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ADDING VALUE: BUILDING VALUE-ADDITION ALLIANCES

**The Malaysian Rubberwood Furniture Industry:
A Critical Evaluation**

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Summary

The success of Malaysia's rubberwood-based furniture industry was critically evaluated in order to identify best practices, which could be emulated by other furniture producing countries. Until this point of time, the growth and development of the furniture industry in Malaysia is largely driven by incremental capital inputs and supportive industrial policies. Hence, the contract-manufacturing base in the country has enjoyed economies of scale, leading to the rapid expansion in exports. The benefits of the economies of scale, which translate into increased production efficiency, industrial networking and the rapid expansion of exporting capacity, are notable. However, the emergence of cheaper furniture producing nations such as China and Vietnam, threatens the sustainability of the industry in the future, and the industry needs to shift into greater value added products. Unfortunately, the basic premises for such innovation based growth is absent and the existing industrial policies do not pave for such an industrial shift. The protection and promotional efforts given to the furniture industry appear no longer relevant, and new mitigating measures are required to sustain its growth and development.

In this paper, the success of the Malaysian furniture industry will be critically evaluated and best practices identified. The lessons learnt here could be repeated elsewhere in other developing nations where the furniture industry has good growth potential.

1.0 The Malaysian Furniture Industry: It's Growth Trend

Within a period of two decades, furniture industry has grown to become the star performer of the Malaysian wood-based sector. From its humble cottage-industry background in the early 80's, the furniture industry has grown to become a very important socioeconomic sector. From an export of US\$ 6 million in 1982, furniture exports breached the US\$ 1.2 billion in 2000. It provided employment for a workforce of 47,000 in 2000.

1.1 Pre Industrial Master Plans

In the early 80's, Malaysia was a large exporter of commodities, primarily sawn timber and plywood. In realizing the potential earnings of the wood-based sector, the government embarked on an industrialization strategy, which focused on the export trade.

1.2 The 1st Industrial Master Plan (1986 – 1995)

The First Industrial Master Plan (1986 –1995) was aimed at enhancing down-stream wood processing activities. The government provided numerous fiscal incentives and policy instruments aimed at spurring such activities, particularly amongst up-stream activity players. Annual growth rate was in the range of 40%.

1.3 The 2nd Industrial Master Plan (1996 – 2005)

The export oriented growth continued into the on-going Second Industrial Master Plan, but the focus had shifted towards the manufacture of export of greater value added furniture. Nevertheless, the annual growth rate declined to about 15%. It must be emphasized that since 1986, the first growth spurt during the 1st IPM was higher than the growth rate recorded in the on-going 2nd IMP.

2.0 Success Factors of the Malaysian Furniture Industry

The success factors of the Malaysian furniture industry have been well researched and it has been found that the rapid growth experienced by the industry is primarily due to incremental inputs, rather than actual productivity gains.

2.1 Raw Materials Supply

Factor endowments, particularly the ample availability of raw materials has been hailed as one of the most important success factors. Yet, the competitive edge derived from the raw materials has been steadily diminishing over the years.

2.1.1 Rubberwood

Rubberwood (*Hevea brasiliensis*) is the most important raw material for the furniture industry in the country. A plantation resource, it is environmental friendly and is therefore an attractive renewable resource for furniture making. There are about 1.3 million hectares of land under rubber cultivation in the country, and the supply of rubberwood sawn timber for the furniture industry is in the range of 350,000 m³ per annum. However, the price of the wood has risen from US\$ 150 per m³ in mid-80's to US\$ 225 per m³ in 2000. Nevertheless, rubberwood furniture still accounts for 80% of the total wooden furniture exports from the country. An export levy on sawn rubberwood (US\$ 32 per m³) and an annual export quota of 30,000 m³ was introduced in the mid--90's to ensure sufficient supply of the raw material for the local industry.

2.1.2 Other Materials

The export of furniture made of other materials such as rattan, metal, plastic, etc. is small and contributes about 20% of total furniture exports from Malaysia.

