



OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as "developed", "industrialized" and "developing" are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact <u>publications@unido.org</u> for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org



D 03 759



Distr. LIMITED

ID/WG.133/16 27 July 1972

ORIGINAL: ENGLISH

United Nations Industrial Development Organization

Seminar on Furniture and delivery Industries Lahti, Finland, C - 26 uport 1.72

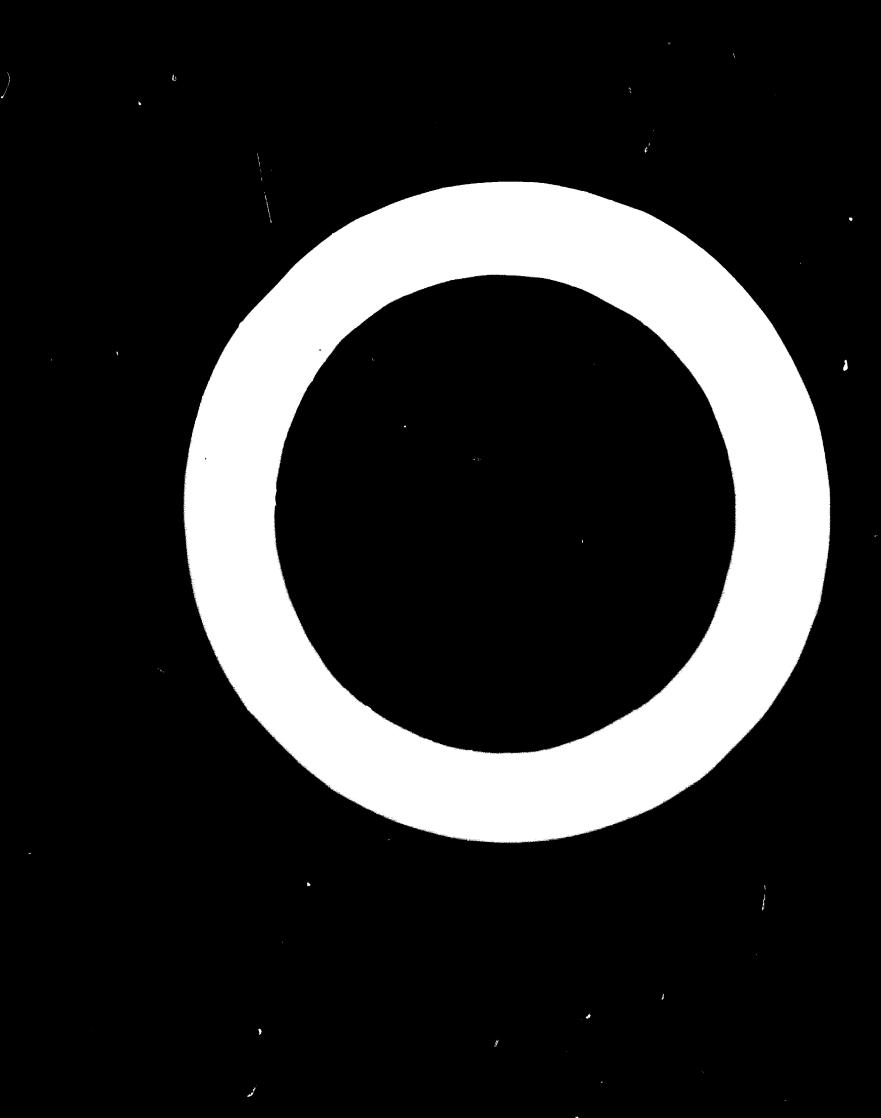
FURNITURE AND JOINERY INDUSTRIES IN SINGAPORE

by

Ooi Teik Beng
Assistant Superintendent/Industrial
Training, Ministry of Education
Singapore

The views and opinions expressed in this paper are those of the author and do not necessarily reflect the views of the Secretariat of UNIDO. This document has been reproduced without formal editing.

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.



INTRODUCTION

The Republic of Singapore though small in size (220 sq. miles in area) serves as a regional centre for the processing and shipment of wood products in South-East Asia.

Whilst possessing no natural resources of great commercial value, Singapore is fortunate to be in the midst of a rich timber producing belt.

