



***INNOVATIONS IN THE MALAYSIAN FURNITURE INDUSTRY***

**HASSHVINY D/O SUBRAMANIAM**

**FH 2018 54**

# **INNOVATIONS IN THE MALAYSIAN FURNITURE INDUSTRY**

By

**HASSHVINY D/O SUBRAMANIAM**

**A Project Report Submitted in Partial Fulfillment of the Requirements  
For the Degree of Bachelor of Wood Science and Technology in the  
Faculty of Forestry  
Universiti Putra Malaysia**

**2018**

## DEDICATION

I dedicate my dissertation work to my family, beloved, friends and lecturers who has been a constant source of support and encouragement from the beginning till the end of my graduate school and life. I am truly thankful and will always appreciate for all of your presence throughout this beautiful journey.



## ABSTRACT

The furniture sector in Malaysia has commendably thrived and has significantly contributed to the economy wealth of this country. However, over the years the state of the furniture industry has been on decline, requiring the Malaysian Furniture industry to innovate in order to survive the global market. Therefore, to achieve this goal this study seeks to explore the level of innovativeness in the Malaysian Furniture industry. This study used quantitative research approach where the primary data was collected via interviews and was analyzed using SPSS software. The main findings of this study revealed that, currently low innovation activities are taking place in the Malaysian Furniture Industry despite its successful milestones over the decades. There are mainly three types of innovations adapted in the firm such as product innovation followed by process innovation and market innovation. These innovations were found to be in accordance with its main objective which was to improve the product quality. The analysis on motivation showed that, the firms are mainly motivated to carry out innovation activities by internal and external resources. R&D department and customers were among the top internal and external factors that contributed to the sources of innovation. These factors were found to play significant roles in contributing to a firm's success.

## ABSTRAK

Sektor perabot di Malaysia telah berkembang dengan pesat dan menyumbang kepada kekayaan ekonomi negara ini. Sejak kebelakangan ini, keadaan industri perabot sedang mengalami kemerosotan dan iaianya memerlukan inovasi supaya dapat bertahan di pasaran global. Kajian ini bertujuan untuk meneroka tahap inovasi dalam industri perabot Malaysia. Kajian ini menggunakan pendekatan penyelidikan kuantitatif di mana data utama dikumpulkan melalui temu bual dan telah dianalisis menggunakan perisian SPSS. Penemuan utama kajian ini menunjukkan bahawa, aktiviti inovasi yang rendah sedang berlaku dalam industri perabot Malaysia. Terdapat tiga jenis inovasi utama yang disesuaikan dengan firma iaitu inovasi produk diikuti dengan inovasi proses dan inovasi pasaran. Inovasi ini bersesuaian dengan matlamat utamanya iaitu untuk meningkatkan kualiti produk. Analisis mengenai motivasi pula menunjukkan bahawa firma-firma bermotivasi untuk menjalankan aktiviti inovasi oleh sumber dalaman dan luaran. Jabatan R&D dan pelanggan adalah antara faktor utama dalaman dan luaran yang menyumbang kepada sumber inovasi. Faktor-faktor ini didapati memainkan peranan yang penting dalam mencapai kejayaan sesebuah firma.

## ACKNOWLEDGEMENTS

First of all, I would like to express my appreciation to everyone especially the Almighty who has provided me the possibility to complete this Final Year Project (FYP) project.

I would like to give a million thanks and extend my special gratitude to my project supervisor Prof. Dr. Jegatheswaran Ratnasingam for his intellectual guidance and constant positive inspirations during the report writing and project development. . I would like to also thank my examiners Dr. Paiman Bawon and Associate Prof. Dr. Shukri Mohamed for providing constructive criticisms, guidance and recommendation during the period my project progress.

Last but not least, I would like to take this opportunity to sincerely thank my family members and my beloved for the unceasing encouragements, supports and attention upon completing this project.

Thank you everyone.

## APPROVAL SHEET

I certified that this research project report entitled “Innovations in the Malaysian Furniture Industry” by Hasshviny A/P Subramaniam has been examined and approved as a partial fulfillment of the requirement for the degree of Bachelor of Wood Science and Technology in the Faculty of Forestry, University Putra Malaysia.

