

**HANGING BY A THREAD? :
THE POST-MFA COMPETITIVE DYNAMICS
OF THE CLOTHING INDUSTRY IN
MADAGASCAR**

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Abstract

With the end of the Multifibre Arrangement (MFA), many have predicted that countries in Africa will lose their comparatively inefficient clothing and textile industry as competition from China increases. Madagascar has not escaped such threat. The clothing and textile industry is important to Madagascar in terms of export revenue, employment creation and income generation. Trade agreements have played an essential role in the growth of the clothing industry as Madagascar is eligible for both AGOA (Africa Growth and Opportunity Act) and European Union ACP (Africa, Caribbean and Pacific) trade benefits. This paper aims to find out how the end of the MFA has affected the industry thus far, investigate the competitiveness of the Madagascar garment industry to respond to this new global change, assess strategies firms and government have for the future, and offer policy suggestions on how firms can be supported to encourage them to remain in Madagascar.

Words: 149

Abbreviations

ACP	African, Caribbean and Pacific (ACP) countries 70 former colonies of European powers with which the EU has special trade relations through the Lomé Convention
AFD	Agence Française du Développement (French Agency for Development)
AGOA	Africa Growth and Opportunities Act
ATC	Agreement on Clothing and Textiles (successor to the MFA)
BIT	Bureau international de travail (ILO)
CAPE	Comité d'Appui au Pilotage pour la Relance de l'Entreprise
CDE	Centre for the Development of Enterprise
CMT	Cut Make and Trim
EBA	Everything but Arms
EPA	Economic Partnership Agreement
EPZ	Export Processing Zone
EU	European Union
FASP	Fond d'Appui au Secteur Privé
FOB	Free on Board (the value of goods on delivery to the port of export, i.e. without insurance and freight charges.)
GEFP	Groupement des Entreprises Franches et Partenaires (Group of Export Processing Zone Firms and their Partners)
GSP	General System of Preferences
GUIDE	Guichet unique des investissements et du développement des entreprises – Office of Investment and Enterprise Development
ILO	International Labour Organization
LDC	Lesser-Developed Country
MICDSP	Ministère d'industrie, commerce et le développement du secteur privé (Ministry of Industry, Trade and the Development of the Private Sector)
MFA	Multifibre Arrangement
PSUC	Plan de sauvtage d'urgence (Emergency Action Plan)
PTA	Preferential Trade Agreement
SDT	Special and Differential Treatment
T&C	Textiles and clothing
UNCTAD	United Nations Conference on Trade and Development
US	United States
USAID	United States Agency for International Development
USITC	United States International Trade Commission
VC	Value chain

Figure 1.1: Map of Madagascar



Chapter 1 : Introduction

No longer are the clothes we wear produced locally. The clothes we wear every day are designed, cut, and assembled in a whole host of different countries. It is not unusual to be wearing garments manufactured in China, the Philippines, Mexico and Turkey at the same time. The labels we find on the collars and waistbands of our garments offer us a geography lesson better than any taught in a classroom.

Most of the countries producing garments are generally considered to be 'developing countries,' i.e. China, Bangladesh, and India. Many developing countries encourage clothing industry development because the industry is labour-intensive, providing jobs in countries in need of employment. Due to its labour-intensive characteristics, the clothing industry is considered the classic engine of industrial growth for developing countries (Gereffi and Memdovic 2003). Asian countries, including Taiwan, Korea, and China have used the clothing and textile industry over the past few decades to jumpstart their economies. Countries in Africa, through various incentive schemes are also trying to use the clothing and textile industry to assist them in developing an industrial base and export-led industrial development (Morris *et al*, forthcoming).

Madagascar, known to most people as the home of lemurs and baobabs, is a developing country also trying to build up a garment industry. With a per capita GDP of \$800 (CIA 2004), Madagascar is one of the poorest countries on Earth. The clothing and textile industry provides much needed employment and export revenue. Garment manufacturers contribute to the Malagasy economy by providing jobs, purchasing items made on the local market, and contributing tax revenue. The clothing and textile industry has also indirectly created thousands of other jobs in associated sectors. It is also one of two countries in sub-Saharan Africa that exports significantly to both major markets, the United States and the European Union.

Globally, the clothing industry is in flux, and it is unknown what effects this will have on the manufacturers in Madagascar. The most important trade agreement governing the clothing trade, the Multifibre Arrangement (MFA) that limited the amounts of garments countries like China and Bangladesh could produce has ended on 1 January 2005. The MFA quotas limited the production of the giants in the industry, giving Madagascar a window of opportunity in the industry. Now that the quotas have disappeared, whether or not the industry is sufficiently established enough to survive and remain in Madagascar is a major question for the future.

The industry in Madagascar is resilient: in 2002, the country experienced a political crisis for six months. GDP shrank by 12% and the textile and clothing industry virtually shut down. Exports experienced a significant drop. Yet by 2004, the country had matched the level of clothing exports from 2001. Madagascar still seems to have the ability to compete globally in clothing. But whether or not this will continue to be the case in the future is uncertain given increased competition from other countries. Madagascar, heavily reliant on the garment industry for exports, faces the possibility of losing an important industry, in terms of export revenue, employment creation, and income generation. The purpose of this dissertation is to research the industry and firms and assess the likelihood of the firms remaining in Madagascar.

1.1 Globalisation and the MFA: an Introduction

It was the unrelenting tide of globalisation that brought the clothing industry to Madagascar's shores. Globalisation of the industry started in the 1960s with Japan. Japan expanded into the exported-oriented clothing and textile industry, exporting garments to the major markets including the United States and countries in Europe (Kaplinsky 2005). In response, the US and European countries placed quota restrictions on all countries, to try to limit imports and protect their own industries. Instead of halting the production power of Asian countries, manufacturers in Japan, Korea and Taiwan over time spread out their production networks to other countries in the region to take advantage of other countries' unfilled quotas (Kaplinsky 2005). Competition between countries arose as labour and transportation costs played an increasingly important part. Manufacturers have easily shut down a factory in one country to open again in another, forever seeking cheaper wages and better access to markets. This resulted in manufacturers in developing countries competing against each other and in particular against China, bidding down wages and production costs. Madagascar has some of the lowest wages in the world. As a result of the constant push for cheaper wages and production in other countries, by the mid-1990s, Madagascar saw foreign investment arrive.

The quota system was essential to the spread of industry. The MFA had the unforeseen consequence of fostering garment and textile industries in countries with limited comparative advantage, including some countries in sub-Saharan Africa. While in place, the MFA held back via quotas and tariffs those countries that had a comparative advantage. The quotas effectively set up large hurdles for the Asian countries and allowed less-efficient developing countries to create and maintain garment and textile industries

protected from their main competitors. The clothing and textile industry in developed countries were also protected from the unrelenting competition from the more efficient Asian countries.

Clothing industrialization occurred in a very short time in Madagascar. This thesis aims to answer how global conditions made this possible. Is there something specific about these global conditions that particularly affected Madagascar? Global conditions have now changed: China has become the world's largest garment producer and the MFA has ended. How will the firms and the industry in Madagascar as a whole react to the change in the global conditions? Having understood this, what are other conditions, locally and regionally that have contributed to the rise of the industry in Madagascar? What role has special and differential trade treatment played in the growth of the clothing industry? How is the industry coping in general with the changing global conditions? Finally how are firms and government responding and planning for the future. These are the research questions that this thesis will answer.

1.2 Thesis Structure

The history of Madagascar's clothing and textiles firms alone is worthy of further research: little has been written on the sector in academic journals. What little research has been done was completed before Madagascar's political crisis in 2002. This project aims to examine in detail the garment industry in Madagascar in light of the end of the MFA. It will examine the factors which have caused new investment in this industry to materialise in 1999-2001 but also after the 2002 political crisis, analyse the basis for the Malagasy garment sector's international competitiveness, and explore industry and government strategies for survival post-MFA.

To understand why the clothing and textile industry arose in Madagascar, one must first understand the global apparel value chain and how the buyers in the US and the EU relate to the manufacturers in Africa. Chapter 3 deals with value chain analysis and how the different actors within the garment value chain interact. The chapter also deals in greater depth with how the MFA fostered textiles and clothing industries in different countries. The value chain is changing: increasingly, the buyers have been passing down certain functions to the manufacturers, including transport of the goods to market, designing, and quality control. Manufacturers in Madagascar must deal with these changes. The analysis of connections between designers, brands, manufacturers,

suppliers, and retail stores, called global value chain analysis, is the theoretical framework of this paper.

To understand why Madagascar's clothing and textile has grown significantly in the past decade, one must understand special and differential treatment (SDT). Special and differential treatment concerns special trade preferences granted to countries beyond the Generalized System of Preferences (GSP) of the World Trade Organization (WTO). It is special trade preferences, in particular the African Growth and Opportunity Act (AGOA) and the Africa, Caribbean, and Pacific (ACP) or Cotonou Agreement, that made Madagascar attractive to foreign investment. Chapter 4 discusses the developmental implications and limitations of SDT.

Chapter 5 sets the context of the industry within Madagascar and sub-Saharan Africa. This chapter discusses the textile and clothing industry in sub-Saharan Africa as a whole, followed by an in-depth look at the past and present economic conditions in Madagascar. The country has experienced a political crisis, a sharp devaluation of its currency, as well as a change in currencies, all within the past three years. Chapter 5 also reviews the state of infrastructure, i.e. electricity, transport, which affects manufacturers' production. Cotton production and the possibility of an integrated garment chain (i.e. cotton to yarn to fabric to garment) within Madagascar are also examined.

Finally, Chapter 6 discusses the main findings of the field research in Madagascar. This chapter provides a detailed look at the industry, its key characteristics, its main products, and its main markets of destination. Chapter 6 discusses the challenges that manufacturers have faced, as well as the general and specific upgrading strategies they have undertaken to overcome these challenges.

Chapter 2 : Methodology

There is currently a dearth of information available on apparel firms in Madagascar. Besides general trade data, there is little information available on firms in Madagascar, including date of establishment, main products produced, raw material suppliers, and export market. Due to the political crisis Madagascar experienced in 2002, normal data collection within the various ministries on industry in general was interrupted; most of the information currently available was collected before 2002. In addition, any information collected recently is rarely published rapidly. Thus, it was necessary to find out the current situation of the firms in the industry through fieldwork in the form of interviews with key informants in the industry.

2.1 Quantitative Research

Although the bulk of the research was qualitative, some quantitative research was undertaken. The quantitative data for this project mainly consists of data on Madagascar's exports of clothing, textiles and cotton, obtained from the United States International Trade Commission (USITC) and the European Union databases, in particular COMTRADE. Although US data is up-to-date and published monthly, EU data lags behind, with 2003 the last year that complete data is available at the time of writing.

2.2 Qualitative Research

The qualitative research fieldwork for this study was undertaken during a three-week period in April 2005. The main qualitative research approach was via interviews with key informants. Timing of the fieldwork was particularly important. Fieldwork had to be done at least three months after the end of the MFA in order to pick up on any possible effects. Firms are also usually closed during December and January, and are quite busy during the months of June, July and August preparing for the Christmas buying season. Thus, April was an ideal time to complete the fieldwork.

The bulk of the interviews were with firm managing directors or similarly qualified or knowledgeable personnel. Government, industry, and association officials were also interviewed. A total of 35 interviews were conducted. Table 2.1 breaks down the list of key informants interviewed.

Table 2.1: List of Interview Respondents

Respondents	No. of Interviewees
Clothing firms in Tana & Antsirabe	21
Government officials	3
Key Informant Firms	3
QC/QA agencies	2
Industry Associations	2
Clustering Organization	1
Cotton growers' association	1
Textile plant ¹	1
Transport Association	1
Total	35

Those interviewed were asked their opinions on the current situation of the industry, the end of the MFA, and the future. Two structured interview schedule were used: one for firms, and a second for government, firms, and general industry informants (See Appendix).

Firm Selection

The most important part of the fieldwork was the firm interviews. Firm selection was based on a number of different criteria. Only Export Processing Zone (EPZ) firms were chosen; the purpose of this study is to analyze how Madagascar competes globally. Common law firms were not included as very few export.

When choosing firms to interview, it was important to consider to what market destination the firms exported. The two major markets, the US and the EU, are quite different, and firms will follow different strategies to access these different markets (Gibbon 2002 and 2003). Gibbon (2002) found in Mauritius that apparel firms exported either to the United States or to the European Union because buyers' requirements were different depending on the market. For example, orders for the US market are generally larger (absorbing 30-100% of a firm's capacity), contracts are stricter and quality requirements are higher (Table 2.2). For the EU market however, orders are generally smaller (10-15% of capacity), with more flexibility in contracts and negotiable quality requirements. The strategies used by the firms directed to the US market might thus be different from those directed at the EU market.

¹ However, three firms interviewed are vertically integrated

Table 2.2: US & EU Clothing Value Chain Governance Structures

	US-destined	EU-destined
Level of externalization of functions to suppliers	Lower	Higher
Basis of supplier certification	Process + product	Functional + product
Nature of product specification and QC system	Detailed, specified unilaterally	Less detailed, negotiated
Nature of critical path reporting	Frequent, detailed	Less frequent, less detailed
Procedure for resolving contractual differences	Bureaucratic	Informal
Level of suppliers' capacity typically occupied	30-100%	10-15%

(from Gibbon 2003, 1813)

Consequently, it was important to ensure that firms that export to both markets were represented in the sample. To ensure that both markets were represented, it was important to know the nationality of the firm; nationality can act as a proxy for market destination (Gibbon 2002 and 2003). Gibbon (2002 and 2003) found that in the South African and Mauritian clothing industries, it is generally the Asian-owned firms that export to the US, while those firms that export to the EU were locally-owned. Thus, it was important to ensure that the different nationalities were represented in our sample.

