

(4) RESEARCH FINDINGS

(i) Summary and Analysis of Research Findings

To verify whether Malaysia is likely to lose its comparative advantage of the labor-intensive manufacturing industry such as assembled-products of low-value-added products such as radio cassette player, textiles and apparel to China, the summary table of the comparative advantage of export structure for selected manufactured goods between Malaysia and China derived & compiled from the Handbook of International Trade & Development Statistics (2000) is per below Table 10. The selected manufactured goods are in labor-intensive products (SITC 65~69 & 84) and technology-intensive or high end products (SITC 71~77).

Table 10 : Export Structure for Selected Manufactured Goods between China and Malaysia (% of total export)

Country	Year	Textile, yarn & Clothing	Metal Assembly & Manufactures	Machinery		Electronic Products
				Non-Electrical	Electrical	
				SITC 71	SITC 72	SITC 75, 76, 77
		SITC 65 + 84	SITC 67, 68, 69	Tech-intensive	Tech-intensive	Tech-intensive
China	1990	28.8%	5.30%	4.40%	6.40%	8.20%
	1995	26.0%	8.00%	5.30%	11.60%	10.30%
	1996	25.1%	6.80%	6.70%	12.30%	12.50%
	1997	23.2%	8.20%	7.10%	15.50%	13.60%
	1998	21.5%	9.80%	8.90%	19.20%	16.80%
M'sia	1990	5.90%	3.00%	4.50%	26.60%	15.60%
	1995	4.80%	2.70%	12.80%	34.40%	23.40%
	1996	4.90%	2.80%	14.70%	33.60%	30.20%
	1997	4.50%	3.20%	13.20%	29.30%	32.40%
	1998	4.60%	2.90%	12.80%	26.40%	33.60%

Source : UNCTAD, Handbook of International Trade & Development Statistics, (2000)

Base on the above statistical data, it can be concluded that China has a growing advantage in labor-intensive products while Malaysia has suffered declining advantage for these products particularly the textile, yarn and apparel industry (SITC 65~69 & 84) whereby China consistently maintain 20% and above export share compare to Malaysia's shrinking export share of less than 5%. China's entry to WTO will only further accelerates the growth of this

sector whereby the Multi-fiber Arrangement (MFA) quotas on China's textiles and apparel exports will be lifted (Palanca 2001)

Ianchovichina et al; (2000) estimated China's export of this sector will be increased dramatically by 330 per cent over a ten-year period post-accession. Thus, China's share in the world export markets for textiles and apparel is also estimated to increase substantially to over 44 per cent over the same duration. Since Malaysia is already experiencing falling RCA in textiles and wearing apparel between 1990~1999, it is expected that the expansion in exports from China will only serve to further accelerate the decline in Malaysia's export share.

Similar trend was being observed for the labor-intensive of metal manufactures and assembly products (SITC 67~69) such as manufacturing of metal component parts to support electronic industry and assembly of low-value products such as toys, telephone set, radio cassette player and others. Base on the above data for this industry, China export share is close to 10% in 1998 whereby Malaysia export share decreased to less than 3% and China's accession to WTO will further boost the export value of this industry.

Obviously, above statistics data further support the previous literature study of highlighted China's growing competitiveness in labor-intensive industry and is intensely competing with ASEAN countries especially Malaysia, Thailand and Indonesia for the same export products to the market of United States, Japan and European Union. (Tham & Loke 1998)

Meanwhile, as to find out whether Malaysia is still competitive in high-tech and high-value-added manufacturing against China, the summary table of World Export Ratio (WER) indices with revealed comparative advantage (RCA) basis between Malaysian-China in high-end products (SITC 71~77) are derived and compiled from Sunil, 2001 is per below Table 11 :

Table 11 : World Export Ratio (RCA basis) indices of Leading High Tech Products Exported by Developing World (1992 ~ 1999)

Year	Developing Countries	China	Malaysia	Thailand	Singapore
1992	0.95	0.36	2.15	1.22	2.47
1993	0.97	0.38	2.18	1.10	2.46
1994	1.09	0.43	2.28	1.22	2.61
1995	1.16	0.52	2.30	1.22	2.70
1996	1.21	0.61	2.17	1.42	2.72
1997	1.19	0.69	2.29	1.44	2.66
1998	1.21	1.20	2.48	1.32	2.66
1999	1.36	1.50	2.30	1.20	2.50

Source : Sunil, 2001 (*High Tech Products refer to SITC 71~77)

Apart from labor-intensive products such textile, clothing and textiles, it can also be observed that China and Malaysia also competes in the high tech electrical and electronic (e & e) sector base on above WER indices whereby in 1999, China WER in high tech products of 1.50 was still much lower than Malaysia's WER of 2.10.

