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THE THAI MANUFACTURING SECTOR : NEW PATTERNS OF EXPANSION.

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A partir d'une base industrielle étroite dans les années 60 la Thaïlande a construit un secteur manufacturier en jouant à la fois sur les possibilités d'exportation et sur l'élargissement du marché intérieur. Les entrepreneurs et les capitaux nationaux ont pris une place centrale tant au niveau des PME que des grands groupes diversifiés (relativement peu nombreux) et des joint-ventures. La politique industrielle, guère ambitieuse et peu efficace a évolué d'un protectionnisme marqué vers la mise en place d'outils de promotion et d'orientation plus souples. (*Resumé d'auteur*)

5 The Thai manufacturing sector: New patterns of expansion

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Introduction

The gradual emergence of manufacturing activities in Thailand over the past twenty-five years has brought about a situation that is both promising and full of challenges. From a relatively narrow base in the early 1970s, the manufacturing sector has grown to the present structure that is both much larger (in terms of companies and employment) and wider (in terms of range of products, skills and activities). The dynamics of industrial expansion have also brought substantial qualitative changes:¹

- (i) The recent acceleration of industrial expansion has made industry the engine of growth of the past decade, with a dramatic pattern of diversification of manufacturing activities. A characteristic feature of sectoral development is (a) the combination of internal market and export orientation, (b) the gradual up-grading of activities, and (c) increasing linkages between them. These new trends at the macro-level are reflected in the new manufacturing export mix and determine the international competitive advantage of the country;
- (ii) At the micro-level, the impact on the social scene is also of particular significance: sub-contracting between formal and non-formal producers, webs of traders and manufacturers, and emerging groups of companies, are elements that hold promises and problems for the future. Challenges are also present in the workplace, as the first waves of industrial wage earners have been characterised by low qualifications, and high mobility. Current issues are increasing management capability (recruitment, experience) and training of labourers (formal and on-the-job) to allow industries' maturation and progress;
- (iii) Institutions have changed too: industrial policy has re-focused its priorities in the 1980s on most issues ranging from incentives and trade promotion, regional targets, technology acquisition and labour educational improvement, as part of the strategy to keep up the

momentum of industrialisation, and keep abreast of the new wave of South-East Asian NICs.

One of the key elements brought forward by Amsden (1989) in her study of industrialisation in South Korea, is that late-comers among the industrialised nations have benefited from both existing state-of-the-art technologies to enable them to expand their manufacturing sector and compete with more advanced nations (e.g. in the automobile industry), and from a holy alliance of the business sector and bureaucracy aimed at selecting the appropriate strategies to assert the national position among the leading economic powers in the world economy. The late 1980s have shown that Thailand in her turn has put these forces into motion. The gradual opening up of the Thai economy has indeed allowed the participation of foreign capital and introduction of state-of-the-art technologies for considerable widening of the industrial base (particularly in the petrochemical and electronics sectors).

Thailand's industrialisation has also benefited in two ways from the experience of the East Asian NICs themselves:

- (i) The influx of industrial investment from South Korea and Taiwan during the late 1980s, following adjustments in monetary policy, brought a substantial transfer of capital, and to a lesser extent experience and know-how, as most of the new industrial ventures were labour intensive;
- (ii) During this period there were also many occasions for the country to reflect upon the experience of its predecessors on the industrialisation path as many seminars and expert meetings held in Thailand emphasised the comparison between the Asian groups of NICs.² This source of inspiration clearly also influenced the business community, the economic press and the public policy-makers.

In this context, there are several distinctive features that make the emergence of manufacturing activities in the Thai case original when compared to the East Asian NIC experience:

- (i) Firstly, the manufacturing sector was slow to emerge as a driving force in the economy. This late burgeoning can be attributed to the abundance of natural resources, the tapping of which generated enough wealth to sustain the economy for several decades, from the 1950s to the 1970s. Primary products were considered a key asset for a developing economy until the closing of the rural frontier. The processing of natural resources (agro-food, marine and forest products) remained the basis of manufacturing activities until the mid-1980s, and is still a major component of production. The attitude of Thailand towards its neighbours indicates that this strategy is likely to be pursued further;
- (ii) The recognition of industry as a national priority was only occasionally stated until the beginning of the 1980s. Few local entrepreneurs were keen to invest in industry, as a wide range of other activities provided, and still provide, good opportunities for investment - ranging from



agricultural diversification, construction and tourism to land and property. The recent industrial diversification has brought together the initiatives of local entrepreneurs and foreign investors (including a large number from East Asian NICs), creating many joint-ventures between them (which was not the case in South Korea at a comparable stage of development);

- (iii) In a similar manner, the state lacked the determination to set clear priorities, mobilise resources, establish strong incentives or supporting measures, as had earlier been the case in South Korea; this was partly due to a lack of vision, and also to a reliance on agricultural diversification to enable the country to pursue rent-seeking strategies for several decades. The government nevertheless succeeded in keeping the fundamentals of the economy on track through strict macro-economic policies (and occasional adjustment), thus offering industrialists both mild protection and stability.

Industrialisation and the emergence of manufacturing activities

A steady process of industrial development

In Thailand the process of industrial development was steady but took a long time to gain impetus, and it would thus be wrong to speak of a quick industrial miracle. The manufacturing sector (excepting rice and timber mills) consisted of just a few companies in the 1950s and there was no 'big push' of industries as occurred in South Korea or Taiwan. As Isarankura (1969, p.266) puts it

even if it were granted that the government could command adequate resources to carry out a 'big push' programme, there would still be serious obstacles due to supply and demand limitations.

The comments of Charoenloet (1971, p.5), who wrote about the early years of development during the 1960s, explain that the process was slow to take off because the starting point was so low:

one of the major obstacles to industrial growth in Thailand is the smallness of the home market. Another factor which limits the growth of industries is the lack of natural resources - fuel and energy, inadequate transportation. An equally serious deterrent to industrial development is the lack of capitalist entrepreneurship. People who have higher incomes and wealth tend to use their resources in relatively unproductive ventures.

The industrial base, although weak in both size and dynamism, was already firmly established in the early 1970s. The manufacturing sector consisted mostly of food processing and textiles, plus machinery and chemicals (see Table 5.1). Industrial expansion went through several stages: in particular, the development of import substituting activities in the 1960s and the first wave of the manufacturing export boom of the mid-1970s. It took about two decades to achieve a substantial level of manufacturing activity: in 1975 agricultural production had a clear lead over industry (25% and 20% of GDP, respectively);

during the late seventies and early eighties, agricultural and manufacturing activities had a similar weight in the gross domestic product (around 20-22%). Thereafter, the expansion of the manufacturing sector was impressive, as is clearly shown in Table 5.2. The growth of manufacturing value added during the early seventies (averaging 8% per annum from 1971-75) is comparable to the beginning of the present decade (7.5 % p.a. in 1990-93).

Table 5.1
Contribution of Selected Industrial Sectors to
Manufacturing Value-Added

	1980 (%)	1990 (%)
Food, beverages	31.9	25.5
Textiles, leather	26.4	27.5
Furniture, wood products	3.4	1.7
Paper, printing	1.9	2.6
Chemicals, petroleum, plastics	12.3	10.4
Minerals, metals	3.9	5.7
Machinery, equipment	14.3	16.2
Others	5.8	10.5

Source: NESDB data.