2.2 Labor

The availability of cheap workforce has often been cited as another of the success factors of the furniture industry in Malaysia. This was the case previously, but with the rapid industrialization in the country, the cost of labor has risen steadily. In 1986, the labor rate was US 1.50 per day, while in the 2000, it has risen to US 4.50 per day.

2.2.1 Workforce Composition

Due to the rapid expansion of the Malaysian furniture industry, the use of foreign workers (predominantly from Bangladesh and Indonesia) has become inevitable. In the year 2000, 43% of the workforce in the furniture industry was foreign contract workers.

2.2.2 Labor Productivity

The inherently low entry barrier coupled with the extensive use of foreign workers in the industry has made the workforce in the Malaysian furniture industry characteristically mobile. Under such circumstances, labor productivity has stagnated over the years at about US\$ 25,000 per worker per year. It must be emphasized that the Malaysian furniture industry is essentially a low wage economy, which is not attractive to the more stable local workforce.

2.2.3 Human Resource Development

Against the need to create a skillful local workforce, the government established the Human Resource Development Fund (HDRF) in 1993 and subsequently the Human Resource Development Council (HDRC). Both these initiatives were aimed at producing skillful local workforce for the furniture industry. Employers were required to make a mandatory contribution of 1% from the payroll to the fund, which is then used, for training the workforce. Nevertheless, the effectiveness of the development program has not been up to mark due to the reluctance of employers to send their workers for training due to limited contractual obligation and the non-relevance of the training programs offered.

2.3 Capital Out Lay

The rapid growth of the Malaysian furniture industry has been driven by incremental capital inputs, an indisputable fact. The number of mills has increased from 148 in 1982 to more than 3500 in 2000.

2.3.1 Domestic Investment

Domestic investment is high in the furniture industry and stands at about 70% of total investment. The government policies, such as the imposition of export levies on rubberwood sawn timber and the limited export volume quota imposed, forced many upstream players to move into down stream processing. Further, financial resources were made available to new entrants to encourage the expansion of the industry. It must be noted that in Malaysia, the banking sector was imposed a minimum lending quota by the Central Bank, which should be made available to the furniture industry on an annual basis.

2.3.2 Foreign Direct Investment (FDI)

Foreign investment in the furniture industry was equal to about 30% of the total investment, and investors from Taiwan and Singapore are the biggest players. The liberal government policies together with encouraging investment packages have mitigated them to relocate their manufacturing bases to Malaysia.

2.3.3 Technology Level

The level of technology employed within the Malaysian furniture industry is on par with other furniture manufacturing countries, if not higher.

2.4 Government Policies

The role of the government in the development of the Malaysian furniture industry is very significant and cannot be downplayed.

2.4.1 Political and Macroeconomic Stability

The conducive political climate is a boost for investors and the manufacturing sector as a whole.

2.4.2 Tariff Protection

Imported furniture were subjected to an import duty of 28% in mid-90's but gradually this has been reduced to less than 5% to meet the impending AFTA (Asean Free Trade Area).

2.4.3 Financial Incentives

The financial incentives provided to the furniture industry are very good and have been cited as one of the main reasons for the rapid expansion of the furniture industry in the country. Schemes such as the pioneer status, reinvestment allowance, infrastructure and training allowance, etc. have been fully exploited by the furniture manufacturers, especially by the foreign investors. However, the incentives for research and development (R & D) and design activities are still insignificant, which explains the lack of such activities within the industry.

2.4.4 Public Goods

The government has also delivered public goods, such as education, health, etc. to ensure the socioeconomic development of the society in the whole.

2.4.5 Infrastructure

Infrastructures such as kiln drying facility, finishing centers have been established in furniture villages to encourage the growth of the furniture industry in this vicinity.

2.4.6 Industrial Estates

Industrial estates or furniture villages have been established throughout the country to aggregate the fragmented furniture manufacturers in a location, in order to ensure local synergy and networking.

The success of the furniture villages is however limited, as most of them are located in isolation, away from the mainstream activities. Hence, occupancy rate in these furniture villages are also low. Furniture villages such as Olak Lempit, Setiu, Kampung Sempadan, Ulu Yam and Ipoh were established five years ago, and the land in these furniture villages were sold below market price to Bumiputra entrepreneurs (indigenous people) to create a group of successful Bumiputra furniture manufacturers. However, these furniture villages have failed to accomplish the intended objectives, as the Bumiputra furniture manufacturers contribute less than 5% of the total furniture export.