Since the objective investigated in this research deals with the impact of China's entry into the WTO on manufacturing exports in Malaysia, the ability to compete or the competitiveness of Malaysian high tech manufacturing exports versus China's high tech manufacturing export competitiveness will play a key role in determining the outcome.

In traditional trade literature as developed by David Ricardo, competitiveness is captured by the notion of comparative costs of which is the foundation for the concept of comparative advantage that is used to determine the products that will be exported and imported by a country. In empirical

work, indices on the revealed comparative advantage (RCA) are usually utilised as proxies since it is assumed that the comparative advantage of a country is reflected or revealed in its trade pattern when autarky prices are unknown. Based on UNIDO (1982), the world export ratio of base on RCA can be used to assess the comparative advantage of the different sub-sectors, whereby:

$$WER_{ij} = (X_{ij} / X_i) / (X_{wj} / X_w)$$

where X_{ij} : Value of country i's export of commodity j,
 X_i : Value of country i's total export,
 X_{wj} : Value of world exports of commodity j,
 X_w : Value of world exports

The value for the WER index can be any positive value. For example, a ratio of two indicates that the share of that commodity in a country's exports is twice the world average. Therefore, the larger the value, the greater the comparative advantage and the more competitive of the industry concerned.

Apparently, from the period of 1992 to 1997, China's world export ratio of which ranging from 0.36 ~ 0.69 clearly implied that China is not at the same stage of industrial structure as the rest of the ASEAN-3, especially Singapore and Malaysia. As observed by Wang (1999), more than half of China's exports in machinery and electronics are processing exports with low-value added rate such as radio cassette players and telephone sets. These products are basically produced from imported semi-processed materials and assembled by spare parts from abroad for re-export. Therefore, it can concluded that the portion of the production process conducted in China between 1992 to 1997 is mainly labor-intensive in nature.

Nevertheless, China is fast catching up especially after the Asian currency crisis in 1997 whereby most of the ASEAN countries such as

Malaysia and Thailand were badly affected from the currency crisis. China's WER increased to 1.50 in 1999 whereby Malaysia, Thailand and even Singapore's WER growth are largely remained stagnant due to the sharp fall of FDI inflow plus being affected by the US economic slump started from middle 1999.

Malaysia's experience is different and unique due to its dualistic industrial structure. On the one hand, some of the top TNCs in the world consumer electronics industry that are producing for exports in Malaysia have shifted their process technologies to use state-of-the art automated facilities. The technology content of these operations has also been upgraded from assembly to low-level design and engineering. Furthermore, the local content of this export oriented sector has increased over time with the formation of some local linkages. (Tham, 2001b)

On the other hand, there are also other TNCs as well as domestic manufacturers that co-exist with the export-oriented TNCs that are primarily involved in assembly-type operations for the domestic market. The future of exports for this very important sector in Malaysian manufacturing depends therefore on Malaysia's ability to increase the technology content in this sector before China does likewise. Given that TNCs are the primary agents for the creation of dynamic comparative advantage, especially in the case of manufactured products and the dependence of Malaysia on TNCs for technology deepening, the issue is thus, related to the future of FDI flows into both countries (Nazari Ismail 1993)

Finally, as to examine whether due to cost-pressure factor and higher profit margin consideration, Malaysia foreign companies are more likely to consider production-relocation and restructuring to country that offering cost-effective resources than local companies, the summary results conducted from the interview surveys (guided with questionnaire) among the foreign TNCs subsidiaries and local electronic or related supporting manufacturing companies are as below.

Table 12 stipulated the summary response of companies related to their evaluation for Malaysia business operating climate in Section 2 of the questionnaire of which covering labor aspect, infrastructures/facilities and corporate governance.