Even at the beginning of the 1980s, Tambunlertchai (1983, p.1) could not anticipate the strong acceleration of the industrial sector's expansion that took place in the middle of the decade

the shift from domestic sales to exporting is not a smooth process and usually only a few industries in a country can be successfully moved from import substitution to export expansion.

In fact, the transition from the import-substitution phase to a new export-oriented drive was already well on its way at that time, but the bulk of industry in Thailand was still geared towards the domestic market (see also Ariff and Hill, 1985). Manufacturing development accelerated in the late 1980s³ when the country passed through the threshold of the industrial age, or 'graduated' as an NIC: in 1987, the manufacturing sector's share shot above the 25 per cent benchmark which in fact was barely enough to justify the 'NIC label' fashioned by the popular press. The manufacturing sector's share is now about 30 per cent of GDP. More interestingly, manufacturing contributed to a 40 per cent increase of GDP during the period 1990-93, while agriculture contributed only about 6.5 per cent.

Table 5.2
Growth in the Contribution of the Manufacturing Sector to GDP

	1971- 1975	1976- 1980	1981- 1985	1986- 1990	1990- 1993
<u>Mean Share of GDP (a)</u>					
Agriculture	25.4	22.2	20	16.8	13.1
Manufacturing	18.9	21.6	21.4	23.3	28.8
Trade	16.8	16.8	16.5	17.2	17.8
<u>Average Annual Growth (b)</u>					
Agriculture	2.9	2.8	3.8	2.9	2.9
Manufacturing	8	6.7	3.4	11.6	7.7
Finance	4.7	8	7.1	23	9.8
<u>Largest Share in GDP Growth (c)</u>					
Agriculture	16.6	10.6	17.8	5.6	7.1
Manufacturing	31.8	23.8	16.4	30.8	41.1
Trade	19.2	16.9	12	20.5	14.1
Finance	2.7	3.5	4.5	10.2	12.1

Source: NESDB data.

Notes: all the above figures are per centages, based on value added at constant 1972 prices. The last period, 1990-93, is based on the new series at constant 1988 prices, in order to reflect new structural changes in the economy.

- (a) relative share of largest sectors in GDP, with average for each period.
- (b) average annual growth for the sectors with the highest performance in 1992.
- (c) contribution of each sector to the growth of GDP for the given period - i.e. the relative share in the increase of value added.

Table 5.3
Employment in Industry

	1970	1980	1992
Labour force	15,600,000	23,000,000	30,000,000
Participation rate	44%	49%	52%
Wage labour in manufacturing (a)	42%	49%	57%
Industrial employment	1,950,000	2,650,000	3,600,000
Export zones (b)	0	2,800	35,000

Sources: National Statistical Office; (a) NESDB; (b) I.L.O.

Throughout that period, and until now, manufacturing development has had little employment effect as the bulk of job supply was, and still is, in the agricultural sector (see Table 5.3). A considerable number of jobs classified as manufacturing are in 'informal' activities rather than the formal wage earning category: according to the official Thai ascription, non-registered plus self-employed. The persistence of seasonal labour migration is reflected in employment variation according to the slack dry season, when there is excess of labour in the fields, and the peak season, when many people leave factories, workshops and city jobs to go back to rural activities.

Table 5.4
Sectoral Share of Manufacturing Value-Added

%	1975	1980	1985	1990	1994
Agro-based	32	31	32	19	17
Textiles	23	24	24	21	22
Emerging	13	16	18	25	29

Source: NESDB/ADB.

Note: Agro-based refers to food- and fish-processing, beverages, tobacco, rubber.

Textiles refers to textiles and garments.

Emerging groups includes electronics, automotive, etc.

Considering the role of agriculture in overall growth, it is not surprising that the first two decades of manufacturing expansion were agro-based to a large extent: post-harvest processing of basic agricultural products, such as rice and sugar mills, kenaf or cassava processing, accounted for the majority of registered plants in the period 1960-70. But progressively, new activities such as fruit- and fish-canning and poultry-breeding have emerged thanks to rapidly expanding foreign markets. They were followed later by production geared to the affluent urban markets, such as the manufacture of milk products, soft drinks and instant foods. Many of the food processing activities are still small-scale plants, province-based to serve a large local and regional population. This explains why the relative weight of all processing activities related to agriculture and fisheries remained strong until the mid-1980s: about one-third of manufacturing value added was directly related to fisheries and agricultural activities. The agro-food sector represents just 17 per cent of manufacturing value-added today, and an extra 8 per cent is derived from wood products and rubber processing, and from light engineering directly related to agricultural equipment and implements (see Table 5.4).

This feature gives justification to those Thai economists who coined the concept of "NABIC" or Newly Agro-Based Industrialising Country (see Santikarn, in Ikemoto and Wonghanchao, 1988, p.192) in order to acknowledge the agricultural component and linkages with the expansion of manufacturing activities. Their point is particularly strong for the period until the early 1980s, with expanding acreage generating several hundred new rice mills in northern and northeastern provinces, and new plants for the processing of sugar, cassava and edible oils. They also rightly forecast the on-going decline in the use in industry of natural inputs produced in the country (marine products and timber, imports of which are increasing, and natural fibres, where production is in decline). Furthermore, the current rapid diversification is changing the industrial development pattern, with a contraction of the relative share of the agro-food sector and the processing of natural primary products. In that respect the current balance between agricultural and industrial inputs as a base for manufacturing activities in the country is not likely to last unless a more even pattern of growth between primary - mostly agricultural - and industrial growth can be restored.

Diversification of sectors and multiplication of enterprises

The last decade has been a turning point in the diversification of the industrial sector. This could probably be explained by the conjunction of two phenomena:

- (i) National development policy, and entrepreneurs' strategies, have shown an increasing awareness of the potential for new forms of production for both the internal and export markets; and
- (ii) A host of new foreign or joint-venture manufacturing firms started operations in 1986-89. This reflects the relocation of direct investment from East Asian and, to a lesser extent, European countries and the USA (Lall, 1990).

All sectors have grown at a fast rate, ranging from the production of most consumer goods to a growing variety of intermediary and equipment goods, and regardless of whether their production is geared towards the domestic market or to exports. This development is epitomised in the expansion of sectors such as petrochemicals or electrical goods: the petrochemicals sector was boosted by the exploitation of natural gas resources, and has now developed a comprehensive structure of up-stream and down-stream activities in addition to oil refining (see Tingsabadh, 1987).

A combination of export orientation and domestic market boom

The manufacturing boom has undoubtedly been market-driven: it has benefited from both the widening of the local consumer market (and particularly the demand emanating from new urban consumers) and the newly-acquired international position of Thailand as a manufacturer supplying world markets.

Table 5.5
Relative Share of Manufactured Exports, 1970-1994

	1970	1975	1980	1985	1990	1994
Trade Opening (a)	30	37	47	44	68	69
Export ratio (b)	10	15	20	19	29	31
Share of Agro-Food Products.	49	60	47	46		25
Share of Non-Food Manufacturing Products	15	20	32	41		66

Source: Thai Customs data.