The exception is however, the Muar furniture village, which is a predominantly ethnic Chinese furniture manufacturer. Among 280 furniture manufacturers, there are 27 large manufacturers located in this furniture village, while the rest are small and medium enterprises (SME) offering sub-contracting services. This furniture village contributes 40% of the total furniture export of the country. The reasons for the success of the Muar furniture village are:

- 1. Close to the Rubberwood resource*
- 2. Close to the Johor Port*
- 3. Ample supply of experienced carpenters as most of the factories in this area are family-owned and have been in the business for very long periods of time*
- 4. Close proximity to Singapore, which is the regional center for machinery and fitting/hardware suppliers*
- 5. Good Infrastructure*

2.5 Industrial Structure

The Malaysian furniture industry is highly fragmented, and is predominated by small and medium enterprises (SME). In the year 2000, only 110 mills were classified as large manufacturers, while the balance was classified as SMEs.

2.5.1 Small and Medium Enterprises (SME)

The predominance of the SMEs in the furniture industry is very high. Nearly 95% of the furniture manufacturers in Malaysia fall under this category.

2.5.2 Large Manufacturers

About 5% of the furniture manufacturers in the country are large manufacturers, but they contribute 70% of the total industrial output (large manufacturers are those employing more than 100 workers and with an investment of more than US 2.5 million).

2.5.3 Networking / Cluster

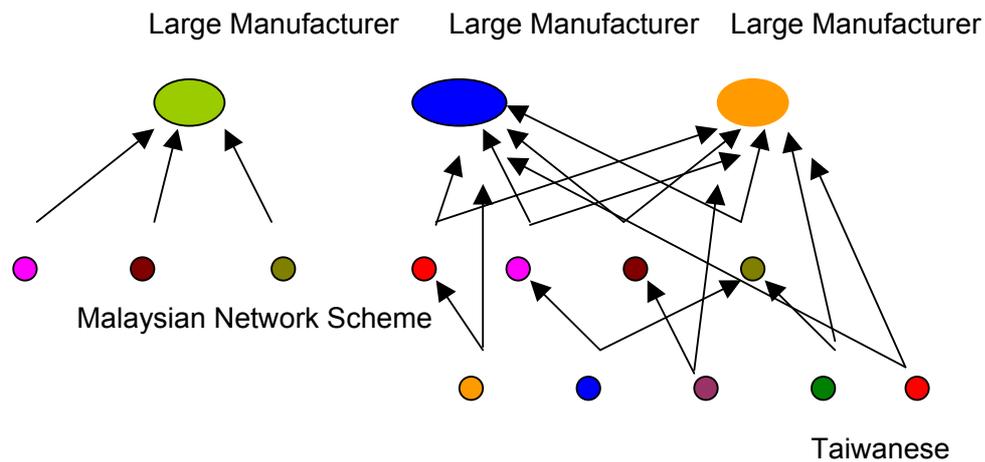
The rapid expansion of the manufacturing base has been attributed to the extensive networking or sub-contracting activities prevailing in the industry. Such a practice enables economies of scale and a spread of overhead, which provides cost competitiveness.

Although networking is extensive in the industry, the activity is confined to the supply of semi-finished components/parts and finishing and services. Most of these sub-contractors are ex-employees of the large manufacturer and they are supported both financial and business wise by their previous employer. Hence, sub-contracting is very client-specific in the industry. Such a network enables economies of scale to prevail but retards expansion of the value chain. The risk of such a scheme is that when the large manufacturer suffers, as seen during the recent regional financial crisis 1997-1998, many of these sub-contractors also went out of business. The reasons that hinder the development of industrial network are:

- 1. The ex employer-employee loyalty exhibited by most sub-contractors*
- 2. The emphasis on economies of scale, where the network is used to reduce cost through higher volume output, with little product diversification*
- 3. The low entry barrier into the industry which has created many sub-contractors who are essentially traders, creating intense domestic rivalry*
- 4. The value chain is not extended beyond the supply of semi-finished parts and components*

