Chapter 4

RESEARCH FINDINGS : CHANGING ROLES OF DOMESTIC PARTNERS IN JOINT VENTURES – A Case Study Of Malaysia's Electronics Sector

This chapter presents the findings of the research survey and is divided into ten sections. The first section analyzes the motives of foreign partner to enter into a Joint Venture. The subsequent section investigates the past and present roles of domestic partner in the Joint Venture. The management and control section tries to examine the functions that are managed and control by the domestic and foreign partners.

The remaining sections are used to test our hypothesis on the gains made by local partner with respect to technical knowledge, managerial knowledge and financial dependence. These are analyzed with changes in the past and present status of transfer of technology, research and development, dependence on foreign partner for raw material, export marketing activity, dependence on foreign partner for finance needs, human resource development and finally the level of autonomy given to the Joint Venture.

4.1 MOTIVES OF FOREIGN PARTNERS TO FORM THE JOINT VENTURE

There was a clear pattern, which emerged in the role of partners at the time of formation of the JV. The same was analyzed from the motives for entering into a Joint Venture. Table 4.1 gives a detailed breakdown of the responses given for the major motives for formation of the JV. Some of the respondents mentioned more than one reason for forming the JV. One thing that emerged clearly was that access to local market was the main motive of the foreign partners for setting JV operations in Malaysia. Most foreign partners wanted to set up operations in Malaysia to cater to the large number of MNCs operating in various FTZ and LMW areas.

Table 4.1 : **Partners Motives for Entering Into a Joint Venture (At Formation) – Frequency of Respondents Mentioning the Motive**

Sno.	Motive for Forming Joint Venture	Component Sector				Consumer Sector				Industrial Sector				Total	
		JVM (N=2)		JVF (N=3)		JVM (N=2)		JVF (N=2)		JVM (N=4)		JVF (N=1)			
		DP	FP	DP	FP	DP	FP	DP	FP	DP	FP	DP	FP	DP	FP
1.	Capital of Partner	1	1	1			2			1				3	3
2.	Risk Sharing		2				1								3
3.	Technological / Technical Expertise														
a.	Production	2				1				4		1		8	0
b.	Research & Development	1				1				4		1		7	0
c.	Marketing	1				1					3			2	3
d.	Managerial		1			1				2	2			3	3
e.	Finance		1				1							0	2
4.	Market Access	2	2		1	2	2			1	3	1	1	6	10
5.	Knowledge of Foreign /Local Economy		2				2							0	4
6.	Government Regulation for Local Ownership		2	2	3		2		2		4		1	0	13
7.	Gain Political Access				2				2		4		1	0	9
8.	Others		1												
A.	Non-Active Domestic Partner			2				2							4

Note : Some of the Respondents Mentioned multiple reasons, whereas some mentioned only one or two main reasons.

Abbreviations: JVM (N) – Joint Venture Malaysian Owned (Number of Companies Interviewed)
JVF (N) – Joint Venture Foreign Owned (Number of Companies Interviewed)
DP – Domestic Partner
FP – Foreign Partner

For them, JV was one of the best ways for market entry, as it met the local government regulations for investment for the given level of export activity of the Joint Venture. The next section analyses the major motives of the foreign partners to form the JV. These are the same as outlined in Chapter 2 of the research paper. The same is analyzed for the three sub-sectors within the electronic industry i.e. Component, Consumer and Industrial sub-sector.

4.1.1 Component Sub-sector

Five companies were covered in this sub-sector. Two were JVMs and the remaining were JVFs. In case of JVMs the major motive was to gain market access and exploit the cheap labor conditions and booming economic conditions of the Malaysian market. Both these Joint Ventures were formed around 1989 and 1990 period, when the Malaysian economy was on its recovery path after a seven year prolonged recession. The foreign partners preferred the JV because of the booming demand in Malaysian economy and availability of ready customer-base who were operating in the FTZ and LMW areas. Capital needs was not a major reason for forming the JV as only one respondent mentioned it as an important criteria. In one of the JVMs it was mentioned that transfer of old technology and machinery to the local partner was a major motive for formation of the JV. This was necessitated by the fact that the foreign partner wanted to upgrade there own plant in Hong Kong and were looking for a partner to whom their existing machinery could be sold. This was not explicit at the time of formation of the JV. Another thing worth highlighting here is that both these JVs are manufacturing low-end components like plastic casings for remote controls and wire-leads for diodes and hence the foreign partner which were small-sized entrepreneurial companies were essentially looking for exploiting market opportunities in Malaysia.

The clear reason for forming the JVF for the foreign partner was to meet government regulations for investment in the manufacturing sector. The second most important motive for the foreign partner was to gain political access, although it was not the main reason as all the companies in this segment were export oriented. In two cases the local partner provided equity and had no interference in the day to day operations of the JV. For all practical purposes the domestic partners role was that of a so-called sleeping partner, who provided only the necessary equity to meet the government regulation. One of the companies mentioned that they were a wholly owned subsidiary and were requested by MIDA to form the JV. This was to meet the regulatory equity requirements, as they were categorized by MIDA as a labor-intensive industry. In both cases the foreign partner are from Japan they are operating like a wholly owned subsidiary of the foreign partner.

4.1.2 Consumer Electronics Sub-sector

Four companies were covered in the research study in this sector. In case of Malaysian owned Joint Ventures, slightly different picture emerged in this segment. One of the JVMs was formed to gain market access to exploit the booming economy in Malaysia. The foreign partner was an employee of a reputed MNC from Korea, who setup the JV in partnership with a local investor to do contract manufacturing of electrical and electronic consumer products. Despite being a Malaysian owned JV, the domestic partners role was to provide equity for meeting local equity criteria and gain political access. The actual day to day running of the operation's including production, management and marketing were taken care of by the foreign partner.

Once again in the foreign owned Joint Ventures the major motive for forming the JV was similar to the component sector. The local partner provided the equity to meet the necessary government regulation and was again non-active partner without any contribution in the day to day running of the organization. As in case of the components sector, one of the JVFs was export-oriented industry whereas the other was initially set-up as an import substituting industry. One of the companies has been operating in Malaysia since 1966 and was initially setup as an import substituting industry, manufacturing electrical and electronic products for the local market.

Again one can conclude that the major motive for the foreign partner was to gain access to setting up a manufacturing base in Malaysia to meet the demand for local markets in case of JVM and for export markets in case of a JVF.

4.1.3 Industrial Electronics Sub-sector

All companies in this category were import substitution industry, supplying telecommunication equipment to the government. Hence their responses were different from those in the component or consumer sector. The main motive for forming the JV in the Industrial electronic sub-sector was primarily to gain political access and meet government regulation.

The oldest JV was formed in 1965 and the foreign partner used a local association of government employees as a partner to form the local company, and the local partner's main role was to provide equity in order to meet the government regulations. In second case, the foreign partners were requested by the authorities to form a JV with a local company in order to get, continued support from the government. In this case the foreign partner was awarded a major contract for supply, installation and commissioning of telecom equipment and the government prompted these company to form the JV, before the contract was formalized. In third case the JV was formed before the partner was bidding for a major tender with Telecom Malaysia. In case of the industrial sector JVs were the most convenient option to ensure business success in the local market. In the case of a UPS and DC power supply manufacturer, being an import substituting venture the foreign partners main motive was to gain market access to the lucrative telecommunication sector in Malaysia. Their long-term success could be ensured only with support of a Bumiputra partner.

In the case of a JVF the local partner, a well-established corporate group wanted to diversify into the field of IT services for the industrial sector, hence they were looking for a suitable foreign partner. On the other hand the foreign partner wanted political access in order to get government projects, which prompted them to form the JV. Unlike the component and consumer sector, the domestic partner in the JVF were actively involved in the day to day running of the operation's at least in the marketing and managerial side at the time of formation, despite of 40 – 60, local – foreign equity structure.

The major role of the domestic partners was to meet the local equity requirement so that continued market access can be ensured for future business. Gaining political access was the other major underlying reason for the foreign partners to enter into a JV. From the point of view of the local partner access to technology and continued government support were the motives for forming the JV. Hence one can conclude from the research data that the main motive for forming JVs in the industrial sector was to gain local market access, while meeting local equity participation requirement, which will also ensure political access and long term business support.

