insufficient material	2004	3.76	1278	3.43	3282	3.62
Stric regulations	2084	3.91	1804	4.85	3888	4.29
Lack of market	2678	5.02	2319	6.23	4997	5.52
Expensiveraw material are	3588	6.73	1941	5.21	5529	6.10
Customers bargaing power	3212	6.02	2656	7.13	5868	6.48
New Competitors	4867	9.12	3136	8.42	8003	8.83
Competitor of the same business	5003	9.38	3489	9.37	8492	9.37
Unstable exchange rate	5572	10.44	3747	10.06	9319	10.29
Lack of fund	5564	10.43	4198	11.28	9762	10.78
High tax	5946	11.14	4222	11.34	10168	11.22
High inflation	6165	11.56	4017	10.79	10182	11.24
<b>Total</b>	<b>53353</b>	<b>100.00</b>	<b>37232</b>	<b>100.00</b>	<b>90585</b>	<b>100.00</b>

Source: Kyophilavong et al (2007).

opportunities, accounting for 40 percent of the total employment in Laos. According to Kyophilavong et. al (2007), about 10 percent of establishments are performing well in Vientiane Municipality (VTM) and Other Provinces (OTP). In addition, about 20 percent of the SMEs in VTM and 17 percent in OTP are optimistic about the future of their businesses, saying they anticipated better business prospects. These show that economic prospects in Laos are favorable.

Kyophilavong et. al (2007) said the obstacles to running business in VTM and OTP are the same as the top four obstacle among SMEs in Laos, namely, high tax, high inflation, unstable exchange rate, and lack of fund (Table 2). Based on interviews with SME owners, the tax collection system lacks transparency (Lord Montague 2006).

At the height of the Asia financial crisis during 1997-1998, Lao suffered like other affected countries in the region. Among the impacts on its economy were high currency (kip) depreciation that led to hyper inflation. SMEs, in particular, bore the brunt of the crisis (Naozi Okonjo-Iweala 1999). These problems continue to hound SMEs. Until now, no banks or financial institutions provide credit support to SMEs.

**Table 3 Needs of Government Support**

	Vientiane Municipality		Other province		Total	
	Count	%	Count	%	Count	%
Others	2382	20.24	2143	24.99	4525	22.25
Increase labor force	9	0.08	14	0.16	23	0.11
Decrease price of gas	16	0.14	8	0.09	24	0.12
Increase skilled labor	34	0.29	18	0.21	52	0.26
Provide the training	81	0.69	35	0.41	116	0.57
Stabilize exchange rate	161	1.37	77	0.90	238	1.17
Decrease stric regulations	183	1.56	69	0.80	252	1.24
Decrease price of water	268	2.28	103	1.20	371	1.82
Providing market information	350	2.97	171	1.99	521	2.56
Stabilize inflation rate	704	5.98	157	1.83	861	4.23
Decrease price of electricity	1018	8.65	321	3.74	1339	6.58
Capital support	2190	18.61	2301	26.84	4491	22.08
Decrease Tax	4370	37.14	3157	36.82	7527	37.01
Total	11766	100.00	8574	100.00	20340	100.00

Source: Kyophilavong et al (2007).



The banking sector in Laos is dominated by the state-owned Commercial Bank, which has limited assets and deposits, and offer no credit facilities to SMEs. Moreover, the banking sector does not have incentives to provide credit to SMEs (Kyophilavong 2008). Therefore, SMEs mainly depend on informal sectors for credit and funding. Based on the foregoing, what SMEs specifically need government to do is to ease their tax burdens and provide them with capital support (Table 3).

#### **4.2 Innovativeness**

For purposes of this paper's discussion, innovativeness means the ability of the owner to develop new product or improve their production. Since SMEs in Laos are in the early stage of development, innovativeness lags behind neighboring countries. Worse, data generation on innovativeness is not yet well developed. A number of institutions exist to provide innovation training for SMEs, but their efforts are not enough to raise the level of SME innovativeness. They seen the need for SME owners to expand their product lines. These are the National University of Lao (NUOL), Science and Technology Environment Agency (STEA) and National Agriculture and Forestry Research Institution (NAFRI).

