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05211



Distr.
LIMITED
ID/WG.163/19
27 September 1973
ORIGINAL: ENGLISH

United Nations Industrial Development Organization

Seminar on Furniture Industry
Lahti, Finland, 6-25 August 1973

DEVELOPMENT PROBLEMS AND PROSPECTS
OF THE FURNITURE INDUSTRY IN SINGAPORE 1/

by

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id.73-6564

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1 Introduction

The small Island Republic of Singapore stands on one of the world's important sea and air routes. Not only does Singapore command a strategic position as an international cross-road, she is also situated in a region where the world's major suppliers of tropical timber are located. Owing to this ideal situation where the supplies of sawn timber and plywood are readily available, the furniture industry has found its place among other industries in Singapore.

Furniture manufacturing is in fact one of the oldest traditional industries in Singapore. While retaining the unique ingenuity and craft skills, some of the local manufacturers have unfortunately also retained to a large extent, organisational systems and working procedures which are somewhat outdated. Nevertheless, such functional shortcomings could be overcome if the industry is aware of modern technological requirements so as to increase productivity aiming at the export market.

It is pertinent at this juncture to state that furniture industry forms just a minor portion of the Singapore Timber Industry which has in the past years grown so rapidly since the post war years despite the fact that Singapore has no forest of its own.

The other complementary industries in timber industry are sawmill industry and the production of plywood and veneer. The number of timber sawmills in Singapore has increased from about 30 in 1951 to about 150 in 1972. Many of them are mushroom mills established after 1960 as a result of the Indonesian Confrontation. Sawmills were being compelled to move from the central city area under the urban renewal plans. There were eight plywood/veneer factories, of which four have pioneer status in 1970. Five are located in the Jurong Industrial Estate, two in the Kranji Estate and one along the west Coast Road. At present there are thirteen plywood/veneer factories in Singapore.

To-date, the timber industry ranks as Singapore's fourth largest export-earner after rubber, petroleum products and textiles. In 1972, export earnings totalled \$150 million^{1/} as against \$59 million in 1965. The bulk of timber products exported was of sawn-timber valued at \$57 million in 1967. In recent years there has also been a substantial increase in exports of plywood and veneer products.

2 Raw Materials

Since Singapore has no forest resources, the timber logs required by the sawmills and plywood/veneer factories are entirely dependent on supplies from Malaysia and Indonesia. The logs are brought into Singapore by trains or lorries from Southern West Malaysia and by barges from Eastern West Malaysia. Logs from Indonesia are shipped into Singapore by "tongkangs".

Ever since the Malaysian Government imposed the quota system in the supply of logs to Singapore on 13 Nov 72, the demand for logs import from Indonesia increased by leaps and bounds. Logs worth \$5/- to \$6/- million were imported from Indonesia in three weeks in Dec. 1972. Previous imports from Indonesia were some 30,000 cubic metres (about 20,000 tons) valued at \$3/- million a month. At present it is not possible to make an accurate assessment of the possible quantities of timber available from Indonesia. However, the prospects of Indonesian logs meeting a large part of Singapore's needs appear very bright.

3 Industry

The furniture industry in Singapore provides employment for some 3,000 workers representing 3.0% of the total industrial employment.

It should be noted that the furniture industry in Singapore constitutes only a part of the woodworking industry operating in Singapore; which includes the following main activities, viz joinery work, general and jobbing, wooden cases/boxes and boat building.

^{1/} All values are in Singapore Dollars (1 US\$ = 2.9 Sing.\$)

Furniture in Singapore is manufactured both in factories and small workshops, primarily to provide the necessary supplies for the local market and generally evolved from family oriented business.

Over the past decade, the expansion of the economy of Singapore has led to an accelerated increase and a greater demand for good and well designed furniture to meet the needs for the commercial and hotel industries.

There was a time when furniture was considered merely a basic necessity and no more. Not much thought was given to transforming it into a thing of beauty as long as it was functional.

If our local furniture manufacturers intend to catch in the current building boom and rapid pace of industrialisation - the demand for modern up-to-date design and functional furniture for offices, factories, hotels, restaurants, shops and houses is far beyond one's imagination - they should have ample number of skilled and trained personnel to cope with it.

