

APPENDIX 1: Survey Questionnaire



Survey of Technological Innovations in Malaysian Wooden Furniture Industry

- **Objective**
This survey collects information about levels and characteristics of technological product and process innovation activity of Malaysia Small and Medium-sized Wooden Furniture Manufacturers during the three year period 2006-2008.
- **Statement of Confidentiality**
Your company's identity will not be revealed in any publication or presentation of the results of this survey. Results will only be presented in an aggregated form.
- **Instructions**
 - The questionnaire should be completed by the manager or senior staff responsible for Research and Development or/and corporate planning.
 - Kindly return this questionnaire in the enclosed envelop within 14 days of the receipt.
 - If exact figures are not available, please make a best estimate.
 - If you have problems in completing this form, please do not hesitate to contact:

Mr. Ng Boon Kwee – Tel: 014 6437769
Email: bkng@perdana.um.edu.my

Details of person completing this form:

Name:	Phone:
Company Name:	
Designation:	Fax:
Date:	Email:

Department of Science and Technology Studies, Faculty of Science, University of Malaya,
50603 Kuala Lumpur

A: ENTERPRISE PROFILE

Note: If exact figures are not available, please make a best estimate.

- A1 What is your enterprise's main product? (Please ✓ one only)
- Wood-based Furniture
 Others (Please specify): _____
- A2 Year of Establishment for your Enterprise: _____
- A3 Ownership structure of your enterprise:
Local : _____ % Foreign : _____ %
- A4 Turnover in 2008: RM _____; and
Percentage derived from exports: _____ %
- A5 Number of full-time employees: _____
- A6 Proportion of full-time employees educated to degree level or above in science & engineering: _____ %

B: TECHNOLOGICAL PRODUCT & PROCESS INNOVATION

Product Innovation (Goods & Services)

Important definition:

- A technologically product innovation is the implementation / commercialisation of a new product or product with significant improved performance characteristics.
- The product innovation must be new to your enterprise, but it does not need to be new to your sector / market.

- B1 **During the period 2006-2008, did your enterprise introduce any technologically significant new or improved products?**

Yes No → Go to question B3

- B2 **If 'YES', how were these products developed? (Please ✓ one only)**

- Mainly by your enterprise or enterprise group
 Your enterprise in co-operation with other enterprises or institution
 Mainly by other enterprises or institutions

Process Innovation (Production & Delivery Methods)

Important definition:

- A technologically process innovation is the implementation / adoption of new or significantly improved production or delivery methods.
- The process innovation must be new to your enterprise, but it does not need to be new to your sector / market.

- B3 **During the period 2006-2008, did your enterprise introduce any technologically significant new or improved process?**

Yes No

B4 **If ‘YES”, how were these process developed? (Please ✓ one only)**

- Mainly by your enterprise or enterprise group
- Your enterprise in co-operation with other enterprises or institution
- Mainly by other enterprises or institutions

* If NO to both question B1 and B3, go to question B13, otherwise please continue to question B5 *

B5 **During the period of 2006-2008, did your company have any technological innovation projects that were:**

	Yes	No
Abandoned	<input type="checkbox"/>	<input type="checkbox"/>
Not yet completed but on time	<input type="checkbox"/>	<input type="checkbox"/>
Not yet completed but seriously delayed	<input type="checkbox"/>	<input type="checkbox"/>
Not even started	<input type="checkbox"/>	<input type="checkbox"/>

B6 **Please indicate the importance of each of the following methods to protect innovations developed by your enterprise:**

	Degree of Importance			
	Not Used	Low	Medium	High
Patents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Registration of design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trademarks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Copyrights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confidentiality agreement and trade secrecy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B7 **What were the sources of these innovations (product and / or process) expenditure?**

	Yes	No
Own fund	<input type="checkbox"/>	<input type="checkbox"/>
Related companies (subsidiary or associated company)	<input type="checkbox"/>	<input type="checkbox"/>
Financial companies (bank loans, venture capital, etc)	<input type="checkbox"/>	<input type="checkbox"/>
Government (loans, grants, etc)	<input type="checkbox"/>	<input type="checkbox"/>
Supranational and international organizations	<input type="checkbox"/>	<input type="checkbox"/>
Other (non-financial) enterprises	<input type="checkbox"/>	<input type="checkbox"/>