Table 12 : Response of Foreign TNCs and Local manufacturers for Malaysia Business Operating Climate – Labor Aspect (Frequencies & Percent)

Labor Aspect	Very Dissatisfied		Somewhat Dissatisfy		Not Sure		Somewhat Satisfy		Very Satisfy		Total
	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	
Recruitment			5				25	8	2	2	42
F plus L %			(11.9%)				(59.5%)	(19.0%)	(4.8%)	(4.8%)	
Separate %			(15.8%)				(76.1%)	(80.0%)	(6.3%)	(20.0%)	
Quality			11	6	1	2	20	2			42
F plus L %			(26.2%)	(14.3%)	(2.4%)	(4.8%)	(47.6%)	(4.6%)			
Separate %			(34.4%)	(60.0%)	(3.1%)	(20.0%)	(62.6%)	(20.0%)			
Discipline			9	6			23	4			42
F plus L %			(21.4%)	(14.3%)			(54.8%)	(9.5%)			
Separate %			(28.1%)	(60.0%)			(71.9%)	(40.0%)			
Productivity			16	8	2		14	2			42
F plus L %			(38.1%)	(19.0%)	(4.8%)		(33.3%)	(4.8%)			
Separate %			(50.0%)	(80.0%)	(20.0%)		(43.8%)	(20.0%)			
Wages			8	3			24	7			42
F plus L %			(19.0%)	(7.1%)			(57.1%)	(16.7%)			
Separate %			(25.0%)	(30.0%)			(75.0%)	(70.0%)			

F = Foreign TNCs & L = Local manufacturers

In short, the foreign TNCs subsidiaries are quite satisfied with Malaysian labor work force in terms of recruitment, job quality, discipline and wages as about 50 per cent of foreign TNCs evaluated as somewhat satisfactory except the productivity aspect as about 38.1% of the foreign TNCs subsidiaries somewhat dissatisfied the productivity achieved. This is

probably due to high expectation of the foreign TNCs of using their home country level to evaluate the Malaysia's productivity.

Table 13 : Response of Foreign TNCs and Local manufacturers for Malaysia Business Operating Climate – Infrastructure Aspect (Frequencies & Percent)

Infra-Structure Aspect	Very Dissatisfied		Somewhat Dissatisfy		Not Sure		Somewhat Satisfy		Very Satisfy		Total
	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	
Quality					5		25	5	2	5	42
F plus L %					(11.9%)		(59.5%)	(11.9%)	(4.8%)	(11.9%)	
Separate %					(15.6%)		(78.1%)	(50.0%)	(8.3%)	(50.0%)	
Services					2		30	10			42
F plus L %					(4.8%)		(71.4%)	(23.8%)			
Separate %					(6.3%)		(93.7%)	(100%)			
Utility cost			25	10			7				42
F plus L %			(59.5%)	(23.8%)			(16.7%)				
Separate %			(78.1%)	(100%)			(21.9%)				
Com- cost			30	8			2	2			42
F plus L %			(71.4%)	(19.0%)			(4.8%)	(4.8%)			
Separate %			(93.7%)	(80.0%)			(6.3%)	(20.0%)			
Transport cost			30	10			2				42
F plus L %			(71.4%)	(23.8%)			(4.8%)				
Separate %			(93.7%)	(100%)			(6.3%)				

F = Foreign TNCs & L = Local manufacturers

In short, the foreign TNCs subsidiaries are quite satisfied with Malaysian infra-structures of highway, utilities and communication facilities in terms of quality and services provided as both foreign TNCs and local manufacturers highly evaluated as somewhat satisfactory (More than 60 per cent of satisfactory evaluation).

Nevertheless, both foreign TNCs (~70 per cent) and local manufacturers (Almost 100 per cent) strongly dissatisfied the charges of the electricity & water supply and highway toll charges. This is probably due to recent price up of the utility cost and highway toll charges recently approved by the Malaysia Government of which deemed to increase the operational cost of the foreign TNCs and local manufacturers.