A list of all the textile and clothing firms and their nationality (determined by the nationality of the majority of the shareholders or the nationality of the parent company) in Madagascar was obtained from the Ministry of Industry, Trade, and the Development of the Private Sector (MICDSP) as well as from a directory of members of the GEFP². The total population was determined as being 118 firms. From this population, I drew a sample of a minimum of 20 firms from different nationalities. Firms were chosen by nationality and in the proportion to the total number of exporting firms. A total of 21 firms were interviewed (Table 2.3). An additional three firms were interviewed, but not enough information was obtained from the interviews to consider them full interviews.

Table 2.3: Nationalities of Clothing and Textile Firms in Madagascar

Nationality Groups	# of each nationality	Proportion by nationality	# of firms to interview	# of firms actually interviewed
Asian	30	25%	5	8
EU	28	24%	4.6	4
Malagasy	16	13.5%	2.7	5
Mauritian	17	14%	2.8	2
American	4	3%	0.6	2
Tunisian	1	1%	0.16	0
Unknown origin	22	19%	3.7	0
Total	118	100%	19.56	21

²Groupement des entreprises franchises et partenaires – Association of Free Zone Enterprises and Partners.

The firms interviewed fall roughly along the breakdown that was initially laid out. Although it looks like no firms of unknown origin were interviewed, as firms were identified as one nationality or another, they were placed in the appropriate groups. All key informants interviewed, including firm managers, government officials and other industry informants, were assigned a random number between 1 and 98. Each firm interviewed was assigned a random letter of the alphabet.

There were a few problems with the list provided by MICDSP. As shown in Table 2.3, 19% of the firms were of unknown origin. Also, the contact information was often incorrect and obtaining a telephone number was a difficult task.

The second major criterion by which firms were chosen was number of employees. The firms within the different nationality groups that had the largest number of employees were selected, due to the greater economic impact a closure of the largest firms would have on the country's economy. In total, the firms interviewed represent 35% of total employment in Madagascar, even though only 17% of the firms in Madagascar were interviewed.

The interview schedules and questionnaires, along with an introductory letter were translated into French. Most of the people interviewed were French-speaking, with four interviews conducted in English. Language became an important barrier to overcome. Regularly, the secretaries who acted as gatekeepers to the managers with whom we wished to speak did not speak French or English: it was often necessary to have a Malagasy speaker for initial contact. A Malagasy speaker was also key when obtaining directions, as there are no current maps or street signs in Antananarivo, and finding factories can prove an arduous task. Levels of success for obtaining interviews varied; many managers had recently been interviewed for other research projects and declined to be interviewed for this project.

Despite the difficulties encountered during the field research, a relatively large sample of firms and other key informants was obtained. Whether or not the sample here is representative of the current realities facing firms in Madagascar is unknown, but the biggest issues were discussed, and patterns started to emerge from the interviewees' responses. The findings from the fieldwork can be found in Chapter 6.

Chapter 3 : Theoretical Background: Global Value Chain Analysis

Globalization is a force that has changed the way that people buy, travel, and work. During the course of a typical day, a person in the United States, for example, eats a tomato from Mexico, wears a pair of pants made in China, a pair of shoes made in Thailand, and discusses business with people in India, Malaysia or Brazil. The apparel industry has also become globalised, with many countries specializing in cotton growing, yarn and fabric production, assembly, and design. Thus, for example, a shirt is designed in Hong Kong and made of cotton from India, which is turned into fabric in China, then cut and assembled in Honduras. The shirt would then be sold in a retail store in the United States or Europe.

The textile and clothing industry is seen as a classic engine of industrial growth for many developing countries (Morris *et al*, forthcoming). According to Gereffi (1999), Japan, Korea, and China have industrialized via a base in the apparel industry, which acted as the first step up the industrialization ladder. Now these countries have moved on to make more complex consumer goods like consumer electronics and automobiles. Developing countries are likely to use the apparel industry to industrialise because of the initial low barriers to entry: low set-up costs for factories, low wages, and low skills requirements, in conjunction with high absorption of labour (Nadvi and Thoburn 2004). Thus, textiles and clothing account for “a significant share of manufacturing employment and value-added in many development countries” (Nadvi and Thoburn 2004, 111). Although the initial barriers to production are quite easy to overcome, the entry barriers become progressively higher when moving upstream to textiles and fibre production, or downstream in the form of brand-names and stores (Gereffi and Memedovic 2003). Lesser-developed countries are stranded at the low end as they do not have the resources to move up the chain.

The theoretical framework used to analyze linkages within the textile and clothing industry is called value chain research. Value chain research analyzes the relationships between cotton producers, buyers, fabric makers, retailers, and assemblers in countries around the world. Through value chain analysis, policymakers and researchers understand who the different actors are in the value chain and the linkages that bind them together to create a chain (Sturgeon 2001). The essence of value chain research is “the division of

labour between the different actors in a chain and the nature of the network linkage itself: its connection mechanism, governance style, power dynamics and geographic reach” (Sturgeon 2001, 10). Such analysis provides producers with an understanding of their position within the chain, pressures on that position, and can inform manufacturers of possibilities of upgrading their positions. The apparel value chain itself has been the focus of much research (Gereffi 1999, Gibbon 2004, Nadvi and Thoburn 2004, Kaplinsky 2000, McCormick and Schmitz 2002). This chapter will discuss value chains in general, including a discussion on governance and upgrading within the apparel value chain and apply it to Madagascar’s situation. By using a value chain framework, one can better understand the current state of and future possibilities for the industry in Madagascar. In order to understand the nature of the apparel industry in Madagascar, one must understand what place Madagascar fills in the apparel value chain and how buyers and producers see developing countries in general. The value chain framework can show how best an emerging economy like Madagascar can best fit into the apparel value chain.

3.1 *International Context of Textiles and Clothing: Value Chains*

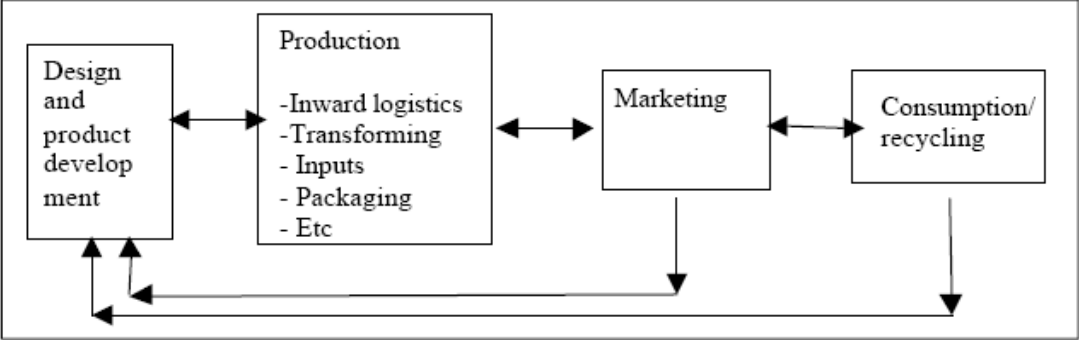
Value chain research guides manufacturers and researchers in understanding how different actors fit into the global apparel value chain. Distinguishing what role each actor plays, how precarious or stable that role is, and what policies would stabilize or improve that role is the essence of value chain research. Using this value chain analysis framework, producers can better understand the constraints on their part of the value chain. Kaplinsky and Morris (2001) provide a more comprehensive definition of a value chain:

A value chain describes the full range of activities which are required to bring a product or service from conception through the intermediary phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers and final disposal after use (Kaplinsky and Morris 2001, 4).

The term *value chain* was adopted over other possibilities as it best encompasses the full range of possible chain activities and end products (Gereffi *et al* 2001, 3). Two other similar terms often used are *supply chains* or *production networks*. Although similar in concept, as analytical tools these terms do not encompass the range of activities that the term value chain does. Power relationships and governance issues are not as central of a focus. Nor does the term *commodity chain* work because the use of the term ‘commodity’ “implies the production of undifferentiated products in processes with low barriers to

entry” (Kaplinsky and Morris 2001, 29). For producers to achieve sustainable income growth, they must differentiate themselves in a non-commodity way. Value chain research highlights the value-added to each stage of the production process, and who controls the rents derived from the production process (Sturgeon 2001). Figure 3.1 illustrates the basic activities encompassed by a value chain and the general communication and product flows.

Figure 3.1: A Simple Value Chain³



Value chain analysis is vital when looking at industries in developing countries. Kaplinsky and Morris (2001) lay out five reasons for value chain analysis. First, it allows for a global vision of the industry by discussing the nature and determinants of competitiveness, allowing the researcher to analyze from the level of the individual firm to the level of groups of interconnected firms. Second, value chain analysis concentrates on the nature of the rents derived from each activity by analyzing the nature of the links within the chain and all the activities (i.e. physical transformation) within that link. Third, by focusing on the nature of the returns, policymakers and researchers can create a policy strategy to support the parts of the chain that can earn the most rent, help firms upgrade to generate higher returns, or protect vital parts of the chain from competition. Fourth, value chain analysis shows how a factory is connected to the global economy. Government and researchers can then decide if different macroeconomic policies and institutional linkages can benefit industry while also illustrating the different set of policy responses needed for firm-level competitiveness. Finally, value chain analysis acknowledges that participating in global markets, however competitive at a single point in time, may not provide for sustained income growth over time. “By focusing on the trajectory which participation in

³ from Kaplinsky and Morris 2001, 4

global markets involves, value chain analysis allows for an understanding of the dynamic determinants of income distribution” (Kaplinsky and Morris 2001, 26).

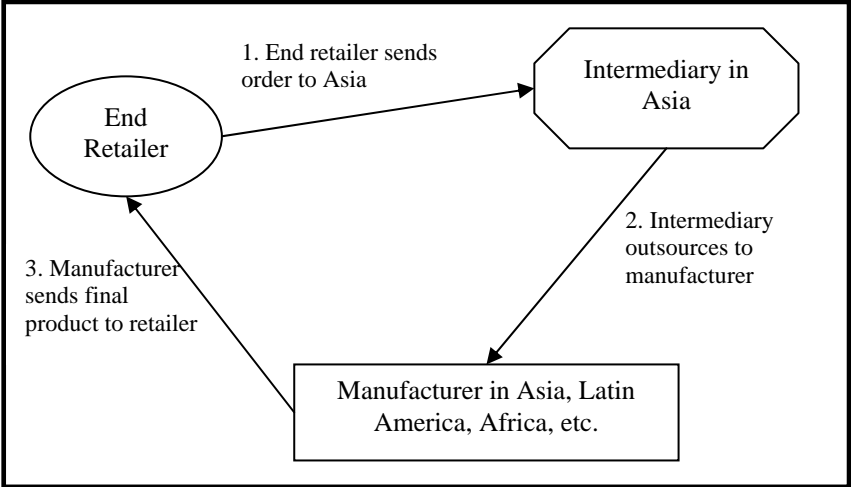
It is not just the characteristics of a firm that determine competitiveness on the global scale. Buyers, or end-retailers, can choose from any number of producers that all provide the same price and quality standards. Buyers choose their manufacturers not only on production process but also location, distance to market, and trade preferences. The trade policies of final markets play a dominant role in sourcing decision-making. Buyers make the strategic decision to source from or construct factories in countries that have duty and quota-free access to the major markets via trade preferences (Kaplinsky and Morris 2001).

One of the major trade policies that have affected the clothing and textile value chain is the Multifibre Arrangement (MFA) that dates from the 1960s. Although the original intent was to protect developed countries’ textile and clothing industries and jobs from cheaper imports, the end result was quite different. “Protectionism heightened the competitive capabilities of developing country manufacturers, who learned to make sophisticated products that were more profitable than simple ones” (Gereffi 1999, 51). Protectionism by the industrialized nations also increased the number of countries producing clothing, as the more manufacturers were needed to satisfy growing US and European demand (Gereffi 1999). Industries are not only affected by internal influences, but also by external ones. Two additional trade regimes that have affected industry in Africa specifically and encourage manufacturers to set up there are the US African Growth and Opportunity Act (AGOA), and the EU Cotonou Agreement. Both of these sets of trade preferences allow for duty-free access under certain conditions to the US and EU markets. These are discussed in greater depth in the next chapter.

Value chain analysis examines the entire cycle of production, including access to final markets and the participation of particular groups in the value chain and its effects (Kaplinsky and Morris 2001). The MFA quota system, a factor from outside the chain, restricted access to the final market. Although not the original intention of the quota system, developing countries benefited from the quotas. Given the opportunity under the protectionism of the MFA quota system, manufacturers in Japan, Hong Kong, and Korea shifted some or all of their production offshore to factories in other countries, for example, China, Bangladesh, and Cambodia (Figure 3.2). The factories in other countries were either wholly owned subsidiaries of the parent companies in Japan, Korea or Hong Kong, or just independent manufacturers. These associated manufacturers produced for the

buyer in the US or the EU, exporting under the US import quotas, but received their orders from the parent company in Asia. At the same time, the parent companies maintained their relationships with their buyers from the US or Europe (Gereffi 1999). The term for this relationship between the buyer in the US or the EU, the parent company in Asia, and the manufacturer, is called ‘triangular manufacturing.’ The result of this outsourcing of production, and continuous search for more countries with un-mined quotas is that manufacturers eventually came to Madagascar as set up shop. The MFA was fundamental in the growth of the textile and clothing industry in Madagascar.