Approved by:

---

Prof. Dr. Jegatheswaran Ratnasingam  
Faculty of Forestry  
University Putra Malaysia  
(Supervisor)

---

Prof. Dr. Mohamed Zakaria Bin Hussin  
Dean  
Faculty of Forestry  
University Putra Malaysia

Date: January 2018

## TABLE OF CONTENTS

DEDICATION.....	i
ABSTRACT.....	ii
ABSTRAK.....	iii
ACKNOWLEDGEMENTS.....	iv
APPROVAL SHEET.....	v
LIST OF TABLES.....	viii
LIST OF FIGURES.....	ix
CHAPTER 1.....	1
INTRODUCTION.....	1
1.1 Background.....	1
1.2 Problem Statement.....	3
1.3 Justification.....	5
1.4 Objectives.....	5
1.5 Scope and Limitation.....	6
CHAPTER 2.....	7
LITERATURE REVIEW.....	7
2.1 The Malaysian Furniture Industry.....	7
2.2 Review of Innovation.....	11
2.3 Innovations in the Malaysian Furniture Industry.....	16
CHAPTER 3.....	19
METHODOLOGY.....	19
3.1 Introduction.....	19
3.2 Research Design.....	19
3.3 Questionnaire Design.....	19
3.4 Location of Data Collection.....	20
3.5 Conceptual Framework of the Research Study.....	20
3.5.1 Types of Innovations Adopted in the Study.....	20
3.6 Data Collection Method.....	21
3.7 Sample Size.....	22
3.8 Data Analysis.....	23
CHAPTER 4.....	26
RESULT AND DISCUSSION.....	26
4.0 Introduction.....	26



4.1 Survey Response.....	26
4.2 Background of the Firms .....	27
4.3 Status of Innovation .....	31
4.3.1 Perception of Innovation .....	31
4.3.2 Participation and the Current Status of Innovation .....	33
4.4 Sources of Innovation in the Malaysian Furniture Industry .....	36
4.4.1 Internal Factors of Sources of Innovation .....	36
4.4.2 External Factors of Sources of Innovation .....	38
4.4.3 Objectives of Innovation .....	40
4.5 Correlation Analysis .....	42
CHAPTER 5.....	47
CONCLUSION AND RECOMMENDATION.....	47
5.1 Conclusion .....	47
5.2 Limitation of Study .....	49
5.3 Recommendation.....	49
REFERENCES .....	50
APPENDICES.....	54
Appendix A: Questionnaire .....	54
Appendix B: Database .....	60
Appendix C: Pictures .....	61

## LIST OF TABLES

Table	Page
Table 1: Malaysia's IMPs and cluster-based furniture development strategies.....	9
Table 2: Industrial classification of Malaysian furniture manufacturers.....	10
Table 3: A typology of innovations (OECD,2005).....	14
Table 4: The mainstreams of innovation typologies.....	15
Table 5: Number of licensed furniture mills in Malaysia.....	17
Table 6: Types of innovation adopted in the study.....	21
Table 7: Table for determining sample size from a given population.....	23
Table 8: Background of the firms.....	28
Table 9: Types of furniture manufactured by firms.....	30
Table 10: Perception of innovation from the sample population.....	32
Table 11: Status of innovation from the sample population.....	34
Table 12: Spearman's correlation of classification of company and types of sales.....	44
Table 13: Spearman's correlation matrix of types of innovation.....	46

## LIST OF FIGURES

Figures	Page
Figure 1: Contributions of the agricultural and manufacturing sectors to the gross domestic product (GDP) of Malaysia .....	1
Figure 2: Contributions of the agricultural and manufacturing sectors to the gross domestic product (GDP) of Malaysia from the year 2005-2014 .....	2
Figure 3: Types of innovation.....	13
Figure 4: Ranking of internal factors of sources of innovation.....	37
Figure 5: Ranking of external factors of sources of innovation.....	39
Figure 6: Ranking of objectives of innovation.....	41

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background

Malaysia is a country enriched with abundant of forest resources which makes it a unique tropical country with multi-potentials to be discovered and to be utilized. As such, as a developing country, Malaysia has shown tremendous success by transforming from an agricultural-based economy to a manufacturing based economy over a half century (Ratnasingam & Bennet, 2012). In fact, over the years the percentage share of the agriculture and manufacturing sector towards country's gross domestic product (GDP) has been steadily increasing as shown in Figure 1.