#### **4.3 Competitiveness**

Among SME products, only handicrafts appear competitive pricewise. The cost of handicraft product is cheaper than those of other countries in the ASEAN region, since labor costs in Laos are very low. The average wage of Lao worker is around US\$ 30 a month while the average wage of Vietnamese worker and Cambodian worker is 40 US\$ and US\$ 35, respectively (ALGI 2002). However, the productivity of Lao workers is also lower compared to neighboring countries like Vietnam and Cambodia. Furthermore, the average labor wage in Laos may no longer competitive in given rising wages in recent years.

Having been accorded the Least Developed Country status, Lao enjoys preferential access to more than 44 countries. This status puts it in an advantageous position competition-wise. Under the Generalised System of Preferences (GSP), Lao enjoys access to the European Union market for certain export products, especially

handicrafts, silk and textile, wood crafts, etc. However, the GSP will be eliminated in 2008, which means some products will cease to be competitive.

In 2004, the U.S. granted the Normal Trade Relation to Laos, a preferential treatment that expanded the range of Lao's exports to the U.S. Even then, its exports to the former grew only slightly the last couple of years in the face of conditions and constraints that made it difficult for Lao to comply. Among the conditions imposed were that raw materials should be source from domestic sources and that the process of production should be according to international standards. These and similar constraints limited Lao's competitiveness in the global market.

#### **4.4 Market expansion**

In the absence of data on SME market share in the domestic market, this study opted to use the number of establishments as a measure of local market expansion. The number of new SME establishments could explain the expansion of the domestic market. In 2005 there were 77,651 registered establishments. Two years later, in 2007, SME establishments, according to SMEPDO, were estimated to number about 135,000. This translates to about 73.5 percent compared to 2005.

With preferential GSP treatment from other countries, Lao's opportunity for its SMEs to increase its production and enhance its exports, especially garments and handicrafts. In 2005, the garment export amount to 142 million US\$. Garment SMEs share of total export was about 30 percent. Export market seems to have expanded compared to the previous year.

#### **4.5 Networking**

In theory, firms operate by transforming raw material into finished products. Final products depend on inputs (raw materials and intermediate goods) from several other firms. This comprises a network between firms. (This topic is further explained in a separate section.)

Past networking between SMEs, contractors, and suppliers seemed to be very poor. Many SMEs were run as family businesses. Some succeeded, but some failed.

With the advent of trade liberalization and FDI inflow, SME competitiveness was enhanced; so was networking between SMEs, contractor, and suppliers. Yet, the lack of supporting government and private institutes including banks do not bode well for SME development in Laos, even where networking is concerned. Hence, external networking of SMEs in Laos remains weak and need more support from government.

## **5. IMPACT OF FDI AND TRADE LIBERALIZATION ON SMES**

### **5.1 Impact of FDIs on SMEs**

FDIs have played a very important role in Lao economy. It can accelerate economic growth and income of the people. FDIs also help SMEs develop by facilitating the transfer of technology, improving knowledge and skills, among other benefits. (GTZ 2007).

This section presents two cases showing the link between FDI and SME development in Laos. The first case involves Lanexang Mineral Companies Ltd. (LXML) and the second, Lao Brewery.

LXML, a subsidiary company of Oxiana, Australia, operates gold and copper exploration at the Sepon site, Vilaybouly district, Savannkhet province. Given the limited technology and suppliers in Lao Most goods and services supplied to LXML are from overseas, and comprise 78 percent (equivalent to US\$148 million a year) of its total requirements. On the other hand, a proportion of goods and service supplied by Lao firms to LXML account for 21 percent, or US\$31 million, of the total in a year. Local (Vilaybouly district) business accounts for around 0.3 percent, Savanhnakhet firms, for 11.1 percent; and other Lao firms, 9.3 percent, or US\$13.8 million. This means Lao companies have vast opportunities to supply goods and services to LXML.

The company's contribution to the economy is evident in the generation of jobs in its area of operation and increased income of the people in that area owing to its operations. According to GTZ (2007), employment generated by the companies which has business linkage with LXML about 10,000 peoples. In terms of income, there is no exact figure but the turnover of local business is expected to increase (GTZ 2007).