The nature of networking practiced in Malaysia is a stark contrast of the network found in the Taiwanese furniture industry. In the latter, the industrial network not only provides for economies of scale, but it also allows product diversification. As a result, the value chain in the Taiwanese industrial network is extended beyond the mere supply of semi-finished parts and components, but it also indulges into design and new product development. The fact that the industrial network is not client-specific as in Malaysia, allows the network in Taiwan to carry out a variety of tasks aimed at creating competitive alliances (see figure below). Furthermore, the networking in the Malaysian furniture industry is very

often single layered (i.e. offering one particular service/component), while the networking in the Taiwanese furniture industry is multi-layered. Hence, the value chain is extended much further in the Taiwanese furniture industry. It goes to show that although there is networking within the Malaysian furniture industry, its effectiveness in creating competitive advantage is highly questionable.



Network System

2.5.4 Integration and Industrial Linkages

Industrial integration, particularly with up stream activities have been minimal (due to an extensive adoption of original equipment manufacturing –OEM practices) and as a result, the furniture industry has a high import content with regards to fittings, finishes, etc. Supporting industries have also not developed to the mark.

The resource base is essentially monopolized by the Bumiputeras (indigenous people) through political connections. Hence, the predominant ethnic Chinese furniture manufacturers do not take a long-term view of the furniture industry, and resorts to rapid expansion of the business. Having attained sufficient size, the companies are floated in the stock exchange, while they recover they investments. There are more than 37 listed companies in the furniture sector as of 2000 and their performance is below par. Furthermore, most of these companies have little upstream interests. Against this background, integration between the upstream and downstream activities has not been successful in the country.

Supporting industries have also not developed well in the country because of the over reliance on contract manufacturing practices within the furniture industry. Supporting industries in the country do not therefore, have the 'critical mass' to offer a wide variety of supplies at competitive prices, compared to imports. For instance, import duties on fittings and hardware have been removed for furniture exporters since the mid-90's, which encourages furniture exporters to import their requirements rather than source them locally. This is also the case with machinery supplies, foundry and tooling supplies where local suppliers

meet only 10% of the requirements while the rest is imported. Limited expertise has been cited as the main reason for the poor performance of the supporting machinery, foundry and tooling sectors. The lack of supporting industries has not enhanced the value within the local furniture industry.

3.0 Roles played by Stakeholders: Private Sector Involvement versus Government Intervention

It is a well acknowledged fact that the government has been pivotal in developing the furniture industry in the country, but the private sector must be praised for keeping the momentum.

3.1 Private Initiatives

The extensive networking within the furniture industry has encouraged the rapid growth of industrial output, at competitive pricing.

It must however be noted that most of the private-private alliances within the industry is geared to towards comparative advantage only. A good example is MAFEX, a furniture fair organized by the Muar Furniture Association, and held simultaneously as the Malaysian International Furniture Fair (MIFF). This fair gave the furniture manufacturers in Muar a separate platform to market their furniture to the international buyers at a much cheaper cost. It therefore seems apparent that the prevailing private-private alliances were created spontaneously, collectively by a group of manufacturers, to give the desired comparative advantage.

3.2 State Initiatives – Bumiputra Entrepreneurs

The government, in desiring an equitable participation of the local indigenous people or Bumiputras in the furniture industry has embarked on numerous initiatives. However, due to socioeconomic and cultural reasons, the success of these initiatives is limited although they control the resource base to a large extent.

On this account, the public to private alliances, formed primarily through the government initiatives have not been successful. The question of whether private entrepreneurs can be developed by public agencies is highly debatable, and the low success rate of such initiatives in Malaysia attest to the fact that such efforts may indeed be futile. Public-Private alliances should concentrate on provision of information, financial assistance and other auxiliary support, but the business perspectives must be solely undertaken by the private sector. Under the Seventh Malaysia Plan (1997-2001), about US 50 million was spent under three different federal ministries to assist the Bumiputra entrepreneurs succeed in the furniture industry, but the results have been grossly poor. It seems clear that the shift from comparative advantage to competitive advantage is a market-economy led process, and intervention will not bring about the desired result.