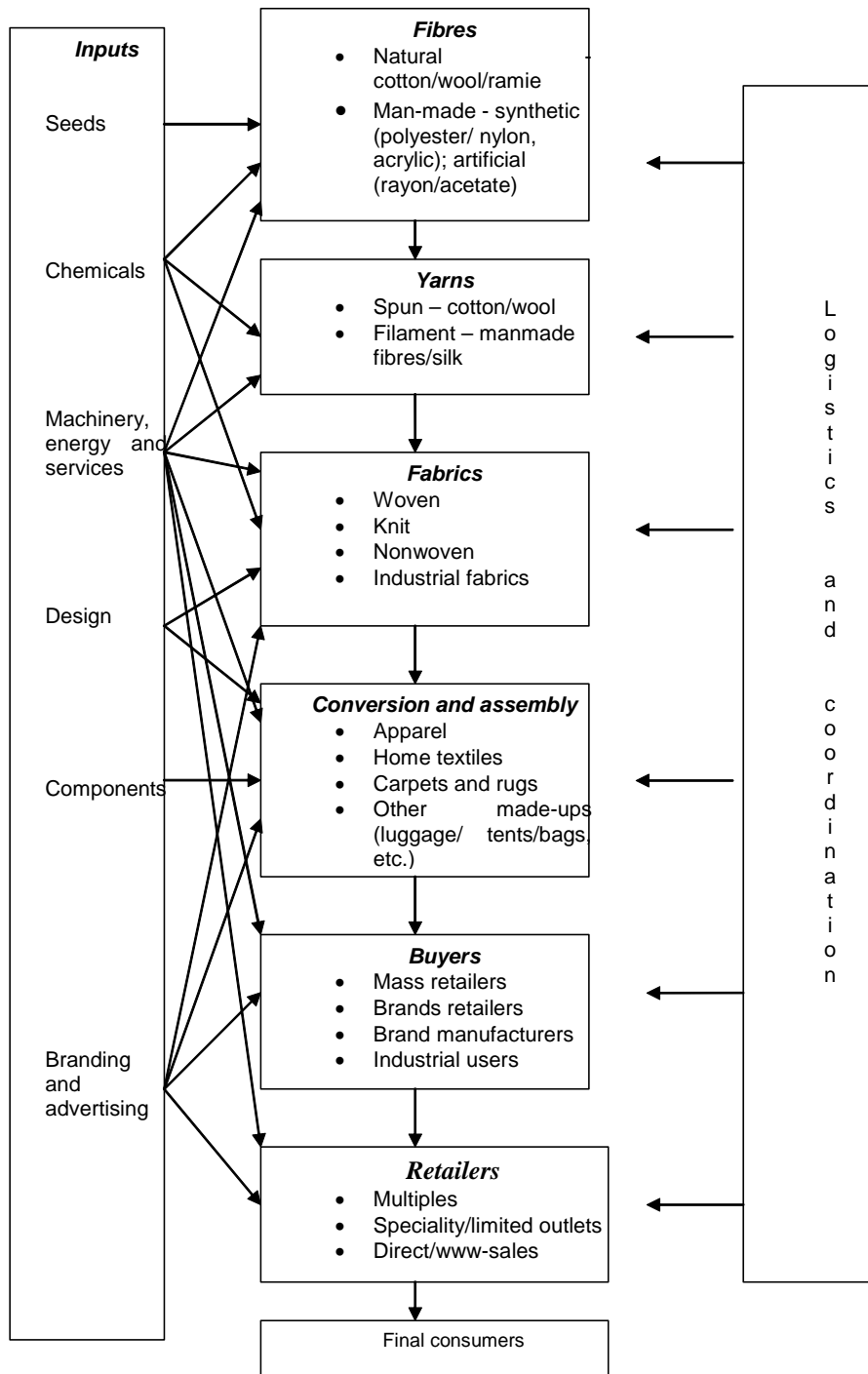
Figure 3.2: Triangular Manufacturing



3.2 Characteristics of the Apparel Value Chain

The apparel global value chain has characteristics that distinguish it from other value chains. It is important to understand the different stages along the apparel value chain in order to understand the different functions that each step entails, and the different actors involved. Figure 3.3 illustrates in detail the different stages in the apparel value chain. There are many different steps and actors involved in the process of making garments, as well as the inputs added at each stage. Figure 3.3 shows the overall processes involved in garment production, but not necessarily the relationships between the actors. For example, sometimes manufacturers seek out fabric and accessories to use in their factories, other times it is the buyer who manages that part of the process.

Figure 3.3: The Textile and Clothing Value Chain⁴



As mentioned above in regards to triangular manufacturing, sometimes there is no direct link between the buyers and producers. Some buyers use intermediaries or buying agents who fill the orders. Li & Fung and Mast Industries for example, are intermediaries contracted by buyers to manage the sourcing of orders and quality control. Sometimes

⁴ From Kaplinsky 2005.

these intermediaries have design capabilities. For Madagascar, the intermediaries provide a valuable connection for producers in Madagascar, as it is them who decide whether or not to source from Madagascar.

The term ‘buyers’ is rather nebulous; researchers use the term to describe a wide variety of entities. There is no typical ‘buyer’ *per se*, but rather a range of buyers both in type and function. The different types of buyers depend on what position they have in the market. Gereffi (1994) as quoted in McCormick and Schmitz (2002) identifies five different types of buyers. *High fashion companies* produce expensive, high quality designer clothes and source their clothes from Europe and Asia. *Department stores, branded merchandisers and speciality stores* also demand high quality clothes, but are also interested in fast delivery. *Mass merchandisers* sell medium-priced, medium-quality goods, sourcing from low-end producers in Asia. *Discount chains* place huge orders for low-price, basic goods, sourcing from low-cost suppliers, often working through intermediaries. Finally, boutiques and small importers directly source from different countries, serving as ‘industry scouts’ according to Gereffi (1994) looking for new countries from which to source.

3.3 Governance and Upgrading in Value Chains

Governance and upgrading are two key elements of value chain research. *Governance* of the value chain describes the sets of relationships that connect producers and buyers. *Upgrading* is the learning process by which manufacturers innovate. There are three types of upgrading: processes, product and function. Upgrading, according to Kaplinsky and Morris (2001), must be placed in context of competition: upgrading is innovation relative to the competition. One must innovate or upgrade faster than the competition to avoid a decreasing market share and declining value-added. Both of these ideas are discussed in greater detail below.

3.3.1 Governance

The concept of governance of a global value chain is central to the value chain approach. Governance is non-market coordination of economic activity; i.e. some firms within a chain set or enforce the parameters under which others in the chain operate (Humphrey and Schmitz 2001 and Gereffi *et al* 2001). Governance is essential to the value chain approach as without it, relationships would be nothing “more than a string of market relations” (Humphrey and Schmitz 2001, 20). Governance within value chains explains how “some firms directly or indirectly influence the organisation of global

production, logistics and marketing systems” (Gereffi *et al* 2001, 4). For developing countries, it is these firms that determine their survival or not. It is these ‘lead’ firms and the decisions they make that determine how developing countries can access international markets and what activities are available to producers in developing countries. Lead firms are considered as such because they have access to major resources including “product design, new technologies, brand names or consumer demand, that generate the most profitable returns” (Gereffi and Memedovic 2003, 4).

Value chains are either “producer-driven” chains or “buyer-driven” chains in terms of governance. Table 3.1 illustrates the key characteristics of both types of chains. With producer-driven value chains, it is usually large trans-national manufacturers that coordinate the production networks, including their backward and forward linkages. Producer-driven industries are capital and technology-intensive and include automobiles, aircraft, and heavy machinery (Gereffi and Memedovic 2003). With buyer-driven value chains, the buyers coordinate the production. Retailers and branded manufacturers are the drivers in a buyer-driven chain, generally directing a decentralized production network in several different countries, usually developing ones. Typical buyer-driven industries are apparel, toys, and footwear. Rarely do the buyers in a buyer-driven chain involve themselves in the production process. Dealing instead with the design and retailing aspects of the product, buyers are what Gereffi and Memedovic (2003) characterize as ‘manufacturers without factories.’

Table 3.1: Producer-driven versus Buyer-Driven Value Chains⁵

	Producer-Driven Commodity Chains	Buyer-Driven Commodity Chains
Drivers of Global Commodity Chains	Industrial Capital	Commercial Capital
Core Competencies	Research & Development; Production	Design; Marketing
Barriers to Entry	Economies of Scale	Economies of Scope
Economic Sectors	Consumer Durables Intermediate Goods Capital Goods	Consumer Non-durables
Typical Industries	Automobiles; Computers; Aircraft	Apparel; Footwear; Toys
Ownership of Manufacturing Firms	Transnational Firms	Local Firms, predominantly in developing countries
Main Network Links	Investment-based	Trade-based
Predominant Network Structure	Vertical	Horizontal

The main difference between the two types of governance is the point from which each directs production. “Large manufacturers exercise control on the producer-driven value chains from the point of production, while marketers and merchandisers exercise leverage in buyer-driven value chains at the design and retail stages” (Gereffi and Memedovic 2003, 3). In buyer-driven chains on the other hand, the leading firms are not involved in manufacturing, but control the highest value-added segments of the chain. Unlike other value chains, the clothing chain is dominated by brand-name companies like The Gap or Levi’s who do not own production facilities themselves. They dictate everything to manufacturers from designs, styles, and colours, to fabric and prints (McCormick 2001).

Another difference between producer- and buyer-driven value chains is from where rent in the chain derives (Gereffi 1999). Rent is not value creation alone. “Rent arises in the case of differential production of factors (entrepreneurship, education, infrastructure), and barriers to entry that create scarcity. Rents are dynamic and erode in the fact of competition” (Kaplinsky and Morris 2001, 27). In producer-driven value chains, rent is gained through scale, volume and technological advances, whilst buyer-driven chains obtain their profit from “unique combinations of high-value research, design

⁵ Source: Gereffi 1999.

sales, marketing and financial services,” that place the retailers and branded marketers as brokers linking factories around the world with consumer markets (Gereffi 1999, 43). Most of these retailers and branded marketers are based in the United States and the European Union, and have considerable control over how, when and where manufacturing will take place, and how much profit accrues at each stage (Gereffi and Memedovic 2003). For developing countries such as Madagascar whose industry focuses mostly on manufacturing, this means that most profit is derived from functions realized elsewhere.

An example of governance in the value chain is that of British supermarkets and the control buyers exercise over their production networks for fresh vegetables, including specifying the products they want to buy and the type of quality system that needs to be in place (Humphrey and Schmitz, 2001). The clothing value chain functions in much the same way, with the end-retailer specifying quality criteria. However, buyers’ requirements are not uniform: in the clothing value chain, buyers have ways of doing business. It depends, according to Gibbon (2004) on the end-market the buyer represents. Gibbon (2004) argues that there are two different governance structures depending on whether the end-buyer is from the EU or the US. US buyers were stricter with the type of role a manufacturer could play: US buyers generally wanted assemblers who can produce large volumes on time. US buyers were more demanding in terms of production capacity and specifications. EU buyers, however, were seen as being more flexible, and as giving more control over to the manufacturer (Gibbon 2004).

Governance also determines whether or not a learning exchange can take place between the buyer and the manufacturer, In the case of the apparel industry, the US or EU buyers. Depending on the type of buyer/manufacturer relationship, manufacturers can learn from the buyer how to improve production, quality control, or manufacturing processes. This process of learning, be it from the buyer or not, is part of upgrading.

3.3.2 Upgrading

A key capability to ensure sustained income growth is the capacity to innovate or upgrade. Upgrading can take place within a firm and also within a value chain, i.e. changing the distribution of intra-chain activities. Firms upgrade to adapt to new conditions within the apparel value chain. There are three types of upgrading for apparel firms: process, product, and functional (Kaplinsky and Morris 2001). Upgrading is a way

for firms to survive in the highly competitive apparel industry where factories are footloose and buyers move their orders to another country.

Upgrading is a way for developing countries to avoid immiserising growth, or growth when total output increases, but income does not increase (Kaplinsky and Morris 2001). For example, Brazil's exports of shoes rose during the 1970s and the 1980s, but wages were stagnant, and fell over the 1990s by approximately 40% in real terms (Kaplinsky 2000). In order not to fall into the immiserising growth trap, manufacturers must ensure that the returns to activities increase.

Kaplinsky and Morris (2001) detail several different ways of firms can upgrade within the apparel value chain. These include *process*, *product*, or *functional* upgrading. With *process* upgrading, firms improve their manufacturing processes to produce more products at a cheaper price. For example, a firm can upgrade by rearranging the factory floor to make it more efficient. Firms can *product* upgrade by offering a higher quality product or by manufacturing a product that has a higher value. *Functional* upgrading involves a firm acquire new functions within the chain; for instance moving from just manufacturing forward to designing, branding or marketing or backward to acquiring control over raw materials. Gereffi *et al* (2001), add a fourth type of upgrading: *network* upgrading where by a firm diversifies their buyer-supplier linkages within a value chain. "For instance, an apparel maker could add different kinds of lead firms such as an upscale retailer or brand-name client to expand or raise the price points of its orders" (Gereffi *et al* 2001, 5).

Value chain organization has changed over the years: 'lead' firms have changed what they have direct control over, focusing more on product development and market, while outsourcing production and production-related functions to suppliers. Some suppliers are taking care of a variety of different functions for several different lead firms, increasing the economies of scale. This shift is occurring due to the "rising costs of brand development (product development, marketing and advertising)" (Gereffi *et al* 2001, 6).

Gereffi and Memedovic (2003) argue that when apparel firms upgrade, it is mostly by shifting from performing basic assembly operations to providing 'full-package' production, a type of functional upgrading. While assembly operations rely on buyers to provide all the raw materials which they assemble, suppliers that adopt 'full package' functions change the nature of their relationship with the buyer. Full package supply means that the buyer's role is minimized. The buyer provides the brand name and maybe the design; full package suppliers handle the raw materials, assembly, quality control, and

transport. “Full-package supply . . . giv[es] far greater control, autonomy and learning potential for industrial upgrading to the supplying firm” (Gereffi and Memedovic 2003, 31). Buyers are essentially outsourcing functions they previously performed to manufacturers.

3.4 New trends in the apparel value chain

The apparel industry is a very different industry from what it was two or three decades ago. Just-in-time retailing, low inventories and the need for quick turnaround times have changed how orders are placed and types of goods offered. Manufacturers have been greatly affected by these changes; manufacturers must have different competencies, with competitiveness no longer determined by price alone. McCormick and Schmitz (2002) explain how garment retailing has changed and how these changes have affected producers and workers. There have been two major changes in the past few decades in apparel retailing McCormick and Schmitz (2002). First, no longer do retailers keep huge stocks, practise what the authors have called ‘just-in-case’ retailing, but instead keep low inventories and practise ‘just-in-time’ ordering.

