Restructuring of the Mauritian Clothing Industry in the light of New Trade Agreements

Submitted by

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Abstract

"Globalisation", "Free Trade", "Regionalisation" – these are all buzzwords today. In the new global system, several threats and opportunities arise for individual countries. On the one hand, globalisation offers the promise of increased access to the world's markets. On the other hand, this globalisation process is seen as being a threat, especially by small economies which are now unsure of their survival in an open and increasingly competitve world. Mauritius, like any other developing country, will not be spared.

This research analyses the threats facing the Mauritian clothing industry, given the shift in the global trade regime. Up till now, two important trade agreements have benefited Mauritius tremendously. Being a member of African Caribbean and Pacific (ACP) group of countries, Mauritius has had the privilege of exporting to European countries under the Lomé convention. In addition, under the Multi-Fibre Agreement (MFA), regular quotas[1] have been exported to the United States. Thus, for the past 30 years, the development of the Mauritian clothing industry has led to the spectacular growth of the economy. Today, Mauritius is the second largest supplier of products with the "Woolmark" label in the world, the first supplier being Benetton of Italy.

[1] Although it was not ideal that quotas had been imposed, Mauritius still had an advantage because it was exporting regularly to the United States, which contributed significantly towards export earnings.

However, the picture is no longer so rosy as trade preferences are gradually being phased out. The country now faces the problem of competing on the world market with giants such as India and China. The fact that Mauritius is a small, isolated country and that wages have risen, renders the situation even more problematic. The question therefore, is what strategy it will adopt in future so as to consolidate its garment industry.

One point of view is that Mauritian manufacturers of clothing should shift to the production of higher-value added garments. However, going upmarket is no the only solution. This dissertation argues that Mauritian garment firms can also relocate in the Southern African region where wages are low. Indeed, Mauritius is also a member of the Southern African Development Community (SADC) and the region provides several opportunities for Mauritian firms to expand their productive capacity. Thus, in this research, intensive fieldwork was conducted to find out whether Mauritian businessmen would consider relocating to neighbouring low-cost African countries so as to remain competitive in future.

This dissertation therefore, provides an in depth analysis of the Mauritian garment industry and focuses particularly on the issue of relocation. Based on the findings, the conclusion reached was that SADC countries do provide tremendous opportunities for Mauritian clothing manufacturers to relocate so that they can stand ready to face the challenges of globalisation.

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Research Methodology

For this research, intensive fieldwork was carried out in Mauritius. Face to face interviews were conducted with 18 clothing firms. The sample was selected to include firms producing a range of garments (i.e. low, medium and high quality), firms with both foreign and local ownership and firms of different size. The sample is therefore biased, for example towards larger enterprises but this extends its coverage because they account for a large proportion of employment. There were two sets of questionnaires for these 18 firms. A copy of each questionnaire is given in Appendices A and B.

In addition to the 18 firms, 170 other garment manufacturers were sent the short questionnaire only. A list of all the companies, which responded to the questionnaires, is given in Appendix C.

All the firms that were chosen produce only for exports. However, the limitations of generalising from the small sample of 18 firms that were interviewed, are recognised. The postal questionnaire covered a bigger sample.

Interviews were also conducted with officials and executives from different organisations, such as the Export Processing Zone Development Association, the Mauritius Export Development and Investment Authority, etc.

Finally, the Central Statistical Office (CSO) was very useful. Several digests of statistics that were purchased from there provided figures on different aspects of the Mauritian economy, that was essential for the research.

List of Abbreviations

ACP	African Caribbean Pacific
ANIC	Asian Newly Industrialised Countries
COMESA	Common Market for Eastern and Southern Africa
EEC	European Economic Community
EPZ	Export processing Zone
EPZDA	Export Processing Zone Development Authority
GCC	Global Community Chains
GDP	Gross Domestic Product
ILO	International Labour Organisation
MEDIA	Mauritius Export Development and Investment Authority
MFA	Multi-Fibre Agreement
NIC	Newly industrialised Country
NPB	National Productivity Board
OECD	Organisation for Economic Co-operation and Development
OEM	Original Equipment Manufacturer
SADC	Southern African Development Community
TCF	Textile Clothing and Footwear
TDS	Technology Diffusion Scheme
WTO	World Trade Organisation

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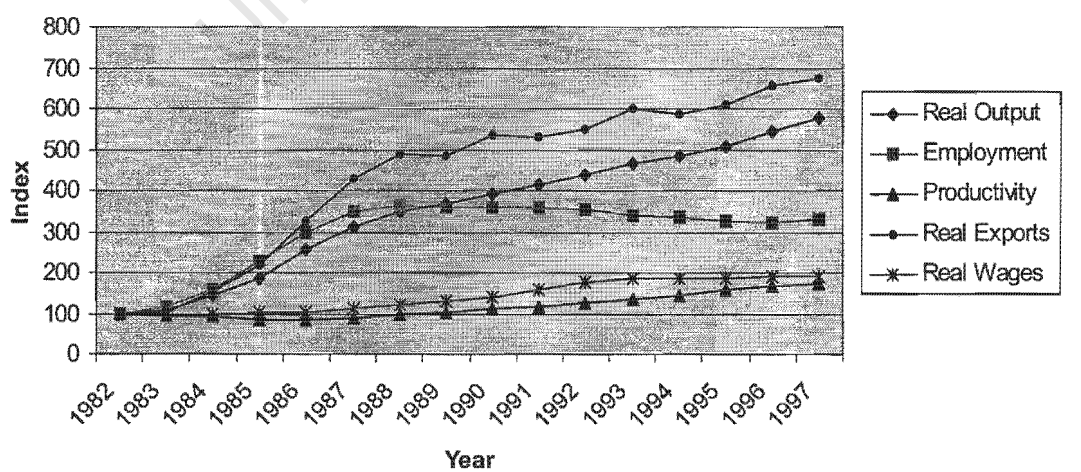
Chapter One

Introduction

The clothing sector is an industry in which many developing countries have a competitive advantage. For some, success in exports of clothing has provided an important step up the industrial development ladder. Mauritius is an example of such a developing country and over the past 30 years, the economy has made dramatic progress due to the spectacular development of its clothing industry.

Mauritius used to be a mono-crop agricultural economy which was solely dependent on sugar exports. Today, although it is a small and relatively remote island, it has successfully diversified into manufactured exports, tourism and financial services and has emerged as a model of economic success for the southern African region. The manufacturing sector has been the "engine of growth" of the economy. Over the last 20 years, income per capita has grown by 300% to US $3 300, turning it into one of the richest countries in Africa. Nearly all export production takes place in the Export Processing Zone (EPZ). Figure 1.1, below, gives the trends for production, employment, labour productivity, exports and average monthly earnings in the EPZ between 1982 and 1997.

Figure 1.1: Trends in Real Output, Employment, Labour Productivity, Real Exports and Real Wages in the EPZ[1], 1982 – 1997



Source: Productivity and Competitiveness Indicators, 1982 – 1997, 1998.

Figure 1.1 shows that production grew at an average annual rate of 13% throughout the whole period, although growth has slowed since 1988. Employment grew at an average rate of 8% between 1982 and 1997, with negative growth rates after 1989. Labour productivity in the EPZ reflected a declining trend between 1982 and 1985 but grew at an average rate of 6% between 1986 and 1989 and at an average rate of 7% from 1990 onwards.

As for exports, growth rates were much higher during the 1980s compared to the 1990s. During the 1980s, exports grew at an annual average rate of 17.6% whereas during the 1990s, that rate of growth dropped to 5.1%. Real wages, increased by an average of 4.5% between 1982 and 1997.

According to the latest figures from the Central Statistical Office (CSO), the value of exports from the EPZ for the year 1999 is estimated at 29.5 billion rupees[2] (1US dollar = 25 rupees in 1999) which represents an increase of 13% over the previous year. Exports in the garment sub-sector of the EPZ are estimated to have reached 23.5 billion rupees (i.e. around 80% of total EPZ exports). There were 508 enterprises in the EPZ in September 1999 and the wearing apparel group constituted 49% of the total. Employment in the EPZ amounted to 90 452 in September 1999 and clothing enterprises employed 84% of the workforce (i.e. 76 180 workers) (Industry Focus, 2000).

In March 1998, the Africa Competitiveness Report prepared by Jeffrey D. Sachs for the World Economic Forum, ranked Mauritius as the best performer out of 23 African countries (Le Week-End, 13 February 2000). The country owes part of its success to relatively favourable access to international markets resulting from two trade agreements: the Lomé Convention and the Multi-Fibre Agreement (MFA). As a member of the ACP group of countries, it has preferential access to European markets. In addition, the MFA guaranteed regular sales through access to annual quotas. However, these agreements are being phased out. The quotas granted under the MFA are already being cut back and will be removed completely by 2005. Meanwhile, the Lomé Convention expired on the 29th February 2000 and has been replaced by the Suva Convention for the next eight years (L'Express, 1st March 2000). With changes that are happening internationally in world trade (as implied by

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[1] Detailed values of index are given in Appendix D.
[2] This figure is based on the first nine months of the year when total exports of the EPZ sector reached 20.9 billion rupees.

the World Trade Organisation agreement), the prospects of the Mauritian clothing industry have become increasingly uncertain.

Thus, from now on, Mauritius will have to face fierce competition on the world market. What steps will Mauritius take to face these new challenges? How can Mauritius strengthen its existing markets, given that it will have to compete against low-wage producer countries such as India and China? These are some of the questions that this paper will explore.

This dissertation argues that Mauritius has to change its strategy and that the future of its clothing industry lies in closer integration with the Southern African region. Mauritius is a member of the Southern African Development Community (SADC) and this trade agreement offers scope for Mauritian businessmen to relocate production of garments to low-wage sub-Saharan African countries. Thus, Mauritian exporters of garments can lower their costs and continue to compete in their traditional markets. It is argued that Mauritius needs neighbouring African countries in much the same way as Hong Kong needed China for its further development. Thus, an objective of this paper is to determine whether SADC can offer an attractive opportunity for Mauritius to restructure its clothing industry.

Chapter two provides an overview of the literature on industrial location within the garment industry. The garment industry, being highly labour-intensive, has been extremely footloose over time. Thus, it is not surprising to find that the garment[3] industry keeps moving to lower wage countries. The literature discusses the forces that drive this industry to constantly relocate to new sites.

Chapter three gives a brief overview of the Mauritian economy. The past performance of the Mauritian clothing industry will be analysed and sources of strength will be discussed. The problems that are now arising will be presented and it will be shown how Mauritius is now faced with declining competitiveness. In the new

[3] Here, it is important to define what exactly is meant by garments. The reason for this is that the terms garment and textile are often used interchangeably and are often confused. However, there are many significant differences between them. The textile industry is engaged in the manufacturing of cloth and not clothing. But it is equally essential to point out the linkage between the textile and clothing industries. Approximately 50 percent of the output of the textile industry is used by the garment industry (Harrington and Warf, 1995).

global environment, it will be much more difficult to secure the future growth of this industry.

Chapters four and five present the results of the survey of the Mauritian garment industry. It will be determined whether Mauritian businessmen find relocation to be an attractive solution, given the challenges they are facing. Finally, chapter six concludes the study and presents policy recommendations.

Chapter Two
Relocation of Garment Industries

2.1 Introduction

One of the main features of the clothing industry is the continuous search for new production locations. Indeed, the geographical distribution of the clothing industry has changed dramatically over the past 25 years. As a result, there have been considerable employment losses in Europe and North America and important gains in Asia and other developing regions. Given that the garment industry is very labour-intensive, garment firms frequently relocate when faced with rising labour costs. This chapter reviews the literature on relocation of the garment industry and discusses factors driving it.

2.2 Characteristics of the Clothing Industry

It is generally acknowledged that the leading sector of the early Industrial Revolution was the textile and clothing industry. The textile and clothing industry formed the motor of industrialisation in early industrial Britain, continental Europe, Japan and the United States. Today, this industry continues to be important for newly industrialising countries. The reason why the textile and clothing industry remains the motor of industrialisation in developing countries relates to certain characteristics of this industry.

The first characteristic is that, compared to other sectors, the garment industry is relatively labour intensive. In this sector, wages paid to employees usually account for 50 to 70 percent of total costs and the cost of labour is therefore one of the most important determinants of competitiveness in the garment industry. Historically, wages in the textile and garment industry have been low paying. Even after years of employment, many workers are often paid the minimum wage. Furthermore, during downturns in the business cycle, employers have often tried to cut wages in order to minimise costs. For that reason, some of the first unions were formed in the textile and clothing industries (Harrington and Warf, 1985).

The second fundamental characteristic of the garment industry is the low degree of technological sophistication. Capital costs of production therefore tend to be very low in this industry compared to other sectors (Harrington and Warf, 1995).

The third distinct characteristic of the garment industry is that entry and exit is relatively easy. Production of clothing requires low start-up costs and fixed investments. Ease of entry means that the textile and clothing industries have historically been very competitive and have generated low rates of profit. Furthermore, compared to other industries, less infrastructure is needed and the labour that is used is relatively unskilled (Harrington and Warf, 1995).

2.3 The Nature of the Production Process

The international garment industry can be classified into two broad segments. The first category may be called the fashion segment. Here, competition is based on new product introduction and quality improvements. The second segment comprises mass produced garments and is governed by price competition. It is this latter segment which is the main area of activity for newly industrialising and developing countries (Mody and Wheeler, 1987).

Nowadays, several parts of the production process (from the preparation of the thread to the packing of the finished article) are extensively automated. A high share of wage costs occur in the process of making-up, in particular, at the sewing stage. A worker does not need a high level of skill to be able to operate a sewing machine. Throughout the world (especially in low-wage countries), there is an extremely abundant supply of labour which can easily perform these sewing operations. Companies find that this vast pool of labour is too cheap for it to be economically feasible for them to carry out these operations using mechanisation or automation in the traditional sites in industrialised countries. The consequence is that, certain sections of the production process, particularly sewing, have increasingly been relocated from the traditional industrial countries to low-wage countries (Fröbel et al, 1980).

The growing interconnectedness of the international economy in recent years has been driven by many forces, including technological advances in transportation, communication and production as well as the worldwide search for markets. These developments have allowed investors to take advantage of differing production costs by locating factories and offices in a number of countries. "As a result, a garment could be designed in New York, produced from a fabric made in Australia, spread

and cut in Hong Kong, assembled in China and eventually distributed in Germany" (Mittelhauser, 1997)

2.4 Global Manufacturing System

What factors are causing this worldwide relocation of the clothing industry? An interesting perspective on relocation and restructuring of industry is offered by Gary Gereffi (1994). He describes the emergence of a global manufacturing system characterised by three specific trends:

- The spread of diversified industrialisation to numerous parts of the Third World
- The shift towards export-oriented development strategies in peripheral nations, with an emphasis on manufactured exports
- High levels of product specialisation in the export profiles of most Third World countries, as well as the continual upgrading by established exporters among the newly industrialised countries (NICs).