Notes: (a) Exports plus imports in relation to current GNP;
(b) Exports/ G.N.P

The new domination of manufactured exports is in line with the opening up of the economy: the ratio of exports plus imports to GNP was 28 per cent in 1970, 48 per cent in 1980 and about 70 per cent in 1994 (see Table 5.5). During the same period the share of manufactured exports (excluding food products) grew from 15 to 66 per cent of all exports (see Table 5.6). This structural change is also reflected in the mix of products found in the new export pattern: in 1993, eleven out of the top fifteen export products were manufactured goods. In addition to the change in the ranking of the top ten, it is interesting to note that the ten items amounted to 75 per cent of exports in 1970, but represent only 45 per cent of all export products now. This is evidence of the much wider spectrum of products that is presently exported. There are, however, differences in the performance of the major manufacturing products,

as Brummit *et.al.* (1992) show: "three sectors alone accounted for about 75% of the increase in the 1980s - machinery and electrical products, cloth and leather, and canned goods." The measurement of comparative advantages also shows that newly exported products have shown the highest growth rate over the period 1985-92: these are computers and electrical goods, leather and garments, and plastic products. In this context exporters of manufacturing products have benefited from both increased market diversification, and privileged access to markets in the USA and Europe through such mechanisms as the System of Preferences (Chirathivat, 1988).

Table 5.6
The Top Ten Exports of Thailand, 1970-1993

1970		1980		1993	
Rice	17	Rice	15	Garments	9.5
Rubber	5	Tapioca	11	Computer	6.5
Maize	13	Rubber	9	Jewellery	4.3
Tin	11	Tin	9	Plastics	4.2
Tapioca	8	Maize	5	Prawns	4
Jute	5	Garments	4	Rubber	4
Beans	2	Cut stones	2	Integrated Circuits	3.8
Prawns	2	Sugar	2	Rice	3.5
Tobacco	1	Prawns	1	Footwear	3
Timber	1	Canned fruit	1	Caned seafood	2

Source: Thai Customs data (% of total exports).

Local markets have created the pull factor for a wide range of products. The production of construction materials and standard consumer goods (beverages, toiletries, home appliances) has grown steadily over the past decades to satisfy an ever-widening market in rural and urban areas. Most industrial conglomerates have started and then thrived on a local market basis (see Box 5.1): Saha Union in the textile business, Charoen Phokpand in the processing of animal feed and foodstuffs, Saha Pattana in consumer goods (from garments to household products), not to mention myriad family-controlled companies in the automobile, chemical, basic metal and textile sectors. This deepening of activity geared to the local market was at the centre of the debate about a second phase of import substitution and industrial restructuring in the early 1980s (Akrasane *et.al.*, 1987) and the 'adjustment crisis' in 1985-86 was further evidence of the importance of internal sales for local industries.⁴ Contrary to common belief, the rate of exports of industrial sectors is still limited, when measured in global terms - although obviously a product-based analysis would give different results. At present only about one-third of the production of durable consumer goods such as refrigerators, air conditioners and washing machines is exported.

Box 5.1 Diversification of an Industrial Giant: The Siam Cement Group

The diversification of manufacturing production is epitomised in the recent transformation of the Siam Cement Group (SCG) from a national producer of cement and construction material into a conglomerate at the forefront of the new phase of manufacturing initiated in the 1980s.

The historical sources of Siam Cement lie in a monarchy-sponsored industrial company, established in 1913, and open to foreign collaboration. The Siam Cement Group is still under the controlling influence of the Crown Property Bureau (with a share of about 25%), but has embarked on an ambitious strategy aimed at gaining a leading position in several sectors of strategic importance for the future of the country.

Since the mid-1980s, in addition to an ever-increasing position in the cement, refractory and construction material business, SCG has expanded its capacity in the pulp and paper industry, and initiated projects in the chemical sector (synthetic latex, polyethylene). The group is also famous for equipment and machinery activities that have been considerably diversified over the past years, such as engines and parts (with Japanese partners), tyres (with Michelin from France), compressors, and so on. Beyond these fundamental sectors SCG is now also active in trading and consumer goods production (e.g. TV tubes and assembly with NEC from Japan), and to a limited extent in the food processing sector (also with Japanese partners). To serve some of these development it has developed its own industrial estate, north of Bangkok, and also has plants on the two public estates of the Eastern Seaboard.

After having maintained an exclusively national base, the group is now also seeking opportunities for export sales mostly in neighbouring countries (cement), but also on world markets (TVs, sanitaryware), and for investment in South-East Asia (especially Indonesia and the Philippines).

For a company whose activity had been limited to construction material for almost half a century, this evolution can be viewed as a challenging turn-about. Nonetheless, there is considerable basis for optimism about the future: SCG is famous for its management abilities, market appraisal and cautious policies. It can mobilise financial resources easily, and its stock is one of the few industrial blue chips of the Securities Exchange of Thailand. It has been careful to seek alliances with local companies and major foreign partners in order to limit capital exposure or to acquire the best technology and know-how. In addition, the group has undertaken a revamping of its top management structure, and promoted an ambitious internal training scheme to make sure its staff are up to the new tasks.

The textile and garment industry

The textile and garment industry is an obvious case of rapid sectoral development that is based on local and export markets: it is well known that it developed first as an import substitution industry and then increased its export-orientation in the mid-1970s, when garment exports increased rapidly. Product

diversification and the multiplication of businesses resulted in a comprehensive industrial structure that was large, and in most cases nationally controlled and operated. Garments only emerged as one of the ten major export products in 1973 when, together with other textile products, they accounted for a mere 3 per cent of exports by value. By 1984 this proportion had reached the 10 per cent mark, and the sector has maintained its position thereafter.

However, the textiles sector cannot be said to be typically export-oriented: data computed from the NESDB (1985, p.28) show a global rate of export for the entire textile industry shifting from 10 per cent in 1975 to about 14 per cent in 1980 (passing a peak of 18% in 1978). The agglomeration of the various sub-sectors hides the fact that some activities, like garment production, are much more export-driven than others. Nowadays, the up-stream companies (cotton and artificial fibre-spinning) target most of their production to the local weaving mills (25% only of these two categories of product are directly exported); these mills in turn supply a garment sector that exports officially between 50-65 per cent of its production. This does not take into account a substantial amount of invisible and border trade exporting that is assumed to be in the range of 10 per cent of total volume in the case of garments. The local market presents increasing possibilities to sell higher-grade textiles - good quality material for fashion garments is in demand. In this way production has become market- and competition-driven (as opposed to relying on stable bulk orders for cheap products).

Small and large companies have demonstrated their mastery of three major skills: one is the flexibility to adapt their production to a wider range of customers in order to conquer new markets (children's clothes for Europe, the Middle East and Japan differ widely!); another is awareness of potential benefits to be gained from diversification and quality improvements (see Boxes 5.2 and 5.3); and thirdly, the ability to exploit fully connections to foreign markets, either through buying agents from regional hubs such as Hong Kong or through the local trading companies that play a key role in the industry.