Second, fashion has changed in two ways. Retailers now have more seasons and shorter runs in those seasons (McCormick and Schmitz 2002). Initially, retailers would buy products based on the previous year’s sales and make large orders with enough stock to last for the entire season. Large amounts of retailers’ money were tied up in inventory costs. Small, special orders were avoided because they incurred higher transportation and management costs. The apparel industry of today, however, is quite different. Lean retailing is now the norm, as retailers have been forced to deal with an increasingly competitive global apparel market. No longer do buyers place large orders in advance (McCormick and Schmitz 2002). Just-in-time retailing is key, as retailers have the software available to keep track of how well a certain product is selling and can order more. A major retailer in Europe, Zara, is the model for lean retailing, being able to design, produce and deliver new clothes in one month. Zara operates on three principles: shorter lead times, meaning more fashionable clothes; smaller orders, meaning scarce supply; and more styles, meaning more choice and an increase in purchases by the consumer (Dutta 2002).

McCormick and Schmitz (2002) also discuss the changes in fashion itself. Instead of the four typical seasons of clothing, retailers are more likely to have six or eight. There

are constant product changes, and production-line workers must be able to adapt. In addition, retailers now offer two distinct types of products, core goods and fashion goods. Core goods are goods that retailers offer each year like basic t-shirts, jeans, and socks that have longer life spans. Fashion goods are most time-dependent, with many changes throughout the year. Fashion clothing tends to be women's dresses, sweaters and blouses (McCormick and Schmitz 2002)

These changes have had important consequences for manufacturers. Clothes have a shelf-life: they are now time-dependent products. As just-in-time production has grown in significance, producers have felt increasing pressure to speed up their production times. "Manufacturers who can deliver quickly are likely to get the order" (McCormick and Schmitz 2002, 57). Madagascar's manufacturers mainly make core goods, which are not as affected by this need for speed to market. However, manufacturers in Madagascar face particularly long lead-times, and the range of goods they can produce is limited as high fashion, time-dependent goods are unlikely to be produced there.

3.5 Globalization within the apparel industry

The apparel industry has become increasingly globalised. For example, in 1992 49% of apparel sold in the US was made in the US. By 1999, only 12% was 'made in the USA' (Gereffi and Memedovic 2003). Major suppliers to the US market are Central and North America (30%), East Asia (25%), and South East Asia (12%) (Gereffi 1999). "The textile and clothing value chain is particularly suited to global production networks as most products can be exported at each stage of the chain" (Morris *et al*, forthcoming 2). India, Egypt and Pakistan have become centres for cotton production, for example, with China and India being the most important fabric producers. Assembly production is spread throughout the world, with the main centre being Asia. Sourcing agents based in Hong Kong and Singapore, for example, control where the fabric is bought and by which manufacturer the garment is made. Retailers based in the EU or the US sell the finished garments. Thus, the manufacturing and retailing of a piece of clothing could involve several different countries.

Despite the increasingly globalisation and spread of the industry, due to the quick turnaround times needed for the garment industry, having access to all the materials necessary for garment production is becoming an important advantage. A vertically integrated industry, or one where more steps of the value chain from spinning through to garment production is located in one country, saves valuable time and allows producers to

send products to market faster. As the textile industry is more capital-intensive, most lesser-developed countries do not have the resources to vertically integrate.

The nature of competition in the apparel industry has also changed. No longer does a factory compete with one that is down the road, but with one that is across an ocean. Developing countries producing textiles and clothing are competing against other developing countries, like China and India. China's exports of clothing have already increased to approximately a quarter of the world total since it joined the WTO in 2001 (de Jonquieres 2004). Asian countries have a number of advantages in clothing and textiles. China and other Asian countries have available at easy reach cheap, high-quality fabric, produced in Asia (Robbins *et al* 2004). China has the ability to produce a growing range of items, and has improved its capacity in order to overcome barriers of international quality standards. Worse for producers in sub-Saharan African countries is that prices of Asian-produced garments are declining, while exports are growing. China's share of the US textiles and apparel market, which was about 22% in 2003, is expected to increase to between 65% and 75% after quotas are removed (ATMI 2003). Despite such dire warnings, China does not yet control everything.

3.6 Conclusion: Implications for Madagascar in the Value Chain

The main position factories in Madagascar fill in the value chain is as an assembler. Manufacturers' design capabilities are limited. But moving upstream along the value chain from assembly, Madagascar does have textile and clothing production in country. There are two knitting factories as well as a woven textile mill, and accessory suppliers.

The policy implications of value chain research determine how emerging economies can best fit into a value chain (Gereffi *et al* 2001, 5). Many developing countries rely on just a few industries for their export earnings, which is not a diversified enough base to deal with their precarious position. Knowing that different activities along the value chain acquire different rents, we need to find out what functions the firms in Madagascar are performing and whether or not they are involved in the race to the bottom, or have started to involved themselves in different activities to garner more rent. The picture of Madagascar in the literature is not very nuanced. Madagascar is for the most part an assembler. Its design capabilities are limited. But were Madagascar to try to move upstream along the value chain from assembly, the country already has some textile production in-country. There are two knitting factories as well as a woven textile mill, and accessory suppliers. Upstream integration is an idea explored later in this thesis.

Value chain research can be applied to Madagascar by figuring out what role Madagascar's clothing and textile firms have taken in the value chain, what are their strengths and weakness, and what policies can be implemented to cement Madagascar's place in the value chain. These questions were asked, and the results are discussed in Chapter 6 on the findings from the field research.

Chapter 4 : Special and Differential Treatment

Special and differential treatment (SDT) has played a central role in the development of the clothing industry in Madagascar. Through differential trade regimes, Madagascar has duty-free access to the US and the EU markets. It is this duty-free access advantage under the Africa Growth and Opportunity Act (AGOA) program and the EU Cotonou Agreement or ACP (Africa, Caribbean and Pacific countries) program, combined with its quota allotment under the Multifibre Arrangement that made Madagascar attractive to foreign investment in the clothing industry. Unfortunately, duty-free access is not a fixed advantage. The United States and the European Union are offering similar duty-free benefits to more countries. This chapter briefly discusses the political economy of SDT. Madagascar is dependent upon certain benefits offered by the two major markets, thus this chapter also discusses the future development implications of AGOA and ACP benefits.

4.1 *Basics of SDT: the Political Economy of SDT*

The development of SDT came at the end of a long debate on the role of trade preferences in growth and development in lesser-developed countries (Whalley 1999). The General Agreement on Tariffs and Trade (GATT), the laws governing trade, were believed to discriminate to an extent against the needs of developing countries. The GATT mainly covered industrial products, which most developing countries at the time did not produce. Two results grew out of this debate. First, a United Nations body dedicated to trade issues was formed, called the United Nations Conference on Trade and Development (UNCTAD). Second, the enabling clause was added to the GATT, allowing for special and differential treatment towards developing countries in regards to trade preferences. SDT, according to Stevens (2003) can include exemptions for environmental and labour laws, for example. For this thesis, however, SDT is limited to trade preferences, i.e. the granting of special, usually duty-free, access to developed country markets.

SDT has two benefits. First, SDT enhances “the market access conditions facing beneficiary countries, and [second] exempt[s] them from certain multilateral trade disciplines, thus giving beneficiary countries some flexibility in the use of various trade and trade-related measures”(Oyejide 2002, 504). Developing countries are expected to

use SDT to expand the market for their goods via the enhanced market conditions. Flexible trade arrangements mean developing countries would not need to make “trade concessions which are incompatible with their development needs” (Coote 1996, 107), i.e. opening up their markets when it is not in their best interests to do so.

4.1.1 Benefits and Shortcomings of SDT

Special and differential trade programmes aim to integrate developing countries into the world trading regime and lead to sustained growth. Special trade arrangements have the possibility of providing a boost to the exports of low-income countries that would otherwise have little opportunity to increase exports. For example, conservative estimates of the benefits of the US AGOA program show that Africa’s non-oil exports could be raised 8–11 percent (Mattoo *et al* 2002).

However, SDT has several shortcomings. First, SDT agreements are generally limited to specific periods of time without taking into account how long of a period is required to create a stable and reliable basis for investment within a beneficiary country. Factories and infrastructure are not created overnight; it is difficult to entice investors when the time period of the benefits is limited, which shortens the amortisation period of the investment (Oyejide 2002). AGOA aims to foster clothing industries with backwards linkages by requiring the use of sub-Saharan African fabrics. However, benefits at the initial signing of AGOA were available only until 2008. It usually takes a minimum of two years to recoup investment on a clothing factory (Key Informant 71). The time period in most trade agreements is chosen arbitrarily; there is no benchmarking on trade preferences to ensure that countries have reached their full potential (Oyejide 2002).

Not only is time a factor for investors, but so is consistency. Special treatment may be withdrawn at any time for a number of reasons as such agreements are not subject to WTO discipline. This can deter potential entrepreneurs from making the necessary investments. Panagariya (2002) cites an example of US fruit producers lobbying the Bush administration for protection from South African pear producers. To protect relatively few American jobs, preferences were revoked for canned South African pears. It is difficult to encourage investors to invest if preferences can be revoked easily.

In addition, trade preferences are ‘eroding assets’. The WTO requires its members to reduce their tariffs over time, decreasing the margins by which developing countries have preference (Stevens 2003). Preferential trade treatment between countries or regions can also be eroded. For example, the United States has AGOA preferences for sub-

Saharan African countries, but has just awarded similar preferences to Central American countries.

There is also the fear that one set of developing countries is profiting at the expense of another (Panagariya 2002). Foreign investors in Madagascar came from somewhere else, more than likely another developing country. By giving preferences to one country, another might be disadvantaged.

Gibbon (2002) criticizes preferential treatment for its lack of nuance on a structural and institutional level in understanding what the capabilities for developing countries are and what they can supply and what developed countries will receive. Developing countries face different development challenges, so the preferences awarded to them should be tailored to their needs to be truly effective, rather than be blanket agreements. Stevens (2003) concurs, believing that a “one size fits all’ approach may not be appropriate or effective for all countries.

Given these shortcomings, below is a discussion of the SDT that affects Madagascar, mainly AGOA and EBA. Although Madagascar qualifies for GSP for both the US and the EU, textiles and clothing are only address under AGOA and EBA/ACP. The implication for Madagascar is that the country should not base their ability to compete solely on trade preferences. The next sections deal in greater depth the two major preference schemes.

4.2 Generalized System of Preferences (GSP)

The main instrument for trade preferences is the principle of a generalized system of preference (GSP). The GSP, the system by which industrialized countries grant preferential treatment of zero or reduced import duties for certain products imported from developing countries, was first negotiated at an UNCTAD conference in 1968 (Coote 1996, viii). Each industrialized country could draw up a list of goods to be given preference, and countries to which each would give preference. GSP schemes in theory cover all products exported by developing countries, but many products have been excluded due to quotas and non-tariff measures, clothing being one of those products (Coote 1996). The GSP is offered by a developed country to a developing country in a general fashion. No negotiating is done between countries. The GSP was intended to “increase the export earnings of developing countries, promote their industrialization, and accelerate their rates of growth” by giving them preferences on their manufactured and semi-manufactured goods (Coote 1996, 108).

Although promising, the GSP has typically narrow product coverage, and restrictive rules of origin. For example, although Madagascar qualifies for the GSP schemes of the EU and the US, clothing and textiles are not among the listed products available for duty-free export. Rules of origin requirements represent another hurdle even if a product has duty-free status. “Rules of origin define the minimum processing that must be undertaken locally (in the preference-receiving country) in order for a product to be deemed to be of the economic nationality of that country” (Naumann 2005). Rules of origin can either help or hinder trade, depending on how restrictive the rules of origin. In clothing and textiles, rules of origin are usually based on the number of ‘transformations’ an article of clothing goes through (i.e. yarn to fabric to garment) before entering the destination market, or the origin of the fabric or yarn is stipulated. The rules of origin for each trade regime are discussed in greater detail under the respective agreements.

The vast number of products covered under the GSPs offered by the most industrialized nations does not cover some of the most important exports for developing countries. For example, UNCTAD (2003) found that in 2001, 66% of imports from LDCs were covered by the US, EU, Japan and Canada’s trade regimes. Although high, this still leaves a third of LDC exports subject to quotas and tariffs, the most important of which are textiles and clothing (UNCTAD 2003, x). This means that for a country such as Bangladesh for which textiles and clothing made up 71% of its exports in 1997, such continued barriers have an important effect of limiting their development potential.

4.3 The US and AGOA Preferences

The major trade regime affecting sub-Saharan Africa is by far the Africa Growth and Opportunity Act (AGOA) offered by the United States. It is the chief initiative the United States has towards African countries. AGOA is a super-GSP, covering 1,800 tariff lines beyond the traditional US GSP. AGOA was signed into law under the Trade and Development Act of 2000, with the first African countries meeting the requirements and thus becoming eligible for duty-free access in 2001. AGOA is currently set to expire in 2015.

To be eligible for AGOA preferences, countries must meet certain eligibility criteria; countries must not engage in activities that undermine US national security or foreign policy interests especially in the areas of human rights and terrorism (UNCTAD 2003). AGOA designation is conditional upon a country making progress towards a “market-

based economy, the rule of law and the elimination of barriers to US trade and investment” (UNCTAD 2003, 8). Countries must also adopt a visa system to guard against unlawful trans-shipment of goods and allow US customs inspect to verify that goods are not being transhipped from a non-AGOA eligible country (UNCTAD 2003).

The major difference between the US’s GSP and AGOA is that textile and apparel products are included for duty-free treatment. Otherwise, all other imports to the US from SSA LDCs were already eligible under the GSP (UNCTAD 2003). AGOA also relaxes the GSP rules of origin requirement by allowing for garments consisting 85% US-made yarn and fabric to enter the US duty-free. For countries with a per capita gross domestic product (GDP) of less than \$1,500 (i.e. LDC countries) this requirement is relaxed even further: LDC can import fabric for production from anywhere in the world (Olarreaga and Ozden 2005). This provision is called the third country fabric provision, which is discussed in more detail.