Public agencies such as the Malaysian Timber Industry Board (MTIB) and Forest Research Institute of Malaysia (FRIM) have played significant roles in the development of the furniture industry in Malaysia, particularly during the 1st Industrial Master Plan. Efforts to promote rubberwood as a furniture raw material was spearheaded by MTIB. Further, the policies developed by these

agencies were useful in expending the furniture industry rapidly. The Malaysian Timber Council (MTC), which was originally established to counter the anti-tropical wood campaign, has eventually joint forces with the other agencies in the development of the furniture industry. The value-enhancement initiatives, desired during the 2nd Industrial Master Plan, however, has not been forthcoming from the public-public initiatives. Hence, industrial plans and strategies are useful to expand the industrial base, not to create value-enhancement. One point worth mentioning is the lack of intellectual rights protection, a vital element in the encouragement of creative design activities. The agencies have generally failed to put such a protection scheme into wide spread use within the industry, which hinders the development of original designs within the industry.

4.0 Sustainability of Industrial Growth

The growth of the Malaysian rubberwood furniture industry can be reflected in three different phases.

4.1 Import Substitution Phase

This was the period prior to the implementation of the IMPs.

4.2 Export Growth Phase

This was the period of the 1st Industrial Master Plan.

4.3 Value Addition Phase

This is the period of the on-going 2nd Industrial Master Plan.

5.0 An Evaluation of Best Practices

In evaluating the success of the Malaysian rubberwood furniture industry, several points must be firstly taken into consideration.

- (I) Rubberwood, which was regarded a waste wood, has been successfully converted into a prominent furniture raw material. Its initial low cost has been the main reason for its extensive use, and as it grew in acceptance in the international furniture marketplace, its demand also grew. Inevitably, its cost also increased. However, there is definitely a high dependence on this material by the furniture industry, and hence is subjected to resource base issues.
- (II) The prevailing low wage economy of the rubberwood furniture industry is not deemed attractive to the local workforce. Hence, foreign contract workers are hired, which inevitably, has lasting implications on labor productivity and human resource development initiatives.
- (III) Although the availability of factor endowments such as rubberwood supply and labor has spurred to growth of the industry, the competitive edge from these factors has been lost. The incremental capital inputs, which led to the rapid expansion of manufacturing capacity provides the competitive edge due to economies of scale. Nevertheless, the economies of scale are turning into diseconomy of scales due to intense local rivalry, which is continuously pushing the prices of furniture down to an unsustainable level. The industrialization based on the OEM concept is no longer applicable, and the shift towards original design manufacturing (ODM) is warranted immediately.

Hence it must be emphasized that, the numerous government policies coupled with the presence of low cost factor endowments, at least at the initial stages, has been the driving force behind the rapid growth of the Malaysian Rubberwood furniture industry. Until this point of time, it can be strongly advocated that the growth of the Malaysian furniture industry has been driven primarily by incremental capital inputs.

6.0 The Dos and Don'ts for National Strategy-Makers

National strategy-makers can ensure the growth of their respective furniture industry by:

- (I) Providing a good investment incentive package, through policy instruments, tariff protection, import restriction and restriction on export of commodities, which will spur the growth of an export oriented furniture industry.
- (II) State capital can be used for infrastructure development, establishment of industrial estates and trade promotion activities. For instance, the reputation gained by Rubberwood has been due to the extensive marketing activities undertaken by the Malaysian Timber Industry Board in mid--80's.
- (III) The mandatory contribution from all employers towards the Human Resource Development Fund (HDRF) is a commendable means of providing training and upgrading the workforce in the industry.

However, national strategy-makers take into account the following in order to ensure the shift from the export-oriented phase of growth to a greater value added phases of growth as being currently experienced in Malaysia.