In our survey we found that a significant proportion of the garment companies that we visited between 1990 and 1992 have based their development strategy on this dualism of markets by selling to both the local and export markets (see Tables 5.7 and 5.8). Many companies in the garment sector were initiated in the late 1970s to supply the local market only, and then managed to find an outlet in exports: only a few (about 30%) did so directly, the remainder operating through trading companies (45%) or under sub-contracting arrangements with local manufacturers (25%). Among the non-exporting firms are those that chose to sell to the local market (e.g. department stores) or had acquired licenses to produce fashionable international brands. Most exporters showed an ability both to expand into new markets (e.g. the Middle East and Africa) and even to deal with restrictive import practices (either by perverting the control procedures or by diverting exports through intermediary markets). A limited proportion of companies benefited from government promotion or assistance, but the majority of surveyed entrepreneurs declared that personal networks were more conducive to the expansion of export markets.

Box 5.2

From Sweat and Noise to Industry

Many of the agricultural machinery plants - commonly found in major towns of the Central Plain but also increasingly in major cities of Isan - certainly qualify for the 'sweat-shop' and even 'noise-shop' label, as they consist of units or assembly lines where pieces of metal are cut, pressed, welded, and integrated with components such as gearboxes, engines and electrical apparatus, to make equipment ranging from simple carts and tube pumps, to small tractors or even small combine harvesters for paddy fields. The entrepreneurs have benefited from the expansion in the market for agricultural implements, together with the changing cultivation techniques. The local paddy combine harvester is a good case of adapted technology meeting the new needs of farmers at a time of scarce labour.

A plant surveyed in Nakhon Pathom province showed that mechanical engineering ventures are most frequently based on the personal initiative of an experienced mechanic (some of them came from the transport sector, or even tin-dredging activity). The entrepreneur also needs an acute sense of commerce to attract customers, provide reliable maintenance and consider improvements to the machines. This is frequently achieved through 'imitative innovation', based on ingenuity, without support from a licence or a larger company, and no formal technical or financial support from a public institution.

Box 5.3

An Entrepreneur in the Garment Boom

A typical garment producing firm, the case study enterprise was founded in the Phaya Thai district of Bangkok in 1970 by a former shop employee. In the beginning only 10 sewing machines were enough to produce clothes sold to stores and wholesalers in the local market. Expansion in the following decade brought the capacity to 50 machines with 80 workers employed in the peak season, and the firm's size then doubled in the following decade. At the beginning of the 1990s more than 300 people were working in the factory, which is now under a limited company established in 1986 to facilitate exports.

The entrepreneur declared that his previous work gave him experience about garment types, quality, and production networks, and confidence that he could initiate his own business to serve customers whose demand was increasing in a prosperous country. He had enough funds from his savings and family contributions to start and expand the company.

Sales management was crucial for the expansion of the company: the entrepreneur developed strong connections with local trading companies and then directly with a customer from Japan. Through his requirements, this customer contributed to improvement of quality and production, and even offered to initiate a large garment producing joint-venture. But the entrepreneur declined because of the large financial commitment and he preferred instead to establish a new textile printing business for his son.

Table 5.7
Characteristics of Selected Entrepreneurs in the Export Sector

% of respondents	Toys and Handicrafts (b)	Canning Industry (a, b)	Garment Industry (a)
Venture created for exports only	95	90	80
Established company from start-up	100	95	65
Family funds in capital	—	—	75
Promotion from Board of Investment	90	75	35
Assistance from Ministry of Industry or Commerce	—	25	15
Collaboration with professional network	10	40	45
Collaboration or joint-venture with foreigners	80	75	25
Work with local trading company	—	25	45
Work with sub-contractors	15	—	25
Exported to new markets over past 5 years	80	85	85

Source: (a) Author's survey with ORSTOM-CUSRI, 1990-93; (b) Federation of Thai Industries, 1992.

Table 5.8
Results of a Survey of Manufacturers in Six Thai Provinces

% affirmative responses	Garments	Engineering	Food processing
A single manufacturing company as main business	85	95	95
Profitability within 3 yrs of start-up	90	100	80
Family collaboration to start firm	85	55	25
Entrepreneur's education level up to secondary	95	65	70
At least two executives educated to university level	25	35	15
Production for local market	55	100	45
At least 20% export sales	65	0	75
Family collaboration to run firm	85	35	25
Member of professional association	20	15	55

Source: Author's survey with ORSTOM-CUSRI, 1990-93, based on 62 interviews with founder/entrepreneurs or factory managers.

Manufacturing development and leading actors

Late industrialisation and state intervention to promote manufacturing industry

The role of the state in manufacturing development has been rather limited: it is a characteristic feature of Thailand that government intervention has been focused more on general macro-economic policy, with less energy and fewer resources devoted to the direct support of firms (see also the chapter by Johannes Schmidt in this volume). As a new-generation NIC, the country has certainly benefited from the experience of the East Asian countries in regard to to some of the policies which were implemented in the late 1980s.

The vigorous expansion of manufacturing activities was not anticipated in the early 1970s, and neither was it deliberately programmed over the subsequent span of 20 years. In reality, public policy on industry was vague, with few targets, restrictive administrative ambitions, little means to intervene and, above all, a lack of vision about the prospects for industrialisation. Evidence of a growing awareness of the increasing importance of manufacturing activities and the need for a new impetus for industrial growth was to be found mostly in the new policies of the early 1980s:

- (i) The 'Thai Inc.' policy, promoted by the Deputy Premier Minister Boonchu Rojanasatien in the early 1980s, put a clear emphasis on new large-scale industrial investment, backed by public infrastructure and an increased openness to international companies. A heritage of this short-lived policy was the Eastern Seaboard Development Programme;
- (ii) The 1982-86 economic stabilisation period was marked by efforts to reorganise the public enterprises, and to improve the international competitiveness of the manufacturing sector. For example, the NESDB sponsored studies and meetings to encourage industrial restructuring and to encourage a greater capacity for manufactured exports (NESDB, 1985).

A constant feature of the institutional framework was the weakness of the Ministry of Industry. It was, and still is, ranked low in the government posts hierarchy (relatively to the 'majors' such as Interior, Agriculture, Finance, Commerce, Defence and Foreign Affairs). Therefore it failed to attract the attention of ambitious politicians in need of a launching pad for their career, or brilliant civil servants for whom co-ordinating or financial public bodies had more appeal. Its budget is limited and it does not have a great deal of control or scope for initiative over manufacturing exports policy (which comes under the Ministry of Commerce), foreign investment selection (under the Board of Investment), or technology improvement (under the Ministry of Science and Technology). In addition, the public manufacturing enterprises (distilleries, sugar or paper mills) have never been at the forefront of industrial activity: they were too small compared to those under other ministries (such as Transport and Communication). In the 1980s, the inclusion of the new companies of the rapidly-growing petroleum sector has changed this picture slightly in favour of the Ministry of Industry, but it has occurred at a time when technocrats have to bargain with politicians and businessmen to discuss industrial priorities and

share spheres of power and interest. This was well demonstrated in the changes which occurred at the top of major public enterprises such as the Petroleum Authority of Thailand or the Industrial Authority of Thailand.