Through these processes, most nations have incorporated into the global manufacturing system. Thus, the gap between developed and developing countries has been narrowing in terms of industrialisation. Industry, as a share of GDP, has increased substantially in many Third World countries. From 1965 to 1990, industry's share of GDP grew by 13 percentage points in East and South East Asia, by 10 percent in sub-Saharan Africa, 5 percent in South Asia and 3 percent in Latin America (Gereffi, 1994).

2.4.1 Export-oriented Industrialisation

In the three decades since 1960, world trade expanded nearly thirty-fold. As a percentage of total world exports, manufactured goods increased from 55 per cent in 1980 to 75 per cent in 1990. In addition, the share of the manufactured exports of the NICs that can be classified as 'high tech' soared from 2 percent in 1964 to 25 percent in 1985. Those which can be categorised as 'medium' levels of technological sophistication rose from 16 per cent to 22 per cent during the same period. This expansion in the quality and quantity of the Third World's export capacity, particularly for manufactured goods, embraces a wide variety of countries. Thus, it can be described as being part of a general restructuring of the world economy (Gereffi, 1994).

East and South East Asian countries achieved average annual export growth rates of 9.8 percent during the 1980s, more than double that of the advanced industrial countries. The top performers from this region (Thailand, South Korea, Taiwan and China) nearly tripled the OECD average with export growth rates ranging from 13 to 11 per cent during the 1980s (Gereffi, 1994).

Gereffi (1994) also points out an important trend: while textiles and clothing, were the most dynamic export sector in the East Asian NICs in the 1960s, these two sectors shrank as a proportion of total exports in these four nations in the past 25 years. While the NICs in East Asia and other regions were shifting to more advanced export industries, the textiles and clothing sectors became an important source of growth for countries at lower levels of development like Pakistan, Bangladesh, Thailand and Indonesia. In developed countries, textiles and clothing are considered to be traditional industries. By contrast, these sectors represent the leading edge of economic globalization for Third World countries which aim to be incorporated in the world economy as manufactured goods exporters (Gereffi, 1994).

Therefore, in recent years, there has been a rapid growth of textile and apparel production in less developed countries (LDCs), such as China, Mexico and Indonesia. According to the U.S. International Trade Commission, approximately half of the total productive capacity in the U.S. apparel industry has shifted from developed countries to LDCs over the past three decades. Many of these LDCs are now important players in the textile and apparel trade with the United States (table 2.1) (Mittelhauser, 1997).

Table 2.1: Country of Origin of Textile and Apparel Imports into the U. S., 1995 (Millions of Dollars)

COUNTRY	IMPORT VALUE	PERCENT
Total, World	48 172.7	100.0
China	6 873.7	14.3
Hong Kong	4 529.3	9.4
Mexico	3 962.9	8.2
Taiwan	2 684.7	5.6
South Korea	2 380.4	4.9
India	1 835.7	3.8
Dominican Republic	1 780.5	3.7
Canada	1 742.1	3.6
Italy	1 739.8	3.6
Philippines	1 623.9	3.4
Total, others	19 019.7	39.5

Source: Mittelhauser, 1997.

Thus it is clear from table 2.1 that the largest supplier to the United States is China, followed by Mexico, Taiwan and South Korea. It is also interesting to consider the main suppliers of clothing to the European Union (table 2.2) with Mauritius being the 14th largest supplier.

Table 2.2: Leading suppliers of knitted and woven clothing to the European Union, 1996

Rank	Country	KNITTED CLOTHING		WOVEN CLOTHING		CLOTHING TOTAL	TOTAL
		Value (ECU Millions)	Share (%)	Value (ECU Millions)	Share (%)	Value (ECU Millions)	Share (%)
1	China	1 542.6	13.2	2 616.3	13.8	4 159.0	13.5
2	Turkey	2 060.6	17.6	1 326.6	7.2	3 423.1	11.2
3	Hong Kong	892.7	7.6	1 599.9	8.4	2 492.6	8.1
4	Tunisia	343.4	2.9	1 537.8	8.1	1 881.2	6.1
5	Morocco	444.2	3.8	1 228.1	6.5	1 672.3	5.4
6	Poland	276.8	2.4	1 332.9	7.0	1 609.6	5.2
7	India	511.8	4.4	1 027.3	5.4	1 539.1	5.0
8	Romania	220.6	1.9	927.9	4.9	1 148.5	3.7
9	Bangladesh	504.4	4.3	625.9	3.3	1 130.3	3.7
10	Indonesia	444.0	3.8	528.1	2.8	972.1	3.2
11	Hungary	242.4	2.1	539.5	2.8	781.9	2.5
12	Thailand	303.1	2.6	225.7	1.2	528.8	1.7
13	USA	205.8	1.8	316.6	1.7	522.4	1.7
14	Mauritius	328.3	2.8	168.3	0.9	496.6	1.6
15	Macau	232.5	2.0	243.7	1.3	476.2	1.6
16	Sri Lanka	182.4	1.6	280.0	1.5	462.4	1.5
17	Czech Rep.	151.0	1.3	299.0	1.6	450.0	1.5
18	Pakistan	210.2	1.8	230.2	1.2	440.4	1.4
19	Slovenia	106.0	0.9	315.9	1.7	422.0	1.4
20	Croatia	92.1	0.8	309.4	1.6	401.5	1.3
21	South Korea	256.7	2.2	143.2	0.8	399.9	1.3
22	Switzerland	186.2	1.6	203.3	1.1	389.5	1.3
23	Malaysia	232.4	2.0	119.4	0.6	351.8	1.1
24	Slovakia	90.6	0.8	236.6	1.2	327.1	1.1
25	Bulgaria	84.5	0.7	210.1	1.1	294.6	1.0
26	Taiwan	214.0	1.8	71.3	0.4	285.3	0.9
27	Philippines	149.7	1.3	118.3	0.6	268.0	0.9
28	Israel	166.7	1.4	84.3	0.4	251.1	0.8
29	UAE	113.6	1.0	67.2	0.4	180.9	0.6
30	Egypt	97.7	0.8	67.8	0.4	160.5	0.5
Total		**10 882.0**	**93.0**	**17 036.7**	**89.6**	**26 918.6**	**87.7**
All extra EU		**11 967.1**	**100.0**	**19 013.2**	**100.0**	**30 710.9**	**100.0**

Source: Industry Focus, 1999.

Once more, China is the leading supplier of clothing to the European Union, followed by Turkey and Hong Kong. The primary reason for that, is the relatively low cost of labour that these countries offer (Industry Focus, 1999).

What are the forces shaping new production and trade patterns in today's world economy? According to Gereffi (1994), two types of transnational capital influence trade patterns in the world economy. First, there are transnational manufacturing firms that shape the globalisation of production by their strategic investment decisions. The latter are the main agents in producer-driven global commodity chains. Second, there are foreign buyers (retailers and branded merchandisers) of consumer goods in the developed countries who use their large orders to mobilise global export networks composed of numerous overseas factories and traders. In this case, these foreign buyers are the main agents in buyer-driven commodity chains. These two types of global commodity chains will be explained in more detail below.

2.4.2 Producer-Driven and Buyer-Driven Commodity Chains

The Global Commodity Chains (GCC) perspective highlights the importance of considering not only the geographical spread of transnational production arrangements, but also their organisational scope. That is, one needs to consider the linkages between various economic agents – raw material suppliers, factories, traders and retailers.

Producer-driven commodity chains describe those industries in which transnational companies or other large integrated enterprises play a crucial role in controlling the production system, including its backward and forward linkages. This type of commodity chain is most characteristic of capital – and technology-intensive industries like automobiles, computers, aircraft and electrical machinery. Another feature of producer-driven commodity chains is that it often involves international subcontracting of components, especially for the most labour-intensive production processes (Gereffi, 1994).

Buyer-driven commodity chains refer to those industries in which large retailers, brand-named merchandisers and trading companies play the pivotal role in setting up decentralised networks in various exporting countries, particularly the ones that are located in the Third World. This pattern of industrialisation (which is induced by trade) has become common in labour-intensive, consumer industries such as garments, footwear, toys, household goods, consumer electronics and various handcrafted items like furniture and ornaments (Gereffi, 1994).

One of the most important characteristics of firms which fit the buyer-driven model, such as fashion-oriented companies like The Limited, Gap and Liz Clairborne is that in most cases, these companies do not own any production facilities. Rather, these companies are 'merchandisers' that design and /or market, but do not manufacture, the branded products they sell. These firms rely on complex networks of overseas production contractors that perform all their specialised tasks such as, manufacturing, packaging, shipping and even accounts receivable. Whereas producer-driven commodity chains are controlled by core firms at the point of production, control over buyer-driven commodity chains is exercised at the point of consumption (Gereffi, 1994).

2.4.3 Locational Patterns of Global Sourcing

Thus, buyer-driven commodity chains characterise many of today's light consumer goods. These industries also tend to be very labour-intensive at the manufacturing level. Thus, the need for these types of industries to be located in low-cost countries (Gereffi, 1994).

The relevance of the Global Commodity Chains theory can be seen in the clothing industry worldwide. Fashion-oriented retailers that cater to an exclusive clientele for 'designer' products buy their expensive goods from premium-quality, high-value added countries like Italy, France, Japan. Department stores and speciality chains that emphasize 'private label' (or store brand) products as well as national brands source from the most established Third World exporters (such as the East Asian NICs, Brazil, Mexico and India). The mass merchandisers that sell lower-priced store brands, by contrast, buy from the medium to low cost, mid-quality exporters (low-end producers in the NICs, plus China and Southeast Asian countries of Thailand, Malaysia, the Philippines and Indonesia). Large volume discount stores that sell the most inexpensive products import from low-cost suppliers of standardised goods (e.g. China, Indonesia, Bangladesh, Sri Lanka, Mauritius, the Dominican Republic, and Guatemala). Last but not least, smaller importers serve as industry 'scouts'. That is, they operate on the fringes of the international production frontier and help develop potential new sources of supply for global commodity chains (e.g. Vietnam, Myanmar, Saipan) (Gereffi, 1994).

Buyer-driven commodity chains can be applied to the case of Mauritian exports of clothing. Fashion-oriented companies (like Ralph Lauren or Marks and Spencer) as well as non-fashion-oriented ones source part of their orders from Mauritian manufacturers of garments. These companies are buyers who design their products but do not manufacture any of it themselves. These garments are thus manufactured in Mauritius and exported to buyers in European markets. Sometimes, the whole process is co-ordinated by an agent who takes the orders from the buyer in Europe (or elsewhere), gives the orders to the manufacturers in Mauritius and in the end makes sure that the buyer receives the finished goods. In such a case, the buyer does not even have to deal with the manufacturers directly.

2.4.4 Triangle Manufacturing in Global Commodity Chains

According to Gereffi (1994), global sourcing is therefore normally based on an agreement between the buyer and the overseas factory. Once they have been established, these buyer-seller networks may last for years and may even be extended to third party networks through 'triangle manufacturing' arrangements which are giving rise to new options for Third World industrialisation.

The essence of 'triangle manufacturing' is that, for instance, the US (or other overseas) buyers place their orders with the NIC manufacturers (or other manufacturers) they have sourced from in the past (e.g. Hong Kong or Taiwanese garment firms). The latter subsequently shift some or all of the requested production to affiliated offshore factories in one or more low-wage countries (e.g. China, Indonesia or Vietnam). These offshore factories may be wholly owned subsidiaries, joint-venture partners, or simply independent overseas contractors. The triangle is completed when the finished goods are shipped directly to the overseas buyer. Triangle manufacturing thus turns the NIC manufacturer from being a primary production contractor for US buyers, to a 'middleman' in the buyer-driven commodity chain. An important factor that plays in favour of the East Asian NIC manufacturers is their long-standing link to their foreign buyers. That link is based on the trust developed over the years in several successful export transactions. Thus, the buyer is assured that the standards in terms of price, quality and delivery schedules will be met by new contractors in other Third World production sites (Gereffi, 1994).

Gereffi (1994) describes that the process of third-party production started in Japan in the late 1960s, which relocated several plants and foreign orders to the East Asian

NICs. Today, the East Asian NICs are themselves shifting many of their plants and orders to China and several Southeast Asian countries. At first, triangle manufacturing was the result of US import quotas that were imposed on Hong Kong, Taiwan, South Korea and Singapore in the 1970s. That quota problem led to the search for new quota-free, neighbouring production sites. Later, in the 1980s, domestic changes such as increased labour costs, labour scarcity and currency appreciations in the East Asian NICs led to the shift to other Asian and also Caribbean factories. The shift toward 'triangle manufacturing' has been responsible for bringing many new countries into these production and export networks. These countries include Sri Lanka, Vietnam, Laos, Mauritius, small Pacific Islands (like Saipan and Yap), Central America and Caribbean nations.

Here, an application of triangle manufacturing can be made to Mauritius. During the 70s when Hong Kong firms were looking for new production sites, they turned to Mauritius to avoid quotas. Today, most apparel firms in Mauritius are domestically owned and it is Mauritian businessmen who are looking for new production sites. Thus, several garment exporters have already relocated to Madagascar and one has recently set up a plant in Mozambique. Thus, Mauritius is starting to play the same role that the East Asian NICs did in the 80s. The triangle is between Mauritius, Madagascar (or Mozambique) and the final buyers in Europe and the US, with Mauritius being the intermediary. With the reputation that Mauritian producers have acquired on the world market, buyers are willing to purchase garments even if they are produced in Mozambique or Madagascar, given that supervision of the production process is done by Mauritian firms.

Gereffi (1994) points out an important consequence of "triangle production": there are repetitive cycles as the production location of garment industries (as well as other industries) moves from one part of the world to another. Another conclusion that can be drawn from this continuous relocation of the garment industry is that the "window of opportunity" for each new production base (Japan – East Asian NICs – Southeast Asian countries – China – Vietnam – the Carribean) is getting progressively shorter as new entrants are rapidly brought into this global sourcing network.