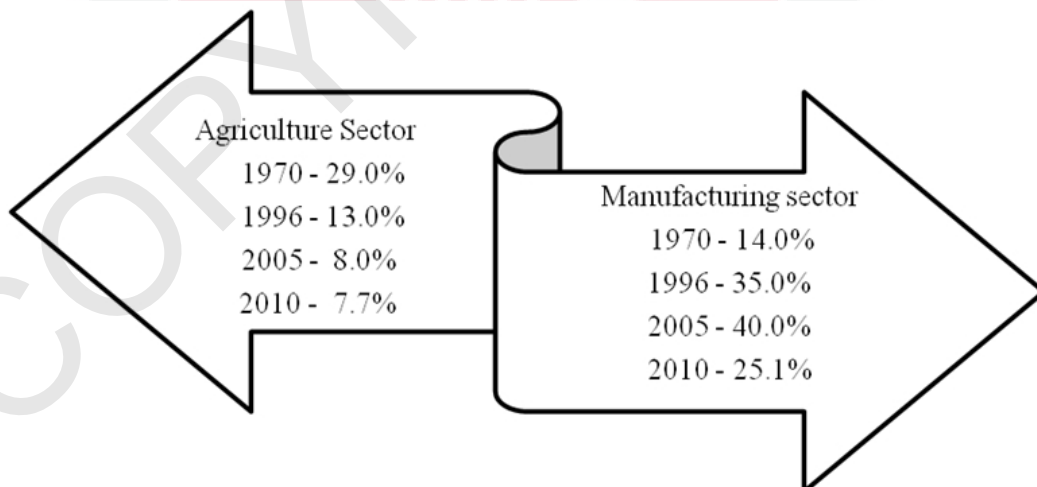


Figure 1: Contributions of the agricultural and manufacturing sectors to the gross domestic product (GDP) of Malaysia

Source: Ministry of Finance Malaysia, 2014.

Malaysia which was once a top exporter of logs and timber has grown its furniture industry to become one of the significant sectors in the nation's income earnings and employment provision. Since the 1980's, the industry has been developing rapidly with an annual turnover rate of 10% with the provision of rich forest asset and a plenteous supply of workforce (Ratnasingam & Bennet, 2012). While the Malaysian furniture industry was poised to surpass desires and to proceed with its exponential development, the solid rivalry postured by low regional low-cost producers like China and Vietnam has made a few downturns within the wood product sector to climb the esteem chain (Ratnasingam & Bennet, 2012) . Correspondingly, in the recent years the percentage share of the manufacturing sector towards country's gross domestic product (GDP) has been declining as shown in Figure 2.

Manufacturing sector	Agriculture sector
2005- 27.55 %	2005- 8.26 %
2006-28.03 %	2006-8.28 %
2007-27.19%	2007-7.90%
2008-26.13 %	2008-7.82 %
2009-24.15 %	2009-7.95 %
2010-25.16 %	2010-7.57 %
2011-25.04 %	2011-7.62 %
2012 <sup>1</sup> -24.84 %	2012 <sup>1</sup> -7.31 %
2013 <sup>1</sup> -24.53 %	2013 <sup>1</sup> -7.12 %
2014 <sup>1</sup> -24.13 %	2014 <sup>1</sup> -7.01 %

Figure 2: Contributions of the agricultural and manufacturing sectors to the gross domestic product (GDP) of Malaysia from the year 2005-2014

Source: GDP by kind of Economic Activity at Constant 2005 Price, Ministry of Finance Malaysia, 2014.