4.2 CHANGING ROLES OF DOMESTIC PARTNERS

4.2.1 Role Of Domestic Partner In Joint Venture – At Formation

The role of partners is evaluated based on five major needs of the foreign partner. These are classified in Table 4.2 as capital & risk sharing, provider of cheap labor, provide access to domestic market, provide political gain or support which includes local equity regulation and provide knowledge of domestic needs.

Based on the interviewees responses it was felt that some of the JVs were operating like foreign WOS as the domestic partner was a mere equity provider only. Hence four categories were added which defined the nature of the JV in terms of being run as Malaysian WOS, foreign WOS, or jointly run. In three cases it was found that the JV was converted to Malaysian WOS and hence that category was also added.

The respondents were asked to rate what were the roles of the domestic partner in the JV. Eighty six percent of the respondents mentioned the major role of the domestic partner was to provide equity to meet government regulation and provide political support or gain. Table 4.2 summarizes the roles of domestic partner at the time of formation, and present.

Table 4.2 : **Roles of Domestic Partners in Joint Venture – At Formation and Present**

Sno	Roles of Domestic Partner	Component Sector				Consumer Sector				Industrial Sector				Total			
		JVM (N=2)		JVF (N=3)		JVM (N=2)		JVF (N=2)		JVM (N=4)		JVF (N=1)		Numbers		% age	
		AF	P	AF	P	AF	P	AF	P	AF	P	AF	P	AF	P	AF	P
1	Capital & Risk Sharing	2		1		2		1	1	2	2			8	3	58%	21%
2	Provider of Cheap Labor	2		1		2		1			1	1		7	1	50%	7%
3	Provide Access to Domestic Market	1		1		2			2	4	4	1	1	9	7	63%	50%
4	Provide Political Support / Gain	1		3	1	1		2	1	4	4	1	1	12	7	86%	50%
5	Provide Knowledge of Domestic Needs	2		2		1		1	1					6	1	42%	7%
A.	Being run as Malaysian WOS	1	1			1	1			1	1			3	3	21%	21%
B.	Being Run as Foreign WOS			2	2	1		2	2		1		1	5	6	35%	43%
C.	Jointly Run	1		1						3	2	1		6	2	42%	14%
D.	Converted to Malaysian WOS		1		1		1							0	3	0%	21%

Note : Some of the Respondents Mentioned multiple reasons, whereas some mentioned only one or two main reasons.

Abbreviations: JVM (N) – Joint Venture Malaysian Owned (Number of Companies Interviewed)
JVF (N) – Joint Venture Foreign Owned (Number of Companies Interviewed)
AF – At Formation
P – Present

The second most important role of the domestic partner was to provide access to domestic market. This included providing access to companies operating in the FTZ and LMW areas. Fifty seven percent of respondents mentioned that Capital and risk sharing was the role of the domestic partner, whereas another 50 per cent of the respondents mentioned that the local partner provided cheap labor for the operations. At the time of formation of the JV, 50 per cent of the operation's were being run jointly by the foreign and local partner, whereas 35 per cent were being run as a wholly owned subsidiary of the foreign partner, with the domestic partner being non active. This was relevant in the JVFs. Twenty one per cent

JVs were being run as a local company from day one of the operation. The next section covers in detail the responses from various sub-sectors.

4.2.1.1 Electronic Component Sub-sector

The JVMs in the consumer sector essentially provided a base to the foreign partner to access the foreign customers in the FTZ and LMWs. Only one company mentioned that providing political gain or access was a consideration. One of the companies was run like a Malaysian WOS from the beginning. The company is manufacturing plastic components for the electronics sector. Whereas, in case of JVFs, the major role of the domestic partner was to provide political support to meet the local equity criteria. In case of JVFs, two companies were run like foreign owned WOS, whereas one was being run jointly.

4.2.1.2 Consumer Electronics Sub-sector

The role of domestic partners in the JVMs was to provide market access, cheap labor and capital risk sharing. Once again one of the companies was run as a Malaysian WOS.

In case of JVFs in the consumer sector, the role of the domestic partner was restricted to providing equity to meet government criteria. The local equity of one of the companies is in form of public shares, whereas the remaining foreign equity is of the various plants of the foreign partners located overseas. For all practical purposes both these companies are being run as foreign owned WOS.

4.2.1.3 Industrial Electronics Sub-sector

In case of the Industrial sub-sector, the role of domestic partners was to provide political support / gain in order to meet local equity criteria. This was essential to have continued market access to the lucrative telecommunication sector. All the companies are major suppliers of telecommunication equipment to Telekom Malaysia. It's only during 1993 that the telecommunications sector has been opened to six private operators. Earlier this sector was a complete monopoly of the government owned Telekom Malaysia. Two JVs were formed at the time of award of contracts of major supply of hardware to telecomm. The other two companies were formed at the time of bidding for the tenders.

Three JVs are were being run jointly, whereas the recently formed JVM for manufacture of DC power supplies is being run as a Malaysian owned WOS, with minimum interference from the foreign partner. In case of two JVs, the respondents felt that the foreign partner chose their domestic group to counter competition. For the foreign partner JVM was the best means to counter competitive pressures from other well established MNCs active in the market.

4.2.2 Present Role Of Domestic Partners In Joint Ventures

As knowledge about various factors increases or develops amongst partners the need for the counterparts decreases (Miller et al 1996). Consequently the roles of the partner's changes as the relationship develop, with time.

The same is reflected from the present roles of domestic partners in the JVs covered in the survey. Presently only 50 per cent foreign partners required the political support of the local partner. The sharp drop in this need was more noticeable in some of the JVFs where the foreign partners and their local staff have developed enough knowledge and contacts to handle political support directly. Similar trends are noticeable in domestic partners role in providing access to local markets. Once again over time partners have developed their own contacts for fulfilling the political needs. Only 21 per cent of the respondents mentioned that capital and risk sharing was one of the roles of the domestic partner in the JV. Increased cost of local labor over the last 4-5 years, the foreign partners no longer perceive the domestic partners role as provider of cheap labor.

The next section analyses in detail the present role of domestic partners in various sub-sectors in the electronic industry. One remarkable change in the role of domestic partner in JVs has occurred wherein three JVs have been converted into Malaysian owned WOS. These are one each from the JVMs in the component and consumer sub-sector and one JVF from the component sector. There are no major changes in other categories.

4.2.2.1 Electronic Component Sub-sector

In the component sub sector one of the JVM was converted into Malaysian owned subsidiary recently. The major reason for divestment by the foreign partner was the fact that it was provided for in the JV agreement. The representative of the company interviewed although mentioned that the takeover occurred earlier then stipulated in the agreement. This was primarily due to the fact that the foreign partner was not providing enough support for R&D development and access to new technology. In the first place the foreign partners main motive to form the JV was to sell their outdated machines to the JV. The local partner decided to takeover the operation, once they realized that the other party was not interested in the well being of the operation.

In the other JVM, the local partner is running the business independently, without any contribution from the foreign partner, whose role now is just as an equity investor in the business. The role of the domestic partner in both the above cases have changed completely to the extent that they are capable of running the operation's independently. Though it is encouraging to see these changes in the role of the domestic partner, but it is worth highlighting that both these operations have two common characteristics. Firstly these JVs are in the low technology areas (manufacturer of wire leads and plastic injection moldings and assembly) and secondly in both cases the foreign partners are individual entrepreneurs, whose main concern was to get access to the booming Malaysian market at the time of formation.

The response in the JVFs in the component sector is slightly mixed. In one of the cases the foreign partner has divested its equity recently. The main reason for doing so was that the company did not perform well initially and the foreign partner lost interest in the business. The domestic partner took this opportunity to buyoff the business from their counterparts. Once again it is noticeable in this case also that the company is involved in manufacture of single / double sided printed circuit boards, which is a relatively low technology sector now.

The scenario is pretty different in the other two JVFs. The role of domestic partner has not changed whatsoever and the domestic partners role is still restricted to provision of equity to meet government regulation. Although in case of one of the JVFs (a leading semiconductor manufacturer), the foreign partner prefers to use JVs, despite of the fact that being a 100% export oriented unit they are eligible to setup a foreign owned WOS. The foreign partner prefers to use the JV, as an investment strategy in Malaysia. It can be said that the local partner in this case, also provides capital risk sharing to an extent.