2.5 Relocation Trends around the World

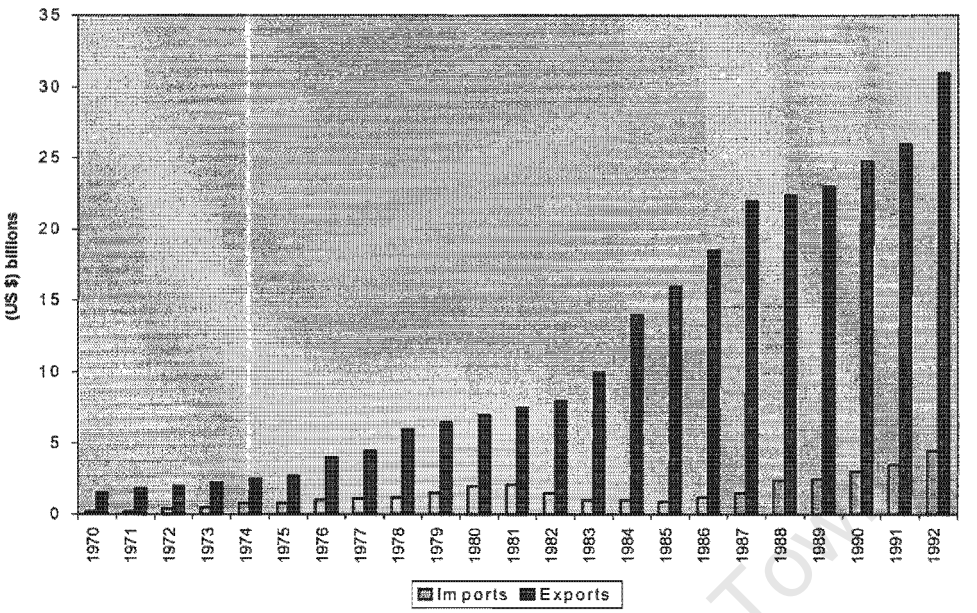
Figure 2.1 shows the remarkable rise in apparel exports by developing countries. According to International Labour Organisation (1996), more than 60 percent of world exports were manufactured in developing countries by the mid 1990s. Asia was the major world supplier, producing more than 32 per cent of the world's clothing exports. Subsequently, East Asian countries started investing or redistributing part of their production to a third wave of countries such as Bangladesh, Pakistan, Sri Lanka and more recently, Laos, Nepal and Vietnam. By 1996, China was producing 13 percent of the world supply of clothing.

Similarly, in North America, Mexico has become a major supplier of clothing to the United States and to Canada under NAFTA. Foreign investors who had anticipated the signing of the free trade agreement, have built up the clothing industry in Mexico which, with 8 000 clothing enterprises, is in a strong position vis-à-vis its Latin American competitors (ILO, 1996).

A fairly recent development is the relocation of production to Central and Eastern Europe: Bulgaria, Hungary, Poland, Romania and the Czech Republic are gradually becoming important suppliers to the European market. Each country has tended to specialise in a specific range of products and their volume of exports to the OECD countries has been growing steadily since the mid 1980s. In several instances, ultra-modern factories have been constructed to make sure that they can produce articles complying with European quality standards (ILO, 1996).

In addition to the main countries mentioned above, other countries like Morocco, Mauritius, Tunisia and more recently Madagascar, have become important clothing producers. These countries export most of their production to industrialised countries. However, African countries as a whole, have been little affected by the globalisation of clothing industries (ILO, 1996).

Figure 2.1: Growth in Exports of Apparel products from Developing Countries, 1965 – 1992



Source: Murray, 1995.

2.6 Employment Trends

The shift in production capacity to developing countries has been accompanied by a rapid expansion in employment in the major new producing countries. During the twenty-year period, between 1970 and 1990, there were very rapid increases in employment of textile, clothing and footwear (TCF) workers in countries such as Malaysia, Bangladesh, Sri Lanka, Indonesia, Philippines and Korea and China. The latter was the largest employer. In fact, in 1996, China employed 5.3 million workers, which represents an increase of approximately 2 million workers since 1980 (ILO, 1996).

In contrast, in the developed world, between 1970 and 1990, employment fell drastically (ILO, 1996).

2.7 Automation in the Garment Industry

Although developing countries have a comparative advantage in the production of garments because of the low cost of their labour, increased automation has reduced the clothing industry's labour requirements to a certain extent. Some analysts

suggest that the development of new technologies could undermine the comparative advantage of low-wage developing countries as locations for production. Studies such as that by Mody and Wheeler (1987), show that in response to competition from Asian firms and to the emergence of other low-cost countries (such as China, Philippines and Indonesia), some OECD firms have, in fact, invested in new microeletronics-based technology. According to Mody and Wheeler (1987), this is giving scope for tremendous reductions in costs, especially in the assembly phase, and also allows for substantial cuts in process time and allows for faster response to demand changes.

However, automation of the production process is not as easy as in other industries because of certain technical factors. Firstly, the pliability of materials makes automation difficult. Secondly, the product has to be matched to the relatively complex contours of the human body. Another problem is that the garment industry is subject to rapid changes in demand as a result of fashion trends. Therefore, from an economic point of view, it is not profitable to mass produce the same products over a long period of time (with the exception of certain items such as jeans). Thus, there is not much incentive to undertake large capital outlays in order to increase the level of automation (Fröbel et al, 1980).

The labour process itself has been subdivided into processes such as cutting, sewing, pressing, packaging and so on. That has made it possible to reduce the skill requirements of the labour-force to a large extent. Therefore, companies try to automate only in those areas where relatively high levels of skill are still required – for example, in cutting and grading. In other areas, the skill requirement is still low: assembly is done largely manually and the necessary equipment consists chiefly of a sewing machine. Lightweight and small sewing machines can be transported more easily than a steel furnace or an auto-assembly line. An apparel plant can be dismantled and reassembled somewhere else in a very short time, leaving behind virtually no fixed capital at all. Certain tasks require skilled labour (such as designers, pattern makers, cutters and so on) and proximity to markets. On the other hand, the sewing and finishing stages of production, which normally involve 95% of the total work-force, can be located to distant regions or countries (Fröbel et al, 1980).

Thus, Mody and Wheeler (1987) point out two important trends here: they argue that on the one hand, a large number of low-wage countries have entered the market because the clothing industry still remains fairly labour-intensive. On the other hand,

OECD countries can now benefit from higher productivity gains through the extensive use of microelectronic technology in garment manufacture. Thus, countries like Korea, Taiwan and Hong Kong are facing another challenge. Initially, they had few competitors in the use of labour intensive technologies. But now, they will have to face the twin pressures of new low-wage competition and cost-savings associated with automation.

However, in the race between microelectronics and low-cost producers, the latter would win if only they were not restricted by protection. Microelectronics technology does offer advantages in the form of labour and time related costs saved. But these are only sufficient for high-income countries to dominate garment pre-assembly activities. In the assembly and the post-assembly phases, countries like China retain a considerable cost advantage using labour-intensive measures (Mody and Wheeler, 1987).

2.8 Conclusion

This chapter has analysed the forces behind the relocation of clothing industries to new sites. The textile and clothing industry is extremely geographically mobile because it is a highly labour-intensive sector. The literature shows that over time, the clothing industry has continuously moved from the developed to the less developed countries. Thus, it is clear that clothing firms are forced to relocate to remain competitive. Once production has been shifted to a new site, a firm can only hope to remain competitive either by raising productivity or by relocating again to new sites. The use of microelectronics has also become important in some OECD countries. However, the costs of automation are still high. So, it can be expected that textiles and clothing will continue to relocate to where labour is cheaper.

An important theory that has been used to explain this shift in production to less developed countries is that of Global Commodity Chains (GCC). According to this perspective, the world economy, as it is today is a 'global factory' where the production of a single commodity spans several countries. The factories that produce these goods can be buyer-driven commodity chains or producer-driven commodity chains, which create complex production and distribution networks all over the world. Several Third World countries have developed their clothing industry as a result of being included in these global chains.

The relocation of the clothing industry from higher-income to lower income countries is a trend that is expected to continue. It will be interesting to see which developing countries will benefit most in the coming years. But one can definitely include China as well as certain South-East Asian nations which are continually adapting their technologies and have the advantage of low production cost. It can also be expected that some of the economically and politically stable least developed countries will be among the winners.

The Mauritian clothing industry will also face tremendous challenges in the next few years. The success that it has achieved up till now will be more difficult to sustain because wages have risen and it is no longer a low-wage location. In the following chapters, an overview of the Mauritian garment industry will be given and it will also be determined whether Mauritian businessmen plan to relocate to neighbouring African countries to remain competitive.

Chapter Three
Overview of the Mauritian Garment Industry

3.1 Introduction

Mauritius has achieved impressive growth over the past 25 years. Real growth averaged 6 per cent per annum, unemployment (which was around 20 percent in the early 1980s) has been virtually eliminated and real per capita income has increased by nearly four times (World Bank, 1995). The main reason for this success lies in the dynamism of the export sector, especially in the garment subsector. However, with full employment, Mauritius has also been experiencing rising wages, which are threatening to erode its competitiveness (EPZDA, 1997).

This chapter will give a brief overview of the characteristics of the Mauritian garment industry. Its past performance will be analysed, as well as its sources of strength. The weaknesses of the industry and factors affecting its future competitiveness will be discussed.

3.2 Characteristics

In December 1997, there were 480 EPZ enterprises, employing 82,083 persons. 6,097 of these workers were foreigners. Furthermore, 69% of the enterprises in the EPZ were in the wearing and apparel industry, with 11% producing textiles. The share of ownership by domestic and foreign firms has also evolved over time. In the 1980s, over 80% of exports came from foreign firms but now it is the domestically owned firms which are exporting the majority of goods because the rise in wages has meant that many foreign investors have relocated to countries offering cheap labour (Lall and Wignaraja, 1998).

Table 3.1: Selected Indicators for the Mauritian EPZ, 1989 - 1997

	1989	1990	1991	1992	1993	1994	1995	1996	1997
No. of EPZ enterprises as at December	563	568	586	558	536	494	481	481	480
Employment as at September	87 085	84 285	86 391	87 313	85 254	83 382	80 698	79 447	83 391**(b)**
No. of Wearing Apparel enterprises as at March	481	484	466	457	433	392	367	350	332
Textiles enterprises as at March	41	48	48	50	53	47	46	48	52
Real Value Added (Rs millions) **(a)**	3 800	3 975	4 097	4 403	4 636	4 839	5 135	5 564	5 849
Real Exports (Rs millions) **(a)**	9 976	11 474	11 300	11 495	12 863	12 563	13 218	14 316	14 700
Real Investment (Rs million)	991	690	603	492	732	683	590	665	916 **(b)**

Sources: Digest of Industrial Statistics, 1997, Central Statistical Office and Dabee (forthcoming).

Notes: ***(a)**: At constant 1990 prices*

***(b)**: As at December 1997*

As can be seen from table 3.1, most of EPZ enterprises are concentrated in the wearing apparel sector. Textiles enterprises, by contrast, constituted approximately 10% of all EPZ enterprises. An increasing number of enterprises (which could not face increasing international competition) have closed down during the 1990s. This has led to a decline in the level of employment from 87 317 in 1992 to 79 447 in 1996. Employment started rising again in the clothing sector when certain firms upgraded their technology and started producing higher value added garments.

Real value added has continued to rise, stabilising at about 12% of GDP since 1990. Table 3.1 indicates that real exports grew at an annual average rate of 5.1% per

annum between 1990 and 1997. This shows that growth of exports has slowed down considerably because the average annual growth rate of exports during the 1980s was 17.6%.

Table 3.2: Number of Establishments and Employees by size of employment in the Wearing apparel and Textile industries – March 1998

INDUS-TRIAL GROUP	10 - 49		50 - 99		100 - 499		500 & OVER		TOTAL	
	No. of establish-ments	Employ-ment	No. of establish-ments	Employ-ment	No. of establish-ments	Employ-ment	No. of establish-ments	Employ-ment	No. of establish-ment	Employ-ment
Textiles	19	467	10	744	9	2 029	3	1 832	41	5 072
Wearing Apparel	80	2 051	56	3 940	124	30 010	33	34 094	293	70 095

Source: Digest of Industrial Statistics, 1997.

Average firm size in the EPZ is very large by clothing industry standards internationally. Firms of over 100 employees account for 54% of the number of firms and 91% of total employment in the wearing apparel industry (Table 3.2).

3.3 Past Sources of Strength

The outstanding success of the Mauritian clothing industry can be attributed to a unique combination of internal and external factors. One of the most important of these is that Mauritius enjoys friendly links with some of the richest countries because of cultural / linguistic affinity and by virtue of its being a former colony. In addition, it is a member of various international organisations and that has opened up tremendous opportunities for industrial development. The most important of these has been the Lomé Convention (discussed in detail below) between the EEC and the ACP states. The Mauritian private sector has been very successful in taking advantage of the preferential access to EEC markets. Even businessmen from the Far East relocated to Mauritius in order to take advantage of the easy access to European markets (Mauritius at Crossroads, 1991). Table 3.3, below shows the destination of exports from the Mauritian EPZ. Europe and the United States are the most important markets.

Table 3.3: EPZ exports by Country of Destination, 1993 – 1997 (F.O.B Value: Rupees Million)

COUNTRY OF DESTINATION	1993	1994	1995	1996	1997
France	4 390	4 652	5 208	5 762	5 670
United Kingdom	2 268	2 541	3 412	4 234	5 344
United States	3 972	4 198	3 860	3 787	4 353
Germany	1 564	1 342	1 445	1 607	1 631
Italy	831	908	1 015	1 141	1 153
Netherlands	401	435	491	685	643
Belgium	430	452	435	651	599
Switzerland	261	261	322	344	355
Reunion	254	267	246	221	238
Canada	117	162	246	204	185
Australia	34	21	41	67	115
Hong Kong	89	165	152	160	98
South Africa	38	30	59	179	77
Denmark	41	18	34	46	70
Other	1 131	1 081	1 301	1 913	2 518
Total EPZ sector exports	**15 821**	**16 533**	**18 267**	**21 001**	**23 049**

Source: Digest of Industrial Statistics 1997.

As can be seen from table 3.3, exports have increased steadily from Rs 15 821 billion in 1993 to Rs 23 049 billion in 1997[4].

3.3.1 The Lomé Convention

The first Lomé Convention was signed in 1975 and the fourth Lomé Convention was in force from 1990 to February 2000. The Lomé Convention has now been replaced by the Suva Convention for the next eight years.

According to this preferential trade agreement, exports from ACP countries benefit from free access to EEC countries. Also, ACP countries are exempted from all

[4] The value of the Mauritian rupee against the US dollar is given in Appendix E.

customs duty. Furthermore, there are no quantitative restrictions on goods imported from ACP countries. This Convention thus bestows considerable advantages to Mauritius over non-ACP countries because the latter's export of textile and garments are liable to a 17% duty on entry into the EEC. Mauritius has successfully exploited this preferential treatment.

There are, however, two provisions in the Lomé Convention, designed to protect EEC domestic industries against external competition. These provisions constitute a major constraint to Mauritian exports.