With efficient infrastructures like public utilities, transportation, telecommunication services, commercial facilities including banking and a high level of general education and health among its workers, Singapore has attracted long-term investments by foreign enterprises.

Coupled with industrial peace and political stability, it has breated a proper climate for great economic growth.

It is therefore no accident that in Singapore today the furniture and joinery industries, though not considered great among numerous other industries, flourish at a pace much to the encouragement of those who are directly or indirectly connected with them, and to the sustained welfare of the young nation.

Trade prospects

Total 1970 production value on furniture and fixtures alone increased by 33% over the previous year. In 1960 the total production value was 3.8 million Singapore dollars. By 1970 it had reached 37.9 million Singapore dollars. Details for other years are shown in Table 1.

Furniture Trade

	Table 1 (Million - Singapore dollars)									
	1970		1968							
Furniture and Fixtures	37.9	28.5	21.7	12.8	13.9	3.8				

Vork force

At tal of 15,00 persons or 3.33% of the total work force but of a population of 2 million are engaged in the furniture industry. A trade which traditionally catered for domestic needs in the past has, over the last decade, made some headway in the export industry.

Exports

Significant in-roads have been made into foreign markets and an ong more popular items of export are knock-down furniture, high-gloss T.V. cabinets and wooden toys. However, only 4% of total production is exported. The rest is absorbed by local hotels, offices and apartment houses.

Subsidiary industries

The demand for modern furniture has given rise to complementary industries such as the manufacture of synthetic glues, wood-finishes, fixtures and upholstery materials. A substantial bulk of the last item mentioned and a good number of plastic or fibre-glass carcases are also imported for ultremodern upholstery jobs.

The manufacture of fancy veneers, plywood, laminated boards, chip-boards, particle-boards from waste materials and mouldings - continues to be among the fore-front products.

Impetus: building industry

The current vigorous building industry absorbs the bulk of locally-made plywood used in formworking.

High-rise buildings, apartment houses and hotels, completed and those under construction, form a common sight in Singapore t day.

Reas n for demand

The building trend continues. The resultant effect is a

need for more joiners and building carrenters. A further impetus is also given to the furniture industry as a greater denant for furnishing arises.

The total construction value for 1970 was 290 million Singapore dollars - a miss of 30.25 over 1970.

Details are is shown in Table 2

Construction t	Table	2					
		(Million - Singapore Dollars)					
	<u>1970</u>	1909				<u>1965</u>	
Building Construction Industry	290•4	212.9	177.8	15 1.1	120.7	41.9	

Large modern factories numbering 2° and with an average of 110 workers each, are engaged in round-the-clock production to meet local and foreign orders.

Prefabricated materials

Among items of building materials for export are pre-finished and prefabricated casement window frames, doors, panels, laminated boards, chipboards, partial boards, blockboards and flooring materials such as paving boards and parquet.

Export sales to Japan, Turope, U.S.A. and East Africa are significant. Export to Australia under wood-shaped/worked for the year 1971 was 6.5 million Singapore dollars. There is every possibility of Turther increases in the export value of furniture and joinery from Singapore. Some 29,000 persons are employed in the construction industry. Out of this number 32% or roughly one—third are involved in building joinery.

More joinery trades

The construction of wooden boxes for industrial needs has reached an unprecendented level, while cleasure-boat building

gives further testisony to the brisk joinery industry.

Local and foreign companies such as American Marine are building luxury pleasure-boats for demandate world markets.

Long term policy

Long-term planning has given rise to a unique educational system whereby for the first two years in the secondary schools all male pupils and 50% of female pupils are exposed to wood-work, metalwork and basic electricity in addition to normal school subjects.

At the end of the second year of secondary education (Grade 8), a pupil undergoes a national aptitude test. To-gether with his cumulative workshop records be is advised accordingly and, if found suitable, is offered further instruction for the next two years in one of the three disciplines i.e. woodwork, metalwork or electricity.

Further vocational institute training

On completion of general education in the secondary school (from 12 - 15 years of age - Grade 7 - 10) those who so wish can join three of the blexisting vocational institutes where trade courses in furniture production and building carpentry, as well as artisan courses are offered.

Practical building carpentry courses of 6 months' duration are planned for those who have completed only two years of secondary education. However, for those of this group who wish to follow a one-year course in furniture production the training is spread out to double the duration.

