



**UNIVERSITI PUTRA MALAYSIA**

**VALUE ADDITION AND LABOUR PRODUCTIVITY IN THE  
MALAYSIAN FURNITURE INDUSTRY BETWEEN 1986 AND 2004**

**CHONG YEN YOON**

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**By**

**CHONG YEN YOON**

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**June 2009**

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The Malaysian furniture industry is the most important sub-sector within the wood-based industry, yet its growth is a matter of intense debate. On a general basis, it is argued that the Malaysian furniture industry is a low wage economy, producing low quality furniture. Therefore, this study aims: (1) to compare the performance of the furniture industry during the periods of the first and second Industrial Master Plans (IMP) of Malaysia, (2) to identify the trend in labour productivity, expressed as the ratios, during the same period, and (3) to quantitatively study the relationship between labour productivity and value addition in the furniture industry.



Secondary published data on the furniture industry were collected mainly from the Department of Statistics Malaysia (DOS), for the period 1986 to 2004. A set of productivity indicators such as value added, labour productivity ratio, and capital productivity ratio were used in the analysis, as suggested by the National Productivity Corporation (NPC) Malaysia.

During 1986 – 2004, value addition in the furniture industry grew steadily from RM 85 million to RM2,536 million, and labour productivity recorded a positive growth trend from 1990 (RM12,900) to 2004 ((RM32,400). The results showed that there was a positive trend in annual gross output and cost of input, which increased by about RM524 million annually and RM369 million annually, respectively, but the value addition and labour productivity were still low. The continuous growth of output was largely due to the increased number of factories, workforce and gross inputs. However, from the increasing cost of inputs, especially the labour cost and raw materials cost, the Malaysian furniture industry remains low in value addition. It confirms that the Malaysian furniture industry is still a mass producer of commodity-type furniture. This study provides evidence to support the argument that the industrial growth in the Malaysian furniture industry has been driven primarily by incremental input factors.

The results of the analysis of productivity showed that: (1) there was a negative and weak annual Value Added Intensity (VAI) trend, due to higher cost of inputs as brought-in-materials, (2) there was an inconsistent labour intensity growth, thus the industry was returning a big proportion of the value added value, back to the workers, (3) for the industry to have higher labour productivity, it is

important for the industry to speed up the rate of value addition, (4) the lower productivity ratio revealed the lack of efficiency in production and ineffectiveness of the furniture manufacturing processes in the industry.

On the basis of the results obtained, it appears that despite the steady growth of the Malaysian furniture industry, its growth is driven primarily by incremental inputs. This is further evidenced from the fact that the extent of value-addition and labour productivity is also low within this industry. On this account, it is recommended that higher labour productivity can be improved through Total Quality Management (TQM) within a company, or within the industry. For further study, it is recommended that a standardized set of statistics be applied by the government in order to provide a full set of reliable and up-to-date statistics for further study, especially to evaluate Total Factor Productivity (TFP), which will help with the planning and regulating of macro-economics of the Malaysian furniture activities.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

**NILAI TAMBAH DAN PRODUKTIVITI PEKERJA DI DALAM  
INDUSTRI PERABOT MALAYSIA ANTARA 1986 DAN 2004**

Oleh

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Industri perabot Malaysia merupakan sub-sektor industri kayu yang penting, namun terdapat pelbagai pertikaian terhadap pertumbuhan industri ini. Umumnya, industri perabot Malaysia dikenali sebagai industri yang rendah gaji dan sifat ekonominya, dengan menghasilkan barangan perabot yang rendah kualitinya. Oleh itu, kajian ini bertujuan: (1) untuk membandingkan prestasi perindustri perabot semasa tempoh kajian iaitu antara Pelan Induk Perindustrian pertama (1986-1995) dan kedua (1996-2004), (2) untuk mengenalpasti produktiviti pekerja, dalam bentuk nisbah, semasa tempoh kajian, (3) untuk kajian kuantitatif perkaitan antara nilai tambah dan produktiviti pekerja dalam industri perabot.



Data sekunder yang diterbitkan berkaitan industri perabot Malaysia telah digunakan berdasarkan kepada data yang dikeluarkan oleh Bahagian Statistik Malaysia, untuk tempoh kajian 1986-2004. Satu set penunjuk produktiviti seperti nilai tambah, produktiviti pekerja, produktiviti kapital telah digunakan, seperti yang dicadangkan oleh “*National Productivity Corporation (NPC)*” Malaysia.