1) Rules of Origin – The objective of this clause is to ensure exports are of ACP countries' origin. This means that (a) the products must be produced from inputs wholly produced in one or more ACP countries or (b) the goods are produced from imported inputs which have undergone sufficient transformation. Moreover, if the materials or intermediate products are from the EEC, and processed in an ACP country, the goods are considered to have been wholly produced in an ACP state. However, the Protocol of Convention is fairly bulky and complicated. The main obstacle relates to the definition of "sufficient processing or transformation" that would change the tariff heading of the products processed. In practice, many products may have undergone sufficient transformation for a change in tariff heading, but are disqualified.

   To the extent that Mauritius is deficient in indigenous raw materials, the Rules of Origin pose serious difficulties. In particular, the garment sector would not satisfy the Rules of Origin if manufactured from imported fabrics from non ACP/EEC sources. In order to overcome this constraint, Mauritius has encouraged a process of vertical integration in the textile sectors by introducing processes such as spinning, weaving, dyeing, and printing to raise domestic value-added. With the success achieved in the textile sector, the magnitude of this problem has been diminished to a large extent.

2) Safeguard Clause – The aim of this clause is to ensure that the EEC is protected against any large or sudden increase in ACP imports. In practice, however, the EEC has never invoked this clause. But under Lomé II, Mauritius had once voluntarily agreed to restrain export of its products to avoid the possibility of the EEC resorting to safeguard clauses.

3.3.2 The Quota System

In addition to privileges under the Lomé Convention, Mauritius has been allocated quotas on a number of textile items in both the USA and Canada. Although quotas mean that there is a limit on the number of garments that can be exported, Mauritius has been exporting regularly to the United States and that has contributed handsomely towards export earnings. In addition, a wide range of products enter the USA free from any form of quota.

Normally, the US government imposes quota restrictions on the import of a given category of clothing once the imports of that product from a country into the US attains 1% of US production in that category. The US would then call on that country to hold bilateral negotiations. The positive aspect of these quotas is that they are specified in volume terms, not in money terms. Therefore, that gives a country the option of going for higher value-added products. Thus, many businessmen from Hong Kong invested in Mauritius because they could no longer export to the USA due to quota restrictions (Mauritius at Crossroads, 1991).

3.3.3 Essential Conditions

Thus, since the early eighties, Mauritius took advantage of world economic recovery and capitalised on market opportunities by improving its competitiveness through structural adjustment programmes and through the devaluation of the rupee. A number of exogenous factors also played a role. These included:

1) falling oil prices
2) the US dollar was over-valued during the 1983-84 period and subsequently depreciated. This combination of lower oil prices and lower debt servicing considerably eased the foreign exchange problem
3) After 1984, demand in European as well as in American markets increased sharply during the early phases when the EPZ was established. Most of the European currencies appreciated vis-à-vis the Mauritian rupee, causing Mauritian goods to be more competitive.
4) The appreciation of the Taiwanese dollar meant that Taiwan became less competitive, which in turn, encouraged prospective Taiwanese investors to set up industries in Mauritius
5) During the 1980s, political uncertainty over the future of Hong Kong's re-integration over China compelled several businessmen to look for a safe haven

for their capital and manufacturing operations. These investors brought with them capital, know-how and marketing networks. In return, by relocating to Mauritius, they gained access to European and American markets (Mauritius at Crossroads, 1991).

In addition to these external factors, a blend of domestic conditions played an important role.

1) An interesting feature of the Mauritian EPZ is that there was a substantial amount of investment by local entrepreneurs themselves. By contrast, most EPZs around the world rely heavily on foreign investment (Mauritius at Crossroads, 1991). In addition, there has also been a large number of joint ventures between local and foreign investors. It is true that foreign investment was extremely important for the initial take-off of the clothing industry. However, the measure of success achieved would not have been the same without the involvement of the local business community. In a study by Roberts (1992), one of the most important findings was precisely the real linkages that had developed between the activities of foreigners and Mauritians. These linkages have been crucial for Mauritian firms to acquire the know-how. In fact, today, some of the largest clothing firms are owned by Mauritians who have become industrialists of international calibre (Fowdar, 1991).

Due to the rise in wages, some firms have succeeded in upgrading the quality of their products. Some have even built their own design and marketing capabilities (Lall and Wignaraja, 1998). However, most Mauritian firms still receive their designs from their customers, principals or parent companies (World Bank, 1995).

2) Mauritius enjoys a favourable business climate. In addition, in the early phases of the development of the EPZ, there was a good combination of cheap, but literate and moderately skilled labour. At that time, labour productivity was also considered satisfactory.

3) Mauritius offers an attractive package of incentives. For example, investors benefit from low corporate tax. Foreign investors are free to repatriation funds.

Government has also supported the EPZ scheme wherever was necessary, for example, by investing massively in infrastructure.

4) It is a well-known fact that Mauritius is a safe and pleasant place to live in. Crime rates are very low, compared to other countries. In addition, the average Mauritian is bilingual and foreigners are welcome (Mauritius at Crossroads, 1991).

3.4 Weaknesses

As indicated above, the Mauritian garment industry has a number of strengths which have accounted for its rapid growth. However, there are also a number of weaknesses and its competitiveness has been eroding over time. According to a World Bank report (1989), "many of the same factors that have been sources of growth for Mauritius up till now could evolve into potential constraints to growth or sources of vulnerability to the economy in the future."

3.4.1 Erosion of Trade Preferences

Initially, when foreign investors relocated to Mauritius, they were motivated by the fact that, unlike Asian producers, Mauritius had preferential access to European and American markets. As shown in table 3.3, the EU countries and the USA are the major markets for Mauritian garment exporters. Thus, as mentioned earlier, the privilege that Mauritius enjoys under the Lomé Convention (i.e. duty free access of ACP goods to EEC markets) and to a lesser extent, access to US markets under the quota system, have been crucial for the success of the Mauritian clothing industry.

However, there have been considerable changes in the global trade environment since Mauritius implemented its development strategy. Many other developing countries have entered the arena with many of the advantages that Mauritius enjoyed. Furthermore, there is widespread fear that when trade barriers come down after the phasing out of the Multi-Fibre Agreement, Mauritius will lose preferential treatment and will thus have to face fierce competition from the larger Asian producers (Mauritius vision 2020, 1997).

3.4.2 Highly Concentrated Structure

Mauritius has a highly concentrated export structure: over 80% of its manufactured exports come from one product only - clothing. Even other countries, which are dependent on production of garments for their exports, do not have such a high

degree of dependence. For example, garments account for 71% and 69% of manufactured exports from Sri Lanka and Bangladesh respectively (Lall and Wignaraja, 1998).

This degree of concentration presents two main dangers. First, it implies that Mauritius is highly susceptible to demand conditions for garments, in its export markets in the industrialised countries (World Bank, 1995). This dependence on clothing also reflects the fact that, over time, there has been a continued and heavy dependence on low skill exports. By contrast, countries like Taiwan, Thailand, Malaysia and Singapore have upgraded to a higher proportion of high skill products over time. However, in spite of the fact that these countries have diversified into more complex goods, their exports of garments remain substantial. The danger of producing low skill goods is that entry to new competitors is extremely easy. Normally, for such products, scale economies and technological requirements tend to be low. Therefore, the main competitive advantage lies in low wages (Lall and Wignaraja, 1998).

3.4.3 Labour Supply and Wages

The spectacular success of the EPZ in the 80s was partly fuelled by the availability of cheap and educated labour. But the economy soon achieved full employment and labour was no longer abundant. Today, Mauritius has to compete with many other countries that have even larger pools of cheap labour. This shortage of labour has now become a binding constraint on the future industrial growth. Now, Mauritius can not rely on further growth based on deployment of idle resources, precisely because "this engine of growth is no longer available" (World Bank, 1992). Faced with this shortage of labour, some companies are even importing labour.

Furthermore, over the years, wages have risen sharply as a result of full employment. As tables 3.4 and 3.5 indicate, it is clear that low wages are no longer a source of competitive advantage for Mauritius. Table 3.4 sets out comparative annual average wages in several countries including some major Asian garment exporters and the leading Tiger economies. Wages in Mauritius are lower than the NIEs and the new-NIEs but are much higher than in several Asian countries. Between 1985 and 1990, the annual percentage growth in wages in Mauritius amounted to 12.4%, fourth highest after Korea, Taiwan and Hong Kong. Between 1990 and 1993, wages grew by 16.3% per annum, the highest of countries listed.

Table 3.4: Relative Annual Wages in Manufacturing

	WAGES (US $ P.A.)			MAURITIAN WAGES	GROWTH RATES (% P.A.)	
	1985	1990	1993	as % of others, 1993	1985 -90	1990 -93
Mauritius	1063	1904	2998	-	12.4%	16.3%
Sri Lanka	529	604	738	406.2	2.7%	6.9%
India	1298	1592	1230	243.7	4.2%	-8.2%
Pakistan	1323	1769	2030	147.7	6.0%	4.7%
Bangladesh	557	854	905	331.3	8.9%	2.0%
Malaysia	3375	3240	4148	72.3	-0.8%	8.6%
Thailand	2422	3523	4661	64.3	7.8%	9.8%
Indonesia	921	925	1128	265.8	0.1%	6.8%
Philippines	1257	1968	2433	123.2	9.4%	7.3%
China	384	500	656	457.0	5.4%	9.5%
Singapore	7290	10800	15393	19.5	8.2%	12.5%
Hong Kong	4808	9161	13220	22.7	13.8%	13.0%
Korea	3476	9353	12269	24.4	21.9%	9.5%
Taiwan	3862	10168	14017	21.4	21.4%	11.3%

Source: Lall and Wignaraja, 1998

Table 3.5: Wage Levels for Different Skill Levels, Mauritius and Selected Asian Countries, 1994

	TOTAL LABOUR FORCE (MILLION)	UNEMPL-OYMENT RATE (%)	MIN WAGE UNSKILLED (US $ / DAY)	AVERAGE UNSKILLED (US $/ DAY)	AVERAGE SKILLED (US $/DAY)	AVERAGE TECHNICIANS (US $/ MONTH)	AVERAGE MIDDLE MANAGER/ ENGINEER (US $/ MONTH)
Mauritius	0.54	2.0	2.66	5.5 - 6.8	6.8 - 10.3	210 - 400	560 - 1,100
Taiwan	n/a	3.1	22.50	32.50	42.50	1,300	1,500 -2,500
Malaysia	7.4	2.8	No min wage	5.20-8.08	12.86	321	780 - 1,150
Thailand	36.8	4.4	5.22	9.05	15.72	274 - 630	730 - 964
China	723	2.3	n/a	2.05 - 5.18	4.03 - 9.65	n/a	n/a
Philippines	26.8	9.7	4.00	4.00	7.00	237	625
Indonesia	84.3	8.0	0.60 -2.62	2.00 - 2.87	5.98	215	359
Vietnam	34.4	10	0.70	1.15 - 1.22	1.75 - 1.90	55 - 150	152
Sri Lanka	6.5	13	1.15	1.25	2.20	90 - 279	210 - 400
Bangladesh	34	3.2	1.58	1.66	2.33	63 (min)	n/a
India	344.3	5.7	0.82 -1.17	2.40 - 3.33	4.2 - 6.2	128 - 200	285 - 430
Pakistan	37	6.2	1.44	n/a	n/a	n/a	n/a

Source: Lall and Wignaraja, 1998.

Due to the rapid increase in wages, Mauritian labour costs are no longer particularly cheap. According to table 3.5, wages for unskilled labour in Mauritius are higher than in many countries in South and East Asia such as in China, Vietnam, Indonesia and the Philippines. The same applies to skilled and managerial categories.

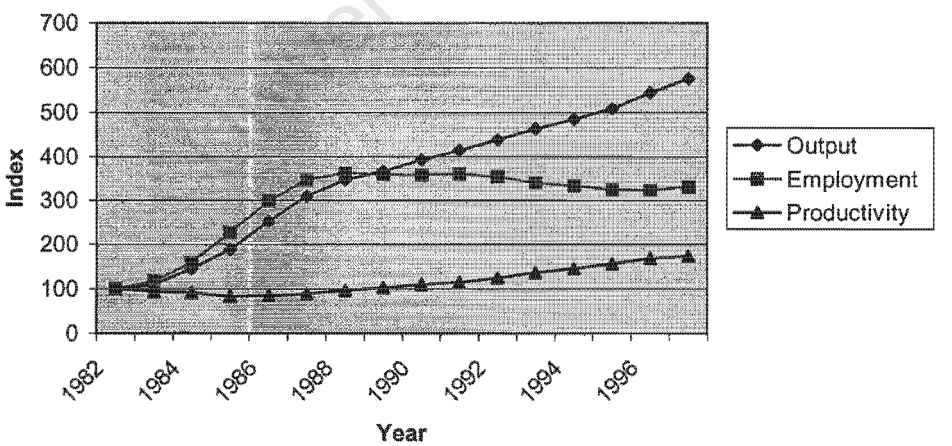
In addition to the problem of rising wages, by late 1980s, skills shortages started to emerge. In particular, industries battled to find skilled workers such as machine maintenance technicians, middle management and production managers (Mauritius at Crossroads, 1991).

It is clear that, given the above constraints, increased growth can only come about with a steady and continuing growth in labour productivity. However, Mauritius is grappling with the problem of an increase in wages without a corresponding increase in productivity. This issue is explained in more detail below.

3.4.4 Productivity

As indicated above, the core problem is that the Mauritian industry is facing increasing wages, which are not being fully compensated for by the slow rise in productivity. Average productivity levels are lower than in the NIEs. For example, in 1991, output in the Mauritian EPZ was $3,247 per person as compared to $12,157 in the Singaporean garment industry (World Bank, 1995). Figure 3.1 shows the trend in productivity of labour in the Mauritian EPZ between the 1982 and 1997.

Figure 3.1: Production, Employment and Labour Productivity in the Mauritian EPZ, between 1982- 1997[5]



Source:Digest of Industrial Statistics, 1997

Between 1982 and 1986, labour productivity declined constantly in the Mauritian manufacturing sector. Factors contributing to this decline are high labour mobility and absenteeism coupled with low levels of efficiency due to the learning gap. Since

1986, however, the level of productivity has been picking up. This healthy situation may be attributed to the following factors: the production of higher value added products, longer working hours due to more shift work and more use of capital intensive technologies in the clothing sector (Productivity and Competitiveness Indicators, 1998).