Table 14: Response of Foreign TNCs and Local manufacturers for Malaysia Business Operating Climate – Corporate Governance (Frequencies & Percent)

Corp.Governance Aspect	Very Dissatisfied		Somewhat Dissatisfy		Not Sure		Somewhat Satisfy		Very Satisfy		Total
	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	
Tax incentives						5 (11.9%)	32 (76.2%)	5 (11.9%)			42
F plus L %						(50.0%)	(100%)	(50.0%)			
Separate %											
Company tax	2		28	10			2				42
Of 28%	(4.8%)		(66.7%)	(23.8%)			(4.8%)				
Separate %	(6.2%)		(87.5%)	(100%)			(6.3%)				
Bureaucracy			20	8			12	2			42
Efficiency			(47.6%)	(19.0%)			(28.6%)	(4.8%)			
Separate %			(62.5%)	(80.0%)			(37.5%)	(20.0%)			
Legal aspect					5	28	5	4			42
F plus L %					(11.9%)	(66.7%)	(11.9%)	(9.5%)			
Separate %					(50.0%)	(87.5%)	(50.0%)	(12.5%)			
Enforce copy	2		30				10				42
Right	(4.8%)		(71.4%)				(23.8%)				
Separate %	(6.2%)		(93.8%)				(100%)				

F = Foreign TNCs & L = Local manufacturers

Lastly, for the evaluation of Malaysia's business operating climate – Corporate Governance aspect, foreign TNCs in particular, are overwhelmingly satisfied (~100 per cent) with the Malaysian Government offer of tax incentives such as tax-free operation under License Manufacturing Warehouse (LMW) and Special Economic Zone (SEZ) package. Nevertheless, both foreign TNCs and local manufacturers are dissatisfied with company tax (28 per cent of rate is higher compare to regional rate of ~25 percent), bureaucracy efficiency (longer time and effort taken for custom application, clearance and processing) and enforcement of copy right and intellectual property. (Lack of persistency in enforcement)

Table 15: Response of Foreign TNCs and Local manufacturers for Implications of China Entry to WTO to M'sia Electronic Sector (Frequencies & Percent)

	Strongly Disagree		Somewhat Disagree		Not Sure		Somewhat Agree		Strongly Agree		Total
	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	
1) Bigger market							18	5	14	5	42
Chance in China							(42.9%)	(11.9%)	(33.3%)	(11.9%)	
Separate %							(66.7%)	(50.0%)	(55.7%)	(50.0%)	
2) Higher profit			2				18	10	12		42
Margin in China			(4.8%)				(42.9%)	(23.8%)	(33.3%)		
Separate %			(6.2%)				(66.7%)	(100%)	(55.7%)		
3) Threaten own			7				25	10			42
Industry in M'sia			(16.7%)				(59.5%)	(23.8%)			
Separate %			(21.9%)				(76.1%)	(100%)			
4) New FDI will							20	5	12	5	42
Flows to China							(47.6%)	(11.9%)	(26.6%)	(11.9%)	
Separate %							(62.5%)	(50.0%)	(37.5%)	(50.0%)	
5) Product relocate			4	5			28	5			42
Is unavoidable			(16.7%)	(11.9%)			(66.7%)	(11.9%)			
Separate %			(12.5%)	(50.0%)			(88.9%)	(50.0%)			

Regarding the Section 3 of the questionnaire pertaining to the implications of China entry to WTO to Malaysia's electronic sector, almost all the managers interviewed from both foreign TNCs and local manufacturers did recognize the profound impact of China's accession to WTO to their respective business operation in terms of stronger competition from China-making products and drastic decrease of new FDI to Malaysia of which indirectly slim down the changes of business growth and expansion.

Almost all the foreign TNCs were looking and discussing the issues of capture bigger market share in China with higher return. Out of total 12 US's electronic component TNCs, 6 companies were in the process of relocating their low-end products to China after considering the bigger market opportunities and higher profit margin in China. Similar trend was noticed and observed for the local manufacturers.