In the national plans, the dimensions of manufacturing development were broadly taken into account as part of the general orientation of the economy - whether to increase exports in the late 1970s, or restructure and adjust to constraints in the early 1980s. The plans did include specific targets of expected growth, employment or exports, and were vague in terms of priority policy measures which were most appropriate in order to reach these targets. Continuity of policies and policy evaluation were also weak throughout the period (Tambunlertchai, in Warr, 1993). The Sixth Plan (1987-91) was more specific in terms of the targeting of sectors such as agro-industry and engineering, or regional and medium-sized industry, but came up with no particularly fresh policies to support these industries at a time when the private sector had a free hand to initiate all sorts of activities. The most distinctive feature of industrial policy, particularly that enunciated in the the Seventh Plan (1992-1996), is its submission to the general economic policy of expansion, liberalisation and a controlled opening-up to the global economy. The underlying assumption of public policy is that a growing and open economy will be a stimulus for industrial development independently of public sectoral policies that would in any case be difficult to implement given the low administrative capability and the high bargaining and entrepreneurial power of the private sector (Muscat, 1994).

A central issue of industrial development is the role of public policies to protect the emergence of local activities: this was illustrated by the recent debate created by the World Bank report about the success of East Asian experiences of industrialisation, and also conflicting views about the respective roles of the state and private sector. The World Bank itself considers that industry in Thailand has evolved from a protected to a more competitive status. Protection was increased to its maximum in the 1970s and "consumer goods and transport equipment emerged with the highest effective protection rates by the end of the decade" (World Bank, 1983). Although this policy was altered in the 1980s - with increasing import-content regulation, protection for basic industries (such as chemicals) and reduction of import tariffs on equipment - this resulted in a lack of backward linkages for many consumer goods industries, and demands for continued protection by many industrialists. In addition to this biased protection, the promotion of industry has mostly benefited the larger companies and conglomerates that were in a position to negotiate privileges for the expansion of their activity. Our field surveys highlight the fact that most entrepreneurs in middle- to small-size businesses emerge and thrive without incentives from the public sector.

The country, having coined the motto 'dynamic society, open economy' following the political upheaval of 1992, seems to consider itself at the forefront of the modern and forward-looking states of South-East Asia. This tells us a lot about the changing ideology of the State and the new confidence of business strategies. One could easily assume too that the most substantial changes of the past decades can be found in the relationship between public and private economic élites, rather than through a renewal of the principles of industrial policy. Recent history has shown that the government has chosen to concentrate

on macro-economic adjustment rather than invest in industry (see Box 5.4 below), and that incentives and co-ordination are mostly aimed at horizontal policies - e.g. skill and technology acquisition, infrastructure development, overall trade and investment promotion, liberalisation and administrative reform.

Box 5.4

The Eastern Seaboard Development Programme: Industrial Blooming and Spatial Chaos

The Eastern Seaboard Development Programme, initiated as a state-promoted endeavour, survived the stabilisation period of the mid-1980s, but lost much of its original spirit and some government-backed projects too. The largest industrial components were not retained as mostly state-backed ventures (e.g. the fertiliser project, soda ash plant), and the whole growth pole concept was diluted by the spill-over of eastern Bangkok into the development region. The major infrastructural components, such as the container terminals at Laem Chabang and the railway line, were built between 1988-94 but were slow to start operations in order to serve the export boom. The public industrial estates took a lot of time to get off the ground, providing excellent opportunities for several private ventures to tap the booming market for industrial serviced land in the three Seaboard provinces.

Nevertheless the two industrial target zones, Laem Chabang in Chonburi province and Map Ta Phut in Rayong province, are now well-established industrial locations: the former is almost fully built with large plants such as tyres, TV tubes and auto parts; in the latter, most of the country's petrochemical activities are concentrated, ranging from the gas separation plant that was the initial springboard of the project, to basic chemicals and plastics, and other intermediary product industries.

The public planning part of the programme remains a black spot: co-ordination between government agencies has been slack for the past decade and conflicting goals and policies have contributed to the patch-work situation. The lack of tools to control the location of industrial plants and hazardous activities has resulted in the dispersion of industries. Resource management for water and power is also a serious issue. Social planning has been disappointing too: the 'new town' concept did not materialise and employees are to rely on services provided by the private sector (such as lodging, new housing estates, private hospitals) in neighbouring districts. Naturally the traffic and commuting flux have increased tremendously.

Instead of the industrial growth centre that was in the minds of its promoters, the Eastern Seaboard symbolises the failure of coherent public planning, and has simply facilitated the expansion of the Bangkok conurbation along a stretch of 100 miles through to Rayong province.

Changing attitudes of entrepreneurs in industry

Local entrepreneurial abilities have been widely discussed in past years, and in the industrial sector they were frequently considered weak and mostly based on

rent-seeking or oligopolistic activities geared towards a protected local market (Suehiro, 1985; also see McVey, 1992 for a good summary of the various theses). But it seems that in Thailand, the recent period has marked a turning point. Opportunities were so numerous and risks so limited that entrepreneurial attitudes could be observed at all levels of society: they were behind the expansion and diversification of all kinds of activities from agriculture (shrimp-farming, fruit, vegetable and essential oil production) to services (tourism, trading) and industry (from large-scale petrochemical plants to small garment workshops). McVey (1990, p.31) interestingly sketches the change of mood capturing the "materialisation of the Southeast Asian entrepreneur" as she puts it: "in the end, as with most human undertakings, it may come down to something of a spirit: a feeling, part inspiration, part contagion, that great things may be gained and that the moment must be seized."

In the manufacturing sectors, particularly, there has been a transformation in entrepreneurs' behaviour - a change that could be related to the specificity of enterprise generation in the manufacturing sector over the past fifteen years. The organisation of industry in particular presents a dualistic structure: "on the one hand ... the cottage industry model with its system of co-operation, supervision in industrial workshops ... and on the other hand a Taylorized system" of formal factories (Pongsapich *et.al.*, 1994, p.4).

A survey of medium- and small-sized manufacturing companies in a mix of sectors gives interesting clues about this:

- (i) The majority of respondents indicated that their factory is their main business and their major source of income, which can explain the commitment they show to make it prosper. This is particularly true for the new generation of entrepreneurs who started a business in the boom period (1975-81) and who are deeply committed to the success of their family-based venture: it is their passport to social progress as, with limited formal education, they have reached a desirable social status and access to affluent consumer society. Many of them see the survival of their business as the key to the future of their children. This contradicts earlier statements in the literature about lack of entrepreneurial abilities or aspirations among local élites. The new sino-Thai generation in particular seems able to put the same dedication and energy in industry as their fathers - or grandfathers - put into trade a few decades ago;
- (ii) A majority of entrepreneurs also stress that they reached profitability (in a broad sense) in less than two years, and three-quarters of them in less than three, which is quite rapid by general standards. Local industrial capitalists had obviously to limit their short term speculative ambitions as returns in manufacturing activities generally cannot match those drawn from trade or land speculation. But quick profitability has certainly encouraged the imitative strategies and the multiplication of ventures in sectors such as garment or plastic parts production;
- (iii) The findings also suggest that family collaboration seems to play a large role, either in company initiation or operation. It is frequently identified for informal financing support for the start-up of the business, hence the limited support required from official public institutions such as banks

or administrative offices.⁵ Very commonly members of the family are also employed in the performance of daily tasks in the firm such as accounting or marketing - this was the case in 75 per cent of plants we surveyed.

Qualitative surveys have also identified the role of network co-operation between industrialists: either on the basis of informal peer groups or through formal associations (professional or ethnicity-based), through which the entrepreneurs up-date their market information and their technical knowledge, as well as seeking financial support for the diversification of activity.