As the contribution of the manufacturing sector to country's economy growth is declining, thus it is vital to make sure that greater value-added and innovative products are produced to achieve the Third Industrial Master Plan (2006-2020), where the country's exports of timber products are targetted to grow at an average rate of 6.4 % to reach a total of RM 53 billion by 2020.

## **1.2 Problem Statement**

The furniture industry is truly an exciting field as it constantly welcomes changes through challenges and competition among the industry. Furniture can be considered as a primary want of our everyday life, thus it is created with both physical and aesthetic purposes to satisfy people's different levels of needs and carving. The evolution of the furniture industry is determined by changing consumer tastes and emerging needs. Innovation and resulting changes surely do provide a direct mechanism for the furniture industry success.

In the current globalized world, like many other developing industries, the furniture industry is going global and changing constantly with new ideas and models being frequently churned out. Although ranked as the 10<sup>th</sup> largest exporter of furniture in the world in the year of 2010 (Malaysian International Trade and Industry Report, 2014), the Malaysian furniture exports, is now facing competition which has never been so keen as a result of emergence of other furniture low cost producing nations such as China and Vietnam. This has caused Malaysia to decline to rank 15 among the major exporters of furniture in

the world in 2015. In fact, the Malaysian furniture industry is losing its competitiveness due to rising cost and declining supply of resources.

The Malaysian furniture industry is an essential socioeconomic division which contributes to nation's economy stability and development. As many countries realizes and understands the significance of advancement in business and economic improvement, the more focused and competitive they progress toward becoming advance. To reinforce its position as a top furniture producer in the world, Malaysian furniture industry is required to climb the esteem value chain. However, with a specific end goal to climb, advancement is required.

Thus, this study hopes to discover the innovativeness level in the Malaysian furniture industry, what encourages them to innovate and their objectives behind their innovation. The findings of this study will hopefully identify what the industry is lacking in terms of innovation and it also will become a good platform for the policy makers to provide betterment, thus increasing the value chain.

### **1.3 Justification**

One main important criteria that, the furniture industry should uphold is innovation. It is the main key in order to improve value addition by decreasing costs and productivity growth in the furniture industry (Ratnasingam & Bennet, 2012). Innovation in the industry is not only limited to the product or technology, whereas innovation in other aspects such as marketing and business practices are also a crucial contributor for success. By implementing innovation in the furniture sectors in many ways, the Malaysian furniture industry can overcome the competitiveness at global level. Hence, it is important to determine and understand the depth of innovativeness level of Malaysian furniture industry, so the industry could remain competitive and achieve its target of RM53 billion by 2020. Additionally, this study could help the policy makers to develop suitable programs to push the industry towards more successful path.

### **1.4 Objectives of the Study**

Therefore, the general objective of this study is to establish the level of innovation in the Malaysian furniture industry.

The specific objectives of this study are:

1. To examine the level of innovation in the Malaysian Furniture Industry.
2. To identify types of innovation in the Malaysian Furniture Industry.
3. To explore the objective of innovation in the Malaysian Furniture Industry.



### **1.5 Scope and Limitations**

This study is conducted to assess the level of innovativeness and the main driving factors for innovation in Malaysian furniture industry. This study only focused on three main types of innovation which are product innovation, process innovation and market innovation. Further, due to time and financial constraints, the survey was conducted primarily at the Malaysian furniture fairs, where most of the manufacturers and exporters participated.