The Lao Brewery Ltd. began operating in 1973 as a joint venture between foreign firm and the Lao government. Today, the partners comprising the firm are Carlsberg Asia, TCC (Thai Co.), and Lao government. The present demand for beer in the Laos market exceeds the brewery's production. The Lao Brewery has thus decided to expand production in the near future. The company will launch two new factories in Vientiane province and Champasak province. This will increase the chances of SME to expand the market (GTZ 2007). Lao Brewery contracts services for beer transportation to the provinces to three transport and trucking companies at a value of US\$4.3 million. The expansion of Lao beer production will increase transportation contract agreements and number of workers. Based on GTZ estimates in 2006, the number of employment in the linked business is projected to increase from about 35,000 to 45,000. In sum, FDI plays an important role in the SME development in Laos. However, it is important to consider negative impact of booming FDI (mining and hydro-power sector) on SMEs development, as called Dutch Disease in medium and long term.

## **5.2 Impact of Trade Liberalization on SMEs**

The government of Laos continues to implement various trade reforms to increase growth. Tariff reduction is being pursued as part of the AFTA commitment. Furthermore, it plans to join the World Trade Organization by 2010.

Trade liberalization has positive and negative impacts on SMEs in four major ways: 1) by increasing competition; 2) by lowering production costs due to cheaper imported inputs; 3) by increasing export opportunities; and 4) by reducing availability of local inputs (Tulus 2007).

However, Lao SMEs are very small and not as competitive as those in neighboring countries. Therefore, trade liberalization might have negative impact on SMEs. On the other hand, Lao SMEs could increase their competitiveness by decreasing the cost of input and market expansion. However, debating this issue effectively needs more data and empirical studies to support the arguments. Unfortunately, there are very few studies on this issue. Kyophilavong (2006) employed the Computable General Equilibrium (CGE) model to investigate the impact of AFTA on Lao economy. The results showed that agriculture products decreased slightly. On other hand, non-

agricultural products increased. Exports and imports of the two sectors also increased. However, import of agricultural import was quite high. Welfare measured by Hicksian equivalent variation increased 1.88 percent, which means that the welfare of Laos will increase, but the percentage is small.

In sum, it is not clear if Lao SMEs will benefit from trade liberalization. Moreover, the benefits of trade liberalization will have a negative impact on SMEs if the government of Laos (GoL) neglects to promote SMEs to improve their comparative advantage for increasing exports and to reform the domestic tax and collection system. Moreover, as Laos is a landlocked country, transportation cost is one of the most important issues surrounding SMEs' competitiveness. It is important for GoL to find ways to reduce transportation costs.

## **6. GARMENT SMES**

### **6.1 Current situation**

The garment industry plays a very important role in the manufacturing sector since it has created employment opportunities, contributes to strong export growth, and generated more income for the Lao people. In 2006, it employed more than 25,000 workers and earned more than US\$140 million. Given the significance of this sector to the Lao economy, a study of many aspects of its operations such as export potential, comparative advantage, competitiveness, and efficiency of production was conducted to determine appropriate policy measures that will help develop this sector (Wongpit 2006). In addition, the termination of China's safeguard policies in 2008 could reduce the volume of Lao garment exports to this country. This impact would hurt not only the Lao economy but also the efforts toward human development. Therefore, the government of Laos plans to assist other potential sectors to diversify this impact. SME garment is one of many subsectors which have high potential for development.

The value of garment export is increased from US\$ 142 million in 2005 to US\$ 145 million in 2006. On the same direction, the quantity of garment export in 2006 also grew about 10 percent compare to previous year (Table 4). The total number of export garment enterprises in Laos is 59, of which 17 enterprises are doing Free On

**Table 4 Export and Subcontractors of Garment Establishment**

Year	Number of Export Company	Subcontractor and Others	No. of Worker	Export Quantity		Value of Export	
				Piece-million	%	million US\$	%
1998	58	10	17,200	27.06		76.15	
1999	55	18	18,000	25.93	-4.18	100.03	31.36
2000	53	26	19,000	25.56	-1.44	108.09	8.06
2001	52	26	20,000	26.96	5.46	103.49	-4.26
2002	53	27	21,462	23.11	-14.25	103.38	-0.10
2003	55	31	23,846	28.12	21.66	115.13	11.37
2004	57	43	26,000	31.91	13.47	131.73	14.41
2005	58	55	27,500	33.47	4.89	142.88	8.46
2006	59	57	25,700	35.58	6.31	151.81	6.25
2007	60	59	22,700	N/A		N/A	

*Source:* Association of the Lao Garment Industry, 2007

Board (FOB), 22 enterprises, FOB and Cut, Make and Trim (CMT), and the rest, only CMT. There are about 58 SME garments and the majority of them doing subcontractors. The export company employs more than 21,000 workers in 2007, down 10 percent from the previous year.