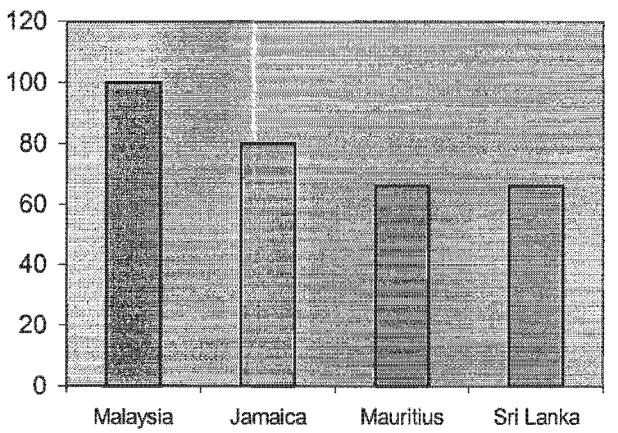
However, Mauritian entrepreneurs feel that productivity is not rising fast enough to match the increase in wages. In general, productivity problems can be related to worker attitudes in the Mauritian manufacturing industries. The following factors have been identified as being particularly problematic:

- High rates of absenteeism (around 5% - 10% in the EPZ)
- High rates of turnover (7% - 10% according to some firms)
- Poor work discipline - many firms complained workers lacked motivation and discipline
- Insufficient differentiation in wages to reflect skill levels - employee effort and motivation is reduced by the fact that the wage and promotion structure does not fully reflect skill levels and productivity (Lall and Wignaraja, 1998)
- The average number of annual working days in Mauritius is less than in other Asian and South East Asian countries, which are the main competitors (Mauritius - Vision 2020,1997).

Lall and Wignaraja (1998), found that about 61% of the sample firms - which were largely MNC affiliates - complained that the relative decline in labour productivity (and high absenteeism) was a negative constraint to export competitiveness. According to one large Hong Kong garment MNC affiliate, the productivity of its Mauritian plant compares poorly with its plants in other countries such as Malaysia and Jamaica (figure 3.2).

[5] See Appendix D for detailed table of values.

Figure 3.2: Productivity in a Hong Kong MNC



Source: Lall and Wignaraja, 1998

These relatively low levels of productivity are worrying for the future of Mauritian competitiveness. During the 70s and 80s, MNC affiliates were attracted to Mauritius because of cheap labour and preferential access to European and US markets. These factors were sufficient to offset low levels of productivity. But now, wages have risen and preferences are being phased out. Clearly, there is a need for productivity levels to increase. Otherwise, with low cost countries entering the export market in labour-intensive activities, Mauritius will lose its competitive edge (Lall and Wignaraja, 1998).

A 1990 study of the EPZ by the University of Mauritius reveals that several factors affect productivity. These factors include: work environment, management style (communication between workers and managers) and certain socio-cultural factors like work ethic and commitment to work. In order to promote greater productivity, better working conditions are needed. In addition, a "culture of work" is essential, where emphasis is placed on work that is well done (Mauritius -Vision 2000,1997).

Yin et al (1992) stress the fact that it is crucial for managers to improve the relationship between workers and employers, which has been poor up till now. The

manager cannot simply be an employer and the worker cannot be a mere factor of production. There should be better communication between the two parties and the manager should help the worker cultivate a sense of belonging to the firm. That would be an important step towards improving productivity. According to Yin et al (1992), considerable effort must be put into management of human resources since the latter is the only valuable resource that Mauritius possesses.

3.4.5 Geographical Isolation

An additional problem for Mauritius is its unfavourable geographical location, that is, it is isolated from its main markets. Compared to its competitors, Mauritius suffers from long shipping times and high freight costs. For example, the average shipping time from Mauritius to the USA is between 45 and 55 days compared to just 25 days from South East Asia to the USA. In addition, given that there are few shipping lines serving exports, sailings are too infrequent (Lall and Wignaraja, 1998). Mauritius does not lie on the main sea routes and maritime transport costs are higher than for countries competing in similar markets (Mauritius at Crossroads, 1991).

According to Lall and Wignaraja (1998), some firms have complained about the fact that international shipping operators do not turn up when cargoes are small. That is particularly a problem for some large garment firms for which over one third of business involved just-in-time production and short-cycle lead times.

3.5. Conclusion

The success of the Mauritian garment industry has been remarkable over the past 25 years. However, Mauritius now faces serious problems that, in the long run, could lead to a loss of competitiveness if appropriate measures are not taken soon. Unfavourable geographical location, rising wages and the slow rise in productivity are some of the most worrying problems right now. Against the background given in this chapter, the next chapter will analyse the responses of garment manufacturers to determine how they perceive the future of their industry.

Chapter Four
Results of the Survey

4.1 Introduction

In this chapter, the results of the surveys[6], which were conducted in Mauritius, will be analysed. The surveys show how clothing manufacturers perceive the changing environment in which they are operating and what strategy they intend adopting for the future. Most importantly, the question of whether Mauritian firms find relocation to low wage countries to be an attractive alternative will be addressed.

4.2 Profile of firms

For the survey, 18 firms were interviewed. They are all garment exporters. The firms are classified according to size by employment. In the context of this study, it is important that the sample be biased towards larger enterprises because they account for a large proportion of employment. Other important characteristics are: the different types of ownership control, variation in the number of years that the firms have been operating the EPZ and the different qualities of clothes being produced (i.e. low, medium and high quality).

Table 4.1: Number of firms according to size by employment

FIRM SIZE	NUMBER OF FIRMS
Small (less than 500 employees)	5
Medium (between 501 to 1000 employees)	5
Large (between 1001 and 3000 employees)	4
Giant (above 3000 employees)	4

Source: Own Survey, 1999.

Note: The average firm size in the Mauritian EPZ is much larger than in other garment industries, hence the selection of size categories above

Table 4.2: Ownership Control

	NO. OF FIRMS	PERCENTAGE
Domestic	11	61%
Foreign	4	22%
Joint-partnership	3	17%

Source: Own Survey, 1999.

The industry was initially dominated by foreign firms but is now mainly locally owned. This characteristic is evident in the sample (table 4.2).

Table 4.3: Age distribution of enterprises by size

AGE IN YEARS	GIANT	LARGE	MEDIUM	SMALL	TOTAL	PERCENTAGE
1 - 5	0	1	1	2	4	22%
6 -10	0	1	1	1	3	17%
11 – 15	0	1	3	1	5	27%
16 – 20	3	0	0	0	3	17%
21 – 25	0	0	0	0	0	0%
26 - 30	1	1	0	1	3	17%

Source: Own Survey, 1999.

There is considerable variation in age of sampled firms. The giant firms were much older than the other firms. The large, medium and small firms were mostly between 1 to 15 years of age.

[6] The questionnaires that were used for these surveys are given in Appendices A and B.

4.3. Workers and Wages

Table 4.4: Inflation, Nominal and Real Wage Rates in EPZ, 1982 – 1997

(Index 1982 = 100)

YEAR	C.P.I INDEX	INFLATION RATE (%)	AVERAGE MONTHLY NOMINAL WAGES			AVERAGE MONTHLY REAL WAGES	
			EPZ wages (Rupees)	Index	Change (%)	EPZ wages index	**Change (%)**
1982	100.0	11.4	763	100	...	100.0	**...**
1983	105.6	5.6	764	100	0.0	94.7	**- 5.3**
1984	113.3	7.3	864	113	13.0	99.7	**5.3**
1985	120.9	6.7	951	125	10.6	103.4	**3.7**
1986	123.1	1.8	978	128	2.4	103.4	**0.0**
1987	123.8	0.6	1 064	139	8.6	112.3	**8.6**
1988	135.2	9.2	1 265	166	19.4	122.8	**9.3**
1989	152.2	12.6	1 500	197	18.7	129.4	**5.4**
1990	172.8	13.5	1 852	243	23.4	140.6	**8.7**
1991	184.9	7.0	2 227	292	20.2	157.9	**12.3**
1992	193.4	4.6	2 613	342	17.1	176.8	**12.0**
1993	213.7	10.5	3 031	397	16.1	185.8	**5.1**
1994	229.3	7.3	3 276	429	8.1	187.1	**0.7**
1995	243.1	6.0	3 490	457	6.5	188.0	**0.4**
1996	259.1	6.6	3 730	489	7.0	188.7	**0.4**
1997	276.2	6.6	4 015	526	7.6	190.4	**0.9**

Sources: Digest of Labour Statistics, 1998 and Productivity and Competitiveness Indicators 1982 – 1997, Vol. 1, 1998.

Table 4.4 shows the percentage changes in real wages in the EPZ. As can be seen from the last column, there have been fluctuations in the rate of wage increases but on average, real wages have increased by a rapid 4.5% per annum from 1982 to 1997.

Although real wage increases have slowed since the mid 1980s, every single firm that was interviewed mentioned that wages have risen and the increase in wages was rated as being the number one problem that garment manufacturers are facing today (table 4.5).

Table 4.5: Ranking of Problems by Garment Manufacturers

PROBLEM	RANKING
Rise in wages	1st
Limited pool of labour	2nd
Potential loss of markets	3rd
Ability to adapt to technological change	4th
Low productivity	5th

Source: Own Survey, 1999.

Thus, it is clear that Mauritian garment manufacturers are worried about the rise in wages because they will simply not be able to compete on the basis of cost in future. Firms manufacturing for the lower segment of the market (low quality clothes) will be particularly affected.

4.4. Limited Pool of Labour

Mauritius has a population of 1.1 million and a labour force of only 500,000. During the past few years, the availability of workers has become a serious problem and many firms started importing labour from different countries. Respondents were asked if they had any problems finding workers. Most of them stated that the shortage of labour is indeed a problem. In fact, after the problem of rising wages, respondents rated the limited pool of labour as the second most pressing problem faced by Mauritian manufacturers of garments today (table 4.5).

Table 4.6: Employment of total number of workers and of foreign workers by firm size

	GIANT	LARGE	MEDIUM	SMALL
TOTAL NO. OF WORKERS	42 300	6 723	3 150	1 073
No. of foreigners	3 235	851	660	40
Percentage of foreigners	8%	13%	21%	4%

Source: Own Survey, 1999.

The scarcity of labour is further illustrated by the fact that twelve out of eighteen (67%) respondents stated that they employed foreigners (table 4.6). It is interesting that the highest percentage of foreigners are employed by the medium sized firms. One reason could be that the limited pool of Mauritian workers gets absorbed in the giant and large enterprises and the medium ones have to import more labour. In fact, from the sample, the four giant firms employed 3235 foreigners in total representing 8% of the workforce in giant firms. As is to be expected, the percentage of foreigners employed by the small firms was the lowest (4%).

The majority of foreign production workers are from China, but many are also from India and Bangladesh. Only one firm mentioned that a few workers are imported from Madagascar.

In addition, a small minority of foreigners from countries such as United Kingdom, France and South Africa are employed in management or in skilled occupations such as technicians, engineers, technical advisors, knitwear technologists and designers.

Thus, it is clear that many firms depend on foreign labour. However, two of the respondents voiced their concern about the employment of foreign workers. According to the one respondent, "...we still depend on foreigners in order to survive..." Another respondent added "...labour should not be imported. Our local workforce should be trained to be more productive..."

4.5. Productivity

Higher levels of productivity are a prerequisite for the continued growth of the Mauritian garment industry. 56% of firms interviewed said that productivity was satisfactory. 33% thought that it was good and only 11% thought that productivity was very good but even they maintained that there was still room for improvement. The level of productivity of workers also seemed to vary, depending on the different stages of the production process. Thus, for instance, one firm reported that in the knitting and dyeing department, productivity was bad, whereas in the make-up department, it was satisfactory. On the whole, however, it is surprising that the productivity issue does not seem to be as bad as it had been reported to be in previous studies (as discussed in Chapter 3).

Those firms employing foreigners did mention that there was a difference between the productivity of Mauritian and foreign workers. The Chinese workers were seen as being highly productive compared to Mauritians. However, one executive said that one can not compare Mauritian workers to foreign ones. According to him, Mauritians have a social life whereas foreigners come to Mauritius with the sole intention of working and making money.

Table 4.7: Trend in Productivity

PRODUCTIVITY	NO. OF FIRMS	PERCENTAGE
Risen	12	67%
Stable	4	22%
Fallen	2	11%

Source: Own Survey, 1999.

Firms recognised that productivity had risen (table 4.7) with only 11% stating that productivity had fallen. Apart from complaints of a lack of commitment by workers, a factor cited by a number of firms was that complicated garments are being manufactured, so the whole production process turns out to be more complex. However, even in cases where productivity had risen, it was generally accepted that higher levels of productivity were needed.

4.5.1 Absenteeism

Previous studies of the Mauritian clothing industry showed that one reason why productivity was not as high as it could be is because of absenteeism. The survey indicates that the problem persists and 72% of respondents stated that absenteeism was a frequent problem. Employers complained that workers have the wrong attitude towards work and are not motivated.

Only three out of the eighteen firms that were interviewed (17%), mentioned that absenteeism was only a minor problem. One executive mentioned that "…foreigners compensate for it. There's also overtime and shift..."

Some firms have managed to curb the problem to a certain extent by implementing bonuses and more rigorous discipline. However, one firm complained that workers do not even care about bonuses. Another even tried to cut the workers' wages but without effect.

However, in spite of the numerous complaints, the productivity problem was not such a major issue: it was only rated as the fifth most important problem by respondents (table 4.5). Despite the fact that there is a need for higher levels of productivity, garment manufacturers feel that, unlike rising wages which is beyond their control, productivity improvement is an issue that can be dealt with in the long run. Positive steps have already been taken, such as the establishment of a National Productivity Board (NPB), under the supervision of a management consultant from the National Productivity Board of Singapore.

Finally, respondents were asked to mention any other problems that they were experiencing with workers. The problems cited are:

- Some workers are not willing to work overtime.
- Lack of discipline.
- Problems of communication with foreign workers
- No industrial culture
- Lack of skilled middle management
- Workers tend to be less efficient if the project is complicated.

The survey reponses thus confirms many of the problems that had been reported in previous studies of the Mauritian garment industry, as stated in Chapter 3. In particular, worker problems could be a serious hindrance to the future development of the industry.

4.6. Subcontracting

Subcontracting occurs when an enterprise requests another firm to undertake part of an order or part of the production process instead of producing everything itself. In garment industries around the world, declining competitiveness has frequently led to increased sub-contacting particularly as a way of avoiding regulated or unionised labour environments. Firms were asked if they make use of subcontractors (table 4.8).

Table 4.8: Number of enterprises that make use of subcontractors by size

	GIANT	LARGE	MEDIUM	SMALL
No Subcontracting	1	2	2	5
Occasionally	2	1	1	1
Yes, often	1	1	1	0
TOTAL	4	4	4	6

Source: Own Survey, 1999.

56% (ten out of eighteen) of firms do not have links with subcontractors at all. 44% (eight out of eighteen) make use of subcontractors, with five out of those eight firms doing so only occasionally. The use of subcontractors was more common among giant firms.

Respondents were also asked to list the activities that are carried out by subcontractors. They mentioned that the latter carry out a wide range of activities from dyeing and knitting to making up of garments. Some subcontractors get the cut materials and they do the assembling of parts. One firm mentioned that subcontractors do the embroidery on the garments. Another firm mentioned that they hired subcontractors for sub-assembly purposes (for example pocket and collar preparation or manufacturing of tags and labels). Still another firm mentioned that

subcontractors were needed to stitch accessories on garments (for example, buttons and zips).