Semasa 1986 – 2004, nilai tambahan dalam industry perabot berkembang daripada RM 85 juta kepada RM2,536 juta, dan pertumbuhan productiviti pekerja direkodkan tren positif daripada 1990 (RM12,900) kepada 2004 ((RM32,400). Keputusan kajian menunjukkan bahawa terdapat arah aliran peningkatan positif keluaran kasar dan kos input tahunan sebanyak RM524 juta dan RM369 juta masing-masing, tetapi nilai tambah dan nilai productiviti pekerja masih rendah. Peningkatan berterusan keluaran adalah disebabkan oleh peningkatan bilangan kilang perabot, pekerjaan dan kemasukan input kasar. Bagaimanapun, daripada peningkatan tersebut, terutamanya kos pekerja dan kos bahan mentah, nilai tambah industri perabot Malaysia masih rendah. Ini menjelaskan lagi industri ini masih merupakan pengeluar komoditi perabot secara besar-besaran, ini menyokong hujah bahawa peningkatan industri didorong utama oleh faktor kenaikan kemasukan input.

Keputusan analisis produktiviti juga menunjukkan: (1) intensiti nilai tambah yang negatif dan lemah, akibat peningkatan kos kemasukan input semasa pembelian bahan, (2) peningkatan intensiti pekerja yang tidak konsisten yang menunjukkan kebanyakan nilai tambah disalur kembali kepada pekerja, (3) atas sebab peningkatan kos pekerja berterusan, oleh itu adalah penting bagi industri

meningkatkan kadar nilai tambahnya, (4) nilai produktiviti yang rendah menjelaskan kelemahan yang wujud dalam pengeluaran secara efektif dan efisien industri perabot Malaysia.

Keputusan kajian ini menunjukkan bahawa pertumbuhan pesat industri perabot Malaysia adalah disebabkan oleh peningkatan penggunaan kemasukan input kasar. Ini dibuktikan oleh kenyataan bahawa nilai tambah dan produktiviti pekerja industri ini adalah rendah. Oleh sebab itu, kajian ini mencadangkan Pengurusan Kualiti Menyeluruh, atau “Total Quality Management (TQM)” sebagai alat untuk meningkatkan produktiviti pekerja samada dalam atau luar sesebuah syarikat atau industri. Bagi melanjutkan kajian, dicadangkan juga bahawa satu statistik piawai yang jitu dan terkini harus disediakan oleh kerajaan bagi kajian seperti Total Factor Productivity (TFP). Ini akan dapat membantu dalam perancangan dan pembentukan polisi secara makro-ekonomi dalam industri perabot Malaysia kelak.



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## **DECLARATION**

I declared that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

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## LIST OF ABBREVIATIONS

|       |   |
|-------|---|
| AFTA  | ASEAN Free Trade Area   |
| ASEAN | Association of South East Asian Nations                                       |
| CAD   | Computer-Aided Design   |
| CAM   | Computer-Aided Manufacturing  |
| CIM   | Computer Integrated Manufacturing   |
| CNC   | Computerised Numerical Control  |
| CSIL  | Centre for Industrial Studies   |
| DOS   | Department of Statistics Malaysia   |
| EPU   | Economic Planning Unit  |
| FRIM  | Forest Research Institute Malaysia  |
| GDP   | Gross Domestic Product  |
| HDRC  | Human Resource Development Council  |
| HDRF  | Human Resource Development Fund   |
| HS    | Harmonize System  |
| ICT   | Information and Communication Technologies                                    |
| IFRG  | International Forestry Resource Group   |
| ILO   | International Labour Organization   |
| IMP   | Industrial Master Plan  |
| IPTA  | <i>Institusi Pengajian Tinggi Awam</i> (Public Higher Education Institutions) |
| IRP   | Intensification of Research in Priority Areas                                 |
| IT    | Information Technology  |



|         |   |
|---------|---|
| ITTO    | International Tropical Timber Organisation      |
| JIT     | Just-in-Time                                    |
| LCE     | Labour Cost per Employee                        |
| MATRADE | Malaysia External Trade Development Corporation |
| MDF     | Medium Density Fibreboard                       |
| MFIC    | Malaysian Furniture Industry Council            |
| MGR     | Malayan Grading Rules                           |
| MIDA    | Malaysian Industrial Development Authority      |
| MIDF    | Malaysia Industrial Development Finance         |
| MIER    | Malaysian Institute of Economic Research        |
| MITI    | Ministry of International Trade and Industry    |
| MNCs    | Multinational Corporations                      |
| MOSTI   | Ministry of Science, Technology and Innovation  |
| MTC     | Malaysia Timber Council                         |
| MTDC    | Malaysian Technology Development Corporation    |
| MTIB    | Malaysian Timber Industry Board                 |
| NIC     | Newly Industrializing Countries                 |
| NPC     | National Productivity Center                    |
| OBM     | Original Brand Manufacturing                    |
| OBN     | Own Brand Name                                  |
| ODM     | Original Design manufacturer                    |
| PRF     | Permanent Reserved Forest                       |