In order to build good and durable furniture it is imperative that timber being used should be well seasoned. Except for dryers used in plywood mills there are at present only a few small kilns in use operated by the parquet and woodworking industries. The combined total capacity is about 1,500 - 2,000 tons per annum. The majority of these are directly heated kilns used especially for drying of sawn teak for parquet-flooring as well as other aspects used for furniture and carpentry work.

As a result of requirements for kiln-dried timber, three additional projects with kiln drying facilities have been set up in the Kranji Industrial Estate, one being the Kwong Maw Sawmill Co Ltd. They have an annual capacity of 34,400 tons. Besides kilning, two of the plants are being engaged in woodworking and sawmilling industries.

Moreover, there are half a dozen timber impregnation plants operating in Singapore with a total capacity of about 42,000 tons per annum. The expansion of impregnation capacity appears to be keeping in pace with the increasing rate of demand for such products. Unfortunately the local use and export of treated timber is relatively small. Nevertheless, there is a growing awareness of the economic implications of treated timber which will be in greater demand throughout the world for constructional purposes.

4 Supply of Manpower in the Furniture Trade

There are mainly two categories of obtaining furniture makers:

- a Graduates from Vocational Institutes,
- b Apprentices attaching themselves to master craftsman or manufacturing firms

The Industrial Training Board has three Vocational Institutes running the Furniture Making Course. It has a total annual turnover of 140 graduates. There is also a full-time two-year course in Furniture Production and Design for students of good academic and technical background. Graduates of this course normally hold a supervisory post because they are supposed to be industrial technicians in the furniture industry. Students in Vocational Institutes receive formal lessons besides workshop practice.

The second group of workers are these apprentices who either find their way into the furniture making firms or get themselves attached to some "master craftsmen". These workers obtain their skills through years of practice. Some of these apprentices may not attain the secondary school education, hence they make furniture through trial and error methods.

Some leading furniture-manufacturing establishments in Singapore such as Diethelm Furniture Pte Ltd; Raxy Electric (S) Industries Pte Ltd; Cheng Meng Furniture Co Pte Ltd; Hongkong Teakwood Works (S) Pte Ltd and Metrawood Co Pte Ltd have their own training section to train their own furniture makers and designers.

The Wood-based Industries and the Construction Trade Advisory Committees with prominent industrialists as members, serve as the links between the relevant industries and the Industrial Training Board training establishments. They recommend ways and means to co-ordinate training programme, review syllabuses and advise the Industrial Training Board in the running of some ad hoc courses to meet the needs of woodworking and construction industries.

5 Problems and Comments

The following are some of the problems encountered by the furniture industry in Singapore and technical assistance by UNIDO could be of a great help.

- a Being primarily a processing centre, Singapore depends entirely on her neighbouring countries for raw materials. The November 1972 imposition of restrictive conditions on log exports to Singapore has caused considerable anxiety among furniture manufacturers in Singapore with regard to the continuity of sawn-timber and plywood supplies. If furniture industry in Singapore is to develop and assume a prominent role, assurance of long-term supplies of sawn-timber products for her industry is important.
- b The woodworking industry has a fair distribution of up-to-date equipment, but less than 1% employs assembly-line techniques which make possible large scale production at minimal costs for export. Hence, there is an urgent need for assembly-line operations in this industry in Singapore.

- c The furniture industry itself needs good designers who could put forth their original ideas and creations, in relation to modern techniques and in manufacturing furniture using various types of raw materials viz metal frames, plastic and fibre-glass, etc.

Young talented woodworkers possessing the right attitude could benefit immensely from training courses in developed countries.

With the trend of using upholstery for modern furniture, young people should be sent overseas to learn the technology in upholstery work concerning the types of fabric and design employed.