The most common reason given for the use of subcontractors is that firms are sometimes overbooked and they need to request other firms to carry out certain parts of the production process. One firm mentioned that November and December are the two important months when they receive the peak orders and to be able to fulfil them on time, they have to make use of subcontractors.

4.7 Product Range

The firms that were interviewed produce a wide range of knitted and woven garments, such as pullovers, tee-shirts, shirts, trousers, dresses, children's wear, etc. Respondents were also asked about the quality of the product that they manufacture, i.e. for which income levels they target their product. The results are presented in the following table:

Table 4.9: Number of firms classified by size and product range

QUALITY OF GARMENT	GIANT	LARGE	MEDIUM	SMALL
Low	2	1	1	3
Medium	3	3	3	2
High	1	1	3	2

Source: Own Survey, 1999.

The garments that are produced can be classified as low, medium or high quality garments. Most firms specialised in producing only one particular category, but a few produced more than one quality of garments. All the four firm sizes produced the different types of garments. When the EPZ was first launched, firms were producing and exporting cheap garments. Over the years, however, certain firms have started improving the quality of their garments. The result is that today there is a good mix of all types of clothes that are being produced and therefore, exporters are better able to tap different segments of the market.

4.8 New markets

To maintain competitiveness, it is crucial for an industry to consolidate its existing markets as well as to find new ones. For this reason, firms were asked if they had penetrated new markets in recent years (table 4.10).

Table 4.10: Penetration of new markets by clothing firms

	NO. OF FIRMS	PERCENTAGE
Penetrated new markets	9	50%
Not penetrated new markets	2	11%
Considering new markets	7	39%

Source: Own Survey, 1999.

Of the 50% of respondents who had penetrated new markets, five said that they had only recently started exporting to the United States. One of the firms mentioned that they started exporting to the United States but had to stop because of quota problems. The firm wanted to export more than the quota that was allocated to it. Other new markets included Germany, Norway and Denmark. Only one of the firms in the sample said that it had just started exporting to two African countries.

With the advent of the recently introduced Africa Growth and Opportunity Bill, the United States seemed to be an attractive new destination for Mauritian garment exporters. 39% of the sample were considering new markets and said that the United States would be an attractive market to consider.

According to Peter Craig, the Trade Advisor at the Mauritian embassy in Washington and U.S representative of MEDIA (the Mauritius Export Development and Investment Authority): *"...Attitudes in Mauritius toward trade with the United States have also evolved and become more positive, and this has helped spur trade. Traditionally, people in Mauritius have been a little scared of the US market, thinking it's too big, too far and too complicated. But now the approach is different. Thanks to a new generation of leadership in the public and private sector, people are more willing to see the global picture."* (Le Week-End, 24 January 1999).

In fact, exports from Mauritius to the United States have trebled in recent years rising from 2 billion rupees in 1991 to 6.5 billion rupees in 1998 with most of this growth

being in clothing products. It is expected that the total will soon be 8 billion rupees. (Le Week-End, 24 January 1999).

4.9 Freight costs

Given the long distance to major export destinations, producers were asked how long their products took to reach the market. On average, it takes 24 hours by air to reach the country of destination and one week for the garment to be on sale. By sea, however, it takes approximately three to four weeks for the garments to reach their market. Air freight was the most widely used means of transport.

Respondents were asked if the geographical distance of Mauritius from its markets was a problem. 78% of firms did not perceive it to be a problem at all and firms producing higher quality garments were especially unconcerned. As one respondent puts it, "...in terms of freight cost, we have a disadvantage, but in terms of quality, we have an advantage..." Another executive was confident about the quality of his product and added that: "...we have a name on the world market and international buyers will not hesitate to source their products from us..."

The remaining 22%, however, did express their concern over the distance factor. Some of them thought that shipment costs were high. There is the additional problem that executives of companies have to make frequent trips between Europe and Mauritius to market their products. Two respondents complained that geographical isolation reduces customer responsiveness. They voiced their fears that, in future, the neighbouring low-cost European countries could be a threat. One of them added that: "...we might lose our position as the second largest world producer of knitted garments..."

4.10 Capital Goods and Raw Materials

Although the industry is labour intensive, capital goods are still an important cost factor and comprised between 15% and 80% of total assets among firms interviewed. Mauritius does not have a highly developed industry to supply the capital goods required by the garment industry, although fabrics are produced on a large scale.

Twelve out of the eighteen firms interviewed imported capital goods from the Far East (mainly Hong Kong, Japan, Singapore) or from Europe (Italy, Germany, United Kingdom). Two of the small firms stated that they bought their machines from the larger firms.

Raw materials such as cotton, angora, lambswool, shetland and dyeing materials are imported from countries, such as Hong Kong, Korea, Taiwan, India, China, Pakistan, England, Italy, Germany and Switzerland. Most firms import raw materials, from which they make fabrics, which are then used to produce garments. 17% of firms interviewed did not produce their own fabrics but purchased them locally from the larger firms. All firms also said that they relied on other Mauritian suppliers for accessories such as thread, button, zips, etc.

So while Mauritius as a small island based economy produces few capital goods and lacks the basic raw materials, it has established a reasonably integrated clothing and textile industry and also acquired the expertise in managing an international network to supply those inputs which are not available locally.

4.11 Method of Production

An important response to growing competitive pressures is to upgrade technology and increase levels of automation.

Table 4.11: Method of production used by firms

METHOD OF PRODUCTION	NO. OF FIRMS	PERCENTAGE
Manual Only	2	11%
Manual and Automated	2	11%
Manual and semi-automated	6	33%
Semi-automated	7	39%
Automated	1	6%
Robotic	None	0%

Source: Own Survey, 1999.

As table 4.11 indicates, 39% of firms interviewed used semi-automated production methods. These are machines that can perform three or four sophisticated

operations at a time, but workers were still needed to operate them. A mixture of both manual and semi-automated processes was also common among the sample (33%). Even some of the giant firms used a mixture of manual and semi-automated techniques. Only one firm mentioned that it was fully automated, i.e. all machines were computerised. So, in general, most firms that were interviewed were fairly labour intensive.

The majority of firms (67%) felt that their enterprise was sufficiently equipped to face the technological changes in the garment industry (table 4.12)

Table 4.12: Level of technology of firms

LEVEL OF TECHNOLOGY	NO. OF FIRMS	PERCENTAGE
Yes, sufficiently equipped	12	67%
No, not sufficiently equipped	4	22%
Only partly equipped	2	11%

Source: Own Survey, 1999.

There was a relatively high level of awareness of technological changes with many firms regularly attending trade fairs and updating their technology. Quite a number of firms use Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM) systems.

Those who answered that they were not sufficiently equipped were smaller firms using manual production methods and who lacked capital and output volumes to justify higher levels of automation

Automation is used in all phases of the production of garments including dyeing, knitting, cutting, stitching, pressing, etc. On the whole, one can be say that most of the clothing firms in the sample, (except the small ones), have invested in new technology. In fact, ability to adapt to technological change was only rated as the fourth highest problem facing garment exporters. According to an official from the Export Processing Zone Development Authority (EPZDA), the Technology Diffusion Scheme (TDS) has been very successful. The TSD is a programme aimed at providing direct support to firms which want to use technology support services to increase competitiveness.

4.12 Government Policy and Infrastructure

Two fundamental ingredients for the successful development of any industry are the amount of government support it receives and whether there is adequate infrastructure in place. On the whole, respondents felt that the support given to EPZ firms was good. 83% said that they found that the tax structure (including tax holidays) was favourable and firms also benefited from duty free importation of machinery and raw materials. The remaining 17% of respondents thought that government policy was satisfactory. In particular, they complained about value-added tax (VAT), which has only recently been introduced. Normally, EPZ companies are exempted from VAT. However, the procedure is that they pay for VAT and subsequently that amount is refunded. Thus, firms find that the VAT system is somewhat problematic because their cash flow gets tied up.

Similarly, firms found that access to finance was good. 94% of firms had no problems with access to finance, as long as their business results were good. They mentioned that the bureaucratic procedures were lengthy, but efficient. Only one small firm complained that it was not easy to borrow money.

The firms' opinion of current infrastructure was reasonably favourable. 78% of respondents stated that the supply of electricity was good and said that cuts happen very rarely. One of the giant firms said that in case there are cuts, the firm has its own generators. The remaining 22% described electrical supply as being only satisfactory precisely because of these occasional power failures. All respondents found that water supply was good. However, with the recent severe drought, it was argued that storage capacity should be improved, i.e., a new dam should be built.

As for the transportation of personnel and materials, firms felt public bus transport was available, but tends to be too congested. As for highways, 83% of respondents said that they were good and that there has been a marked improvement over the years. The rest feel that they are still insufficient. All respondents found that telecommunications, the harbour and the airport were good. There was just one firm that complained that the procedures at customs were excessively lengthy when importing raw materials.

4.13 Conclusion

This chapter has given a detailed account of how garment manufacturers, who were interviewed, perceive the problems and challenges facing their industry, in a world where globalisation is a key element. The main problems are rising wages, a limited pool of labour and, to a lesser extent, low productivity. Although there are clear indications that firms face growing competitive pressures as a result of these problems, the overall environment in which garment exporters are operating is not unfavourable. In particular, in terms of infrastructure and government support, every effort is being made to assist the industry. Essentially the industry is facing problems, in the labour market, which are the result of many years of rapid growth. This provides the context for the analysis in chapter five, of the measures that firms are undertaking to tackle the problems they face.

Chapter Five

Relocation

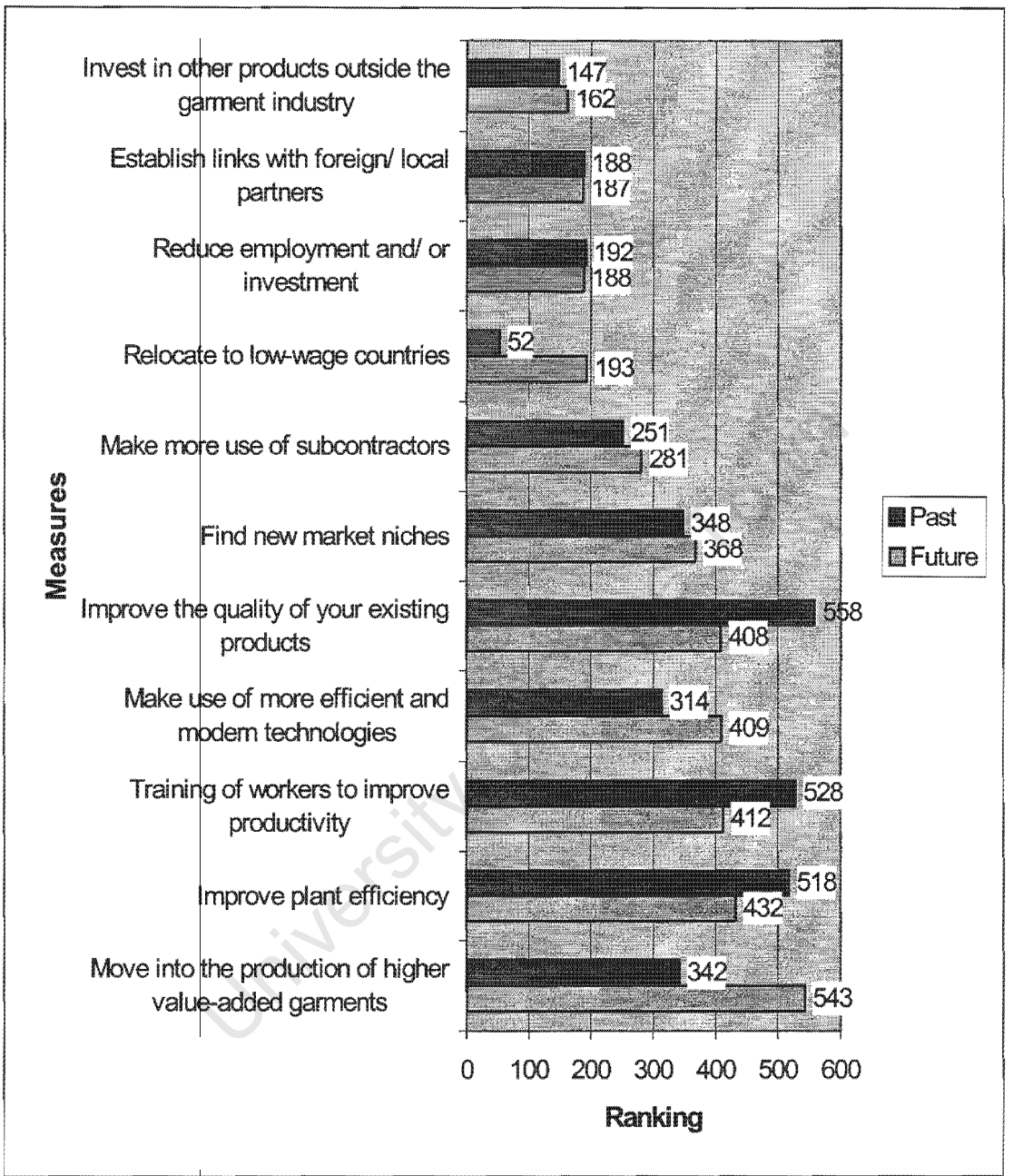
5.1 Introduction

Having examined the environment in which firms are operating and the problems that they are now facing, this chapter considers what steps clothing firms can take to enhance competitiveness. Firm strategy is likely to comprise a range of actions such as investing in more efficient technologies or moving to the production of higher value added garments. More negative responses would include investing outside the garment industry or reducing employment and investment levels. Responses are also likely to change over time in accordance with changes in industry developments. This chapter firstly takes a broad look at the different strategies that firms have already undertaken in the past and plan to undertake in future. It then goes on to focus specifically on the issue of relocation of Mauritian garment firms to the neighbouring southern African region.

For this section of the study, a short questionnaire[7] was sent to 170 garment manufacturers to find out what their strategy would be for the future. The short questionnaire was divided into two parts: the first part assesses the measures that have already been undertaken and the second part concentrates on future measures that firms plan to undertake, given the increasingly competitive global environment. These firms were selected at random, irrespective of size, ownership control, quality of products and number of years of operation in the EPZ. The response rate was 30%[8] (51 firms).

[7] A copy of the postal questionnaire is given in Appendix B.
[8] A list of companies which responded is given in Appendix C.

Figure 5.1: Measures Undertaken by Garment Manufacturers – Past and Future



Source: Own Survey, 1999.

Note: In the postal questionnaire, firms were asked to rank the different measures undertaken in order of priority. Subsequently, points were given to each ranking, with the highest rank being allocated the highest point on each questionnaire. The total value of these points was then calculated for each measure so as to determine their order of importance.