## REFERENCES

- Abdullah, M., Zahari, S. & Lamat, M. (2013). Industrial design innovation of Sarawak contemporary furniture design. *Procedia Engineering*, 53, pp.673-682.
- Abrunhosa, A., & Moura E Sá, P. (2008). Are TQM principles supporting innovation in the Portuguese footwear industry? *Technovation*, 28(4), 208–221. Retrieved from <https://doi.org/10.1016/j.technovation.2007.08.001>.
- Afuah, A. (2003). *Innovation Management: Strategies, implementation and profits*. New York: Oxford University Press, Oxford.
- Barčić, A., Vlosky, R. & Motik, D. (2011). Deconstructing Innovation: An exploratory study of the US furniture industry. *Forest Products Journal*, 61(8), pp.635-643.
- Bullard, Steven H. & West, C. D. (2002). Furniture manufacturing and marketing: *Eight strategic issues for the 21st century*. Faculty Publications. 43. Retrieved from <https://scholarworks.sfasu.edu/forestry/43>.
- Cao,X. (2006). *Innovation in China's Furniture Industry*. Unpublished master's thesis, Oregon State University.
- Capon, N., Farley, J. & Hoenig, S. (1990). Determinants of Financial Performance: A Meta-Analysis. *Management Science*, 36(10), pp.1143-1159.
- CEC.(1995). *Green Paper on Innovation*, COM (95) 688. Retrieved from [http://europa.eu.int/en/record/green/gp9512/ind\\_inn.htmS](http://europa.eu.int/en/record/green/gp9512/ind_inn.htmS).
- Covin, J.G. & Miles, M.P. (1999). Corporate Entrepreneurship and the Pursuit of Competitive Advantage. *Entrepreneurship, Theory and Practice* 23 (3), 47-63.
- Chandler, G.N., & Hanks, S.H., (1994). Market attractiveness, resource-based capabilities, venture strategies and venture performance. *Journal of Business Venturing* 9 (4), 331-349.
- DOS, 2009. *Report on the annual survey of manufacturing industries 2008*. Department of Statistics, Malaysia.
- Babbie, E. (2004). *The practice of social research* (13<sup>th</sup> ed.).Cengage Learning.
- Edquist, C., & Hommen, L. (2005). *Small Economy Innovation Systems: Comparing globalisation, change and policy in Asia and Europe*. Cheltenham: UK.

Gopalakrishnan, S., & Damanpour, F. (1997). A review of innovation research in economics, sociology and technology management. *Omega, International Journal Management Science*, 25(1), 15–28.

Hoq, M. & Ha, N. (2009). Innovativeness: Its antecedents and relationship to SME business performance. *International Journal of Business and Management Vol 4*, No.11.

H.Norini, Rohana, A. R., Fauzi, P. A., & Parid, M. M. (2009). *Wooden furniture industry: Productivity, cost of production for selected products, primary input content and policies for sustainability* (Tech. Rep. No 2). Malaysia, Kepong: Forest Research Institute Malaysia.

Johne, A. & R. Davies (2000). Innovation in medium-sized insurance companies: How marketing adds value. *The international journal of bank marketing* 18(1): 6-14.

JETRO. (1999). *A report on performance study of wooden furniture industry in malaysia (unpublished)*. Kuala Lumpur: Japan External Trade Organisation.

Jin, Z., Hewitt-Dundas, N. & Thompson, N. (2004). Innovativeness and performance: evidence from manufacturing sectors. *Journal of Strategic Marketing*, 12(4), pp.255-266.

Krejcie, R. & Morgan, D. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30(3), pp.607-610. Retrieved from <https://doi.org/10.1177/001316447003000308>.

Leavengood, S., Anderson, T. & Daim, T. (2012). Exploring linkage of quality management to innovation. *Total Quality Management & Business Excellence*, 25(9-10), pp.1126-1140.

De Loecker, J. (2007). Do exports generate higher productivity? Evidence from Slovenia. *Journal of International Economics*, 73(1), pp.69-98.

Lim L.H (2013). *Innovativeness of Malaysian furniture industry at the firm level*. Unpublished master dissertation, University Putra Malaysia.

Malaysian Furniture Promotional Council. (2013). *MFPC annual report 2012*. Malaysian Furniture Promotional Council, Kuala Lumpur, Malaysia.

MIDA/UNIDO. (1985). *Medium and long term industrial master plan: Wood based industry*. Malaysian Industrial Development Authority, Kuala Lumpur.

MITI, (1996). *Second Industrial Master Plan: 1996–2005*. Ministry of International Trade and Industry, Malaysia.

MITI, (2006). *Third Industrial Master Plan 2006–2020: Malaysia — Towards Global Competitiveness*. Ministry of International Trade and Industry, Malaysia.