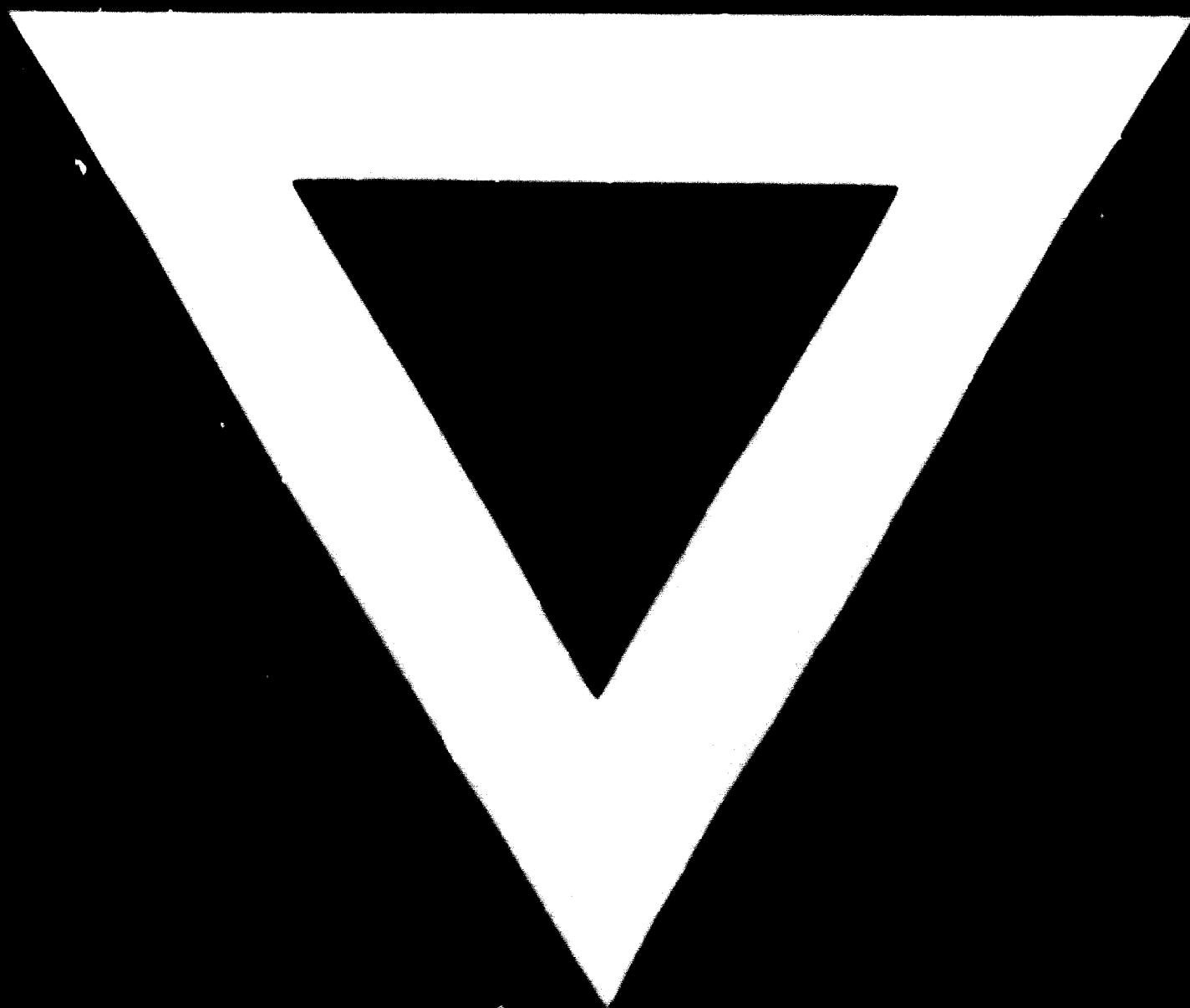
The training of managerial personnel is another area to be looked into, especially in the production field. Suitable people could be sent for in-plant training with the leading local woodworking and furniture-making establishments. They could also understudy the work of some UNIDO/ILO experts who are attached in the furniture industry.

6 Future Development

Owing to its geographical position in South-East Asia, and its industrial peace and political stability, Singapore is fast becoming an important furniture manufacturing centre in this part of the world. Employment-wise, this industry accounts for 3% of the total industrial employment. With the Government actively encouraging more foreign investment for the setting up of new timber industries, largely for export to world markets, furniture industry will not be faced with timber shortage, hence the continuity in supplying knock-down furniture for the export market.

In short, the future development and expansion of Singapore's furniture industry will depend largely on the continuous supply of raw materials and trained personnel. Thus in the near future it will become a major industry in the Republic of Singapore.





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