In the beginning of the garment development in Laos, there were only 10 factories and around 300 workers. Most SME garments are working as subcontractors of large enterprises. In 2007, the number of registered garment SMEs rose to 59 subcontractors, employing more than 1,600 workers. These absorbed the surplus production from large garment enterprises and employ about 7 percent of workers in the garment industry. Since the government of Lao has implemented the FDI promotion policy, a lot of FDI especially from the garment sector, has been coming to Laos. It has helped increases the number of large garment enterprises and enhances employment.

As the Agreement on Textiles and Clothing was eliminated in 2004, and the safeguard policy will cease by 2008, there are bound to negative impacts on garment SMEs in Laos. In addition, garment SMEs are confronted by issues of competitiveness, innovativeness, market expansion and networking. A survey was thus conducted to assess the current situation and identify the issues affecting garment SMEs, such as

those involving competitiveness, innovativeness, market expansion, and networking in garment SMEs.

## 6.2 Survey Method

For purposes of this study, primary and secondary data were obtained from domestic and international sources. Interviews were also conducted with the heads of the SMEPDO, GTZ, and SME researcher at the World Bank for an overview of the general situation of SMEs in Laos. There are about 50 subcontractors among garment SMEs in Vientiane, of whom only 20 garment SMEs were randomly chosen in December 2007 for face to face interviews between researchers and owner or managers.

## 6.3 Results

### 6.3.1 Competitiveness.

As previously mentioned, garment SMEs are competitive because of wages among Lao workers are lower than those of Vietnam and Cambodia workers. However, most garment SMEs interviewed said Lao wages have increased 10 percent. There are couple reasons for this: a) new garment factories require more than 1,600 workers, resulting in labor shortage; b) many Lao laborers have migrated to Thailand.

The average labor productivity is about 1,350 pieces per person in a year. Despite the relatively low labor wage in Lao compared to China's, its average productivity is lower than the average Chinese worker. Thus the garment SMEs will cease to be competitive if their productivity does not increase. Furthermore, the production cost is increasing due to the increasing cost of electricity, tax, wage, and etc. Table 5 shows a 50 percent increase the cost of. Given these factors, it is difficult to say if garment SMEs in Laos are indeed competitiveness.

**Table 5 Cost of Production Change**

	No. Answer	Percentage
Increase	10	50%
No change	8	40%
Decrease	2	10%
Total	20	100%

*Source:* From Survey in 2007

### 6.3.2 Innovativeness

Of the 20 garment SMEs, only two factories have their own design while the rest follow customer's designs. The former produce for the domestic market. The majority of garment SMEs get orders from large enterprises prompting them to follow the latter's designs. It takes an average of one day to make a new product once sample designs are received from large enterprises. Most subcontractors show flexibility in creating many types of products when the order has changed such as T-shirts, polos, jackets, pants, etc. When a customer changes orders, SMEs take about a week to learn and increase their productivity in a month's time. Therefore, the innovativeness of the garment industry still lags behind other countries.

### 6.3.3 Market expansion

Based on the study, the two companies producing for domestic markets produce mainly student uniform such as shirts and pants. This year production for the domestic market has increased about 10 percent from last year due to the increased orders, including those from other provinces (Table 6).

**Table 6 Revenue Change from 2006**

	No. Answer	Percentage
Increase	3	15%
No Change	7	35%
Decrease	10	50%
Total	20	100%

*Source:* From survey in 2007

The external market for garment product has increased, according to data from ALGI ( 2006). In 2006, garment exports rose about 6 percent compared to the previous year. Compared to comparative data for 2003-2004, this growth rate is low. The total value of garment exports was placed at more than US\$150 million for more than 35,000 pieces. Exports to the European Union were valued at US\$131 million, or 80 percent of the total exports. Exports to the U.S. market in 2005 were placed at US\$2 million. Between 2006 and 2007, exports to this market were valued at US\$8 million and US\$9



million, respectively. This was brought about by the Normal Trade Relations tariff treatment. Notwithstanding this increase, production of SME garments seems to have declined. The subcontractors are besieged by problems like decreasing orders, labor shortage, and expansion of large enterprises, which is posing stiff competition. At least 10 factories have decreasing their production while two factories have expanded their product lines, and seven others have not changed the level of their production at all.