4.2.2.2 Consumer Electronics Sub-sector

One of the JVMs in this sector has been converted into a Malaysian WOS, around July'97. The main reason for the takeover of this firm was that the JV was not profitable, as it was being run as personal property of the foreign partner, an individual investor from Korea in this case. The local partner was just a provider of equity, government support, without much interference in day to day running of the business. Due to accumulated losses the foreign and local partner decided to sell of the company and it was acquired by a leading co-operative society of the government employees. It is arguable whether the former domestic partner gained anything from the JV. Although the present management believes that they acquired the business because of established customer base and technological know-how of the local employees.

In case of JVFs there are not much changes in the roles of domestic partners. In both the cases the operation is being run, as part of foreign owned subsidiary. Although it could be said that many of the functional areas are being headed and managed by local employees of the JV. This will be covered in more detail in the management and control section subsequently.

4.2.2.3 Industrial Electronics Sub-sector

In the Industrial sector, there have been mixed changes in the role of the domestic partner. In case of all four JVMs, market access and government support remains the main role of the domestic partner. Being an import-substituting sector, these factors besides providing capital risk sharing remain as the main roles of the domestic partner from the viewpoint of the foreign investors. In this sector continued business access can only be ensured with tie-up with a local company. The roles of the domestic partner have essentially remained the same, but some changes have taken place, which will be analyzed in more detail in the subsequent sections of this chapter. Based on the responses received from the respondents it can be said that the domestic partners have made technological gains and have been ensured continued business from the domestic telecommunication industry.

In case of the only JVF covered in the survey, the domestic partners role has changed for worse. The country manager of the foreign partner, who was interviewed, expressed his dissatisfaction with the role of domestic partner. It was mentioned, that one of the reasons for lack of success of the JV was due to the fact that the business is insignificant for the domestic partner, who are part of a very big and well-established local business group. This has resulted in total loss of interest of the local partner in the JVs operation. Thus the local partners role has reduced to providing equity and political support. The later role is not being fulfilled, up to the expectations of the foreign partner.

In essence one can conclude that there have been minor gains made by the domestic partners in the JV operations.

4.3 MANAGEMENT & CONTROL OF JOINT VENTURE

In order to understand the real contributions or role of domestic partners in the JV, a section on management and control was included as part of the questionnaire. The purpose of this section was to find which functions or departments are managed and controlled by the locals, foreign partners or controlled jointly. This will help us in getting a better insight on the real gains accrued to the domestic partners in the actual running of the business. It is worth pointing out here that in some cases where the domestic investor was a non-active partner, local Malaysian employees manage some functional areas. For the purpose of this study we consider the local employee controlling an operation as if the local partner is controlling it, because in both these cases the host country gains.

4.3.1 Management & Control Of The Joint Venture - At Formation

Table 4.3 summarizes the various functions managed and controlled by local partner, foreign partner or jointly controlled at the time of formation of the JV. Most notable of all is the R&D function which was controlled 100 per cent by the foreign partner at the time of formation. This is expected, because at least initially the foreign partner will try to maintain a complete control over the proprietary product and process information. Other notable areas of control for the foreign partner were manufacturing and marketing, where the foreign partner exercised control over the operation. The domestic partners role were consigned to managing and controlling functions like purchasing, manufacturing, marketing (50 per cent in each cases), human resource function (86 per cent), and Industrial / public relations (79 per cent). This is attributed to the fact, that these functions require skills and support of the local staff. In 43 per cent of the cases finance was a jointly controlled function. The following section covers the responses for various sectors in detail.

4.3.2 Present Status Of Management & Control Of Joint Venture

There have been significant changes in the management and control of the various functions. Table 4.4 summarizes the present status of management & control of the Joint Venture.

Table 4.3 : **Management & Control Of Joint Venture - At Formation**

Sno.	Functions / Departments	Component Sector						Consumer Sector						Industrial Sector						Total					
		JVM (N=2)			JVF (N=3)			JVM (N=2)			JVF (N=2)			JVM (N=4)			JVF (N=1)			Numbers			% age		
		LP	FP	JV	LP	FP	JV	LP	FP	JV	LP	FP	JV	LP	FP	JV	LP	FP	JV	LP	FP	JV	LP	FP	JV
a.	R & D		2			3			2			2			4			1		0	14	0	0%	100%	0%
b.	Finance	2				2	1			2	1	1		2		2			1	5	3	6	36%	21%	43%
c.	Purchasing	2			1	1	1	1	1		1	1		2		2			1	7	3	4	50%	29%	21%
d.	Manufacturing	1		1	1	2		1	1		1		1	3	1			1		7	4	3	50%	29%	21%
e.	Marketing	1	1		2	1		1	1		1	1		2		2			1	7	4	3	86%	0%	14%
f.	Recruitment /HR	2			3	1		1		1	2			3		1	1			12	0	2	79%	7%	14%
g.	Industrial/Public Relation	2			2	1		1		1	2			3		1	1			11	1	2	79%	7%	14%

Abbreviations: JVM (N) – Joint Venture Malaysian Owned (Number of Companies Interviewed)
JVF (N) – Joint Venture Foreign Owned (Number of Companies Interviewed)
LP – Controlled by Local Partner
FP – Controlled by Foreign Partner
JV – Jointly Controlled

Table 4.4 : **Management & Control of Joint Venture - At Present**

Sno.	Functions / Departments	Component Sector						Consumer Sector						Industrial Sector						Total					
		JVM (N=2)			JVF (N=3)			JVM (N=2)			JVF (N=2)			JVM (N=4)			JVF (N=1)			Numbers			% age		
		LP	FP	JV	LP	FP	JV	LP	FP	JV	LP	FP	JV	LP	FP	JV	LP	FP	JV	LP	FP	JV	LP	FP	JV
a.	R & D	2			1	2		2				1	1	2	2			1		7	6	1	50%	43%	7%
b.	Finance	2			1	2				2	1	1		3		1			1	7	3	4	50%	21%	29%
c.	Purchasing	2			1	1	1	1		1	2			4					2	9	1	4	64%	7%	29%
d.	Manufacturing	2			1	1	1	1		1	1		1	3	1			1		8	3	3	58%	21%	21%
e.	Marketing	2			1	2		1		1	1	1		4			1		1	9	3	2	64%	21%	14%
f.	Recruitment /HR	2			3			1		1	2			4			1			13	0	1	93%	0%	7%
g.	Industrial / Public Relation	2			3			1		1	2			4			1			13	0	1	93%	0%	7%

Abbreviations: JVM (N) – Joint Venture Malaysian Owned (Number of Companies Interviewed)
JVF (N) – Joint Venture Foreign Owned (Number of Companies Interviewed)
LP – Controlled by Local Partner
FP – Controlled by Foreign Partner
JV – Jointly Controlled

Presently, 50 per cent of the respondents mentioned that the domestic partners are involved in conducting some form of R & D. Although in many cases it was mentioned that no formal R&D department exists but the JV was having some form of R&D in terms of product and process development, improvement or adaptation. Often the production staff, who engages in product manufacturing, performs this function of product / process improvements. More number of domestic partners are now controlling the finance operation (50 per cent). This is due to fact that three JVs have been converted into Malaysian owned subsidiaries. There have been improvements in the local control of purchasing (64 per cent), manufacturing (58 per cent), and marketing (64 per cent) functions. This improvement has occurred due to two reasons. Firstly three JVs have been converted into Malaysian WOS and secondly the foreign partner has relinquished control of various functions to the locals. This holds true especially in case of JVFs being run as foreign WOS. The foreign partners are increasingly leaving the operation of the JV in the hands of Malaysians.

From the findings of the research survey it can be concluded that Malaysian partners have gained in the running of the JV operations. The above section shows a slightly positive picture, because at least the gains accrued are more in terms of overall understanding and running of the business on a day to day basis, although in many cases the domestic partner still remains non active.

4.4 TRANSFER OF TECHNOLOGY IN JOINT VENTURE

This section tests our hypothesis of whether the local partners have made real gains in terms of technology acquisition. The respondents were asked question about the state of product and process technology used by the JV, the level of manufacturing activity and whether the JV had access to new technology from sources other then the foreign partner. This section also sought response to the issue of conflicts in access to new technology and in case conflicts existed, what was the underlying reason for the same.

Table 4.5 summarizes the responses of the companies surveyed in the research.