Overage pupils with only primary school education can join special pre-vocational classes organized by the Adult Education Board. On completion after two years such pupils are permitted to follow artisan courses. An average of 120 students per year take up building carpentry. All graduates find ready employment.

The Bornship Thomason of all, a pois form and body, has a poist hown of our was an addition I was a out Control (M.I.D.O.) for the object of the following the acceptance of the form for instability and the

The Sin their looks of instructs runs to even full-time courses in functions product on and design for students of read academic and consider incompounds. It fails has produced ligraduates. Fore will be producting each year in fature.

The Consumnation Trade Idvisory Committee with prominent industrialis's as menh so, serves as a limited body between the industry concerned and the dovernment training establishments, and recommends ways and means of co-ordinating training.

Another advisory body to ke named Wood-Cased Industries Advisory Committee is in the process of formation. It will advise on all training setters pertaining to woodworking industries in the near fature.

Among the Permiture and joinery workers is a type which has not had any formal institutional training. These were young approaches trained under about denote craftsmen in small establishments found in last of light rectors of Singapora.

Yeak ____

The areas where UMIDD could be of treat assistance are:-

- 1. Modern furniture cerign
- 2. Upholatory for modern furnitum
- 3. Plastic and fibre-glass furniture
- 4. Management of personnel in Tarniture and joinery industries

With the trend receiving eway from what is mundame toward the ultrs-modern there is read for new and ut-to-date furniture designers. Toward people with the right aptitude could benefit tramendously from twenting over you in developed countries.

The art of upholstery should also be taken up as a complementary aspect to the furniture and joinery industries.

Practical working with plastic and fibre-glass materials in furniture construction is an avenue well worth looking into. In this particular area there is room for advancement, provided proper training is offered.

The training of managerial personnel is of no less importance. Suitable persons could be attached for on-the-job training with woodworking companies or firms which are leaders in furniture and joinery trades.

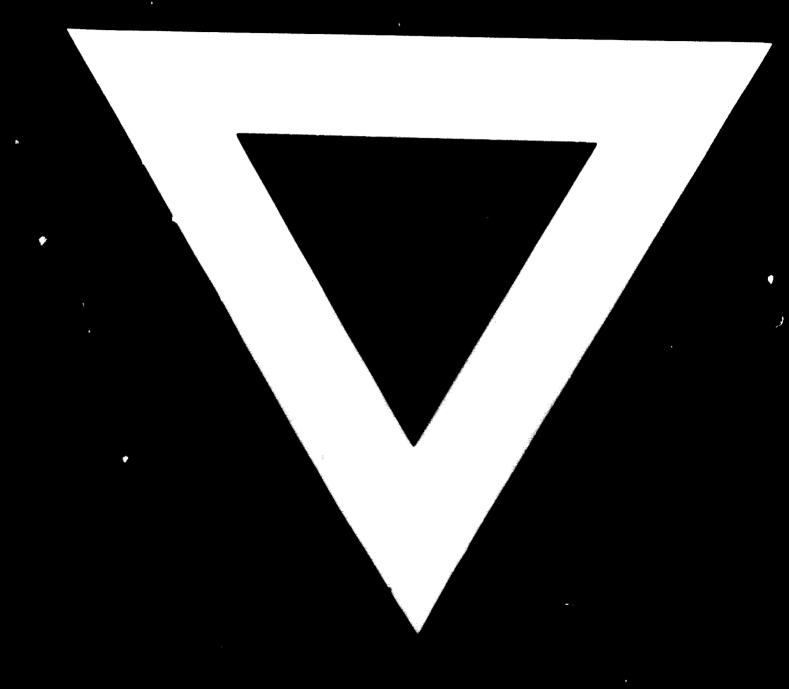
Future prospects

The prospects look good for the furniture and joinery industries in Singapore due, not only to its strategic position as an international **Gross-**road but also to the fact that it is in the midst of a timber-rich region.

With more sophisticated machinery and expertise to be gained from experience over the years, Singapore enjoys a decisive advantage for a continuing expansion and upgrading of woodworking in the Republic.

Singapore will continue to be a great regional centre for processing and shipment of wood products in South-East Asia.





0.7.74