Rules of Origin and the Third Country Fabric Provision

The rules of origin (ROO) for garments to qualify for AGOA duty-free access to the US market are quite strict. ROO for the US are based on triple transformation, i.e. cotton to yarn, yarn to fabric, fabric to garment: “Apparel articles must be made from fabrics wholly formed and cut in the US, from yarns wholly formed in the US” (UNCTAD 2003, 21). Alternatively, fabrics and yarns can also be bought from other AGOA beneficiary countries, but garments made from African-made fabrics are limited to a maximum of 3.5% of all US apparel imports (UNCTAD 2003). A beneficiary country thus must have the entire clothing supply chain within its national or regional borders. In the case of the clothing industry, one of the reasons for having rules of origin requirements is to force countries to develop a local or regional textile industry. However, the development of a new or the expansion of the current textile industry in a country is quite expensive as textiles are more capital intensive. To expect countries in Africa with few resources and little expertise to develop a textile industry in a short period of time is quite demanding given their industrial constraints.

However, AGOA’s rules of origin requirement contain an exception: the third country fabric provision. This provision allows countries with a GDP of less than \$1500 per capita, i.e. lesser-developed countries, to import from any countries textiles for garment production (UNCTAD 2003). Of the 36 AGOA beneficiaries, all but one have access to this provision; only South Africa does not qualify. Mauritius initially did not

qualify, but in 2005 was granted special dispensation by the United States for a period of one year. The third country fabric provision was originally set to expire in 2004, but in July 2004, was renewed until 30 September 2007. Table 4.1 shows that more than 90% of all clothing exports from Madagascar to the United States receive duty-free treatment. Exports qualify mainly because of the exception granted under the third country fabric provision. South Africa and Mauritius (Table 4.1), have lower qualifying shares of exports due to the fact that they do not or did not have access to third country fabric.

Table 4.1: AGOA qualifying as share of total clothing exports to US, 2001 – 2003 (US\$m)

Country	2001	%	2002	%	2003	%	2004	%
Lesotho	129.2	60.1	317.7	98.9	372.6	94.9	447.6	98.2
Madagascar	92.1	51.8	75.4	84.4	186.3	94.9	314.5	97.3
Kenya	51.7	80.0	121.3	96.6	176.2	93.9	271.5	97.9
Mauritius	38.9	16.3	106.5	41.8	135.0	50.2	147.8	65.3
Swaziland	8.2	17.1	73.7	82.7	126.9	90.2	175.6	98.3
South Africa	30.4	17.4	85	46.9	126.6	54.5	114.7	81.2

Source: Morris *et al* (forthcoming). Data source: US Department of Commerce, Otxea

A large portion of the foreign investment in AGOA beneficiaries' clothing industries comes from East Asian firms, who are taking advantage of the lack of rules of origin restrictions (Olarreaga and Ozden 2005). In 2003, of all the apparel products shipped under AGOA to the US from eligible countries, 76% were exported using third country fabrics; only 19% of AGOA exports used local and regional fabrics (TRALAC 2004). The provision is crucial for countries exporting to the US. Should the third country fabric provision not be renewed in 2007, there could be consequences for manufacturers in AGOA countries. Sub-Saharan African countries would need to increase fabric production for exporters in the region. Although South Africa and Mauritius do have extra textile capacity that could be expanded, production would need to increase to meet demand (Coughlin *et al* 2001). However, large investments would be needed in the textile industry to update it enough to meet the lead times and product variety garment manufacturers need (Coughlin *et al* 2001).

4.4 European Union Regimes: EBA and ACP/COTONOU

The EU maintains one-way trade preferences for 71 countries spread over Africa, Caribbean and Pacific (ACP) regions. Madagascar is one of these countries. ACP preferences originally evolved from the Treaty of Rome, which maintained a commitment between Europe and its former colonies (Panagariya 2002). The ACP preferences currently fall under the Cotonou Agreement. Because these preferences are neither

available to all developing countries nor restricted to just least developed countries, they violate WTO rules and are granted waivers by other WTO members (Panagariya 2002). The ACP program is being phased out. Under current EU proposals, ACP countries must choose between entering into an economic partnership agreement (EPA) with the EU or revert to preferences available under the Everything but Arms (EBA) initiative, which is part of the European Union's GSP.

The EBA initiative is the second trade regime for which lesser-developed countries, including Madagascar, qualify. The EBA, enacted in 2001, stipulates that all products from lesser-developed countries (LDCs) can enter duty free. The EBA currently does not affect ACP countries, as according to Brenton (2003), most products exported by LDCs already qualified for duty-free treatment under the ACP. However, the EBA will become important in the future as the ACP is phased out.

The ACP countries are now in the process of negotiating changes to their trade relationships with the EU. Under current EU proposals, the Cotonou Agreement will end, and developing countries must either establish economic partnership agreements (EPAs) with the EU and regional partners or revert to the preferences that are currently available under the EBA (Brenton 2003). Negotiations are currently under way for an EPA between Madagascar and the EU.

It is the ROO that determine whether products from LDCs can access the duty-free benefits under these agreements. Duty free access to the EU is dependent upon a garment meeting the stringent rules of origin. Under the ACP agreement, Madagascar benefits from preferential rules of origin over other developing countries. Under general preferential rules of origin, non-originating materials (i.e. imported yarn or fabric) must “undergo sufficient working or processing to confer unto the article a new origin of the product obtained” (Euratex 1998, 19). The European Union publishes a list of the different processes that qualify a garment of duty-free access (Euratex 1998). The yarn can come from anywhere (Mattoo *et al* 2002). This differs from AGOA, which requires a triple transformation rule. Despite these restrictions, Madagascar has had a high utilization rate of the ACP preferences – between 1998 and 2001, an average of 92% of the clothing and textiles exported from Madagascar to the EU were duty-free (UNCTAD 2003).

4.5 Conclusion

Special and differential trade treatment gave Madagascar an advantage over other countries and encouraged investors to set up garment manufacturing factories. Rules of origin, although currently not much of a problem for manufacturers in Madagascar, could in the future play a role. When the ACP agreement expires in the near future, Madagascar will be able to maintain its clothing exports to the EU under the EBA, as the rules of origin are the same as the ACP. However, for exports under AGOA, the future is less certain. The rules of origin for AGOA, which affects approximately 60% of Madagascar's total clothing exports, are due to change in 2007. There could be dire consequences should manufacturers not be able to import fabric from Asia and be forced to source locally. The clothing industry is footloose – factories can easily be closed and restarted elsewhere. Should the third country fabric provision not be renewed, Madagascar would be placed in a precarious position.

Chapter 5 : The T&C industry in Madagascar within the context of sub-Saharan Africa

Nations in sub-Saharan Africa have recently ventured into large-scale, export-oriented textile and clothing production. The introduction of AGOA in 2001 and its associated tariff preferences for clothing has played an essential role in fostering industries in countries that previously did not produce clothing. Many countries in SSA previously had small clothing and textile industries for local production. South Africa's industry is considered the most developed, but it mainly has been oriented towards domestic production. Six countries in SSA: South Africa, Lesotho, Swaziland, Kenya, Mauritius and Madagascar, have seized the opportunity AGOA offers and significantly increased their exports to the United States.

The purpose of this chapter is two-fold. First, one cannot discuss the evolution of industry in Madagascar without touching on what is happening in the industry in sub-Saharan Africa as a whole. The region has surged ahead in recent years. Madagascar has been no different: it has seen a substantial increase in exports and a growth in employment within the industry. Madagascar, unlike Lesotho, South Africa, Kenya and Swaziland, exports significant amounts to both markets. Madagascar also saw substantial investment arrive years before other SSA countries due investors taking advantage of EU preferential treatment.

Second, this chapter discusses the economic macroeconomic and political context as well as the structure of the industry in Madagascar. The clothing industry in Madagascar includes several apparel manufacturers, a major textile mill, accessory makers and other industry-associated firms. This chapter will discuss in greater depth the crisis of 2002 and its effects on the industry, cotton and textile production, physical infrastructure, currency devaluation, and the industrial policy in Madagascar.

5.1 *Clothing and Textiles in Sub-Saharan Africa*

In 2002, total exports of apparel from sub-Saharan Africa countries accounted for just less than 1% of global exports of clothing and textiles; having increased their share from 0.6% in 1990s (USITC 2005). Production and export of clothing and textiles is concentrated primarily in five SSA countries, Kenya, Lesotho, Mauritius, Madagascar and South Africa. These five account for about 90% of sub-Saharan Africa clothing exports

(Gibbon 2002). Other minor producers include Swaziland, Malawi and Namibia. Sub-Saharan Africa is an insignificant player in the clothing world: all SSA countries combined produced clothing exports worth US\$1.65 billion – miniscule compared with total world exports of clothing of \$226 billion (WTO 2004).

SSA's main trading partners are the United States (43% of total clothing exports) and the European Union (39% of clothing exports) (USITC 2005). US imports from the five major SSA clothing producing countries rose by 85.3% between 1999 and 2002, while at the same time EU imports from SSA dropped by 5.5% (Gibbon 2002). The apparel industry in SSA has grown in recent years. As mentioned in Chapter 3, the major reason SSA saw apparel industry investment is due to the MFA quota system, which induced buyers and producers to look for non-quota constrained countries to supply the EU and US. Many smaller, less efficient, lesser developed countries such as those in SSA were given valuable opportunities under the quota system as they were shielded from open competition (Minor *et al* 2002). That the quota system is important to SSA is evident when considering the products produced for export in SSA. Products currently produced are those that were quota-restricted: cotton trousers (jeans), and cotton knit shirts and blouses (Kaplan 2004). Products exported are generally low-price basic items and repeat goods with long production runs, low value added, and few styling changes (Economist Intelligence Unit 2004). This reliance on a few types of products has made SSA as a region very vulnerable to the end of the MFA quotas as these countries now face head-on competition from China. The only remaining advantage for these countries lies in the tariff protection. However, cotton products are not protected by a high tariff barrier. For example, the average pair of jeans a duty tariff of between 10 and 16%, while synthetic products are protected by up to a 32% tariff (Morris *et al*, forthcoming). Thus, SSA countries have only a 10-16% advantage over China in cotton products, but would have a 32% advantage in synthetics.

Since 2001, SSA has experienced a relative boom in clothing and textile production as countries gained duty-free access to the world's largest clothing market, the United States, under the provisions of AGOA. Although 36 SSA countries are eligible for AGOA status and can export apparel duty-free into the US, only six countries do so in significant amounts. There are two 'catches': first, countries must have implemented a visa system to ensure compliance with AGOA rules of origin; second, countries are subject to triple transformation rules of origin (yarn to fabric to clothing). Only countries with lesser-developed country (LDC) status (per capita GNP of less than \$1,500) are

eligible for the third country fabric provision, which allows them to import fabric for clothing production. Thus, LDCs are only subject to single stage transformation rules of origin (fabric to clothing). South Africa and Mauritius do not qualify for this provision as they are not considered LDCs, and thus have been disadvantaged in fully accessing AGOA benefits. Mauritius, however, in 2005 was able to obtain special dispensation from US authorities. Mauritius can now use third country fabrics for a period of one year, until 2006.

South Africa, sub-Saharan Africa's largest economy, has been facing problems in the clothing industry since 2003. Since then, the rand has appreciated 100% since 2003, diminishing South Africa's competitiveness in the sector. South Africa's clothing and textile sector has since experienced declining sales and job losses (USITC 2005). Some South African producers have left the export market and produce solely for the domestic market, while others have relocated their factories within the region or to Asia. Swaziland and Lesotho have also been facing difficulties as their currencies are pegged one-to-one with the rand. Both Swaziland and Lesotho, with the increased competition brought about by the changing international context in addition to currency fluctuations, have seen job losses and factory closures since the end of the MFA.

Madagascar presents an interesting case for several reasons. Madagascar is an example of inter-African investment: Mauritius has heavily invested in Madagascar, essentially starting the industry. Mauritius is the giant in the region, exporting by far more than any other country. Like Mauritius, Madagascar has duty-free preferences into the European Union market, which, until AGOA was the main market for Malagasy-produced garments (Table 5.1). Unlike Mauritius, however, Madagascar has qualified for the third country fabric provision since 2001. Madagascar lagged behind the other SSA countries up through 2003, and in 2004 surged ahead, with more total exports than other countries in SSA apart from Mauritius. Madagascar is one of the few countries that sit on both the EU and the US export markets. Although other African countries have tariff preferences to the EU, few have taken advantage of them.

Table 5.1: Clothing Exports from Selected SSA Countries to the US and EU (in US\$m)

	Kenya		Lesotho		Madagascar		Mauritius		South Africa		Swaziland	
	US	EU	US	EU	US	EU	US	EU	US	EU	US	EU
1990	2.5	2.5	24.5	5.6	0.4	10.8	121.2	522.7	0	32.3	3.4	
1991	4.5	6.3	27	18.2	0.1	15.1	97.7	536.5	0.7	72.7	5.2	
1992	7.8	17.4	50.8	18.3	0.2	18.5	113.1	533.9	2.4	73.2	7.1	
1993	22.1	10.3	55.1	14.7	1.5	46.3	161.2	501	12.7	75.5	9.7	
1994	35.2	7.1	62.4	13.5	2.8	92.6	186.2	518.8	34.7	73.4	15.5	
1995	34	6.3	61.7	12.6	6.7	122	190.3	573.3	16.6	66.9	11.7	
1996	27.1	3.3	64.9	12.7	11	147.7	164.7	616	60.4	67.1	11.4	0
1997	31.3	2.6	86.5	4.5	15.3	177.1	184.4	658	70.9	62.3	15.1	0.3
1998	33.5	2.3	100.2	0.8	22	218	233.3	693.2	78.7	69.4	16.3	0.5
1999	39.3	2.5	110.7	0.2	45.7	213.9	231.6	625.2	96.9	68.3	23.2	0.6
2000	43.8	1.7	140.1	1.6	109.5	234.6	244.7	638.5	140.9	78.6	31.9	1.1
2001	64.4	1.7	216.7	3.2	178.2	233.3	238.3	591.2	173.3	69	48.1	0.8
2002	125.5	1.1	321.1	2.1	89.3	145.6	254.5	642.3	181	68.7	89.1	0.2
2003	188.1	1.4	392.7	1.2	196.3	180	269	657.6	232.3	85.9	140.5	0.2
2004	277.4	3.2	456	1.0	323.8	196	226.8	635.7	141.4	70.3	178.6	1.1

Note: Taken from Gibbon (2003). Data from: USITC, US Department of Commerce, Otxea, Eurostat.