5.2 Measures Undertaken

Figure 5.1 summarises the measures that were undertaken in the past by garment firms, as well as those they plan to undertake in future. In the past, firms were more interested in improving the quality of their products, because a certain standard is expected from garment exporters. This is evidenced by the high priority placed on improving product quality. Although some firms had already moved into the production of higher value-added garments, the trend had only just started. In fact, during the 1970s, when the EPZ was first set up, only cheap and low quality clothes were being produced. However, with the rise in wages, many manufacturers of garments became aware of the importance of shifting production to higher value-added garments. Thus, the shift from low quality to higher value-added was an important turning point in the evolution of the Mauritian garment industry.
So, in spite of the fact that this move started slowly, it has gained momentum now. In fact, if one takes a look at measures to be undertaken in future, one striking change is the increased emphasis placed on moving to higher-value added products.

The shift to higher value-added garments is rated as the number one measure to be undertaken in the next few years. Both large and small firms are aware that, to produce in Mauritius in future, the only alternative is to carve a niche in the high-end segment of the market. Many respondents mentioned that they will be required to develop their design capabilities and eventually create their own brand labels.

The move upmarket also explains the growing importance that is attached to the use of more modern technologies which will be crucial in turning the production of garments into a more sophisticated, more advanced and more integrated process. It is obvious that if firms want to seize the opportunity to produce more advanced designs, they will have to invest massively in new technologies. Technological advances also lead to substantial productivity gains and over the years, firms have constantly been encouraged to upgrade their technology.

Figure 5.1 shows that measures to improve plant efficiency and training levels in the future have declined in significance, perhaps indicating that considerable progress has already been achieved in that area. However, one executive mentioned that "...training of workers is an on-going process..." because the latter must acquire the skills needed to adapt to the changing requirements of their work, especially with the

introduction of new technologies. Another important aspect of training is that, not only workers on the factory floor, but people in management equally need to be trained. Both workers and managers need to have the right knowledge and skills to be able to deliver quality, flexibility and quick response so that the firm can maintain a competitive advantage.

A further striking feature of the survey is the increasing trend towards relocation (figure 5.1). One can expect that only the larger firms will be able to relocate since it is too risky for the smaller ones. The trend has already started among some of the bigger enterprises, to relocate overseas, where they can still produce "basics" (i.e. the lower segment of the market). According to figure 5.1, this trend will be even more prevalent in the next few years.

To conclude, the postal survey reveals that the outlook for the future of the Mauritian garment industry is positive. In spite of growing competition from newcomers on the world market, Mauritian manufacturers are bracing themselves to face new challenges. Their strategy is firstly, to move out of "basics" into more sophisticated segments of the market if they want to keep producing in Mauritius. From the survey, it is clear that firms plan to develop skills and invest in more modern equipment as part of a strategy to shift to the production of higher value added product segments. The second important aspect of future strategy is that some larger firms plan to relocate in neighbouring African countries in order to maintain their share of the lower range of the garment market. The issue of relocation is dealt in more detail in the next section.

5.3. Relocation

The next part of this chapter deals with the central question of this thesis: given the twin problems of rising wages and shortage of labour, do firms plan to relocate to the neighbouring low-wage African countries? However, before analysing the responses of firms regarding relocation, it is worth emphasising that some of the larger enterprises have already relocated and they are very positive about this shift to the African region. For instance, the marketing director of Floréal Knitwear, (which is the biggest clothing enterprise in Mauritius) Mr. Vigier de La Tour, pointed out the importance of Africa for business investment. According to him, *"...just as Hong Kong yesterday needed China to sustain its economic growth, Mauritius today needs Africa*

to expand its economic space. Both the Mauritian private sector and the government are urging African countries to seize the opportunity and we are helping as much as we can to set up industries in Madagascar, Mozambique, Botswana, Tanzania and Namibia to be ready for the worldwide competition that will be unleashed in 2005 – when the Multi-Fibre Agreement which imposes quota restrictions on exporting countries will end. Within the next five years, the traditionally low cost/high volume producers such as China, India, Pakistan, Bangladesh and nearby developing production centres in Mexico and the Caribbean will then compete directly with African producers. That is why there must be a strategy to develop the African textile and apparel industry now." (Le Week-End, 3 October 1999).

In addition, he said that his company, Floréal knitwear has been present in Africa and has invested heavily in Madagascar during the past 10 years: *"..we have shown that investment in Africa is good business and profitable to all. We have taken the risk to invest even though all the conditions were not ideal and we have plans for further investments in the region. Many other firms are doing the same whether it is in Madagascar, Mozambique, Botswana, Namibia, Tanzania or Côte d'Ivoire."* (Le Week-End, 3 October 1999).

Figure 5.1 indicated that relocation is an increasingly important option for Mauritian clothing manufacturers. The following sections investigate this process in further detail, based on the interviews carried out with 18 firms (see questionnaire in Appendix A). While the sample is small it provides a useful indication of current developments.

Table 5.1: Relocation of Mauritian firms

	NO. OF FIRMS	PERCENTAGE
Already Relocated	6	33%
Plan to relocate (in African countries)	3	17%
Plan to relocate (not in African countries)	1	6%
Do not want to relocate	8	44%

Source: Own Survey, 1999.

Fifty percent of the sample (nine firms) have already relocated or plan to relocate in future (table 5.1). Out of the remainder, a further firm planned to relocate, but not in SADC countries. The remaining 44% did not consider relocation as an option

5.3.1 Firms that have already relocated

It is interesting to note that among those six firms that have already relocated, five are domestically owned and only one is foreign owned. Five among them have relocated to Madagascar[9] and one to Mozambique. Moreover, two of them are giant enterprises and the four others are large ones. The largest firm that has relocated to Madagascar, has set up five plants employing a total of 5 000 workers.

Respondents were also asked since when they have relocated. The answered are given in table 5.2.

Table 5.2 : Number of years in EPZ and year of relocation

	NO. OF YEARS IN EPZ	YEAR OF RELOCATION
FIRM NO. 1	17	1997
FIRM NO. 2	27	1992
FIRM NO. 3	13	1999
FIRM NO. 4	30	1989
FIRM NO. 5	5	1997
FIRM NO. 6	10	1999

Source: Own Survey, 1999.

Table 5.2 indicates that the first firm which relocated back in 1989 has been operating in the EPZ for the past 30 years. It is not surprising that almost all the other firms that have relocated, have also had long years of experience. Thus, it seems that the longer firms have been operating, the higher has been their interest to take the risk of expanding their business overseas.

[9] Madagascar is not part of SADC but it is part of COMESA.

5.3.2 Reasons for relocation

Every one of the respondents answered that the most important factor that attracted them to these new sites was the low cost of labour that they offered (table 5.3). By relocating to low wage countries, these firms want to make sure that they can still compete in the low range garment segment of the market when exporting to Europe. As one of the respondents puts it: "...we do not want to lose orders for the basic and cheap range of garments ...". Two of them also mentioned that these countries offered an abundance of labour whereas in Mauritius, they are constrained by the limited pool of labour.

Table 5.3: Ranking of factors attracting firms to new locations

FACTORS	RANK
Political stability	5th
Low wages	1st
Skilled workers	6th
Investment incentives	2nd
Good Infrastructure	4th
Government support	3rd

Source: Own Survey, 1999.

Only one of the firms mentioned that by relocating to low cost countries in the region, they are also aiming at tapping the markets in SADC countries in future. As for the others, they are more interested in relocating to low wage countries because it is profitable to produce garments and therefore, they can still maintain their share of the lucrative European markets.

5.3.3 What they are producing

Except for the one firm that had only set up plant and had not actually started production at the time when this survey was conducted, all the other five are in full production. The products that are being manufactured are: knitted and woven garments such as pullovers and T-shirts and are all in the low range category. One of the executives mentioned that the more difficult models (designs) and higher value-added garments are manufactured in Mauritius. According to him, in

Madagascar, workers do not yet have the skills to manufacture complicated designs. Firms were producing between 25% to 35% of total output in their overseas plants.

Three of the firms were undertaking the whole production process in their new location. There, everything was being carried out from knitting, cutting of fabrics, make-up of garments to the final stage of packing before export. As for the three other firms, they are carrying out only part of the production of garments in Madagascar or Mozambique. In this case, the fabric is made in Mauritius, shipped to Madagascar or Mozambique where the cutting and make-up of garments takes place. Thus, for half of the firms, it is the labour intensive part of the production process that has been relocated.

While four of the firms had imported their capital goods from Europe or from the Far East (as they do for their plants in Mauritius), the two others were making use of their old manually operated machinery from Mauritius.

5.3.4 Wages and Productivity of Workers

It has already been discussed above that the respondents all mentioned that the low wages in Madagascar and in Mozambique was the primary factor that attracted them to those sites. According to the survey, wages in Madagascar and Mozambique were approximately one third of the Mauritian level.

While low wages are very attractive for investors, the five firms described labour productivity in their plants in Mozambique and Madagascar as "satisfactory" or "fair". They all complained that productivity was lower than in Mauritius. One of the respondents described productivity as being 30% lower than what it is in Mauritius. However, they also stated that there had been progress. In spite of the low rate of productivity, respondents felt that wages were low enough to make it profitable for them to produce there.

The firms that were interviewed were also asked if there were any other problems that they experienced with workers. One firm complained that there have been a few strikes. In addition, they also have to deal with some absenteeism problems – the main reason being related to health problems. A frequent complaint was that although there is an abundant pool of workers, they are unskilled and firms had to invest heavily in training.

5.3.5 Infrastructure

While the respondents maintained that there were no major problems with water and electrical supplies, there were numerous complaints about local transportation facilities. All firms said that roads were very bad. In addition, it was reported that there were no good telecommunication facilities. One firm added that the airport and harbour in Madagascar need to be improved. The firm which has relocated to Mozambique, by contrast, described the harbour as being a good one, with direct access to Europe. On the whole, infrastructure was considered to be poor in most cases. In fact, the firms mentioned that there is room for improvement. Out of a list of six different factors that investors found important in their new location, infrastructure was only rated fourth (table 5.3), meaning that it was not really a factor that attracted them. Thus, this serves to emphasize the point that, if firms were willing to relocate, inspite of poor infrastructure, the low wage factor must be highly important.

5.3.6 Further Investments

All firms which had relocated planned to expand their investments in southern Africa. One firm stated that they intend intensifying their activities in Madagascar. They mentioned that they had not encountered any major problems in Madagascar, except for a certain level of insecurity and a few cases of theft.

Another firm plans to double production in future. According to one executive "…there is a great future for Mauritian investors in Madagascar. The Malagasy people are very collaborative…"

Those firms that have relocated to Madagascar were then asked if they would consider investing in other African countries in future. Three out of five firms answered that, in addition to expanding their plants in Madagascar, they would also like to invest in the neighbouring SADC countries like Mozambique, Botswana, Lesotho or Zimbabwe. According to them, the fact that Mauritius is part of SADC provides a good opportunity to relocate to these new sites of production.

5.4. Firms that plan to relocate

Having considered the case of firms that have already relocated, this section now analyses the responses of firms that have not yet relocated but which plan to do so in future. As shown in table 5.1, 17% of firms in the sample are interested in relocating to the neighbouring low-cost African countries in future. This section analyses their responses in more detail.

They were particularly keen about setting up plants in Madagascar or Mozambique. This group included firms currently producing medium and high range garments However, they maintained that by relocating to low wage countries, they would be able to capture the low range segment of the market as well. Their strategy is to complement production, that is, produce medium and high quality garments in Mauritius and mass produce low range garments in low cost African countries. As one of the executives puts it: "…in future, if you want to produce in Mauritius, you have to produce quality…"

5.5 Firms that do not want to relocate

Finally, this section considers the case of firms that do not want to relocate. As already indicated in table 5.1, 44% of the sample relocation is not an option. The reasons that were given by these firms, for not relocating, are set below:

Indirect costs

Among the firms that do not want to relocate, many mentioned that although rising wages in Mauritius is a matter of high concern, it is not the only issue. They mentioned the fact that in Madagascar; for instance, there are infrastructural problems (as discussed above). Thus, in their opinion, there are other indirect costs to be taken into consideration and therefore, "low wages" do not automatically mean "low cost".

Political and social stability

Other firms also seemed to be overly concerned about labour laws or political problems that may exist. For other firms, relocation is an issue that deserves careful planning. As one of the respondents puts it, "…it requires time, money, organisation. We cannot relocate from one day to the next…"

Size of firm

For the smaller firms, relocation is seen as an enormous investment. As can be expected, for these firms, there is too much risk involved, especially for new firms in the Mauritian EPZ. They also fear that, unlike the larger firms, they would have difficulties accessing to finance.

Level of skills

The level of skills of workers is always an important issue for any investor. Thus, one of the respondents expressed his concern over the fact that the level of skills in Madagascar and in other African countries is not comparable to what they have in Mauritius. In addition, the respondent mentioned that those companies that have relocated are only doing so to produce low range garments in the low-wage locations. The same companies are making higher quality garments in their branches in Mauritius.

In fact, all the firms that do not want to relocate stated that they could compete on the basis of quality. As one executive puts it: "…if our firm offers quality, delivery and reliance, we are confident that we can compete..."

One of the firms in the sample (table 5.1) saw relocation as an option but rather than investing in Africa, they were considering investing in China. According to the respondent, "…African countries are at the same stage where Mauritius was 20 years ago. The only attraction that it offers is a large pool of cheap labour..." He added that China, by contrast, has the technology, infrastructure and expertise, in addition to a vast pool of labour…"

All eight firms that did not want to relocate mentioned that they are sure they can compete on the basis of quality. Out of the eight firms which do not want to relocate, four are already producing high quality garments. The four others are either producing low or medium range garments. The latter claimed that their future

strategy would be to go for higher value-added garments. The shift to producing higher quality garments is not an easy one. It entails a complete restructuring of the production process, including the retraining of workers and the introduction of modern technologies. However, these firms were confident that it can be achieved and that they do not need to resort to relocation for future survival.

5.6 Conclusion

This chapter has focused on the main issue of this dissertation: the strategy of garment firms in the light of the new challenges facing them. It is clear from the survey, which focused on the larger firms, that among the latter in particular, the trend towards relocation to low-wage countries in the region has already started. In addition, many other large firms have expressed a keen interest to do so in the near future.

This study also points to the fact that numerous other firms (of all sizes) have already changed their strategy by going for the production of higher value-added garments that command higher unit prices in developed markets. Going upmarket is in fact desirable for the survival of the Mauritian garment industry. But there are certain conditions that have to be met before that transformation can take place. Many small firms, for instance, will not be able to adapt (or even survive!) if they do not change to the latest technology. Thus, production of higher value-added garments in future will require dramatic changes in terms of technology and skills of workers as well.