Table 4.5 : **Status of Transfer of Technology – At Formation and Present**

Sno.	Technology	Component Sector				Consumer Sector				Industrial Sector				Total			
		JVM (N=2)		JVF (N=3)		JVM (N=2)		JVF (N=2)		JVM (N=4)		JVF (N=1)		Numbers		% age	
		AF	P	AF	P	AF	P	AF	P	AF	P	AF	P	AF	P	AF	P
A.	State of Product Technology																
a.	Old Technology	1		2		2		2						7	0	50%	0%
b.	Latest Technology	1	2	1	2		2		2	2				4	8	29%	58%
c.	State-of-the-Art Technology				1					2	4	1	1	3	6	21%	43%
B.	State of Process Technology																
a.	Old Technology	1		2		2		2						7	0	50%	0%
b.	Latest Technology	1	2	1	2		2		2	2				4	8	29%	58%
c.	State-of-the-Art Technology				1					2	4	1	1	3	6	21%	43%
C.	Level of Manufacturing																
a.	Real In-depth Manufacturing	1	2	1	2				1					2	5	14%	36%
b.	Assembly with Some Mfg.	1		2	1		1		1	2	3	1	1	6	7	43%	50%
c.	Screw Driver Technology					2	1	2		2	1			6	2	43%	14%
D.	Access to New Technology from other Sources																
a.	Yes	1	2	1	2	2	2		1			1	1	5	8	36%	58%
b.	No	1		2	1			2	1	4	4			9	6	64%	42%
E.	Conflict w.r.t Technology																
a.	Yes	1		1				2	1	4	4			8	5	57%	36%
b.	No	1	2	2	3	2	2		1			1	1	6	9	43%	64%
F.	Type of Industry																
a.	Labor Intensive	2	1	2	2	2	2	2	2	2	2	1	1	11	10	79%	72%
b.	Capital Intensive		1	1	1					2	2			3	4	21%	28%

Abbreviations: JVM (N) – Joint Venture Malaysian Owned (Number of Companies Interviewed)
JVF (N) – Joint Venture Foreign Owned (Number of Companies Interviewed)
AF – At Formation
P – Present

4.4.1 Transfer of Technology – At Formation

4.4.1.1 Status of Product and Process Technology – At Formation

At the time of formation of the Joint Venture 50 per cent of the JVs were given old technology, which is defined as over two years old and are considered trailing edge. Only 21 per cent of the JVs had access to state-of-the-art technology at the time of formation. These JVs were formed recently and the foreign partner had to make the latest technology available in order to be competitive in the local market. The process technology seemed to exactly follow the product technology. This is due to the fact that state-of-the-art products require sophisticated process technology to manufacture.

A further insight on a sub-sector level reveals that old technology was available in case of three JVs in the component sub-sector, and all four JVs in the consumer sub-sector at the time of formation. Whereas in case of the Industrial electronics sub-sector, latest (less then two year old) or state-of-the art technology was available at formation. The underlying reason for availability of latest or state of technology in this sub-sector was due to competitive pressures from other suppliers. Most foreign partners have to make their latest technology available in order to gain market access, specially because Malaysia had an open policy towards imports, which has allowed free flow of latest technology. In case of the component and consumer sub-sectors, Malaysia was initially used as a manufacturing base for technology being phased out from home countries, due to rising cost of production in the investing countries.

4.4.1.2 Level of Manufacturing – At formation

Only two JVs were involved in real in-depth manufacturing at the time of formation of the JV. Both these were JVFs and are from the component sub-sector, manufacturing semiconductors and transformers. The remaining six ventures mentioned that they were involved in assembly with some level of manufacturing, and the other six were basically involved in the so-called screw driver technology, whereby the local manufacturing was purely restricted to integration and assembly of the foreign made components.

The use of screwdriver technology was primarily in all the four JVs in the consumer sector. In case of two JVMs and one JVF in the Industrial sub-sector, the JVs were involved in assembly with some level of manufacturing. All these JVs were formed relatively recently i.e. during the last four years.

4.4.1.3 Access to New Technology from Other Sources - At formation

On the issue of access to new technology from sources other then the foreign partner, 64 per cent of the respondents mentioned that they did not have access to any technology besides the one available from the foreign partner. This is obviously due to the fact that at least initially the foreign partner would like to protect its interest in providing technology to the JV. The remaining 36 per cent of the companies, which did have access to new technology, were two each from the component and consumer sub-sector and one from the JVF in the industrial sub-sector. In all four JVMs in component and consumer sector the foreign partners were small time entrepreneurs, who themselves did not posses the required technology and hence did not object to access to new technology from other sources, as this would anyway lead to the improvement of the local operation. In case of the JVF in the industrial sub-sector, the nature of the business in the IT sector requires constant availability of latest technology, which at times was not available from the foreign partner and hence had to be acquired from others sources.

4.4.1.4 Conflicts with Respect to Transfer of Technology – At Formation

Only 57 per cent respondents mentioned that there were some legalistic restrictions for acquisition of new technology. The trend was relevant in the four JVMs in the Industrial sub-sector, two JVFs in the consumer sub-sector and one JVM and JVF in the component sub-sector. All these JVs mentioned that there was direct conflict in acquisition of new technology from sources other then the foreign partner. Whereas the remaining 43 per cent JVs mentioned that there were no conflicts with respect to new technology acquisition from other sources.

The high percentage can be attributed to the fact that half of these ventures were JVFs, where the domestic partner had no interference in the day to day functioning of the JV.

4.4.2 Present Status of Transfer of Technology in Joint Ventures

The real technological gains made by the domestic partners can be understood by analyzing the present status of technology made available to the JV. Table 4.5 summarizes the responses of the companies surveyed in the research.

4.4.2.1 Present Status of Product and Process Technology

Compared to 50 per cent of the JVs at the time of formation, none of the JVs were using old product or process technology. All JVs have moved towards employing latest technology (58 per cent) or state-of-the-art technology (42 per cent). The companies using state-of-the-art technology were in the JVF manufacturing semiconductors, and all the JVs in the industrial electronics sub-sector. This migration towards the higher end of the technology in various segments is primarily due to the increased competitive pressures in the global and domestic markets. Use of state-of-the-art technology by JVMs in the industrial sector was primarily due to the extremely competitive domestic market, which has a craving for the best technology.

This is certainly one of the most significant gains made by the domestic partners. Once again the process technology closely followed the level of product technology employed by the various JVs.

4.4.2.2 Present Level of Manufacturing

Similar trends were also evident in the present level of manufacturing. Malaysian JVs have accumulated knowledge over time, which has enabled them to go for higher level of manufacturing. Compared to only two (14 per cent) JVs earlier, presently five companies (35 per cent) were involved in in-depth manufacturing. Moreover fifty percent of the JVs were doing assembly with some level of manufacturing, which was a marginal improvement compared to 43 per cent at the time of formation of the JV. Only two companies were still in the lowest stage of screwdriver technology. These were one JVM each in the consumer and industrial electronics sub-sectors. The reason for no development in these two JVs was attributed to the fact that in one case the foreign partner was satisfied with getting contract manufacturing business. In the second case the local JV, which is supplying telecom equipment, is involved in only integration and supply of the products that are manufactured in the foreign partner's facilities overseas. This JVM had a plant manufacturing wire-harnesses for telecom switching equipment, but the same is being now out-sourced due to increased cost of in-house production.

One can conclude that there has been significant developments in the level of manufacturing in the JVs. Malaysian JVs have moved one step ahead in the status of manufacturing. This can be attributed largely due to increasing labor cost and overall development of the Malaysian manufacturing sector.

4.4.2.3 Present Status of Access to New Technology from Other Sources

There have been changes in the aspect of access to new technologies from sources other then the foreign partner. The percentage of JVs, not having access to new technology from other sources dropped from 64 per cent at formation to 42 per cent presently. At least four of the companies interviewed informed that the foreign partners are now more open to the idea of getting technology from outside sources. This was also true in three major Japanese firms, who were initially very reluctant to utilize non-Japanese technology. This change in attitude has occurred due to increased global competitiveness, and now these partners are more open to getting newer technology, irrespective of the country of origin, provided it helps in overall improvement of the product and process quality.

Another thing, which emerged, was that the acquisition of new technology was more in the case of process improvement rather then product improvement. All JVs except for the JVMs in the component and the consumer sector still depend on foreign partners for new product technology.

One can conclude that foreign partners are now more open towards allowing access to new technologies to the Joint Venture. This change in attitude has been induced because of increased globalization and faster pace of product development worldwide. This has prompted many well-established MNCs to change their viewpoints towards this issue.