5.2 Madagascar, local conditions

Madagascar, a small island nation of 17 million people, is located 450 kilometres off the coast of Mozambique in the Indian Ocean. A former French colony that gained independence in 1960, it has seen its annual per capita GDP decline steadily to \$800 in 2004 (CIA 2004). After decades under a semi-socialist regime, Madagascar opened up in the 1990s to outside opportunities. One of these opportunities has been the clothing and textile industry.

The clothing and textile industry numbered a few factories during the 1980s, expanding significantly during the 1990s and the first 2 years of the new century, mostly due to the introduction of AGOA preferences. In comparing the size of industry, Madagascar has a larger industry than any of the other nearest LDC competitors. It has an estimated 100,000 workers in 118 factories, including a woven textile mill, accessory producers, and embroidery firms whereas, for example, Lesotho only has 40 firms, employing 45,000 people. Elements are present in Madagascar for the creation of a large cluster of textile and clothing factories.

In 2002, Madagascar experienced a political crisis, causing most factories to shut down temporarily, and others to leave the country entirely. Although the industry was

robust enough to see a rebound of exports by 2004 to pre-crisis levels, many of the largest employers left, along with many buying agents who brought in business. Madagascar is dependent on the clothing and textile sector for employment and much needed foreign exchange. Whatever happens to the industry will have significant implications for the rest of the economy.

5.2.1 Economic History

Madagascar's economic history is one of constant change. Madagascar experienced a relatively brief period of colonization starting in 1896, with the Malagasy people regaining control over their country and economy in 1960. The government of Madagascar followed a series of 'national economic plans' for development; those from 1974-1986 were socialist in nature. The government took over various industries identified as being essential to the economy, including banking, transport, mining, and energy, while also setting prices for various staple goods (Andriamananjara 1990). The liberalisation phase began in the late 1980s, with the government withdrawing from several key sectors, encouraging outside investment, and freeing prices from government control. The main feature of this period that particularly affects the clothing industry was the introduction of a law on export processing zones (EPZ). In 1989, a law was passed introducing export processing zones, allowing producers to export at least 95% of their production without paying duties on imported inputs (Salinger 2003). The EPZ later became 'virtual', meaning that producers were not tied to a specific industrial park but could produce anywhere. Two major centres of clothing production developed, one in and around the capital of Antananarivo, and one in Antsirabe, approximately three hours to the south of Antananarivo. Before the crisis of 2002, the industry consisted of 150 firms, with an estimated 150,000 people directly employed (Salinger 2003).

The development of the industry in Madagascar cannot be discussed in isolation. Mauritius has played an important role in Madagascar. Much of the initial investment in the clothing industry in Madagascar came from Mauritius; as the small island nation grew economically, so did the price of labour. Producers in Mauritius outsourced labour-intensive functions to Madagascar with its cheaper wages. The Mauritians were already in Madagascar in 2001 when AGOA took effect, and they were able to quickly take advantage of AGOA benefits (Gibbon 2002, Salinger 2003). French investors also have a significant presence in the country, and the number of Asian investors increased once Madagascar was eligible for AGOA benefits.

CRISIS OF 2002

In December 2001, Madagascar experienced a political crisis after the presidential elections that lasted for six months. The winner of the presidential race between Marc Ravalomanana and Didier Ratsiraka was disputed, with both candidates claiming victory. Ratsiraka's supporters barricaded themselves in the major port city of Tamatave (Toamasina), refusing to allow any finished goods to leave or imported inputs to travel to Antananarivo. They also mined bridges along the road from Antananarivo and Tamatave. Ratsiraka's supporters also created a new central bank in Tamatave, causing the international banking community to freeze the Central Bank of Madagascar's foreign holdings (IMF 2003). The crisis finally ended when international observers declared Ravalomanana the official winner of the election, and foreign states recognized his presidency. The crisis finally came to an end in July 2002.

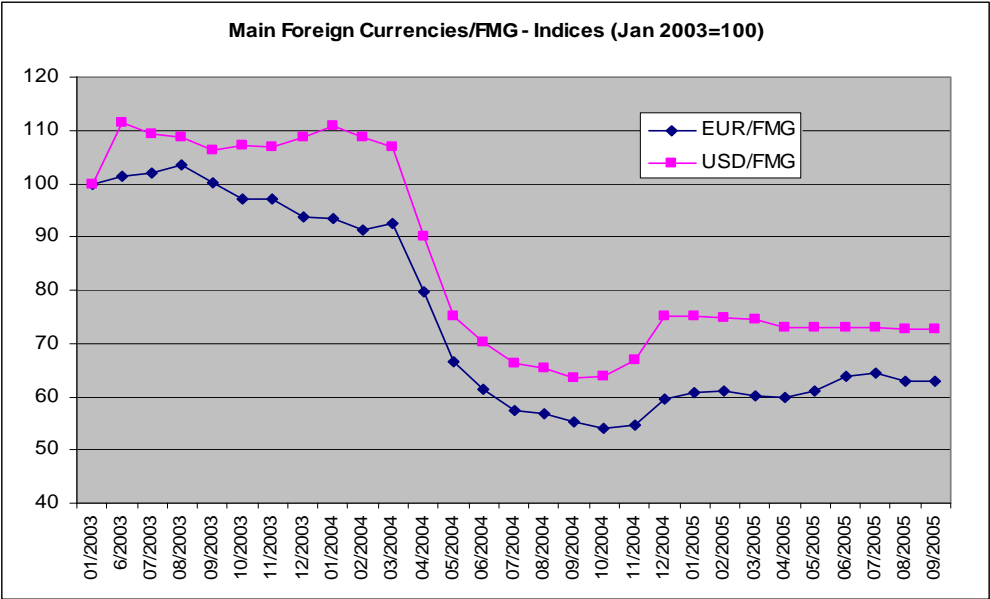
By this time, however, the clothing and textile sector had already been deeply affected by the crisis. Overall, GDP fell by 12%, and output from the apparel sector in 2002 fell by 70%. An estimated 100,000 workers were laid off; most EPZ firms shut down for the duration of the crisis (IMF 2003). The crisis has had lasting effects on Madagascar's clothing industry. Large, well-known companies have left, including Novel and Crystal who employed together a total of 16,000 people in 2002 (Gibbon 2003). An estimated 30,000 to 40,000 jobs were permanently lost due to the crisis as companies restructured or closed permanently (Salinger 2003, Manchester Trade Team 2005). Of the estimated 150 EPZ textile and clothing firms open in 2001, only 118 EPZ textile and clothing firms are now estimated to be operating.

CURRENCY DEVALUATION

During the first six months of 2004, the Malagasy currency, the Malagasy franc (FMG) experienced a significant depreciation against the dollar and the euro. Figure 5.1 shows the depreciation as indexed to January 2003. The FMG lost half its value against the dollar and the euro between February and June 2004. This depreciation came at a key period of time. The depreciation of the FMG gave clothing firms a 'bit of breathing space,' by stimulating exports and reducing the costs of production just before the end of the MFA (Ambassade de France, 2005). The depreciation also came at a time when the renewal of the third country fabric provisions was uncertain, as it was set to expire in September 2004. Buyers at this time were holding back as to where they would place

orders for future seasons. The depreciation kept Madagascar attractive for business. Firms benefited: they are paid in dollars and local costs were suddenly cut in half.

Figure 5.1: Depreciation of the Malgasy Franc⁶



Despite the increase of exports, the currency depreciation had its downside. The deflation made imports more expensive, in particular oil, for which Madagascar has no natural reserves. In addition, Madagascar experienced two cyclones at the same time, destroying valuable crops. The end result is that inflationary pressures increased substantially in 2004, resulting in an inflation level of 9.3 percent (year-on-year) in May 2004 (IMF 2004). Rice, the staple diet of Malagasies, is imported to Madagascar; the average worker found their buying power reduced. As local production of rice was down due to cyclones, rice prices rose even further than expected with the depreciation. So while the depreciation was helpful for industry, it made life difficult for the worker.

INDUSTRIAL POLICY FOR THE CLOTHING AND TEXTILE INDUSTRY

The government in Madagascar faces many difficulties. On one hand, agriculture employs four-fifths of the working population and contributes the largest percentage to GDP. The clothing and textile industry, however, brings in much needed foreign exchange and, as a sector, employs the largest number of people outside of government. Despite this, the government in Madagascar has not directed any specific policies at the apparel industry. For government, priorities lie with development in rural areas, where most of the poor are located. A report by the Manchester Trade Team (2005) found that

⁶ Time series data comes from the average monthly currency rates from www.xe.com/ucc

the government in Madagascar lacks a clear vision for the long term future of the industry, and offers no concrete plan to assist firms with competitiveness in the post-MFA apparel context. As Salinger (2003) noted, neither the government nor the private sector as a whole prepared a strategy for Madagascar's textiles industry after the expiration of the MFA, nor is there a strategy for the expiration of the third-country fabric provision in 2007.

Government does have some programs directed towards industry in general, although not directly at the clothing and textile industry. The most important program to affect industry is mentioned above, the Export Processing Zone legislation that encouraged clothing and textile producers to come to Madagascar. This legislation has been fundamental to fostering the apparel industry, as having EPZ status provides various incentives, including duty-free import of inputs used in exports and corporate tax holidays.

The government does have various bureaus to assist firms. One of the government bureaus is GUIDE (Guichet Unique des investissements et du Développement des Entreprises – Office of Investment and Enterprise Development). GUIDE facilitates the creation of firms, offering a sort of 'one stop shop' for registration of the company and for any problems that may arise afterwards. Another program whose mandate has expired is CAPE (Comité d'Appui et de Pilotage pour la Relance des Entreprises- Committee for Support and Guidance of Private Sector Renewal). CAPE was introduced to help firms that closed during the crisis restart by coordinating actions by the different ministries involving the private sector, restoring confidence in the business climate, and offering training programs, funding and forums for firm managers (CAPE 2002)

Foreign governments have been working with the industry. The EU Centre for the Development of Enterprise (CDE) has assisted in the creation of a cluster, Text'île Mada, and USAID has a program called JUMPSTART which offered business linkage and development services to small and medium Malagasy firms (Salinger 2003).

But the government could also be seen as being practical in its consideration of the industry. According to the Minister of Industry, Trade and Development of the Private Sector (MICDSP), Madagascar has no chance of ever competing with the giants of China and India. Only with heavy investment could Madagascar develop its cotton value chain through to production, and even then would be competing with the heavily subsidized cotton industry of the US (Fanjanarivo 2005). Madagascar can compete in certain niche markets, but not in the same categories as China produces.

5.2.2 Physical Infrastructure

Political upheaval is not the only problem with which firms must contend. Physical infrastructure plays an important part in how competitive industry is. Two major factors in Madagascar are electricity and the transportation system. The high costs of electricity and overland transport contribute to the precarious situation in which firms find themselves.

Low electricity prices and a stable electricity supply are essential for competitive textile and clothing production. Electricity is needed for lighting and sewing machines, with textile production using twice as much electricity as assembly. Madagascar's electricity supply is controlled by the national electric company, JIRAMA. A survey of electricity costs in Madagascar in 2001 found that Madagascar's textile and clothing industry firms paid between 6 and 8 US cents per kilowatt hour (kWh), which in 2001 was more expensive than in most developing countries producing textiles and clothing, but less than Taiwan, South Korea and Turkey (Salinger 2003). Salinger (2003) found that JIRAMA was required by law to purchase a certain amount of fuel to run the power plants from GALANA, the state refinery, at prices that include government taxes, contributing to the high prices of electricity that are passed on to the consumer. Also, producers in Madagascar do not benefit from bulk or industrial discounts as industrial users (Salinger 2003). In 2004, a German company began managing JIRAMA, although it still belongs to the government. The new management is currently restructuring and the electricity-generating equipment being updated. Prices for electricity in 2004 and 2005 have been erratic, making it difficult for producers to budget for electricity costs.

Besides electricity, transport proves to be another hurdle that apparel firms must contend with to produce their garments. Road transport is the only realistic option as air freight is prohibitively expensive for producers operating on slim margins. Containers arriving at and departing from the port in Tamatave must travel along a hazardous road between there and Antananarivo. It is a two-lane road, sometimes dropping down to a single lane (See Figure 5.2 and Figure 5.3). A journey of 350 kilometres can take days, depending on the amount of traffic on the roads. Trucks are forbidden to travel into the capital between the hours of 6 a.m. and 8 p.m. in order to alleviate the traffic bottlenecks that tie up the city during the day. Accidents and theft are common occurrences along this treacherous road. This causes high transport and insurance costs for transport within Madagascar. Producers report that overland container transport between the port and Antananarivo costs just as much as between China and Madagascar (Salinger 2003).

Figure 5.2: Traffic Jam on Road between Antsirabe and Antananarivo



Figure 5.3: Bridge on Major Road between Antananarivo and Tamatave (Toamasina), the port



Unfortunately for Madagascar, the island is not on a direct shipping route. Containers must pass via Durban and wait for a feeder ship to and from Madagascar. Delays, cancellations and problems with ships are common (Salinger 2003). This causes delays in an industry where on-time delivery is essential. Electricity and transport are essentials for industry competitiveness and are relatively easy to upgrade. Basic

infrastructure is like on-time delivery and quality in the clothing industry: both expected to be there at the end of the day.