Alliances with foreign entrepreneurs or international companies cover a wide spectrum of situations. They range from the very large joint-ventures (e.g. in the Eastern Seaboard industrial estates, or the automobile industry) to smaller grassroots companies of garment manufacture and food-processing. Not only do they mobilise substantial finance capital through official or informal channels (e.g. from Hong Kong or Taiwan), but they also contribute in various ways to technology acquisition. This was the case in the early stages of manufacturing development (Suehiro, 1985) and is still very relevant at the present stage.

Joint ventures have benefited from the economic boom, which can explain the low rate of failures and the willingness to pool resources even though legal protection is quite limited. In that respect Thailand's industries have been more open to foreign collaboration than, for instance, South Korea's.

One of the current challenges facing industrialists is the maturation of their ventures. Depending on the size and dynamics of their activity this may require changes in business strategies and company organisation to adjust to new opportunities, market evolution or simply family transformation.

- (i) Large conglomerates have started or accelerated their diversification. The general trend is in favour of strategic alliances between major companies - particularly between industrial, service and commerce based groups - to control the fastest-growing markets. The involvement of several of the major conglomerates (such as Siam Cement Group, Charoen Phokpand, Metro) in the petrochemical projects of the Eastern Seaboard is evidence of the willingness to get involved in strategic industries. Several conglomerates are also seeking expansion overseas: this is true for C.P., with its numerous ventures in China, but also Boon Rawd, the major beer manufacturer seeking business in Asia and even Europe. As a result of their diversification strategies, many large-scale companies have revamped their internal structures - in some cases family rows over strategic decisions have resulted in major rifts in the company (for example at the well known car manufacturer, Siam Motors).
- (ii) The family-owned companies are in many cases faced with two sets of difficulties: one is to integrate the various attitudes of the various members, and particularly the new generation. The second is adapting to the new business environment, requiring professional management, adaptation and diversification of production - beyond mere rent-seeking strategies. This is in line with McVey's observations (1992, p.21 and p.24) that "nowadays, requirements for capital, political connections,

and broad international operations make for an opening-out in terms of finance, business organisation and social style. Family firms have become family controlled corporations and these in turn have increasingly included outsiders in their direction." In that respect the assets are unevenly distributed: large family conglomerates can still muster considerable support from family-controlled banks, mobilise human resources, and lobby for government support, whereas smaller and emerging family companies still suffer from an institutional bias towards large firms.

- (iii) Entrepreneurs in small- and medium-size companies have to choose strategies: either to explore new areas of diversification or to show continuing flexibility to adapt to market opportunities and changes. A badly documented question is to assess whether they are ploughing back their profits for the development of the venture. The entrepreneurs' current commitment to manufacturing activity is crucial in terms of national competitiveness, but also in terms of keeping a substantial labour absorption capacity. If a rent-seeking attitude were to arise among small- and medium-size enterprises in several labour-intensive sectors the future would be bleak, as companies would rather reduce activity than take the hard path of productivity increases and new investment.

At a lower level, in terms of size, but concerning a far greater number of cases, is the issue of whether the small workshops can be seen as the basis for lasting activities. Many single owner-family-based firms may not have the stamina to evolve into larger companies; others will remain like sub-contractors whose future is determined by traders or bigger corporations, in Thailand or overseas. For small business, and particularly for those quasi-cottage industries working as sub-contractors, survival prospects seem to be bleak: they are heavily dependent on buyers/traders giving orders, and they try to keep their costs low by cutting down labour wages, as Charoenloet shows in the Bangkok garment sector (cited in Pongsapich *et.al.*, 1994, p.135; see also Bunjongjit and Oudin, 1992): "in recent years we have seen the proliferation of these small producers in the informal sector, competing for a limited number of orders, and in this process, driving down the price they can charge. The aim of the informal sector is not to maximise profit as one would find in the formal sector but rather to survive."

New dynamics of manufacturing activities

Emerging rural industries

Over the past two decades many political statements have been expressed and policy measures outlined to encourage 'rural industrialisation' as a way to limit poverty in the countryside (see e.g. Parnwell and Khamanarong, 1990; and also their chapter in this volume). It did not materialise as expected, largely because of weak policies, but above all because of an inadequate economic environment in the provinces at the time. The current general prosperity of the country has

Box 5.5

Grassroots Industry in the North-East

A textile workshop in Kamalasai district of Kalasin province, surveyed in 1993, is owned by a resident of the village. Previously he worked in a Bangkok plant, and then became a trader of cotton threads which were bought by women for their traditional weaving activities. He bought some second-hand spinning machines from a Bangkok factory and had a small plant built, with his own funds (he declared investing 400,000 baht from his savings plus loans from friends). At first he only employed two persons but now, two years after he started, eight persons, in addition to his wife, are working on the premises (production capacity also doubled, from 2 to 5 tons per month). The cotton yarn is bought monthly from Bangkok spinning mills. He sells to traders from the same province, but also occasionally to neighbouring provinces. Trade is brisk because peasants are still keen on doing their own home weaving; even in irrigated areas where the intensity of agricultural work is higher, women can afford 2-3 days off for cotton-weaving to make material for clothes or household goods. But the small workshop also sells (approximately 10-20%) of the yarn to the house next door where another new rural entrepreneur manufactures knitting material, on three machines, to supply Bangkok garment manufacturers. Local connections also include sub-contracting to neighbouring houses.

Having prior industrial experience, the entrepreneur can do his own machine maintenance, or find local mechanics to assist. He is already thinking about dyeing yarn himself, expecting to increase present quality levels in the process. He complains about the infrastructure (bad roads, no telephone) but has his own mobile phone. He is satisfied with village labourers and envisages expansion, possibly with support from the Department of Industrial Promotion.

Small enterprises are also finding a niche for sport and plastic shoes production: with more than 100 million feet running around in the country, there is ample need to supply the local market alongside the larger companies working under license from major international brands, mostly for export. Interestingly some segments of production are moving closer to markets up-country. We surveyed such a workshop in Kalasin province.⁶ Buying inputs (foam sheets, plastic parts) from Bangkok-based suppliers, a former shoe-trader established a small workshop in a vacant house, employing only eight people from the village, to prepare and assemble shoe-parts. Manufacture required very little capital and almost no equipment, while the products are supplied to local shops in the province and wholesale traders. This type of endeavour can be seen as part of a new wave of cottage industries in Thailand - a type of cottage industry that complements well-known traditional handicrafts or the production of household goods.

resulted in a spill-over of manufacturing activities into the rural areas (see Box 5.5). Although off-farm activities have always been a regular part of rural life, and often contribute a substantial component of farmers' income (Pampiemras, 1987; Pongsapich *et.al.*, 1994), they have not generated substantial

manufacturing transformation at the provincial level in Thailand - contrary to Japanese or Taiwanese models of rural industrialisation where proximity of manufacture and agriculture, induced by both geographic and social factors (limited space, increasing labour supply), resulted in a blooming of rural industries and an increased density of industrial establishments in the countryside.