- (I) Avoid the use of state capital to finance industrial development targeting the equitable growth of indigenous people. As the experience of the Malaysian timber industry confirms, this creates much animosity among the players in the industry, which will promulgate 'rent seekers'. In fact, the awarding of forest concession areas mainly to indigenous people is a good example of a practice that should be curtailed.
- (II) The use of contract foreign workers should be limited, because such workforces are highly mobile and retard labor productivity growth. Further, employers will be reluctant to provide training as these workers will leave when their tenure expires.
- (III) A stable workforce is crucial for greater value addition in the furniture industry. Hence, without such workforce, the research and development (R & D) activities, especially those related to design and development, is hindered. It is also for this reason that the shift from the OEM to ODM concept in the Malaysian furniture industry is relatively slow. The need for a creative workforce, capable to shifting the industry into an original design furniture manufacturer, must be addressed through relevant education and training schemes. Unfortunately, up to this point of time most of the trainings offered are focused on operational efficiencies, rather than innovation and strategic marketing.

- (IV) The fact that rubberwood was promoted as cheap, alternative wood resources has imparted it with a low cost image. As a result, rubberwood furniture is seen as a commodity. Therefore, it is important not to label the wood resource available with a particular connotation, as it will have lasting effects. In order to dispel the cheap image associated with the material, rubberwood was officially renamed as 'Malaysian White Oak' in 2002. However, such efforts are futile because it will take a long time before a brand can be established.
- (V) Information on the status and financial health of the furniture industry must be made available, if proper risk assessment is to be made. The lack of such information has been the main reason for the large amount of non-performing loans (NPL) exposed during the recent regional financial crisis.
- (VI) Efforts by all relevant agencies must be coordinated, to avoid duplication of activities. For instance, there are 14 agencies involved in the development of the indigenous entrepreneurs in the furniture industry, but the success has been limited, while funds expended. The agencies must concentrate on activities that assist in the growth of the industry rather than direct intervention. It has shown from the Malaysian experience that the public agencies' roles diminish as the industry mature and these agencies need to look at their mitigating measures in order to stay relevant to the industry.
- (VII) Industrial policies are helpful in the early stages of industrial development, but it will not be useful to ensure sustainable growth, especially when value-enhancement in the industry is required as in Malaysia. Most of the policies available in the country are geared towards providing comparative advantage to the furniture industry, by ensuring competitive factor production factors. There is no policy that paves the way for creative and innovative activities, which will enhance the value in the furniture industry. This has been cited as the main reason that mitigated Taiwanese furniture manufacturers to relocate their manufacturing facilities to Malaysia. In fact, the Taiwanese manufacturers in Malaysia continue to develop most of their items off shore. Hence, value enhancement is an activity that is best undertaken by private-private initiatives, lead by market forces.

7.0 Possibility for Replication

It is possible to emulate this model of growth in other developing countries, which have a potential for furniture manufacturing, provided the factor endowments and industrial policies are in place. The fact that furniture manufacturing can thrive on low technologies, the development of this industry can take place in other developing countries with ample production factors. However, beyond the export oriented growth phase, there will be a need to approach the furniture industry differently than Malaysia has, if the objective is to ensure greater value addition.

8.0 Information Sources

1. The Malaysian Furniture Industry: A Pocket Guide. J. Ratnasingam et. al. (2002) Asian Timber Publication.
2. The Sustainability of the Asian Wooden Furniture Industry. J. Ratnasingam et. al. (2001) Holz als Roh- und Werkstoff (In-press).
3. Annual Report of the Malaysian Wood Based Sector. Ministry of Primary Industries (2001).
4. Articles by the author in the Asian Timber and FDM Asia magazines.
5. On Competition. M. Porter (1998). Harvard Business Review Book.
6. Economics and Culture. D. Throsby (2001) Cambridge University Press.
7. Technology, Globalization and Economic Performance. D. Achibugi and J. Michie (1997). Cambridge University Press.

8. The Success of Taiwanese Furniture Manufacturers in Malaysia: A Critical Analysis. J. Ratnasingam et. al. (2000) IFRG Brief No.3.
9. Bumiputra Entrepreneurs in the Malaysian Furniture Industry. J. Ratnasingam. (2001) MTIB Internal Report.
10. Transforming the Malaysian Furniture Industry: What is needed? J. Ratnasingam et. al. (2000) Faculty of Forestry, UPM, Research Note: 12.