



TOGETHER
for a sustainable future

OCCASION

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



TOGETHER
for a sustainable future

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 publications@unido.org for further information concerning UNIDO publications.

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

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



08118



United Nations Industrial Development Organization

Distr.
LIMITED

ID/WG.256/18
24 November 1977

ENGLISH

Seminar on Furniture and Joinery Industries
Lahti, Finland, 1 - 20 August 1977

THE FURNITURE INDUSTRY IN SINGAPORE*

by

R.T.C. Kee**

* 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.

** Assistant Production Manager, Metrawood Pty. Ltd., Singapore.

Id.77-8420

1. Climate

Singapore is a tropical country and there is sunshine almost 12 hours a day throughout the whole year. The weather is particularly warm as the room temperature varies between 23.7°C (74.6°F) and 30.6°C (87.1°F). The relative humidity is about 84.5% and there is an average rainfall of 2393 mm (94.2 inches) a year. Even in an air-conditioned room the temperature, seldom goes below 15.6°C (60°F). Generally timber is kiln dried to a moisture content of 12% to 16% and there is little problem of shrinkage or movement in wooden furniture used locally.

2. Present Situation of the Furniture and Joinery Industries

There are only a few large timber manufacturers in Singapore. In 1974, the total output was S\$ 42 million ^{1/} of which about S\$ 8 million or 19% of the total output was exported. Three large factories accounted for S\$ 17.6 million or 42% of the total output. Most factories in this trade operate under a cottage industry basis and many of them operate on a contract or jobbing basis.

COMPOSITION OF CARPENTRY ESTABLISHMENTS - 1973

	No. of Companies	Work-force	Output '000S\$	Material '000S\$	Value added per worker S\$	Monthly Wages S\$	Output Worker S\$
Companies with 10 or more workers	33	2,117	24,933	17,537	6,554	314	16,525
Companies with less than 10 workers	47	336	4,928	3,079	5,116	265	14,670
TOTAL	80	2,453	29,861	20,616	6,357	279	16,210

A better picture can be obtained by looking at the chart above. It can be seen that there are a large number of small firms employing less than 10 workers, which perform sub-contract and small jobs.

These companies provide an essential service and are well suited to cater for individual needs.

To attract foreign investment in the setting up of furniture factories in Singapore, the Economic Development Board will consider giving attractive tax holidays or incentives. There are already some European and Australian manufacturers who have shown keen interest in setting up joint ventures with some local manufacturers.

Among local entrepreneurs, there is a general reluctance to invest large sums of money in setting up an automated furniture factory because of two reasons. Firstly there is an uncertainty as to whether an export market could be secured. Secondly there is a lack of technically qualified managers and personnel who are capable of running the production.

3. Timbers

Singapore is an island without any forests and as such timber for our industry is imported from Malaya and Indonesia. Because these two neighbouring countries are fairly close by, timber is readily available.

The main timber used in the local furniture industries are Meranti, Nyatch, and Teak. Kapur is mainly used for making windows and doors while Keruing and Kempas are used for railway sleepers and laminated truck flooring.

It is usual to kiln-dry timber after having brought the moisture content to about 30% by air seasoning. Normally Nyatch and Meranti used for furniture is kiln-dried to about 12% to 16% moisture content (M.C.). However the European market requires a 9% to 10% M.C., and Australia 10% to 12% M.C.

One problem is that not all furniture manufacturers have their own kiln-drying facilities. In fact most of the smaller carpentry shops only air dry their timber to about 20% to 25% M.C.

4. Other Materials Used and Availability

Plywood and veneer is readily available in Singapore as there are about over 10 mills in operation locally. Particleboard can also be imported from Malaysia although the quality is not as good as that imported from Australia and Europe.

Most of the shops have ample stocks of plastics, hardware and metal fittings for local use but if a large quantity is required, orders are taken out on an indent basis.

5. Labour

Generally there is no labour shortage in Singapore as there are many school leavers looking for jobs every year. There are vocational schools and institutes which provides 1 to 2 years training in the furniture trade at technician level. During the course the trainees are taught general

carpentry, wood machining and draughting. After completing the vocational course the graduates usually find jobs as designers, draughtsmen or machinists.

However, there are no facilities in Singapore for higher technical education in the furniture and joinery trades. Most technical managers are usually expatriates. Of course there are some local managers who have made it to the top through experience gained by on-the-job training. But there is still a lack of qualified managers in the furniture trade in Singapore. Therefore seminars in this field will prove to be invaluable to people who lack the necessary formal training.

6. Furniture and Joinery Factories

The furniture factories in Singapore produce a wide range of furniture ranging from cupboards to lounge sets. The smaller cottage industries usually manufacture custom made wall cupboards and kitchen cabinets for domestic use. The larger ones usually produce lounge and dining sets in knock-down form for export. In the design aspect, ideas are usually copied and the original ones are not really advanced enough to compete in the European market.

There are only two factories which can be considered advanced in terms of automation. One produces fancy colonial design for export to the USA while the other produces modern Scandinavian furniture for export to Europe.

Generally there is a lack of technical know-how when it comes to maintaining and repairing machines. When a more complicated machine breaks down, there is no one to turn to for help if you are unable to fix it yourself.