Recent studies have highlighted the factors behind changes taking place in the provinces (see in particular the 1990 series of reports by Biggs and Tambunlertchai for the TDRI): "the important factors responsible for determining the degree of provincial industrialisation included provincial income level, size and density of population, availability of an adequate infrastructure ... degree of financial development and distance from Bangkok" (Tambunlertchai *et al.*, 1990, p.5). The persisting rural-urban divide of Thailand (in fact the Greater Bangkok conurbation-other provinces divide) that was the hallmark of the spatial structure of manufacturing production, is now, slowly, being transformed. The Bangkok conurbation industrial network is now being extended to about ten neighbouring provinces within a radius of more than 100 kilometres from central Bangkok, but the past five years have shown that distant provinces can also attract substantial manufacturing activities.⁷ Regional rural areas, next to major centres such as Khon Kaen, Songkhla and Chiang Mai, are now encroached upon by industrial plants that increase the off-farm income component of rural people. It is expected that peripheral development will be strengthened further by increased relationships with neighbouring countries (e.g. along the banks of the Mekong, and in the Malaysian and Cambodian borderlands).

The major sources of this dynamism appear to be spatial transformation (the closing of the rural frontier, and the development of infrastructure) and a dual structure of industries geared towards the local market and those located in the province as a production base for distant customers (large urban centres, exports: cf. the cushion-making industry discussed by Parnwell and Suranart in this volume). This is a consequence of both push and pull factors:

- (i) On the one hand, industries are looking for sources of raw materials (fresh produce for canneries, oil and sugar mills), cheap labour, or even simply land and water. The new frontier is not in the congested and overpriced suburbs of the Bangkok metropolitan region but in those provinces with active markets and communications;⁸
- (ii) On the other hand, the relative stability of farming, plus diversification, backed by additional transfer incomes (from off-farm activities, wage labour in cities, overseas employment) created a substantial demand for industrial goods, some of which can be produced efficiently at the regional level (from agricultural equipment to household goods).

The question of sustainability of the rural industrialisation trend has also to be raised, as there seem to be several major weaknesses in the current dynamism (see also the chapter by Walton in this volume):

- (i) Start-up of many entrepreneurial initiatives is based on the cheapness of resources. They are very vulnerable to changes in the availability of raw

materials and local labour. Those working for the local market probably do not anticipate productivity problems and forthcoming increased pressures from more advanced trading networks such as department stores and large manufacturers willing to benefit from provincial markets. Export-oriented companies in the fruit- and vegetable-canning business have made little effort to strengthen their linkages with farmers, and some plants have had to close down or move to other regions because of supply problems;

- (ii) Entrepreneurs, in spite of low education levels, are making the most of their individual experience. Some have developed activities closely linked to their past working experience, being sub-contractors for larger manufacturing or trading companies in Bangkok they know well; this concerns formal and informal activities for labour-intensive production of garments, stone-cutting and handicrafts (see also the chapter Parnwell and Suranart in this volume). The stability of these links is still open to questions as rural entrepreneurs have no bargaining power and can survive only as long as the cost structure enables them to compete with other industries in need of wage labour;
- (iii) Lastly, surveys suggest that keeping the dynamism of entrepreneurial initiatives in the provinces is less dependent on well-focused policies (such as industrial promotion, training, or financial support) than overall improvement of the regional standing in terms of services and transport infrastructure and cross-border links that enhance the attractiveness of the region at the national level (thereby catching the attention of investors). In that context, continuing efforts will be needed to ameliorate the institutional bias against the provinces in order to maintain their contribution to local economic progress and social cohesion.

Labour in industry: experience and skill acquisition

At the present stage of manufacturing development two issues are widespread in all sectors and forms of activities: qualification and mobility of manpower. They are very closely related to the social structure of Thailand, with a low level of secondary, technical and university education, and high propensity of rural residents to double activity. On the one hand labour mobilisation in labour-intensive industries was made easy by the willingness of rural migrants to get a poorly-qualified job: in many sectors, such as garments or fruit- and marine-product canning, the labour intensity and the low qualification admittedly did not offer much scope for qualitative improvement. This is nothing original in terms of the history of industrialisation as industries have always been the starting level for the integration of workers in the labour force. But in Thailand more skill-intensive industries are emerging and their demand for quality labour is higher.

On the other hand high mobility of labour between activities has deterred the training efforts of many companies: this may threaten qualitative changes in manufacturing production and the overall productivity of industry. In the manufacturing sector the mobility of labourers is related to structural factors, as stated above, and to intense competition from factories to attract workers. A

marked reluctance towards in-house training has been observed by surveys (see Table 5.8, and also Thienchai, 1987) and generally admitted in interviews by many factory managers of both local and foreign companies. The reason put forward is that job-hopping is too widespread under the current economic boom. Interestingly, it is more frequently expressed in the factories of the Bangkok metropolis, and in the larger industrial areas of Pathum Thani, Ayutthaya and the Eastern Seaboard region, whereas in the more distant provinces, industrial employment opportunities being narrower, managers can expect more stability although they occasionally complain about absenteeism related to rural activities and festivities. These problems are still overwhelmingly characteristic of industries in Thailand. But at the same time one can identify elements that suggest a way out of the human resource crisis - new behaviour of industrialists and a maturation of labourers' skills. The responses of companies to these issues are diverse: some, mostly small-sized, accept the constraint as part of their daily life, although they regularly complain about it;⁹ others try to implement measures in order to base productivity improvement and quality of production on industrial manpower up-grading.

The managerial level is crucial at a time when most ventures have just completed their take-off and rapid expansion, and are in search of adequate structures and forms of production to cope with productivity improvement. For promotion of human resources at the managerial level, two elements are to be considered:

- (i) Firstly, in many manufacturing companies, the firm's founder has been at the same time the chief engineer and the general manager, while other members of his family assist him for administration, sales, etc. These entrepreneurs now tend to bring in members of the new generation, frequently having a university training. Bridging the generation gap may, however, still be an issue for the future as far as many small companies are concerned.
- (ii) Secondly, managers are a scarce resource: many companies have to rely on mechanisms of internal promotion. Those that can recruit fresh specialised university graduates are usually in the upper tier - i.e. the modern medium- and large-size ventures. Because of the scarcity, the manager/employee ratio is rather low, which seems to be detrimental to a more forward-looking attitude in some companies. In spite of this difficulty, the managerial culture is taking root in a context that is favourable to the melting pot approach (Bailes and Tabtieng, 1993), mixing many elements including Japanese influence and American education.

For workers in industry new skills have to be learned and new technologies experienced and mastered: for many Thai workers, this is indeed a new approach to knowledge as the education system still places a large emphasis on repetitive learning, passive absorption of knowledge, or diplomas as an end rather than a pathway to gaining genuine experience.¹⁰ Skills for industrial work are generally broadly defined at the recruitment stage, but according to managers it is internal training that matters more: all freshly-recruited workers need to adapt to the new environment, and in any case they consider that the

qualifications of new workers from the technical education/vocational college are rather low, and that few curricula are suited to industrial work.