4.4.2.4 Present Status of Conflicts with Respect to Transfer of Technology

In line with the more open attitudes of the foreign partner, there are lesser conflict amongst partners on the issue of transfer of technology presently. This paradigm shift is primarily due to increased competition worldwide. Still there are five cases where there were conflicts between partners on this issue. This was primarily in the four JVMs in the Industrial sub-sector and one JVF in the consumer sector. It is due to the dominance of the foreign partner over the technology, which are specially meant for the high technology areas like the telecommunication sector. Invariably all the domestic partners openly accepted their dependence on the foreign partner as only they can provide a continuos flow of state-of-the-art technology for the domestic market, ensuring the long-term survival of the JV.

4.5 RESEARCH AND DEVELOPMENT IN JOINT VENTURE

The real status of the gains in technical knowledge by the domestic partners or local employees can be made out from the level of activity related to research and development. The next section attempt to analyze the gains made in the area of research and development. This section tries to understand how many companies are involved in pursuing R&D activity in Malaysia, what is the nature of R&D undertaken in Malaysia and if it is not being pursued, then what are the underlying reasons for low R&D activity in Malaysia. These are analyzed at the time of formation and presently. Table 4.6 summarizes the responses of the executives interviewed during the survey.

4.5.1 Research & Development Activity – At Formation

Out of all the fourteen JVs interviewed in the survey none of the ventures had any R & D facility established or operating during the initial years. Refer to Table 4.6 for status of Research and Development activity in Joint Ventures at formation.

Table 4.6 : **Status of Research and Development in Joint Ventures –At Formation and Present**

Sno.	Research & Development	Component Sector				Consumer Sector				Industrial Sector				Total			
		JVM (N=2)		JVF (N=3)		JVM (N=2)		JVF (N=2)		JVM (N=4)		JVF (N=1)		Numbers		% age	
		AF	P	AF	P	AF	P	AF	P	AF	P	AF	P	AF	P	AF	P
A.	Conducting R & D in Malaysia																
a.	Yes		1		1		2		2		1			0	7	0%	50%
b.	No	2	1	3	2	2		2		4	3	1	1	14	7	100%	50%
B.	Nature of R & D Conducted																
a.	Product Innovation													0	0	0%	0%
b.	Product Improvement/Adaptation		2		1		2		2		2			0	9	0%	64%
c.	Process Innovation													0	0	0%	0%
d.	Process Improvement/Adaptation		2		1		2		2					0	7	0%	50%
C.	Reasons for Low R&D Activity																
a.	Local Partner not Interested	1				1		2	1					4	1	29%	7%
b.	Foreign Partner not Interested	1				1		2						4	0	29%	0%
c.	Lack of Monetary Resources	2	2			2								4	2	29%	14%
c.	Lack of Manpower Resources	2	2			2								4	2	29%	14%
d.	Others - Done in Parent Country			3	2					3	3	1	1	7	6	50%	43%
D.	Nationality of R&D Manager																
a.	Local				1		1		1		1			0	4	0%	29%
b.	Foreign				1				1		1			0	3	0%	29%
c.	No Manager	2	2	3	1	2	1	2		3	2	1	1	14	7	100%	50%

Abbreviations: JVM (N) – Joint Venture Malaysian Owned (Number of Companies Interviewed)
JVF (N) – Joint Venture Foreign Owned (Number of Companies Interviewed)
AF – At Formation
P – Present

4.5.1.1 Reason for no R&D Activity – At Formation

The low level of R&D activity at formation was expected, as initially the priorities for the JV was to establish its market base and hence neither the domestic nor the foreign partner were interested in undertaking R&D activity of any nature locally. The major reason was the high cost involved in pursuing this activity. Moreover the foreign partner preferred to keep its control and monopoly over this activity, which was also obvious in the management and control of the R&D department covered in the section earlier. Fifty per cent of the respondents mentioned that the reason for low R&D activity in Malaysia was due also to the fact that the same was conducted in parent country. Twenty nine per cent of respondents mentioned the reason for low R&D activity in Malaysia due to lack of interest on part of local or foreign partner.

4.5.2 Present Status Of Research And Development In Joint Venture

Compared to none of the companies undertaking local R&D activity at the time of formation, 50 per cent of the companies interviewed mentioned that they have presently started some activity related to R&D in Malaysia.

4.5.2.1 Nature of Research & Development Activity

The respondents of the JVs pursing R&D mentioned that the R&D activity is presently restricted to improvement or adaptation of process and product technology. Seven companies mentioned that they have a formal R&D department. In all the cases the R&D department was set up recently (during the last 2 years). The R&D activity pursed by a well renowned telecom equipment manufacturer is more for development of test system to troubleshoot and repair electronic circuit boards. This facility is the repair center for the foreign group and it also provides development support to the five regional centers of the foreign partner located in Saudi Arabia, Argentina, Libya, India and China. The R&D activity is headed and controlled by two managers of the foreign partner who are on deputation to the local JV. A Local manager supports them along with Malaysian engineers and technicians, who are expected to takeover the activity in future. In another JVM operating in the Industrial sector, some basic R&D is being conducted to upgrade the answering machine which presently utilizes cassette for message recording to electronic chip recording.

4.5.2.2 Reason for Low R&D Activity

The major reason given by other JVs for not having local R&D is due to the fact that the main R&D activity is still conducted in the foreign country. High cost of R&D activity and lack of skilled manpower for R&D activity, were cited as the other reasons for low R&D activity in Malaysia. The respondents although did mention that the JVs get access to new technology from time to time.

4.5.2.3 Nationality of R&D Manager

Out of the seven companies having local R&D activity, four companies had locals heading the R&D department, whereas in three cases the managers are from the foreign partner side. Two of these cases were one JVFs each in the consumer and component sector and one JVM in the Industrial sector. In one of a JVM in the consumer electronics sector, local manager heads the R&D activity. This JV has been recently converted into a Malaysian WOS.

From the research findings one can conclude that a start has been made by the local JVs in pursuing R&D activity. Although it should be pointed out here that the nature of R&D activity is very basic in nature and much more needs to be done by the local industry and the government to enhance the R&D activity to a meaningful level. Some of the major barriers for undertaking R&D activity locally are disinterest from local partner, high cost and lack of manpower availability. Despite of the modest beginnings made in the field of research and development, it would be still premature to conclude that the domestic partners have achieved tangible benefits from pursing R&D activity locally.

4.6 IMPORT OF RAW MATERIAL

The level of dependence on foreign partner for raw material needs was assessed by finding out what were the major sources of raw material. In case the raw material was being imported, was it from the foreign partner or from other sources. Respondents were also asked to identify the underlying reasons for imports of raw material. The objective of this section was to access the domestic partners ability to run the JVs operations independently without relying heavily on the foreign partner for raw materials or components. Table 4.7 summarizes the responses of the interviewee on JVs dependence on the foreign partner for raw material imports.

4.6.1 Dependence on Foreign Partner for Raw Material– At Formation

At the time of formation of the Joint Ventures, only 64 per cent of the JVs depended on the foreign partner for the raw materials required by the JV. These were two JVF each in the component and consumer sub-sector and all the five JVs in the Industrial sub-sector. The JVs were bound by the agreement to import the necessary raw materials from the foreign partners' facilities.

4.6.1.1 Reason for Import of Raw Material

Sixty eight percent of the JVs mentioned that, the main reason for import of raw material was dictated by the JV agreement. Although there were respondents who mentioned that some basic inputs were procured locally, but non-availability of raw materials locally was also sighted as another major reasons for imports by most of the JVs.

The JVMs in the consumer and the component sub-sector had no dependence on the foreign partners, as there were no restrictions from the foreign partner for imports of raw material. In all these cases the role of the foreign partner was to essentially provide the technical know-how required for starting production. The raw materials were imported from other foreign sources, due to non-availability in local markets.

4.6.2 Dependence on Foreign Partner for Raw Material – At Present

Domestic partners dependence on their foreign counterparts for importing raw material has decreased presently. More and more JVs are using local sources for meeting their raw material needs. The JVMs in the component and consumer have increased their local content to a large extent.