7. Marketing

Most of the local marketing is done through retailers who display a small range of furniture in their shops. Orders for custom made wall units are also received through these shops. Most shopping centres also display their own range of locally manufactured and imported furniture.

Australia is at present Singapore's largest furniture importer. Most of these orders are usually received through correspondence. Singapore is still able to sell to Australia despite of the high import tax because the labour here is fairly cheap but there is difficulty breaking into the European market because Eastern Europe can produce cheaper

furniture with their more advanced mass production machines. Such automatic machines are very rare in Singapore because they involve high capital expenditure. Even if someone is willing to invest in such expensive equipment there is no guarantee that there will be a ready market; unless some foreign company can form a joint venture with an outlet.

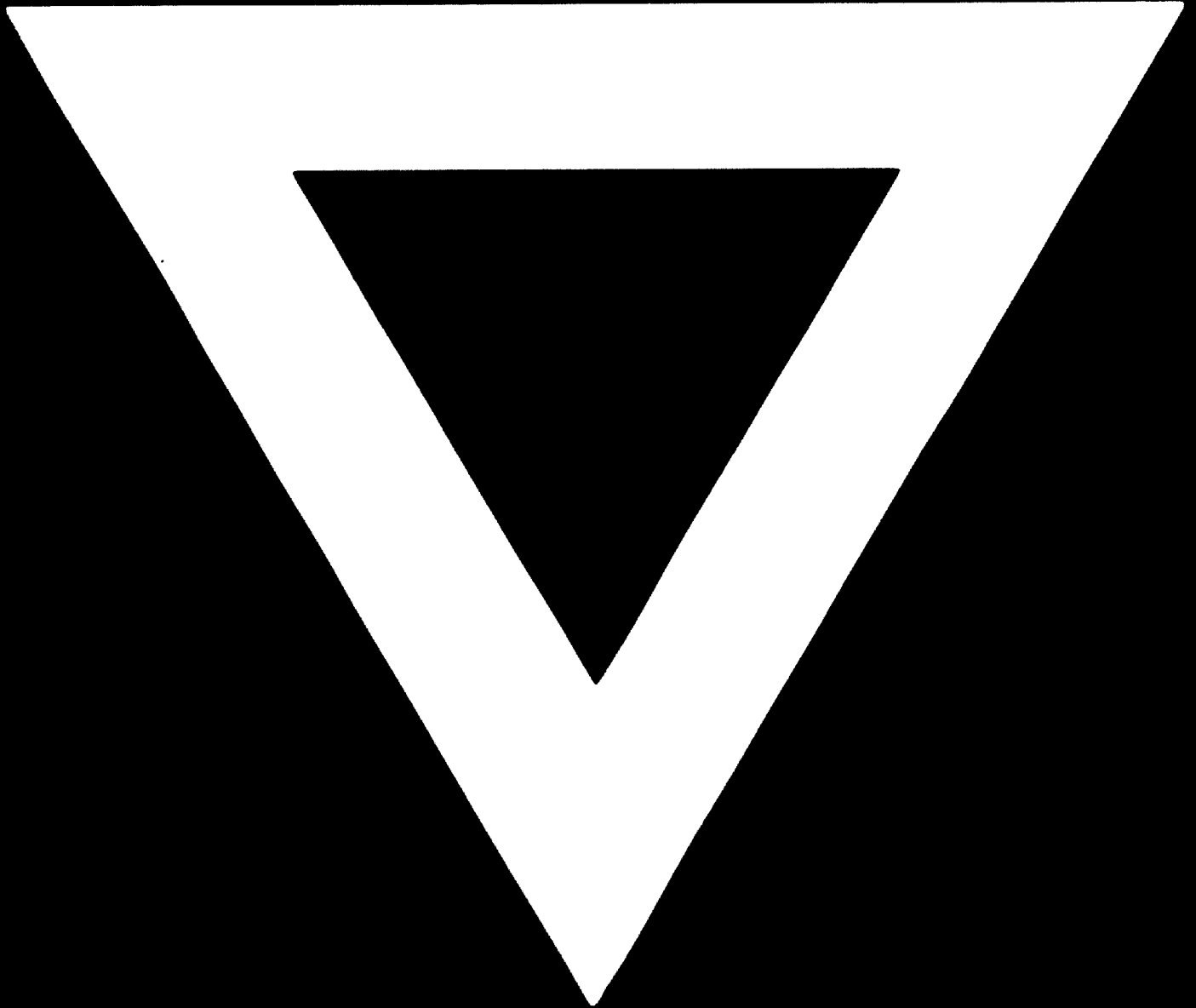
8. Trends

The furniture industry needs to go into automation and production on a larger scale to be more competitive. The export of knock-down furniture is expected to increase with more orders coming in from Australia, Europe and the Middle East. Manufacture of panel furniture could be increased if particleboard factory is set up. This would make panels cheaper as woodwaste can be utilised.

One problem is that the technical skills of technicians and managers should be improved if better efficiency and higher productivity is to be achieved in the woodworking field. More seminars, courses and in-plant training should be organized. Experts from UNIDO could come down to factories and give ideas and suggestions on the possible improvements that can be made. All this will help in no small measure, to put Singapore's furniture industry on a more proper footing towards self improvement.



C-674



78. 11. 10