However, as one of the executives mentioned, by going upmarket only, they would be restricting themselves to a very limited segment of the market and that is undesirable since demand for clothing is subject to wild fluctuations. Also, orders in the high end of the garment market tend to be smaller and lead times tend to be shorter. Rather, a better strategy would be to produce high quality garments in Mauritius and relocate to low cost African countries to continue mass production of low range garments. Mauritius has the potential to increase its productive capacity and the fact that it is a member of SADC provides some exciting prospects that should not be missed. The larger firms should be encouraged to take the risk to invest overseas - other companies have already proved that it works.

Chapter Six

Conclusion and Policy Recommendations

The Mauritian garment industry has achieved impressive growth and the sector is now recognised as a global player. However, the industry now faces critical challenges and in order to remain competitive on the world market, needs to undertake major changes.

This dissertation has highlighted the problems currently facing the industry. The most pressing of these problems is the rise in wages. That poses a direct threat given the surge in the supply of garments onto the world market, from high volume and low cost producing countries like China. A further related problem is that labour itself has become scarce. Presently, Mauritius is employing over 12 000 foreign workers (mainly from India, China, Madagascar, Bangladesh and Sri Lanka) in the EPZ sector. In addition, Mauritius is a very small country and there is limited space for further expansion.

Thus, given the lack of space, lack of labour and rising labour costs, there is a need for Mauritius to restructure its clothing industry and for firms to consider relocating overseas. Based on the responses of the large firms, it is clear that many executives of clothing enterprises realise that they need to change their strategy and hold the view that their future lies in the region.

Policy Implications

Policy-makers increasingly realise that Mauritius cannot sustain the production of the lower segment of the clothing market (i.e. "basics") anymore. Since world trade is being increasingly liberalised, in future other countries will have equal access to advanced country markets. Mauritius will simply not be able to compete with low cost countries like China, India and Bangladesh. Thus, in the basic segment of the clothing market, there is no option but to relocate production overseas. Neighbouring African countries have large pools of cheap labour. In the 1970s, investors from Hong Kong relocated to Mauritius and gave birth to the Mauritian clothing industry. Today it is Mauritian firms themselves which need to relocate.

The question that arises is: what role would remain for Mauritius as its importance as a producer of lower range clothing declines? The island has the potential to become a regional hub for clothing, engaging in the following activities:

- Design and marketing
- Sourcing of raw materials
- Quality control
- Re-export of finished goods – especially since Mauritius has set up a freeport

It is also important to note that Mauritius already has a well established name on the world market. Hence, buyers from its traditional European and US markets will still have confidence in quality and delivery of Mauritian sourced products, irrespective of the fact that they are now being produced in some other African country. This will give rise to a situation of 'triangle manufacturing', as described in the literature on global commodity chains in chapter two of this dissertation (Gereffi, 1994).
Again, one can draw a parallel between Mauritius and Hong Kong: today, Mauritius needs the African region to expand its productive capacity, just the way Hong Kong needed China. Thus, Mauritius can longer sustain a production base for low end clothing but it has the know-how and experience that can be exported. Other African countries from the region need the expertise that Mauritius has acquired over decades and many are marketing their countries to Mauritian investors. Thus, from a regional point of view, relocation will also contribute towards the economic development of the region.

In addition, the Mauritian government itself is very interested in the new prospects that the region offers for the clothing industry and more enterprises are being encouraged to relocate. During the 1997 – 1998 budget speech, the Minister of Finance announced that: "… Government will formulate and implement an action plan to enable Mauritian enterprises to take full advantage of the opportunities available in Mozambique, Madagascar, Zanzibar and other countries of the region…Mauritian investment in the region is a potential source of employment creation and new GDP growth. It will also enable greater integration of our economy on a regional basis, thus adding a whole new dimension to our future development..." (Budget Speech, 1997).

The other area that needs to be considered is the production of higher-value added garments. So far a few firms have already made the shift towards producing garments for higher segments of the market. From the survey results it was evident that this option was a popular one, irrespective of firm size. However, major changes need to be in place for this strategy to be successful and include:

- Upgrading of skills
- Reduction of lead times (the time between the placing of the order and the delivery of the final goods)
- Investments in technology

To sum up, there are two steps that Mauritius can undertake in its new strategy to restore competitiveness of the clothing industry. The first one is that if firms want to continue producing in Mauritius, they have to shift to the production of higher quality garments. In the low range segment, however, it will become less possible to produce in Mauritius because of rising costs. However, SADC provides scope for Mauritian firms to relocate production of 'basics' to new sites.

In the final analysis, the outlook for the Mauritian clothing industry is positive. The process of restructuring is already under way. If that process continues and is strengthened, there is hope that Mauritius will stand ready to face the challenges of globalisation.

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Appendix A:

Questionnaire for Mauritian Clothing Manufacturers

Please note that all information will treated confidentially

Name of company:.....

1. For how many years have you been operating in the EPZ? .....
2. Ownership control:-

Are you foreign or domestically owned? .....

3. Do you have any subsidiaries? .....

4.Do you have any links with subcontractors?

.....

If yes, what activities are carried out by them?

.....

WORKERS AND WAGES

5. How many workers do you employ (in production and management) ?

.....

6. Do you employ any foreigners? If yes, how many?

.....

7. Has employment of workers increased or decreased over the years?

.....

8. How would rate the productivity of your workers? Tick where appropriate.

Bad []

Satisfactory []

Good []

Very Good

9. Do you find that productivity has risen or fallen over the years?

.....

10. Comment on any other aspect of problems experienced with workers.....

.....

.....

.....

11. What is the wage rate paid to workers?

.....

12. What percentage of total costs do wages constitute?

.....

PRODUCTION AND MARKETS

13. What garments do you produce? (e.g. pullovers, dresses, shirts, etc, for men, ladies or children) What kind of markets do you target - high or low income groups?

.....

.....

.....

14. What is your current volume of production?

.....

15. Has production increased or decreased over the years?

.....

Give details of volume of production over the past ten years:

1988 .....

1989.....

1990.....

1991.....

1992.....

1993.....

1994.....

1995.....

1996.....

1997.....

1998.....

16. What is the destination of your exports?

.....

17. Have you penetrated new export markets over the years?

.....

18. How long do your products take to reach their markets?

.....

19. What is the cost of shipping goods to markets (sea /air freight)?

.....

What percentage of total costs is that?

.....

RAW MATERIALS

20. What raw materials do you use?

.....

21. Where do you source your raw materials from?

.....

22. What are your transport costs for importing raw materials (sea/air freight)?

.....

23. What is the cost of raw materials as a percentage of total costs?

.....

24.Do you use locally manufactured fabrics?

.....

.....

25. How would you rate the following infrastructural facilities in Mauritius? (Bad, Satisfactory, Good or Very Good)?

- Electrical power .....

-Water supply .....

-Local transportation facilities for materials and personnel .....

-Adequacy of highways .....

Comment on any other infrastructural problems?

.....

.....

.....

26. Where do you source your capital goods (machines) from?

.....

.....

27. What is the cost of these as a percentage of total costs?

.....

28. How would you describe the method of production used in your firm? (Manual, semi-automated, robotic?)

.....

(If automation is used at all) In which phases of production?

.....

.....

29. Is your company sufficiently equipped to face the current technological changes in garment manufacture?

.....

.....

.....

GOVERNMENT POLICY

30. Comment on the following aspects of government policy:

-Tax structure:

.....

-Access to finance :

.....-

Incentives for export and investment:

.....

31. Which one of the following, according to you, is the most pressing problem faced by Mauritian exporters of garments? (Rank from the highest to the lowest order of importance).

- Limited pool of labour [ ]
- Rising wages among workers [ ]
- Fall in productivity [ ]
- Ability to adapt to techonological change [ ]

-Potential future loss of lucrative share of US and European markets due to competition from low wage countries. [ ]

Any other major problems:

.....

.....

RELOCATION

32. Would you consider relocating to one of the neighbouring African countries as a means of reducing wage costs? **If NO**, Why not?

.....

.....

.....

If YES

If you do choose to relocate, which African country would you invest in?

.....

.....

33. What impact do you think that would have on employment of Mauritian labour?

.....

.....

.....

34. Even if you relocate to low-cost African countries, do you think that Mauritian garment exporters will still be too isolated from its traditional export markets (i.e. the US and Europe)?

.....

.....

<u>Additional questions to the companies which have relocated to Mozambique, Madagascar and elsewhere</u>

35. When did you first invest in Madagascar/ Mozambique?

.....

36. What was the primary reason that triggered your need to relocate?

.....

.....

37. What products do you manufacture there?

.....

.....

.....

38. What has been your volume of production over the years?

.....

39. What percentage of total production is that?

.....

40. From where do you source your raw materials and capital goods?

.....

41. Which parts of the production process do you carry out there i.e. pre-assembly, assembly, post-assembly?

.....

.....

42. How much lower is wages in Madagascar/ Mozambique compared to Mauritius?

.....

.....

43. How would you rate the productivity of workers?

.....

44. Comment on any aspect of worker problems

.....

.....

45. Would you consider expanding your existing plant in Madagascar/ Mozambique? Would you invest in other African countries in the next few years?

.....

.....

46. What kind of investment incentives were given to you in Madagascar / Mozambique?

.....

.....

47. How would you rate the following infrastructural facilities in Madagascar/ Mozambique? (Bad, Satisfactory, Good or Very Good)?

- Electrical power .....

-Water supply .....

-Local transportation facilities for materials and personnel .....

-Adequacy of highways .....

Comment on any other aspect of infrastructure

.....

.....

.....

.....

48. Below is given a list of certain characteristics in Madagascar/Mozambique. Rate them from the highest order of importance to the lowest:

-Political and social stability [ ]

-Low wages [ ]

-Skilled workers [ ]

-Investment Incentive [ ]

-Good infrastructure [ ]

-Government support [ ]

49. Any other final comments

.....

.....

.....

.....

Appendix B: Postal Questionnaire

Questionnaire on measures that are being taken to deal with the problems currently being experienced by the Mauritian clothing industry

Please note that all information will be treated confidentially.

1. Name of company .....
2. How has your firm responded to the perceived problems of declining competitiveness (e.g. rising wages, productivity problems, etc)?

Please rank according to the most important response (1= most important response, 2 = second most important response etc.)

MEASURES UNDERTAKEN	RANK
Improve the quality of your existing products	
Move into the production of higher value-added garments	
Invest in other products outside the garment industry	
Make use of more efficient and modern technologies, e.g. automation	
Training of workers to improve productivity	
Improve plant efficiency (e.g. work organisation)	
Reduce employment and/or investment	
Establish links with foreign / local partners	
Make more use of subcontractors	
Find new market niches	
Relocate to low-wage countries, e.g. SADC countries (specify which country)	

Other measures (specify) .....

.....

3. Have any of the measures you mentioned above, increased competitiveness? (please tick) :

   Dramatically [ ]

   Slightly [ ]

   No material increase [ ]

4. In the table given below, rank the most important measures that your firm plans to undertake in future (e.g. in the next five years), in order to deal with the problems which are currently being experienced by the clothing industry:

MEASURES TO BE UNDERTAKEN IN FUTURE	RANK
Improve the quality of your existing products	
Move into the production of higher value-added garments	
Invest in other products outside the garment industry	
Make use of more efficient and modern technologies,e.g. automation	
Training of workers to improve productivity	
Improve plant efficiency (e.g. work organisation)	
Reduce employment and/or investment	
Establish links with foreign / local partners	
Make more use of subcontractors	
Find new market niches	
Relocate to low-wage countries, e.g. SADC countries (specify which country)	

Any other final comments .....

.....

.....

.....

Appendix C: Companies that were interviewed

Companies that were interviewed for both the long and short questionnaires:

Afaisia
Compagnie Mauritienne de Textile
Corona Clothing
Créations Isle de Cygne Limitée
Davinex
Floréal Knitwear Limited
Hollywood Garments Limited
L'Inattendu Limitée
Leisure Garments
New Island Clothing Limited
Olympic Knitting Limited
Oree Textiles
Shibani
Southern Textiles
Star Knitwear Group
Sweat Sun
Tara Knitwear Limited
World Knits Limited

Companies that responded to the short questionnaire only:

Aquarelle Clothing Limitée
Bidetex
Bonasserah Fashions Limited
Bourgeon Garments Limitée
Century Knitting Limited
Citizen Export Enterprise Limited
Colibry Fashion
Ely Company Limited
Emmanuelle Création Limitée

Firemount Textiles Limited
George Mahadeo Industries Limited
Grove Industries
Habit and Company Limited
Hesler Marine
Hyper Confection
L'Inattendu Limitée
Job Textiles Limited
Knitting Fabrics Limited
Nancy Garments Company Limited
J.L. Tropiko Limited
Kentex Garments
Novel Textiles Limited
Phoenix Wear Limited
Prosimex Industrial Company Limited
Sinotex (Mauritius) Limited
Soniawear Limited
St Malo Exports
Stylish knits Limited
Tee- Sun Limited
Texto Limitée
Tropic Knits
United Apparel Limited
Vogue Alley

Appendix D: Output, Employment, Labour Productivity, Real Exports and Real Wages Indexes, 1982 – 1997 (EPZ sector)

(1982 = 100)

Year	Output	Employment	Productivity	Real Exports	Real Wages
1982	100	100	100	100	100
1983	109	117	93	101	96
1984	145	159	91	154	98
1985	188	228	82	220	103
1986	254	299	85	326	103
1987	310	347	89	429	112
1988	347	363	96	489	123
1989	367	359	102	482	129
1990	393	358	110	537	141
1991	413	360	114	531	158
1992	438	354	124	547	177
1993	463	340	136	599	186
1994	484	333	145	584	187
1995	508	325	156	608	188
1996	544	321	168	656	189
1997	576	332	174	675	190

Source: Productivity and Competitiveness indicators 1982-1997, 1998.

Appendix E: Value of the Mauritian Rupee per U.S. Dollar, 1982 – 1997

Year	RUPEE PER DOLLAR
1982	10.95
1983	11.91
1984	13.95
1985	15.58
1986	13.27
1987	13.01
1988	13.59
1989	15.41
1990	14.89
1991	15.71
1992	15.58
1993	17.70
1994	18.08
1995	17.80
1996	19.71
1997	21.05

Source: Productivity and Competitiveness Indicators 1982–1997, 1998 and Central Statistical Office.

Appendix F: Incentives granted to EPZ firms

- Corporate tax of 15%
- No tax on dividends
- No capital gains tax
- No customs duty on import of equipment and raw materials
- Free repatriation of profits, dividends and capital
- Remission of customs duties on minibus of 15 – 25 seats used for the transport of workers
- 50% relief on personal income tax for 2 expatriates staff

Source: Mauritius Export and Investment Directory, 1998 – 1999.