Table 4.7 : **Dependence on Foreign Partner for Raw Material for the Joint Venture – At Formation and Present**

Sno.	Raw Material Import	Component Sector				Consumer Sector				Industrial Sector				Total			
		JVM (N=2)		JVF (N=3)		JVM (N=2)		JVF (N=2)		JVM (N=4)		JVF (N=1)		Numbers		% age	
		AF	P	AF	P	AF	P	AF	P	AF	P	AF	P	AF	P	AF	P
A.	Sources of Raw Material																
a.	Local	2	2	1	3	2	2	1	1	1	2			7	10	50%	72%
b.	Home Country			2	2			2	1	4	4	1	1	9	9	64%	64%
c.	Others	2	2	3	3	2	2	2	2	1	3	1	1	11	13	78%	93%
B.	Reasons for Imports																
a.	JV Agreement			2	2	1		1	1	4	4	1	1	9	8	64%	57%
b.	Not Available Locally	2	2	3	3	2	2	2	2	4	4	1	1	14	14	100%	100%
c.	Others																
C.	Reason for Import from Foreign Partner																
a.	JV agreement quota			2	2	1		1	1	4	4	1	1	9	8	64%	58%
b.	Pressure from Foreign Partner			2	2	1		1	1	4	4	1	1	9	9	64%	64%
c.	Others	2	2	3	3	2	2	2	2	4	4	1	1	14	14	100%	100%

Abbreviations: JVM (N) – Joint Venture Malaysian Owned (Number of Companies Interviewed)
JVF (N) – Joint Venture Foreign Owned (Number of Companies Interviewed)
AF – At Formation
P – Present

Most companies interviewed preferred buying locally manufactured inputs as this reduce their exposure to foreign exchange fluctuations. In case of the JVFs in the component and consumer sector more local raw material is being used and overall dependence on the foreign partner has reduced.

The level of indigenisation has increased from almost negligible at formation to around 20 to 25 per cent presently. Major reasons for the development of linkages with the local suppliers is due to three factors. Firstly many input materials are available locally now, secondly the quality of locally produced inputs has improved drastically and lastly it is cheaper to source many inputs locally.

4.6.2.1 Reason for Import of Raw Material

Still many materials are not available locally and hence the same has to be imported from outside sources. In one case the respondent mentioned that there was no local manufacturer of copper plated wires, the basic raw material used in manufacture of diode leads. Whereas in another case the JV was forced by the customer to use raw material from the customers preferred vendors. This was especially true for some of their Japanese customers, who were very particular about the raw material used by the company.

In the Industrial sector, all companies are still heavily dependent on the foreign partner for providing major proprietary circuits and key components.

One can conclude from these developments that Malaysian economy has gained, as the level of manufacturing has improved in Malaysia. The linkages between the JV and the local supplier of raw material have also increased due to development of local component industry. Lastly most companies are now looking for cheaper raw material sources and hence the monopolies of the foreign partner are reducing. This change is occurring more due to the increased competitive nature of the business in the global markets.

4.7 DEPENDANCE ON FOREIGN PARTNER FOR FINANCE NEEDS

The respondents were asked questions about the JVs dependence on the capital requirement needs and the domestic partners dependence on the capital of the foreign partner. This section tests our initial hypothesis that the domestic partners have made significant gains as far as the financial needs are concerned.

4.7.1 Dependence On Foreign Partner For Finance – At Formation

At the time of formation of the JVs 57 per cent of the respondents mentioned that foreign partners capital was one of the motives for entering into the JV. although it was not the main reason for forming the JV (Refer to table 4.2). Of course financial gains are ultimately one of the motives for any business entity.

4.7.2 Dependence On Foreign Partner For Finance – At Present

This financial dependence of the domestic partner on its foreign partner has reduced drastically. Only three respondents mentioned that still there was some level of dependence on the foreign partner. Most of the companies are financially independent, as they are able to meet their operating and expansion needs from the profits generated from the Joint Venture operations. This is in line with our initial hypothesis that the domestic partners have become financially independent.

4.8 EXPORTS MARKETING ACTIVITY BY THE JOINT VENTURES

This section attempts to understand, whether the domestic partners have gained from the JV in getting access to foreign markets. The respondents were asked questions regarding whether the JVs are exporting directly. In case there is direct export what are the major regions were the products are being exported. In case there are no exports then what are the underlying reasons for no export activity from the JV: The respondents were also asked for the strategies used by them for export marketing, specially in wake of new developments like Malaysia becoming a signatory to the GATT agreement. Secondly whether the JVs are facing problems due to the formation of North Atlantic Free Trade Area (NAFTA), European Commission (EC), Asia Pacific Economic Caucus (APEC) amongst many other similar regional groupings. The outcomes of the research survey are discussed in the next section.

4.8.1 Status of Export Marketing Activities By The Joint Venture - At Formation

At the time of formation of the Joint Ventures 63 per cent of the companies were exporting their products directly or indirectly. Table 4.8 gives the status of export activities from the Joint Venture at formation. The indirect export came through JVs supplying to companies in the FTZ and LMW areas. Thirty five per cent companies were not exporting and these were the five JVs from the Industrial sub-sector and one JVF from the consumer sub-sector. The JVFs in the consumer sector was setup as an import substitution company, which catered only for the domestic market sales of electrical and electronic products.

The Joint Ventures in the component and consumer sector were free to export, as there were no restrictions from the foreign partners on the export of JVs production. One JVM each in the component and the consumer sector and two JVFs in the component sector were supplying their products to MNC customers in the FTZ and LMW areas.

At the time of formation only eight companies had export-marketing department and only in one case a local manager was in-charge of marketing activity. The only company exporting from the Industrial sector was supplying their products to Vietnam and Myanmar. At the time of formation of this company, which was in 1996 their foreign partner did not have any direct sales to these regions and hence they have been allowed to export from the JV in Malaysia.

It is worth highlighting here that the export to ASEAN region constituted only 28 per cent of the total exports. The major exports were to Japan and Europe. In some cases the products were being exported via Singapore. At least five respondents commented that ASEAN is not a major export potential area for them. This is either due to the foreign partner having their own operations in

Table 4.8 : **Export Marketing Activities of the Joint Venture – At Formation and Present**

Sno.	Raw Material Import	Component Sector				Consumer Sector				Industrial Sector				Total			
		JVM (N=2)		JVF (N=3)		JVM (N=2)		JVF (N=2)		JVM (N=4)		JVF (N=1)		Numbers		% age	
		AF	P	AF	P	AF	P	AF	P	AF	P	AF	P	AF	P	AF	P
A.	Exports																
a.	Yes	2	2	3	3	2	2	1	1	1	1			9	9	63%	63%
b.	No							1	1	3	3	1	1	5	5	35%	35%
B.	Export Restriction by Foreign Partner																
a.	Yes					1		1	1	4	4	1	1	7	6	50%	42%
b.	No	2	2	3	3	1	2	1	1					7	8	50%	58%
C.	Export Marketing Responsibility																
a.	Locals		2		1	1	2		1		1			1	7	7%	50%
b.	Foreign Partner	2		3	2	1		1		1				8	2	58%	14%
c.	Others																
D.	Major Export Regions																
a.	ASEAN			1	2	1	1	1	1	1	1			4	5	28%	35%
b.	Developed Countries	1	2	1	1	1	1	2	2					5	6	35%	42%
c.	Thru FTZ & LMW	1	1	2	2	1	1							4	4	28%	28%
d.	Others			1	1			2	2					3	3	21%	21%

Abbreviations: JVM (N) – Joint Venture Malaysian Owned (Number of Companies Interviewed)
JVF (N) – Joint Venture Foreign Owned (Number of Companies Interviewed)
AF – At Formation
P – Present

other ASEAN countries or there were other competitors manufacturing cheaper products from these ASEAN countries. In two cases the JV was using an intermediary company based in Singapore to export their products.

It can be concluded that initially the domestic partner did not have much control over the exporting activity, although products were being exported from the JVs. The foreign partner primarily controlled the export activity. Moreover many companies were exporting only indirectly through their customers who were based in the FTZ and LMW factories.

4.8.2 Present Status of Exporting Activity from the Joint Venture

Their has been no major change in the number of companies who were exporting at formation and now. Table 4.8 also gives the present status of the exporting activities of the JVs interviewed. The major reasons being that only the import substituting companies were not exporting earlier. Contractual agreements of these companies prohibit export of products manufactured or assembled locally. Although, recently one of the foreign partner has started allowing the local JV to quote in overseas telecom tenders, especially to certain African and Middle East countries. The reason for this change is due to the fact that the foreign partner feels that Malaysian JV will have better chances of succeeding because of closer intra-government co-operation between the two countries. The executive mentioned that this change in partner's attitude has occurred only recently and may be due to increased competitive pressure faced by the parent company in accessing local markets in the countries mentioned earlier. It was mentioned that presently no major orders have been executed so far.