Table 16 : Response of Foreign TNCs and Local manufacturers for Preparation for China Entry to WTO (Frequencies & Percent)

	Strongly Disagree		Somewhat Disagree		Not Sure		Somewhat Agree		Strongly Agree		Total
	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	
1) Improve cost							8	5	24	5	42
Competitiveness*							(19.0%)	(11.9%)	(57.1%)	(11.9%)	
Separate %							(25.0%)	(50.0%)	(75.0%)	(50.0%)	
2) Boost higher							14	10	18		42
Productivity							(33.3%)	(23.8%)	(42.9%)		
Separate %							(43.7%)	(100%)	(56.3%)		
3) Product			8				24	10			42
Diversification			(19.0%)				(57.1%)	(23.8%)			
Separate %			(25.0%)				(78.1%)	(100%)			
4) Appeal more							20	5	12	5	42
Tax incentives							(47.6%)	(11.9%)	(28.6%)	(11.9%)	
Separate %							(62.5%)	(50.0%)	(37.5%)	(50.0%)	
5) Appeal, review		5	7	5			25				42
RM/USD peg		(11.9%)	(16.7%)	(11.9%)			(59.5%)				
Separate %		(50.0%)	(21.9%)	(50.0%)			(78.1%)				

*Improve cost competitiveness included measures of various cost cutting plan, outsourcing, source mat. from China and set up company/joint venture in China for cost merits.
F = Foreign TNCs & L = Local manufacturers

As for Section 4 of the questionnaire pertaining to the preparation against China entry to WTO, both foreign TNCs and local manufacturers strongly agreed that upgrading or improving overall cost competitiveness is the key factor to survive and compete with China. There are even 60 per

cent of foreign TNCs considering to appeal to Malaysia Government to review the pegging of fixed exchange rate of RM 3.80 against one US dollar to increase the product cost competitiveness against China.

Table 17: Response of Foreign TNCs and Local manufacturers for Company Future Direction pertaining to China Entry to WTO (Frequencies & Percent)

	Strongly Disagree		Somewhat Disagree		Not Sure		Somewhat Agree		Strongly Agree		Total
	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	
1) Relocate low				8		2	28		4		42
End + high vol											
To China											
F plus L %			(19.0%)		(4.8%)		(66.7%)		(9.5%)		
Separate %			(80.0%)		(20.0%)		(87.5%)		(12.5%)		
2) Restructuring,							30	10	2		42
Slim down the											
Operation											
F plus L %							(71.4%)	(23.8%)	(4.8%)		
Separate %							(93.8%)	(100%)	(16.2%)		
3) No plan now,			2	8	12	2	18				42
Consider shift in											
Future 1 – 3 yrs											
F plus L %			(4.8%)	(19.0%)	(28.6%)	(4.8%)	(42.9%)				
Separate %			(16.2%)	(80.0%)	(37.5%)	(20.0%)	(56.3%)				
4) Need survive,		2	25	8	2		5				42
Close operation											
Here, shift China											
F plus L %		(4.8%)	(59.5%)	(19.0%)	(4.8%)		(11.9%)				
Separate %		(20%)	(78.1%)	(80.0%)	(20.0%)		(15.6%)				
5) No action yet	12	2	15	8	5						42
As if/cast not											
Affected											
F plus L %	(28.6%)	(4.8%)	(35.7%)	(19.0%)	(11.9%)						
Separate %	(57.5%)	(20%)	(46.9%)	(80.0%)	(15.6%)						

F = Foreign TNCs & L = Local manufacturers

As for Section 5 of the questionnaire pertaining to the company future direction against China entry to WTO, foreign TNCs are mostly agreed (~90 per cent) to relocate the low-end products (With high volume) to China compare with about 80 per cent of the local manufacturers who somewhat oppose such practice. This is probably due to the cost-reduction pressure in the midst of global recession that prompting the foreign TNCs to relocate their operation to China with the hope of capturing bigger market shares and increase their profit margin in order to cover their losses at the other parts of the world especially in United States and Japan.

Meanwhile, for the sensitive issue of considering shifting the plant to China in future (Between 1 ~ 3 years), the American TNCs are more attempting to consider such plan (12 out of 16) compare to their Japanese

counterparts (6 out of 15). This is probably due to the Japanese TNCs are having longer investment period in Malaysia compare to the US TNCs and may also due to most of the Japanese companies operating here are having sister companies in China guided with the policy of 'Not putting all the eggs into one basket'.