#### 6.3.4 Networking.

Based on the results of the same survey, there are 18 out of 20 garment SMEs with subcontracting arrangements (Table 7). They have very good relationships with contractors, who lend the former sewing machines orders increase significantly. At times they even advance payments to SME garments before the due date. The majority of SME garments do not exchange their orders, because they take order as their production capacity. If the garment SMEs cannot meet production on the due date, they pay a penalty. Only two SME garments exchange orders because their owners are relatives. SMEs usually trade information on order and price. They sometimes agree to promote a representative of SME garment to negotiate with large companies on the price. However, such negotiations do not always succeed, since the prices large companies quote have become more competitive recently.

**Table 7 Internal Networking**

	Yes	No	Total
Contractors Assistance	18	2	20
Exchange Order	2	18	20
Exchange Information	19	1	20

*Source:* From survey in 2007

Garment SMEs encounter many difficulties in their development. To address this issue, the government has implemented SME promotion policies. However, these policies do not really work. Of the 20 garment makers surveyed, 19 do not have get any assistance from the government. Furthermore, all respondents said that they do not have any assistance from ALGI (Table 8). They said they need government assistance in

obtaining more orders, financial support, and training in view of fluctuating orders and the fact that some of them produce only three months a year. Access to funding is also crucial since they cannot expand their production. The majority of garment SMEs cannot take out a loan since banks require collaterals and the process of borrowing is complex and tedious.

**Table 8 External Networking**

	Yes	No	Total
Government including SMEPO	1	19	20
Association of Lao Garment Industry	0	20	20

*Source:* From survey in 2007

Garment SMEs also want the government to provide training for their workers. Institutions like JICA, GTZ, and UNIDO have funded some training programs but these were not continued, being only short-term. The ALGI also provides insufficient assistance to garment makers. All the firms sampled said they get little support from ALGI. This forces them to solve their business problems on their own while trying to stay afloat.

## **7. CONCLUSION AND POLICY SUGGESTIONS**

### **7.1 Major ills confronting SMEs**

This results of the study presented could be summarized as follows: SMEs play an important role in economic development in Laos. While the GoL has clear policies and strategies to support SME development, it lacks specific support programs. Such programs should help these enterprises hurdle the major obstacles to SME growth: high tax, high inflation, unstable exchange rate, and lack of funds.

In addition, Lao SMEs are confronted with issues of innovativeness, competitiveness, market expansion, and networking. FDIs also have an important role in the SME development. FDI provides opportunity to SMEs to increase their product through subcontracting production linkages. However, the impact of trade liberalization

on SMEs is not well understood. Trade liberalization seems to have negative impact rather than positive impact on SMEs.

## **7.2 Proposed policy measures**

Effective policy management toward SME development requires reliable statistics and information on SMEs. However, concerned government agencies seem to overlook this issue. They should pay more attention to collecting basis data and analyze them carefully before they can come up with well thought out plans and implement them. Although the SMEPDO has already begun implementing the SME promotional policy, those policies should translate to concrete results. In addition, SMEPDO should conduct an annual monitoring of policy implementation governing SMEs and determine if there are inappropriate regulations that need to be revised.

SMEs should develop capacity building measures such as productivity, quality, and quantity. As these may not be easily pursued, SMEs should work closely with SMEPDO, especially in the areas of training and learning management. SME themselves should send feedback to the SMEPDO, which can aid the latter in fulfilling its functions for the benefit of the concerned enterprises. The workers should have training so they can increase their productivity. The wage of worker may increase; nevertheless, they should increase productivity to keep the production cost stable.

Tax collection from government is one of the most serious problems in SMEs. Therefore, it is important to increase the efficiency of tax collection or provide tax incentive for SMEs. Laos has experienced economic instability during the previous years. Therefore, it is important to improve macroeconomic stability by controlling inflation and foreign exchange rate. GoL should provide finance to SMEs by setting SMEs Bank or Finance Institution Supported to SMEs.