The remaining companies are presently trying to explore new markets. In most of the cases, the JVs have long-term orders booked in advance with major MNCs either in Malaysia or overseas. It was felt after talking to two JVMs in the component and consumer sector who are exporting directly that they have a very limited export market base, with only three major customers. This essentially does not require concerted marketing effort, but exposes them to the vagaries of the market. Both companies are making efforts to expand their customer base.

Another point highlighted by some of the respondents was the fact that despite of close government co-operation between ASEAN country governments not many opportunities existed within ASEAN. Three respondents felt that there is lack of co-operation between the private sectors of the ASEAN countries and manufacturers in other countries within the region are a major threat to the long-term survival of the Joint Venture.

All of them mentioned that they are exploring possibilities to set-up Joint Ventures with some local partners in Indonesia. This certainly is a significant development as Malaysian companies get ready to become investors in the nearby newly developing markets. Although these plan will be delayed for at least one of the companies because of the prevailing currency crisis.

Though not much direct product export is being done from the JVMs in the Industrial sector, but in two cases the Malaysian JVMs are contributing in terms of exporting technical know-how and manpower for overseas projects of the foreign partner. Presently this does not generate any revenue, but at least has helped establish Malaysian expertise in the field. A leading telecom JVM has setup a regional base for providing technical training and after sales repair and maintenance for the South East Asia region. Presently both local and foreign partner staff are involved in providing the services. These will eventually help in generating revenue in the long run, besides helping Malaysian's to develop expertise in these fields.

It can be concluded from the research findings discussed above that limited efforts have been made in exporting products manufactured by the JVs. Maximum benefits have been accrued by domestic partners of JVMs in the component and consumer sectors, whereas the situation remains more or less unchanged in the Industrial sub-sector. Although some beginning has been made in at least two JVMs, but export restrictions still exists. The benefits accrued in these cases are more intangible in development of local expertise in handling regional level support functions.

4.9 HUMAN RESOURCE DEVELOPMENT IN JOINT VENTURES

Development of local human resources in terms of technical and managerial skill upgradation is the yardstick, which throws some light on the overall development of local manpower resources in a Joint Venture. The long-term ability of the domestic partner to run the business independently can be judged by the effectiveness and knowledge of the local manpower. This section of the research paper attempts to unravel the gains made in the development of human resources. The respondents were asked questions related to the form of training provided to the local staff. Emphasis was laid on understanding the methods of training employed and how effective have been the human resource development program employed by the Joint Ventures.

4.9.1 Human Resource Development In Joint Ventures – At Formation

Human Resource development is a continuos process which ensures transfer of technology and knowledge from the foreign partner. Almost all companies except one JVM in the consumer sector have been very proactive in imparting training and human resource development. The most common form of training for the staff is on-the-job training, which includes both practical and classroom training. The next most common method of training has been through visit of foreign experts from the parent company. Table 4.9 outlines the types of training organized for the staff by the Joint Ventures. Eighty six per cent of the companies interviewed mentioned that this form of training was employed to train the local staff. Visit to foreign facilities was also used by 63 per cent of the companies, although it was more common in the Industrial sub-sector and most of the JVFs. Training by local experts or other forms of training was not common.

4.9.2 Present Status of Human Resource Development In Joint Ventures

Human resource development is one of the major gains experienced by the domestic partner in Joint Ventures. All ventures continue to effectively provide in-depth on the job training to their employees. Training through visit by experts from overseas plants has been reduced to only 63 per cent of the JVs. This is more commonly found in two JVFs in the component sub-sector and all the JVs in the Industrial sub-sector.

Table 4.9 : **Human Resource Development Activity in Joint Venture – At Formation and Present**

Sno.	Type of Training	Component Sector				Consumer Sector				Industrial Sector				Total			
		JVM (N=2)		JVF (N=3)		JVM (N=2)		JVF (N=2)		JVM (N=4)		JVF (N=1)		Numbers		% age	
		AF	P	AF	P	AF	P	AF	P	AF	P	AF	P	AF	P	AF	P
A.	Types of Training																
a.	On the Job Training	2	2	3	3	2	2	2	2	4	4	1	1	14	14	100%	100%
b.	Visit of Foreign Experts	2		3	2			2	2	4	4	1	1	12	9	86%	63%
c.	Visit to Parent Countries			2	2			2	1	4	4	1	1	9	8	63%	58%
d.	Local Experts								1						1		7%
c.	Others		2		3		2		2		3	1	1	1	13	7%	93%

Abbreviations: JVM (N) – Joint Venture Malaysian Owned (Number of Companies Interviewed)
JVF (N) – Joint Venture Foreign Owned (Number of Companies Interviewed)
AF – At Formation
P – Present

Fifty eight per cent of the JVs continue to send their employee for training to overseas plants. Two of the Japanese companies send their managers and technical staff for two-year training to Japan. This trend is found in all JVs with big MNC foreign partner pay immense emphasis on human resource development. The smaller partner JVs lack in the area of Human resource development, primarily due to lack of surplus funds. The human resource development activity has been further boosted at present. This is primarily due to the Human Resource Development Fund (HRDF) facility provided by the government, which allows double deduction for training expenses. The smaller companies were of the viewpoint that this facility has enabled them to further increase their training programs. In fact many of the companies have started sponsoring their employees for skill development courses. This fund has certainly helped in boosting the human resource development activity and at least one company has started using local experts for technical training. Usually local experts are used only for non-technical courses.

The biggest problem faced by many JVs was the high turnover rate of technical *and non-technical staff. The turnover rate* in bigger companies with world-renowned partner was lower as they offered attractive pay and benefits to their employees.

Human resource development activity has certainly received a boost in recent years, which has resulted in development of local manpower and personnel to take on the future demand and challenges, faced by the Joint Ventures.

4.10 LEVEL OF AUTONOMY

To understand the overall independence of the operations of the Joint Venture a section was included which asked the respondents to rate the overall autonomy accorded to the Joint Venture by the foreign partner. The respondents were asked to rate the autonomy level on a four point scale - low, moderate, high and independent, depending on the level of control exercised by the foreign partner on the day to day running of the operations. The responses are summarized in table 4.10.

4.10.1 Level of Autonomy to Joint Venture – At Formation

At the time of formation only two or (14 per cent) of JVM in the component and the industrial sector had high level of independence. The foreign partner of the JVM in the component sector is an individual investor from Singapore. In the other JVM the foreign partner, a leading manufacturer and exporter of DC power supplies, had left the running of the local operation to the local partner.

In 43 per cent of the case the respondents mentioned that the JV enjoyed high level of autonomy in its operations. Whereas, the remaining 21 per cent mentioned moderate and low level of autonomy in each case. The JVFs in the component and consumer sector mentioned that the autonomy level was low as most of the major business decisions were controlled and dictated by the Japanese partner. In any case all these companies are being run as foreign WOS. Two JVMs in the industrial sector mentioned moderate level of autonomy initially. Both these ventures are over 25 years old.

4.10.2 Present Level of Autonomy

There has been a marked level of improvement in the overall autonomy of the JVs operation from the domestic partners viewpoint. Presently 43 per cent of the JVs are being run independently. Out the six JVs in this category, three have been converted into a Malaysian owned subsidiary. The remaining 50 per cent JVs enjoy high level of independence presently. The key reason for increased autonomy to JVs is more due to recent trend of adoption of decentralized decision making style of many MNC management, which enable the local venture to respond quickly to the uncertain market conditions. Only one JVMs executive mentioned that it has moderate level of autonomy. This is a leading manufacturer of semiconductor devices from Japan.

Table 4.10 : **Level of Autonomy Provided to the Joint Venture Operations – At Formation and Present**

Sno.	Level of Autonomy	Component Sector				Consumer Sector				Industrial Sector				Total			
		JVM (N=2)		JVF (N=3)		JVM (N=2)		JVF (N=2)		JVM (N=4)		JVF (N=1)		Numbers		% age	
		AF	P	AF	P	AF	P	AF	P	AF	P	AF	P	AF	P	AF	P
a.	Low			2				1						3	0	21%	0%
b.	Moderate				1			1		2				3	1	21%	7%
c.	High	1		1	1	2			2	1	3	1	1	6	7	43%	50%
d.	Independent	1	2		1		2			1	1			2	6	14%	43%

Abbreviations: JVM (N) – Joint Venture Malaysian Owned (Number of Companies Interviewed)
JVF (N) – Joint Venture Foreign Owned (Number of Companies Interviewed)
AF – At Formation
P – Present

One can conclude that the change in role of domestic partner has occurred due to increased global competition and global management styles, which has forced the foreign partner to accord higher level of autonomy to the Joint Ventures. These changes have occurred recently during the last five to six years.