Our interviews with managers of foreign companies also showed a contrast with previous observations about instability and lack of flexibility of manpower and analyses of workers' attitudes (for example, as described by Thientai, 1987, or the Bank of Thailand annual survey):

- (i) Some of the surveyed companies show a concern for a stable employee structure in order to guarantee quality of output, and therefore prefer to adapt their wage and training practices accordingly.
- (ii) Several medium-size companies (over 150 workers) have developed links with formal education institutions; for production of jewellery, garments and electrical goods they accept short-term trainees from vocational schools and technical colleges, thereby helping to bridge the gap between the world of formal education and the world of industry. Many industrial activities from garment and textile articles to jewellery and light engineering actually require a well-trained and dedicated workforce that cannot be mobilised at short notice.

The particular case of workers in the gem-cutting and jewellery production sector shows both the expansion of a traditional form of craft and also the establishment of a new group of highly-qualified workers: in some of the modern factories manufacturing jewellery for export, young people are acquiring skills that are similar to those mastered by fellow craftsmen in Europe - and, according to a factory director, they are even quicker to learn than trainees of a parent company in France. Many of them have not been offered a high education, and few have technical college training prior to their recruitment, but on-the-job training seems quite a satisfactory solution in the medium term.

Conclusion: emerging challenges for the manufacturing sector

Several issues from the early 1980s no longer represent limitations for the future expansion of industrial activities in Thailand - namely the diversification of sectors and export markets, the multiplication of small companies, the strengthening of private initiative, and even the acceleration of manufacturing expansion outside the Bangkok area. Nevertheless, beyond the easy times of rapid industrialisation that have taken place during the past decade, challenges ahead for the manufacturing sector can chiefly be identified at the level of international competitiveness and workers' aspirations.

In the area of trade and international relations, the new manufacturing activity has brought a well accepted connection to the world economy and a new regional standing. It is a major economic strength that the range of industrial products and market destinations are so diversified as these can reduce considerably the industrial sector's vulnerability to economic downturns. It also maximises the experience gained by both workers and entrepreneurs. External investment and trade are no longer seen as foreign dimensions to the country and even manufacturing prospects in co-operation with neighbouring countries

are now well recognised (e.g. role of the Board of Investment in promoting activities in Vietnam). At the same time, policy-makers have recognised that the new international context brings new challenges: for example, increasing competition from ASEAN countries including, now, Vietnam, and even more so from China; also, a new capacity to play a role in the world trade system,¹¹ and the necessity to contribute to the debate on freer/fairer trade in the world trade system.

In spite of so-called globalisation, the national policy will have to be updated to maintain competitiveness and contribute to the pursuit of new orientations for manufacturing activities. Porter (1990, p.682) interestingly argues that nations matter more in the current era of increasing competition, and he also recognises the potential conflicts related to evolution of industries, maturation and construction of competitive advantage. For Thailand, the industrial future may require more skills and commitment from all actors.

Looking at the situation in the factories, one comes out with a picture that may have far-reaching consequences for the future: about two million people are acquiring wage-earner habits, consumption patterns and new skills, but also new social roles and expectations, through their work in industry. It is doubtful that many of them would trade their current employment for their previous job in agriculture, or for self-employment. Social positions and connections are being restructured, and many wage-earners probably feel they have a right to prosperity and well-being. Many non-wage earners or low-paid workers are also aspiring to obtaining better jobs (hence the high turn-over). These attitudes could, during times of economic down-turn, be converted into a higher demand for equity. Modern institutions and tools for social regulation are needed: it seems obvious that in Thailand material progress has out-paced public institutional improvements - this can be seen in the slow emergence of social security and rapidly-growing demand for private health care, insurance or education.

In this respect, there is no straightforward recipe for success, or typical 'Asian industrial miracle' feature to be found in Thailand, beyond the key elements of regional prosperity and stability, individual dynamism, open markets and devoted capitalists. Many entrepreneurs have indeed demonstrated their capacity to combine local and foreign resources, to adapt to shifting world conditions, to comply with set standards, and up-grade their technology. On the other hand, labour force mobilisation was easy at a time of prosperity that could be shared, however unfairly, between rent-seekers, capitalists, wage earners and self-employed.

These elements are the basis of the industrial manufacturing dynamics of Thailand which presents an interesting combination of flexibility and diversity, both inward-looking, regionally-focused and export-oriented, with the intervention of local and foreign entrepreneurs, a large mix of products, and a diversity of industries and skills. The obvious benefit is to rank the country among those that constitute the world networks of manufacturing production, and to establish Thailand as one of the emerging manufacturing powers of South-East Asia.

Notes

- 1 The chapter draws examples from sectoral and enterprise level case studies of selected manufacturing activities in Thailand. Published and unpublished reports have been used together with data derived from surveys and interviews collected between 1986 and 1993, mostly with entrepreneurs/factory managers, in most of the sectors constituting the industrial mix of the country - ranging from textile/garments to metal products, jewellery, food processing and chemicals, in both export-oriented and local market enterprises. Major reference works are mentioned in the bibliography, but quotations have been kept to a minimum.
- 2 In this respect, the IMF-World Bank meeting held in Bangkok in 1991 came as a sort of graduation ceremony for Thailand as a NIC, replicating the conference held in Seoul in 1989 which marked the first consecration of the 'Asian development model'.
- 3 It must be recalled that the expansion of the manufacturing sector was sustained over more than three decades: it took place in a context of global regular quantitative growth of the domestic product, a middle path of growth, whereby the rate of GDP growth was never inferior to 4 per cent per annum from 1965, which is certainly remarkable compared to the average for developing countries (around 2 per cent for 20 countries of the same category). Thailand never experienced negative growth as in other Asian NICs, such as South Korea in 1980 or Singapore in 1985, and only recently suffered from the 'double-digit growth fever' that used to be the characteristic of some East Asian economies.
- 4 The stagnation of agriculture and the public sector's austerity measures led to a restriction of sales of industrial goods and a negative growth for the whole manufacturing sector in 1985 (see Tambunlertchai, 1993, p.121). The sales of small tractors, for example, were halved between 1981 and 1985.
- 5 This might be a feature of the past as it seems that industrialists are no longer reluctant to borrow funds from private financial institutions, such as the Industrial Finance Corporation of Thailand or the promotional funds from the Ministry of Industry.
- 6 It was selected out of a sample list of manufacturing activities of Khon Kaen and neighbouring provinces as identified by the Department of Industrial Promotion.
- 7 In the engineering, garment and food-processing sectors about 80 per cent of the 48 plants we surveyed in 1990-93 in Khon Kaen, Ayutthaya, Chon Buri and Chachoengsao provinces, in a sample based on registration with the Ministry of Industry, excluding rice mills, were less than six years old.
- 8 In regional surveys of entrepreneurs a striking feature is the role attributed to transport and telecommunication (their improvement over one decade in remote provinces, and their contribution as a factor of

production). At the grassroot level the Thai entrepreneur highly values movement and flow of information.

- 9 See for example the Bank of Thailand's annual Survey of Business conditions *Production, Investment and Employment in Manufacturing, Trade and Construction*.
- 10 Evidence of this new attitude towards technology training can be found in the recent burgeoning of private technical education.
- 11 Thailand, along with the other emerging industrializing nations of South-East Asia, has joined the earlier NICs in the list of countries that have a slot in the world trade system: accounting for about 1 per cent of world exports, which is slightly less than the level enjoyed by Malaysia in 1992. In comparison, South Korea and Taiwan both have a 2 per cent share of world exports.

Uneven Development in Thailand

by

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