## Appendix: Factors Affecting Labor Productivity of SMEs

### 1. Model Specification and Variable Measurement

#### 1.1 Model specification.

Starting with the conventional Cobb-Douglas production function defined as:

$$Y_{it} = AK_{it}^{\alpha} L_{it}^{\beta} e^{x_{it}} \quad (1)$$

Where  $A$  is a constant term,  $Y_{it}$ ,  $K_{it}$ , and  $L_{it}$  are total output, capital and labor for firm  $i$  at time  $t$  and  $x_{it}$  is a group of possible factors, which may affect labor productivity, respectively.  $\alpha$ ,  $\beta$  are elasticity coefficients of the production that is assumed to be constant across firms. Divided both side by  $L_{it}$ , then equation (1) can be rewritten as:

$$\left(\frac{Y_{it}}{L_{it}}\right) = A \left(\frac{K_{it}}{L_{it}}\right)^{\alpha} (L_{it})^{\alpha+\beta-1} e^{x_{it}} \quad (2)$$

Equation (2) shows that the level of labor productivity is explained by many factors: capital intensity, scale economy and  $X_{it}$  group.  $(\alpha+\beta-1)$  is the coefficient of scale. If it is positive, it means there is increasing return to scale. If it is negative, there is decreasing return to scale. Differences in a firm's labor productivity can be explained through disparities in these factors. Taking of logarithm both sides of equation (2), then the equation becomes

$$\ln\left(\frac{Y_{it}}{L_{it}}\right) = \ln A + \alpha \ln\left(\frac{K_{it}}{L_{it}}\right) + (\alpha + \beta - 1)\ln(L_{it}) + X_{it} \quad (3)$$

According to Solow (1956), there are many factors affecting total factor productivity (TFP) such as technological progress, research activity, human capital, trade, firm's age and size, ownership and other unobservable factors. Owing to the limitation of data, gender, firm's age, ownership, and labor quality, and some other dummy variables are

assumed to be the main factors affecting TFP. Therefore,  $X_{it}$  can be written as another functional form, as shown below:

$$X_{it} = f(QUA, AGE, NA, D1, D2, D3, D4, D5) \quad (4)$$

Therefore, the linear regression model used in this paper is

$$\begin{aligned} \ln(LP_{it}) = & \beta_0 + \beta_1 \ln(CAP_{it}) + \beta_2 \ln(SIZE_{it}) + \beta_3 QUA_{it} + \\ & \beta_4 AGE_{it} + \beta_5 NA_{it} + \beta_6 D_1 + \beta_7 D_2 + \beta_8 D_3 + \beta_9 D_4 + \beta_{10} D_5 + \varepsilon \end{aligned} \quad (5)$$

Where,  $\beta_1 = \alpha$  and  $\beta_2 = (\alpha + \beta - 1)$  and  $\varepsilon$  is unobservable variable or error term

We use secondary data from GTZ (2005) in estimation of labor productivity in SMEs

## 1.2 Variable measurement

In the light of the above econometric model, the variables in this paper are expected to have an influence on manufacturers' labor productivity in the case of SMEs in Laos. These variables include CAP, SIZE, QUA, AGE, NA, D<sub>1</sub>, D<sub>2</sub>, D<sub>3</sub>, D<sub>4</sub>, and D<sub>5</sub>

**CAP** is capital intensity (K/L) measured by the ratio of total fixed assets to the total number of employees in each firm. In general, enterprises with a large amount of capital intensity is expected to have higher labor productivity and workers are more productive when they have more or better capital to work with (Hsu and Chen 2000). Therefore, this variable is very important in influencing labor productivity. In this study, it is expected to have a positive impact on a firm's labor productivity.

**SIZE** is a firm's size (L) measured by the total number of employees. Following the theory of economies of scale, it suggests that a manufacturer should increase its size to achieve minimization of average cost. For empirical studies this variable can also be positive or negative and have an effect on firm's labor productivity.

**QUA** is a labor quality measured by the year of school attainments. This variable is anticipated to be positive in promoting labor productivity. According to previous studies, workers with higher labor quality should be more productive than those with lower labor quality. Moreover, workers with larger human capital stock are more adept at utilizing technology.

**AGE** is the age of ownership. This variable can be proxy as the experience of the ownership. Normally the experience has a good relationship with firm productivity. Therefore, this variable is expected to have a positive sign.

**NA** is nationality, which is measured by dummy variable. It takes value 1, if ownerships are foreigner and 0 other. Conventionally, this variable is expected to have positive impact on firms' labor productivity because it can be the source of technology transfer and spillover in terms of tangible or intangible term.