4.11 DOMESTIC PARTNERS ABILITY TO RUN JV INDEPENDENTLY

Finally the JVs were asked whether they feel that they are capable of running the JV business independently, without the support of the foreign partner. Three companies, which are one JVM from the consumer and component sector each and one JVF from the component sector have already been converted into Malaysian owned WOS. Out of the remaining eleven companies, only two JVM from the component and the industrial section mentioned that they are running the JVs independently.

While the remaining nine JVs are still dependent on the foreign partner for technological needs. The main reason mentioned for continued dependence was due to the JVs reliance on technological needs from the foreign partner. This included availability of new product and process technology and research and development activity. Many companies still depend on the foreign partner for export marketing.

In the near future one of the JVMs in the component sub-sector is likely to be converted into a Malaysian owned WOS, whereas all remaining companies will continue to operate with the existing equity arrangements.

4.12 SUMMARY & CONCLUSION

Malaysian partners have come a long way from just being providers of market access and government support to the foreign partner in the initial years, to running operations with increased level of independence in some sub-sectors.

The major **role of the domestic partner** was identified as that of providing equity for meeting government regulation and political support by 86 per cent of the respondents. This was followed by capital and risk sharing (56 per cent), and provider of cheap labour (50 per cent) at formation. This is quite similar to IFS (1996) study findings. Although there are minor differences but they may be attributed because of the small size of our survey. (Only 14 respondents compared to 7o in case of IFCs study).

There have been significant **changes in the role** of domestic partner in at least three cases, who have successfully taken over the operations of the JV. Another five partner's dependence on the foreign counterparts have reduced drastically as they are managing the operations independently with minimum interference from the foreign partner. Whereas their have been marginal changes in case of six companies where the domestic partner continues as a sleeping partner. At present only 50 per cent of the domestic partners continue to provide equity and political support as well as access to domestic markets. Whereas the domestic partners role for fulfilling other needs of foreign partners have changed due to the process of learning that has occurred on either side.

These changes in role of domestic partner have occurred due to two primary reasons. Firstly in few cases the local operations were of least significance to the foreign partner and they divested their equity due to lack of interest in the JV operations. Secondly in cases where MNCs are foreign partners, increasing competitive pressure have forced them to decentralize their operations locally to gain maximum benefits from the JV.

It can also be concluded that the real **gains for the domestic partner** has been in the field of low technology areas like plastic part manufacturing, diode leads, contract manufacturing of consumer electronics products and DC power supply systems. The gains for domestic partners are limited in case of high technology areas like semiconductor manufacturing, telecomm equipment manufacture and supply. Secondly the gains are limited to JVMs, where the domestic partner had a dedicated interest to assimilate knowledge, which enables them to become independent. In the case of JVFs, most of the domestic partners are mere equity providers and are not active in day to day management of the business, which has blunted the overall gains for the domestic partner and has reduced the purpose of forming a JV from local point of view. In case of the JVMs in the Industrial sub-sector the domestic partners have gained in all aspects of management, although they continue to rely heavily on the foreign partner for new technology and products.

More number of locals is now involved in **management and control** of business operations in the JV as compared to the time of formation. Abdul Razak's 1979 study on JVs showed that most of the ventures, including JVMs were controlled by the foreign partners in day to day management. According to our research study more and more functions are being relinquished by the foreign partners to their local counterparts. The underlying reason for this improvement is primarily due to increased confidence of foreign partners in local managers and partners. This is a significant gain made by the Malaysian domestic partner or managers.

In terms of **transfer and technology**, the most significant gain for the domestic partner has been availability of latest or state-of-the-art technology from foreign partners or recently through other sources. Secondly more companies are involved in in-depth manufacturing and assembly with some level of manufacturing, compared to large number of companies involved in screwdriver technology at the time of formation. This has been forced by the extremely competitive nature of business in the present era and also due to increased knowledge of the local partners. Abdul Razak's (1979) study also mentioned that the foreign partner was willing to transfer technology, but the gains were limited as locals lacked the capabilities of understanding technical details. The scenario is much improved as indicated by our research. There is an increased level of effort by local partners to assimilate knowledge. This is attributed to the skill development and upgradation of the local manager and employees.

In case of **research and development** very limited gains have taken place. Although more number of companies (50 per cent) have started pursuing some kind of R&D activity, but the nature of development is more cosmetic and limited to minor product and process improvement or adaptation. This is a marked improvement compared to the 10 per cent figure reported by Abdul Razak's (1979) study. The underlying reason for the same is attributed to the increased awareness level of domestic partner towards developing skills in this area. It has also been accelerated by the rapid technological changes taking place in the electronics industry worldwide.

Lesser number of foreign partners are now dependent on their foreign counterparts to meet **import of raw materials** as compared to the time of formation. More companies are now souring raw material either locally or from other competitive sources worldwide. Moreover the local content used by most Joint ventures has increased from negligible level to 20 – 25 per cent of the inputs. This is contrary to Razak's (1979) findings and is due to more open policy of the foreign partner towards raw material import. The increased level of competition also dictates this change in practice.

Domestic partners dependence on foreign partner to meet their financial needs has reduced drastically. Most of the companies are able to meet this need from retained profits or local sources. Presently only 21 per cent of the partner rely on their counterparts for meeting financial needs for expansion. These are JVFs in the high technology areas, where capital investments for expansion are substantial. One can say that domestic partners are **financially independent** of their foreign counterparts.

In terms of **export marketing** the gains are once again limited, although more companies are now exporting directly, but they have a very narrow customer base, leaving them exposed. In the industrial sector some foreign partners have started to allow exports to limited markets, but the real gains have been in Malaysian JVs supplying manpower support for projects overseas. Even Abdul Razak's study mentioned that export to nearby regions was allowed but was restricted to other regions. There have been slight changes and they can also be attributed to the dynamic changes taking place in today's business world. Compared to 1979, now more number of locals are involved in export marketing activities.

The most significant gain has been in the field of **human resource development**, where all JVs have committed full resources to manpower development activity. The activity in the field of human resource development has further increased in recent years and that too is primarily due to competitive pressures faced by the JV. Availability of HRDF fund has also helped in renewed support for HR development in local JVs. This is quite similar to the findings of Abdul Razak (1979) who reported that foreign partners provided adequate training to the locals.

Finally the local JVs have started enjoying increased **level of autonomy** from the foreign partners. As more and more foreign partners adapt heir management styles to decentralize decision making to meet the challenges of contemporary business world.

4.12.1 Conclusion

The findings of the survey confirm our hypothesis that in at least 42 per cent of the cases foreign partners continue to use JVs as a conduit for market access. It was expected that after so many years of formation many of these foreign partners needs should have changed. The gains made in the remaining 58 per cent of the JVs are primarily in the low technology areas, where the foreign partner has reduced its participation in the day to day running of the business operations.

The research findings also seem to confirm the hypotheses that real gains accrued by the domestic partners are in the field of management and finance. Whereas limited gains have been made in case of technical know-how assimilation including gains in the field of research and development, which is still in a nascent stage in all Joint Ventures. Although it must be mentioned that significant gains have been made in assimilation of technical know-how but the same are restricted to JVMs in the low technology areas. The apparent gains in the high technology areas are still limited, as most JVMs especially in the Industrial electronics sectors continue to be dependent on there foreign counterparts for raw material, technical know-how and R&D support and access limited access to foreign markets.

Out of fourteen JVs covered in the research, three (21 per cent) have been converted into Malaysian WOS and another JVM is expected to be converted soon. Another three (21 per cent) of the JVs are being run by domestic partners as Malaysian owned subsidiary with least interference from the foreign partner. Whereas six (42 per cent) of the JVs are being run as foreign owned subsidiaries with minimum contribution from the domestic partner. This is a remarkable improvement as almost 58 per cent of the ventures are now being run by the domestic partners, but the situation should have been better in case the six domestic partners had not restricted there role of being a mere equity provider.