|          |   |
|----------|---|
| QC       | Quality Control                                     |
| R&D      | Research and Development                            |
| RM       | Ringgit Malaysia                                    |
| SITC     | Standard International Trade Classification         |
| SME/SMEs | Small and Medium Enterprises                        |
| SMI/SMIs | Small and Medium Scale Industries                   |
| SMIDEC   | Small and Medium Industries Development Corporation |
| TFP      | Total Factor Productivity                           |
| UAE      | The United Arab Emirates                            |
| UK       | United Kingdom                                      |
| ULC      | Unit Labour Cost                                    |
| US/USA   | United States of America                            |
| USD      | US Dollar   |
| VAI      | Value Added Intensity                               |
| WISDEC   | Wood Industry Skills Development Centre             |

# CHAPTER 1

## INTRODUCTION

### 1.1 Research Background

The Malaysian wood-based industry has grown to become an important socioeconomic sector, and in the year 2007, its export earning was second to petroleum products. The total export of the wood-based industry in the year 2007, rose nearly 60% to RM22.65 billion, compared with the figures from 10 years ago (ITTO, 2008). The availability of raw materials and labour, coupled with a stable political climate, investor friendly policies and legislation, have been the driving force behind this rapidly growing industry (Ratnasingam, 2002). Despite its strong position, there has been increasing recognition that the industry needs to strengthen its competitive position in the highly competitive global furniture industry. Therefore, the industry needs to seek value adding strategies to remain competitive and continue growing sustainably.

Although, the furniture industry in Malaysia has emerged as the star performer within the wood-based sector in the country, publications related to the diverse Malaysian furniture industry, especially the extent of value-addition in the furniture industry are sparse. This has hampered efforts to develop relevant strategies and policies, to ensure its competitive growth. With the final implementation of the Asean Free Trade



Area (AFTA), and the global move towards a “borderless” economy, Malaysian furniture manufacturers will have to compete even more vigorously with other furniture producing countries and suppliers. The rapid growth of the Malaysian furniture industry has depended so much on internal factors, such as: (1) an abundant supply of raw materials, (2) low-cost workforce, (3) stable political climate, (4) sufficient capital outlay, (5) low industrial entry-barrier, and (6) sound industrial policies, which has augured well for investors in the past. Furthermore, the availability of the large international furniture exporting markets provided the much needed external factors that accelerated Malaysian furniture exports over the years (Ratnasingam and Mariappan, 2007).

Nevertheless, the sustainable growth of the Malaysian furniture industry remains debatable (Ratnasingam and Mariappan, 2007). The impressive export growth cannot be substantiated with proportional growth in productivity, and hence, there is a general concern among analysts, that the industrial growth is driven primarily by incremental capital inputs. Despite this argument, evidence to support the poor growth in value-addition and industrial productivity remains unavailable, and is often confined to academic discussions. Therefore, there is a need to evaluate the growth drivers of the industry, from a broader scale, in order to formulate relevant strategies to ensure its continuous growth.



## 1.2 Statement of Problem

Despite increasing exports, the Malaysian furniture industry has been characterized as a being a low wage economy, producing low quality products (Ratnasingam and Ioras, 2007).

This is aptly demonstrated by the increasing import value of furniture over the years. Imports increased by 82% dramatically from the year 1990 to 2000, suggesting that imported furniture is more appreciated by the Malaysian society, and local-made furniture was not perceived as providing the necessary value to consumers (Ratnasingam et al, 2000). In this context, there is a growing need to understand the dynamics of the wooden furniture industry in Malaysia, and the factors that contribute to its rapid growth. The questions of whether there is sufficient value-addition and productivity growth in the Malaysian wooden furniture industry needs to be investigated, in order to provide the necessary inputs to policy makers to formulate the appropriate policies to further strengthen in the industry in the years to come.

The furniture industry has been identified by the Malaysian government as one of the industries which can meet the objectives of long-term earnings, full utilization of the natural resources, and provide greater socio-economic benefits for its people, through exports. Therefore, it is important to understand how far the industry has progressed into higher productivity and value-adding activities, and in doing so, to evaluate the trend in value-addition over the years.