B8 **During the period of 2006-2008, did your enterprise engage in the following innovation activities?**

	Yes	No
In-house R&D , i.e. creative work undertaken within your enterprise to increase the stock of knowledge and its use to devise new or improved products and processes.	<input type="checkbox"/>	<input type="checkbox"/>
Acquisition of external R&D , i.e. R&D purchased from other enterprises or organisations.	<input type="checkbox"/>	<input type="checkbox"/>
Purchase or licensing of patents and non-patented innovation, know-how and other types of external knowledge from other companies or organisations.	<input type="checkbox"/>	<input type="checkbox"/>
Acquisition of machinery, equipment and software in connection with product and process innovation, such as land, building, machinery, software, etc.	<input type="checkbox"/>	<input type="checkbox"/>
All design functions , including industrial, product, process and service design and specifications for production or delivery.	<input type="checkbox"/>	<input type="checkbox"/>
Marketing preparation , including market research, and launch advertising.	<input type="checkbox"/>	<input type="checkbox"/>
Training for your personnel directly related to innovation activity.	<input type="checkbox"/>	<input type="checkbox"/>

B9 **If you ticked YES to in-house R&D [Question B8 (i)], please indicate how did your enterprise engage in in-house R&D during the period 2006-2008?**

Continuously Occasionally

B10 **Who were your partners for innovation co-operation?
Also, please indicate the importance of your partners.**

	Degree of Importance			
	Not Used	Low	Medium	High
Suppliers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clients or customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Competitors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consultants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other enterprises within your enterprise group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Universities or other higher education institutes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Government or public research organizations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Commercial laboratories & private R&D institutes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B11 **What were the objectives of innovation for your enterprise during the period of 2006-2008? (Please indicate the degree of importance attached to various alternatives by ticking one of the four columns for each objective)**

	Degree of Importance			
	Not Relevant	Low	Medium	High
Replace products being phased out	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increase range of goods & services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Develop environment-friendly products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increase & maintain market share	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enter new markets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improve quality of goods & services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improve flexibility of production /services provision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduce costs (labour, operating, design)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increase efficiency of delivery goods & services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Achieve industry technical standards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduce environmental impacts / improve safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meet regulatory requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improve working conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B12 **Please indicate the sources of knowledge and technology used in your technological innovation activities, and their importance. (Please ✓ one box in each row)**

		Degree of Importance			
		Not Used	Low	Medium	High
Inter-nal	Within the enterprise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other enterprises within your enterprise group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External Market & Commercial	Competitors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other enterprises in the industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Client or customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Consultants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Suppliers of equipment, materials, components, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Commercial laboratories	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Sector	Universities and other higher education institutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Government or public research institutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Private non-profit research institutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
General information	Patent disclosures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Professional conferences, meetings or journals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Fairs and exhibitions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Professional association, trade unions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Informal contacts or networks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Standards or standardisation agencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Public regulations (i.e. environment, security)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B13 **A range of factors may inhibit your ability to innovate. Please grade the importance of the following constraints during the period of 2000-2008. (Please ✓one box in each row)**

	Degree of Importance			
	No Effect	Low	Medium	High
Excessive perceived economic risks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost too high	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of funds within the enterprise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of external financial resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Innovation potential (R&D, design) insufficient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of qualified personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of information on technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of information on markets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difficulty in finding co-operation partners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inflexibility within the enterprise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Staff were burdened with production requirement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uncertain demand for innovative goods / services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Market dominated by established enterprises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Weakness of property rights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Legislation, regulations, standards, taxation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No need for innovation due to earlier innovations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No need because of lack of demand for innovations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

– END –

Thank you for your cooperation

APPENDIX 2: BRS Envelop Design for Postal Survey

NO STAMP REQUIRED

**SETEM POS
TIDAK DIPERLUKAN**

REPLY PAID / JAWAPAN BERBAYAR
MALAYSIA
No. Lesen : BRS 4432 K.L.

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