5.2.3 Vertical Integration within the Clothing and Textile Industry

Complementing the presence of the actual clothing factories are two textile production facilities and a few manufacturers of accessories, including buttons, zips. In addition, both hand and machine embroidery firms are present. The numbers of companies in Madagascar had increased 24% from 1997 to 2001 (USITC 2002, K-23). Madagascar has the possibility of domestically sourcing fabric and yarn normally imported from Asia. Having domestic fabric and yarn production facilities is seen as an advantage as competition in the international apparel industry increases. Cost is less a deciding factor as time-to-market and services offered by the producer become just as important. Salinger (2003) states that the constantly changing world of fashion requires more than just vertical integration within a single firm, but actual coordination between the different stages and actors in the production process from design through production to retail. Due to the increasing importance of lead times, coordination between the different actors along the production chain is increasingly necessary. Thus, developing the nascent cotton and fabric production in Madagascar would be an advantage. One cannot discuss the clothing industry in Madagascar without talking of the domestic possibilities in cotton and textile production. HASYMA is the local parastatal that controls most of the domestic cotton production and COTONA is the joint Malagasy/Mauritian venture in fabric production. Domestic production will become particularly relevant in September 2007, when the third country fabric provision of AGOA expires and Madagascar (to qualify for AGOA tariff-free benefits), must source fabric domestically or from other SSA countries. Below these two entities and their capabilities are discussed in greater depth.

HASYMA (MADAGASCAR COTTON COMPANY)

As stated above, domestic cotton and fabric production is key for the future competitiveness of the industry as a whole in Madagascar. The most important benefit of having cotton production, ginning, spinning and weaving in-country is the time-saving factor. Getting fabric from China or India delays an order by three to five weeks. Should more fabric be available in Madagascar, producers could see a decrease in the time needed for production. HASYMA is the parastatal organization that “coordinates production, collection, and first-stage processing of seed cotton in Madagascar” (Salinger 2003).

HASYMA assists small and large-scale farmers with fertilizers and seed, timing of planting, and cultivation practices. By fixing a contract with producers at the beginning of the growing season, HASYMA guarantees itself a certain number of kilos of cotton. The price however is not guaranteed to the farmers, and fluctuates with international prices. HASYMA operates as a monopsony: it is the only buyer of cotton and has the only available cotton processing equipment. What is clear, according to Salinger (2003), is that there is a domestic demand for cotton that outweighs domestic production. In 2001, 63% of all clothing exports, and 85% of volume exported, were cotton products. Salinger found that domestic usage of cotton (in the form of cotton fabric) was twice what HASYMA could produce. Madagascar, however, shouldn't strive for complete independence, but can offer higher quality fabric and different types of fabric weights to domestic producers (Salinger 2003). HASYMA was privatised in 2004, with 51% being sold to Groupe Dargis, a French cotton growing company. HASYMA plans to increase its cotton production over the next few years. HASYMA easily sells its high quality cotton on the international market, finding prices obtain in Madagascar to be too low. Considering that 12-13,000 people are employed as cotton farmers, the cotton industry represents a large segment of the workforce.

COTONA (LA COTONNIÈRE D'ANTSIRABE)

Cotona is the largest textile mill in Madagascar. Cotona, with its sister company Socota in Mauritius, has the ability to produce several different weights of fabric for manufacturers. Cotona focuses on medium and heavy weight fabrics (i.e. denim material), while Socota produces lighter shirt-weights. Both Socota and Cotona have the ability to work with cotton blend fabrics, i.e. cotton mixed with Lycra and polyester. Manufacturers often need several different types of fabric weights to meet customer demands, and the availability of different weights of fabric is important.

Cotona currently has 900 employees on a 24 hour shift, but its capacity is limited by its outdated equipment. Cotona's fabric production steadily declined for many years. In 2003 and 2004, Cotona has seen a turnaround, with the number of metres of fabric produced in 2004 one-third higher than in 2003. Cotona has the capacity to produce for one-third of local needs, approximately 14 million meters (Imani Development 2004). However, Cotona offers little advantage despite its proximity to producers as it has a six to seven week lead time on orders (Imani Development 2004). Cotona directly exports to different countries less than 10% of its total production. Just over half (55%) of total

production is exported either to the EPZ in Madagascar or to factories in Mauritius. Of the fabric used by EPZ factories, most of it is destined for European buyers. The remainder of production is sold on the local market. Cotona only offers woven fabrics, not knitted. Cotona does not however offer all the different weights of fabrics that manufacturers need.

AUXILIARY FACTORIES

There are two factories that produce knitted (i.e. t-shirt) fabric. These include Festival and SAMAF (Société Anonyme Malgache d'Applications du Fil); most fabric made is for in-house orders. There also exists a dyeing mill, at which producers can dye their yarn and fabric. Several embroidery firms also provide their services to manufacturers, either via hand embroidery or commercial embroidery. One additional fabric mill, SOUMACO produces fabric for bed linen.

There is room for both cotton and textile production to expand to meet local demand. Though it would be difficult and expensive for Madagascar to become more self-sufficient, there is a present need for more textiles to be produced locally. Should the third country fabric provision expire, firms would probably leave Madagascar unless local production could step in to fill the void. A critical mass of textile production facilities is necessary to support the number of clothing firms, and the foundations are in place upon which to build.

5.2.4 Wages and Productivity in Madagascar

One of Madagascar's main attractions is its low wages. For producers, wages generally make up 25-45% of their costs, so saving costs on labour can be crucial for survival. Going hand-in-hand with wages is productivity and the ability to improve productivity over time.

In 2002, average hourly pay in Madagascar was \$0.33, compared with \$0.68 in China and \$1.25 in Mauritius, placing it among the cheapest in the world (USITC 2002). Table 5.2 shows the differences in labour costs between Madagascar and similar countries. Only Ghana and Mozambique have lower wage rates, but also have lower productivity. Malagasy workers are known for their 'nimble fingers' in making high quality embroidery and lace, giving Madagascar an advantage in hand-embroidered and smocked apparel (USITC 2002). However, despite these two advantages, productivity is

not as high as China or Mauritius, and the workers have little formal training as due to the lack of textile or sewing schools.

High productivity is crucial to the competitiveness of a firm and an industry. High levels of productivity allow a firm to complete an order on time and reduce the number of workers necessary to complete an order, thus lowering costs. Cadot and Nasir (2001) found that while worker productivity in Madagascar is low by international standards, it is improving and low wages more than compensate for it. Indications are that since 2001, productivity levels have increased substantially.

Table 5.2 compares Madagascar's productivity to other countries. Madagascar falls about average when comparing different levels of productivity. The index of unit labour cost means that, for example, in Madagascar it takes just over two cents of labour in Madagascar to make \$1 in revenue.

Table 5.2: Unit Labour in Standardized Garment Production

	Madagascar	Kenya	Ghana	Mozambique	Lesotho	South Africa	India	EPZ China
Task Level Efficiency^a	14-15	12-15	12	10-11	18	15	16	18-22
Monthly Wage^b	\$55-65	\$60-65	\$30-45	\$40-50	\$82-95	\$255	\$70-75	\$150
Index of Unit Labour Cost^c	0.023	0.026	0.022	0.029	0.035	0.050	0.027	0.040

^a The average number of shirts a machine operator can produce in a workday

^b Wage for a semi-skilled sewing machine operator in the garments industry

^c For men's casual shirts

Note: From World Bank (2001).

Madagascar lacks training schools to improve worker productivity. Due to the lack of a training school for textile and clothing workers, workers arrive without any skills and must be trained in-house. The Agence Française du Développement (AFD – French Agency for Development) assisted in the creation of a training school, FORMACO, but its mandate finished in 2000, and no new training institution has been created. Two other training institutions were short-lived due to the lack of interest shown by producers (ILO 2004).

5.3 Conclusion

Madagascar is part of a region that matters little in the cutthroat industry of apparel. Apart from South Africa, the region lacks proper infrastructure to support a growing textile and clothing industry. As previously stated, Madagascar is a unique case

of clothing and textiles in a developing African country due to the access to both the EU and the US market, has among some of the low wages on the continent, and has the possibilities of a cluster due to the textile mills and accessory makers already present. However, Madagascar is not without its problems; the future is uncertain for producers there due to the increased competition from countries in Asia who are cheaper and have workers that are more productive. Clothing and textiles is an important industry for impoverished countries in Africa. What happens in Madagascar is indicative of what will happen in Africa as a whole. Thus, the next chapter deals with the findings from the field research and the implications for other apparel-producing countries in sub-Saharan Africa.

Chapter 6 : Findings from Madagascar



Figure 6.1: Clothing Factories in Antananarivo and Antsirabe, Madagascar



Chapter 6 details findings from fieldwork undertaken in Madagascar during three weeks in April 2005. This chapter describes the vulnerabilities and challenges firms in Madagascar face in the increasingly competitive world of apparel production. As previously mentioned, little is known about the industry. Thus, this chapter begins with a general overview of the firms sampled, and discusses location, age, product, destination market. Broader, industry-wide issues are also discussed. A deeper discussion on labour issues including wages and productivity is included. Finally, macroeconomic issues such as government industrial policy, post-crisis resilience, and international prices are examined.

6.1 General Overview of the Industry

A total of 21 firms were interviewed during the three weeks of field research undertaken in Madagascar. Of the total clothing factory population of 118 firms according to a list obtained at the Ministry of Trade, Industry, and the Private Sector (MICDSP), all but four of them are located within the environs of Antananarivo, with 2 factories in Antsirabe and 2 factories in Mahajanga. Nineteen of the firms sampled had production units and offices located in the capital of Madagascar, Antananarivo. Two firms surveyed had production units in Antsirabe, a city three hours south of Antananarivo.

As stated in the methodology, firms were selected by nationality (as defined by the nationality of the majority of the shareholders or owners) and size (number of employees). Firms fell into five major nationality groupings: Asian, Malagasy, Mauritian, US, and European (Table 6.1). Two nationalities are represented in the Asian group: Chinese and Sri Lankan. European Union firms were from France and the Netherlands. It was decided to use regional groupings such as 'EU' and 'Asian' because the sample size was not large enough to draw conclusions about individual nationalities.

Clothing firms in Madagascar are relatively young, with the average age being 7.3 years. Firms exporting to the US (n=12) are younger (5.8 years), due to duty-free preference into the US only starting in 2001 under AGOA. Firms exporting to the EU (n=8) are older. Madagascar has had duty-free preference to the EU since the end of colonisation. Firms exporting to the US were also larger, and EU exporting firms were smaller (Table 6.1).

Export destination market was a major characteristic for firms: most exported to one market or the other. Only one firm exported to both.

Table 6.1: Key Characteristics of Firms Interviewed by Export Market (n=21)

CHARACTERISTICS	MARKET OF DESTINATION			
	Predominantly US Market	Predominantly EU Market	Equally to Both Markets	All Firms
# of firms	12	8	1	21
Average Age	5.8 years	10.4 years	14 years	7.3 years
Nationality of firms	Asian (6, n=8) Malagasy (3, n=5) US (2, n=2) EU (1, n=4)	EU (3, n=4) Malagasy (2, n=5) Mauritian (2, n=2) Asian (1, n=8)	Asian (1, n=8)	N/A
Average # of Employees	1819	1401	3500	1740
Average # of Clients: Range:	6 clients Range from 2-20	14 clients Range from 1-50	15	9 clients Range from 1-50

Firms in the sample corroborated Gibbon's findings that the Asian firms were more likely to export to the US than to the EU (Gibbon 2002 and 2003). As shown in Table 6.1, Asian and US firms exported predominantly to the US, and Mauritian and European firms predominantly exported to the EU. Malagasy-owned firms were split, with three firms primarily exporting to the US and two exporting to the EU. There was one firm of Asian nationality that exported equally to both markets (50%/50%). A firm was categorized as exporting predominately to one market if 70% or more of its production went to one destination market. Several firms exported to both markets, but one market destination was largely preponderate. Two firms exporting to the EU also export in small amounts to the US, and three firms exporting to the US also export a certain percentage to EU countries. Three firm managers said they would like to strike a better balance between the two markets rather than produce almost exclusively for one or the other:

Currently, I'm 90% US and 10% EU. I'd like to see 70% US and 30% EU by the end of 2005. But the ideal is 60% US and 40% EU. The EU offers better prices, so I have a better chance of breaking even (Key informant 63).

Exporting to both markets allows producers to balance large and small orders and ensures they have year-round production. There is also a difference between EU clients and US clients. US buyers, according to Gibbon (2002), demand a high percentage of total production, making it difficult for producers to have other clients. Evidence in Madagascar supports this conclusion:

To supply the US market, the factory must work, for example, 10 days straight, 24 hours per day. This is difficult for a smaller producer to accomplish especially if they have other customers (Key Informant 61).

Serving the US market and US buyers make it difficult to plan for the future as a firm never knows if the US buyer will come back to them. EU clients, although demanding smaller orders, are seen as being more stable clients. As a key informant explained,

With the EU firms, you build a relationship with the client, but with the US firm you are a yo-yo. The US client comes back to you when it suits them (Key Informant 18).

We don't do the US. In 2002, we had 3 units dedicated to the US, but now our strategy is to get out of the US market. The US market is too demanding and strict with their orders. The EU is much easier to work with (Key Informant 39).

Three firm managers stated that they will only produce for European clients because American clients are too inflexible in their demands. Firms realize that to balance their production, it is best to produce to some extent for both markets: small EU orders can fill up empty production, or large US orders can fill up production for long periods.

I know that it is bad to focus on one market. Our ratio of 70% US and 30% EU is a good ratio, but we are looking into new EU markets: France, Germany. The difference between the US and the EU market is that the US offers prices 5% lower than the EU (Key Informant 53).

We produce 93% for the US. We are trying to start for the EU or Canadian market, trying to diversify our client base. We would like to see 90% US, 3% France, 3% Canada (Key Informant 40).

In sum, the different markets have different characteristics that make them attractive based on the needs of the manufacturers. Manufacturers can decide for what markets they want to produce, depending on their firm strategy.