MITI. (2014). *Malaysia International Trade and Import Report 2014*. Ministry of International Trade and Industry, Malaysia.

Ng, B-K. & Thiruchelvam, K. (2011). Sectoral innovation systems in low-tech manufacturing: Types, sources, drivers and barriers of innovation in Malaysia's wooden furniture Industry. *International Journal of Institutions and Economies* 3(3),549-574.

Ng, B-K. & Thiruchelvam, K. (2012). The dynamics of innovation in Malaysia's wooden furniture industry: Innovation actors and linkages. *Forest Policy and Economics*, 14(1), pp.107-118.

OECD, (2005). *Oslo Manual: Proposed Guidelines for Collecting and Interpreting Technological Innovation Data*. Paris: European Commission.

Oke, A. (2007). Innovation types and innovation management practices in service companies. *International Journal of Operations & Production Management*, 27(6), pp.564-587.

Ratnasingam, J. (2000). Economics of Malaysia's wood-based industry. *Asian Timber*, 19(6),36-38.

Ratnasingam, J. (2002). Malaysian wood industry: Growing concern on the sustainability of the industry. *Asian Timber* 22 (8), 10-13.

Ratnasingam, J & Tan, C.Y. (2002). *The Malaysian furniture Industry: A pocket guide*. Asian Timber Publication, Kuala Lumpur, Malaysia.

Ratnasingam, J. (2003). Value addition in the South East Asian furniture industry. *FDM Asia* 15(5),30-34.

Ratnasingam, J., & Bennet, M. (2012). *Quest for growth, innovation and creativity- An analysis of wood of the wood-based sector in Asia*. USAID, Washington, United States of America.

Ratnasingam, J., Ioras, F., Vacalie, C.C & Wenming, L. (2013). The future of professional forestry education: Trends and challenges from the Malaysian perspectives. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca* 41(1), 12–20.

Ratnasingam, J., Lim, T.W., Ganesh, T., Ioras, F., Cristina, V., Couram, C. & Wenming, L. (2013a). Innovation in the forest products industry: The Malaysian experience. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca* 41(2), 601–607.

Ratnasingam, J., Yoon, C. Y., & Ioras, F. (2013b). The effects of ISO 9001 quality management system on innovation and management capacities in the Malaysian furniture sector. *Bulletin of the Transilvania University of Brasov: 6* (55). pp. 63-70.

Ratnasingam, J. (2015). *The Malaysian Furniture Industry- Unravelling its growth and challenges to innovation*. University Putra Malaysia Press, Serdang, Selangor.

Schumpeter J. (1934). *Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Harvard University Press, Cambridge, MA.

SMIDEC. (2002). *SMI Development Plan (2001-2005)*. Nasional Malaysia Berhad Press, Kuala Lumpur.

Subramanian, A. & Nilakanta, S. (1996). Organizational innovativeness: Exploring the relationship between organizational determinants of innovation, types of innovations, and measures of organizational performance. *Omega*, 24(6), pp.631-647

Suroso, E., & Azis, Y. (2015). *Defining mainstreams of innovation: A literature review*. Paper presented at the First International Conference on Economics and Banking (ICEB-15), Bandung, Indonesia.

Tidd, J., Bessant, J., & Pavitt, K. (2005). Managing innovation: Integrating technological, market and organizational change, 3rd edition, John Wiley & Sons. *The International Journal of Entrepreneurship and Innovation*, 11(4), pp.338-339.

Tomkovick, C. & Miller, C. (2000). Perspective-riding the wind: Managing new product development in an age of change. *Journal of Product Innovation Management*, 17(6), pp.413-423.

Uusivuori, J. & Tervo, M. (2002). Comparative advantage and forest endowment in forest products trade: evidence from panel data of OECD-countries. *Journal of Forest Economics*, 8(1), pp.53-75.

Weiss, G., Salka, J., Dobsinska, Z., Rametsteiner, E., Bauer, A., Aggestam, F. & Tykka, S. (2010). Integrating innovation in forest and development policies: comparative analysis of national policies across Europe. OPOCE, Brussels.