**D<sub>1</sub>** is dummy variable; its value is 1 if the owner manager completes any vocational and technical skills training and takes value 0 other. This variable is expected to have positive impact on firms' labor productivity

**D<sub>2</sub>** is dummy variable whose value is 1 if the management or office staff have finished any vocational or technical training and 0 for other. This variable is expected to have positive impact on firms' labor productivity

**D<sub>3</sub>** is dummy variable, it value 1 if the owner managers get any training after starting their business and takes value 0 other. This variable is expected to have positive impact on firms' labor productivity

**D<sub>4</sub>** is dummy variable, its value is 1 if the owner managers get any advice on developing their business and 0 for other. This variable is expected to have positive impact on firms' labor productivity

**D<sub>5</sub>** is dummy variable, its value is 1 if the owner managers want to learn any skills in order to improve their own business and 0 for other. This variable is expected to have positive impact on firms' labor productivity.

Dependent variable **LP** (labor productivity) is defined as the total sale value per worker. Owing to the fact that data on total output (physical term) is not available in all firms. The error  $\epsilon$  is very important in this analysis; it is the sum of unobserved variable influencing on labor productivity.

## **2. Results and Discussions**

To obtain the results, the paper employed pooled ordinary least squares (OLS) technique. In the pooled ordinary least squares regression analysis, the paper used all

variables in the regression and the results obtained by this technique are summarized in the table below.

**Dependent Variable: LOG(LP)**

Explanatory Variable	Coefficient	Std. Error	Significant Level
Constant	8.1710	1.0119	***
LOG(CAP)	0.3997	0.0558	***
LOG(SIZE)	0.1771	0.0873	***
QAU	0.1555	0.0235	***
AGE	0.0022	0.0075	-
NA	-0.2551	0.2970	-
D1	0.2406	0.1989	-
D2	0.0169	0.2071	-
D3	-0.4100	0.1737	**
D4	0.0865	0.1787	-
D5	-0.5594	0.2683	**
Adjusted R-Square			0.1772
No. Observation			339

Note: \* denotes significance at 5 percent; \*\*\*denotes significance at 1 percent

According to the results above, nearly all of the explanatory variables followed the expected sign. However, some variables are not followed an **anticipation sign** (?). Following the conventional finding documenting a strong relationship between the growth rates in capital per worker and the growth rate in labor productivity, the coefficient of capital intensity (CAP) has a positive sign and is statistically significant at 1 percent. This result implies that an increase in the capital-labor ratio leads to an increase in the firms' labor productivity. It is well known that the productivity of labor depends to a large extent upon the total quantity and quality of capital per worker. The greater the capital intensity per worker, the more leverage the worker has on production because capital is the basic input in the production process.

The result for economies of scale, as measured by the number of employees/firm size (SIZE), has a positive sign and is statistically significant. This story perhaps starts with the standard microeconomic theory, specifically the portion dealing with

economies of scale. The theory suggests that a firm must increase its size in order to achieve minimization of average cost. Under this point of view, it can be regarded that large firms will perform better than small firms.

In this analysis, labor quality variable (QUA) reveals positive signs and is statistically significant at 1 percent. This result follows the conventional finding that labor quality plays a very important role in determining a firm's productivity because labor is one of the most important factors in the production process. This implies that education and experience of workers is at the core of improving productivity.

Analysis of age variable (AGE) found that the age of firms is not significant and has a positive sign. It means that firms' labor productivity in the Lao SMEs does not depend on the age of the firm. This may be because technology level used in SMEs is low and not much developed.

Concerning the ownership variable (NA), the result indicates a negative sign and is statistically insignificant. For the dummy variable like D<sub>1</sub>, D<sub>2</sub> and D<sub>4</sub> are not significant. This means that the any of these factors—owner manager completes any vocational and technical skills training, the management or office staff have finished a vocational or technical training and the owner managers seek advice on developing their business—does not have any impact on firms' labor productivity. It could be because either of, or both, managers and official staff are not productive workers. They do not contribute much to the production process.

In contrast, the dummy variables like D<sub>3</sub> and D<sub>5</sub> have a negative sign but statistically significant at 5 percent. This indicates that if owner managers get some form of training after starting their business and the owner managers want to learn skills to improve their own business, there is bound to be a negative impact on the firm's labor productivity.



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