The firms interviewed produced a variety of garments. Madagascar produces mostly cotton apparel in both knitted and woven segments. Knitted or woven fabric garments fall into different product groups and face different levels of tariffs. Of the 21 sampled firms, six firms (29%) produced only knitted products. The major knitted product is by far sweaters: (HS 6110) which alone accounted for 9% of Madagascar's total exports in 2003 (COMTRADE 2005). Six firms (29%) interviewed made jeans and other cotton trousers for men and women. Combined, these two categories (HS 6203 and 6204), accounted for 11% of Madagascar's total exports in 2003 (COMTRADE 2005). These three categories of apparel together accounted for 20% of Madagascar's *total* exports.

Madagascar is thus heavily reliant on a few categories of exports for export revenue. This indicates that these categories are dominant because historically they were quota-constrained, and producers went to Madagascar to circumvent quota restrictions.

Three of the firms interviewed made cashmere sweaters. As cashmere is considered a scarce material, garments made from cashmere do not need to meet the rule of origin restrictions placed on other goods. Cashmere sweaters are also high value-added products. The other major categories of products produced include t-shirts (n=3), work clothes (n=1), winter coats (n=1), kids' dresses (n=1), men's shirts (n=1), costumes (n=1), and embroidered items (n=1).

6.1.1 Buyers

Madagascar's factories produce for a variety of buyers. Of the 21 firms interviewed, 18 firms specified the types of buyers they served. Table 6.2 shows the types of clients served, and the number of times that firms in Madagascar reported working for a certain type of client. By far, firms in Madagascar served independent retailers the most, with 10 firms reporting serving that type of client. Most of the independent retailers are US-based. The next highest category served is department store label, also for the US market. The lower end-market segments, including low-end department stores and discounters, are generally associated with lower margins and the US market (Gibbon 2002). Firms serving the EU market were more likely to sell to supermarkets, mail-order catalogues, and high-end to mid department stores in general.

Table 6.2: Clients Served in Madagascar (n=18)

Type of Client	Examples of Types of Clients Mentioned	No. of firms reporting as serving that client type
Supermarket	Carrefour, Auchan, LeClerc	3
Department Store, High-end	Galleries Lafayette, Dillard's, P und C	5
Department Store, mid	Sears, JCPenny's	3
Department Store, Low-end	Mervyn's, C&A	3
Discounter	Kmart, Wal-mart, Target	3
Department Store Label	Gloria Vanderbilt, I.e.i., Columbia, Levi's, Jordache, US Polo, Calvin Klein, Paris Blues Columbia	8
Independent Retailer	Gap Group, Benetton, Decathlon, Celio, Petit Ange, Abercrombie & Fitch, The Limited, Zara	10
Wholesalers	Costco	2
Boutiques		1
Specialized workwear	Groupe Quintet	1
Mail-order	La Redoute, Vert Baudet	2

*Note: Firms reported serving different categories of clients concurrently.

Table 6.3 shows the spread of countries to which firms in Madagascar reported exporting. The connection with France is clearly seen: of the 21 firms surveyed, 11 of them exported to France. Links with the larger EU markets can be seen below: four firms exported to the UK, and 3 firms exported to Germany and Italy. A total of 14 firms exported to some extent to the United States.

Table 6.3: Location of Clients Reported

	End-market country	No. of firms reporting exports to that country
Asia	Japan	1
European Union	France	11
	United Kingdom	4
	Germany	3
	Italy	3
	Netherlands	1
	Spain	1
North America	US	14

Table 6.4 details the different methods producers use to obtain orders from buyers. Firms with parent companies are sent orders; it is the parent company that has contact with buyers. Firms that do not have parent companies acquired their clients through indirect contact, i.e. via a sourcing office. About half (n=11) of the firms interviewed obtained their clients through their parent company located in Asia, the US, or Europe. One firm

has agents in Europe that work to sell their products, but the agents are non-dedicated. Two firms are working in partnership with the local textile mill in a clustering arrangement to offer full package supply from weaving to delivery. The textile mill, Cotona, seeks out clients and attends trade fairs on behalf of firms. Although many mentioned word of mouth as a way they obtain some clients, it was not the main approach used for most firms except for one. Two firms have direct representatives in other countries.

Table 6.4: Main Method of Obtaining Buyers by Firms in Madagascar

	Type of Method	# of firms reporting use of this method
Direct contact	Word of mouth	1
	Trade fair	1
	Own representatives overseas, including sales offices	2
	Other direct contact	2
Indirect	In partnership with Cotona	2
	Agents in other countries	2
	Parent company	11
	Agents in Madagascar	1

How firms in Madagascar obtained their buyers is essential to figuring out what place Madagascar fills in the value chain and how vulnerable the industry is. Are buyers seeking out producers in Madagascar or must producers chase after buyers? It appears that buyers flocked to Madagascar after AGOA preferences started, but most buyers fled after the crisis.

Buyers talked about Madagascar a lot in 2000-1, encouraging suppliers to come here, but no one is talking about it now (Key Informant 96).

Anecdotal evidence suggests that the structure of buying and sourcing within the international garment industry as a whole is changing. Firms mentioned that relationships with buyers, mainly European, are becoming more direct, with fewer European buyers passing through intermediaries or sourcing offices. Some buyers have a dual strategy: they source via buying or sourcing houses as well as directly with the manufacturers. For manufacturers that have parents companies, buyers pass via the parent company office in Hong Kong, but the relationship between the buyer and the parent company was reported as direct. This changes the nature of the relationship between buyer and producers in Madagascar: it may be the end or the decreasing of importance of triangular

manufacturing. This subject deserves further research, as it ultimately changes the way that value chain researchers perceive the buyer/manufacturer relationship.

The presence of buying offices appears to play an important role. Before the crisis, different buyers had offices in Madagascar, including Levi's, the Gap, and Liz Claiborne. Sourcing agents, including MAST (the sourcing agents for The Limited Group) Linmark, and Li & Fung also had offices in Madagascar. Sourcing offices play a key role in sending orders to countries. Unfortunately, the crisis forced sourcing offices to close.

“If a buyer leaves, then so will the vendors [producers]. It is the buyers who decide the future of factories in Madagascar” (Key Informant 65).

This has significant repercussions for the future of Madagascar's clothing industry.

Buyers can do more than just give orders. In the automotive value chain, end-buyers assist their suppliers in upgrading their capabilities. The garment value chain works differently depending on the type of garment being produced. Generally, those producing the cheapest garments receive no assistance from end-buyers. Gibbon (2002) found that that independents, like Gap and Benetton are “widely considered to usually make poor or non-existent contributions to improvements in supplier capabilities” (2002, 38). Only firms that produce for high-end buyers mentioned that buyers helped them upgrade. One firm in particular that has developed a long-term relationship with a high-end buyer has production specialists who visit firms to upgrade their production processes.

6.1.2 Quality Control

Quality control (QC) and quality assurance (QA)⁷ seem to be shifting from externally-imposed processes to being incorporated organically into the production process at each stage. Whereas in the past clients would regularly send quality controllers to inspect the production line themselves, it is now expected that the firm will ensure an acceptable quality level. When asked about quality control, most firms were equipped with their own trained quality control people; rarely was the client or an outside agency involved. One quality assurance agency was interviewed, but their role was more to assist the producers in finishing the order and doing spot checks, rather than to sit on the production lines. If the quality control or assurance is external, the QC can be done by either a QC representative from the buyer or through an outside agency. In Madagascar,

⁷ **Quality Control** involves physical, continual inspection of goods throughout production to verify that the end product is of high quality. **Quality Assurance** involves continuous improvement of the production process to prevent problems from occurring (Dale 1997).

there was one internal North American buyer quality assurance office, and two external quality assurance agencies that clients hired to oversee quality for them. One quality assurance agency interviewed said that the way that clients oversee quality control has changed, particularly for those producing for the US market. More and more, US buyers are sending their own QA to the factories rather than hiring an outside agent to inspect garments. At the same time, buyers expect firms to become responsible for their own QC (Key Informant 18).

There is an international statistical method of quality control, named the 'Acceptable Quality Level.' Although familiar is the 'AQL' (Acceptable Quality Level) system, a 5-point scale, firms in Madagascar stressed that one buyer's AQL of 2.5 was another's 0.5. Firms stressed that they achieved a minimum AQL, usually 2.5, as a standard within the whole factory. Having a minimum standard proves to buyers that the firm has an acceptable product, regardless of the AQL dictated by the client.

One firm's strategy for the future includes dedicated quality controllers trained by the buyer, but employed by the firm. These quality controllers oversee the quality throughout the production process. Quality of the product had to be worked out between the client and the producers before filling the order. Quality was mentioned by several producers as being a way to attract and keep clients who are willing to pay more.

My strategy is to upgrade the quality [of our product]. If we maintain quality, the buyers will pay 10 cents more (Key Informant 53).

By having a consistently high quality product, firms reported that buyers were ready to offer a higher price.

6.2 Factors of Competitiveness

Outside factors also play a role in the competitiveness of firms. Manufacturers mentioned mounting production costs are making survival difficult. Logistical problems with customs, inland and sea transport, electricity costs and reliability, and rent increase the vulnerability of producers in Madagascar. It emerged from the interviews with manufacturers that the largest logistical problem by far is transport, both to, from, and within Madagascar. Inefficiencies and delays at ports and with transport associations make it difficult for producers in Madagascar to compete. Rising rent costs and electricity put an additional squeeze on producers' bottom lines. These problems are further detailed in the section below.

6.2.1 Transport and Customs

Over three-quarters (n=16, 76%) of firms surveyed reported that transportation within, to and from Madagascar was a hindrance to efficient production. The major problem cited was the condition of the road between the capital, Antananarivo and the port, Tamatave, a distance of 300 kilometres. It can take up to one week for containers of raw materials to arrive at the factories from the port due to delays at customs and slow travel speeds. In addition, the capital, around which most factories are located, is plagued by traffic jams. Cargo trucks going in and out of the capital are limited by law to rolling only between the hours of 20:00 and 6:00. Road capacity in another issue: were production in Madagascar to increase, the roads might not be able to support an increase in traffic that would come with industry expansion (Salinger 2003).

For many firms, Madagascar's location is the greatest hindrance. As one interviewee stated, "It's a problem of geography" (Key Informant 28). Due to Madagascar's distance not only from raw material suppliers but also destination markets, it takes producers up to four months to complete an order. This amount of time is increasingly unacceptable for buyers. Many time-dependent fashion lines and buyers are out of reach for producers in Madagascar because of time constraints. The time breakdown in Table 6.5 shows just how tight producers' timelines are: from the day the order is placed, it takes approximately one week for the fabric to be made, three weeks to have it shipped from the fabric factory (usually in China), and one week to have it shipped from the port to the factory. A transportation industry informant, however, said that the one week is the minimum, with delays sometimes extending to two weeks or even to one month (Key Informant 98).

Table 6.5: Production Steps and Corresponding Time for Firms in Madagascar

Production Step	Transport Time
Fabric production	1-2 weeks
Shipment of fabric and accessories	3 weeks (average, Asia to Madagascar)
Shipment from port to factory, including customs inspections	7 days Tamatave to Antananarivo 8-9 days Tamatave to Antsirabe
Manufacturing	3 weeks
Shipment back to port, including customs inspections	1 week
Shipment to destination market	3 weeks Tamatave to EU ports 4 weeks (min) to US ports

Once the container reaches the factory, it takes an average of three weeks to manufacture the product depending on the size of the order and another week in transit back to the port. Finally, it takes three weeks for a container to arrive at European destinations, with a minimum of four weeks required for US destinations. This equals a minimum lead time of 13 weeks for production from order placement to delivery.

Such long lead times limit producers' possible products by forcing a CMT focus that has limited value-added, and hindering the industry's and producers' ability to upgrade. Many managers echoed one informant's statement:

Lead times are important for turn around. Madagascar is involved in replenishment goods: it is core products that are being done here. It is hard to do fashion dependent items (Key Informant 96).

Transport issues for some have made it difficult to expand to new markets. Factory owners would like to expand to new markets, but find the distances and delays difficult to foster new producer-client relationships:

We have one client in the US, but we've had a hard time developing the relationship. The main problem isn't China, it's the delays [in transport] (Key Informant 34)

Long lead times and high transport costs make producers vulnerable to competition from places that are closer to the US and EU markets. Producers are finding it difficult to move up to higher value-added garments as they are usually more fashion dependent and must be delivered to market quickly. Manufacturers in Madagascar would find it difficult to go for flexible delivery, which some buyers prefer to better manage their inventory.

Frequency of boats arriving with raw materials is a limiting factor. The two largest shipping companies, Maersk Logistics and MSC (Mediterranean Shipping Company) only have one boat each per week arriving from Asia with raw materials. For export however, the frequency of boats is greater. Maersk has four boats per week that take exports to the port at Durban, South Africa, from where containers are transferred to ships destined for the EU and the US.

The cost of transport to and from Madagascar has also been increasing regularly. According to a transportation industry official,

The costs for maritime transport from Asia have increased the most. A 20-foot container in January 2004 cost \$1200 to ship from Asia to Madagascar. In December 2004, that price rose to \$1900 in December 2004. This is an increase of 58% . . . Now it is \$2,230 (as of April 2005) due to rising petrol prices (Key Informant 98).

Rising shipping prices are becoming difficult for producers to manage. Producers are finding their margins being squeezed as buyers demand cheaper prices and transport costs rise. Some factory owners compared the lack of competition in shipping to a cartel; there is a lack of competition between shipping companies that drives up prices.

There is also a lack of competition amongst the transport companies within Madagascar, and this shows in the prices demanded for inland transport. Several interviewees said that it cost just as much to send a container from Tamatave (the port) to Antananarivo as it does to get a container from the port in France to the warehouse.

It isn't normal that [the transport in Madagascar] is more expensive than in France [given that fuel prices are higher in France than in Madagascar] (Key Informant 34).

Not only is the ground transport between Bordeaux and Dunkirk cheaper, it's faster too [than between Tamatave to Tana]" (Key Informant 18).

One manufacturer stated that transport costs add 30 US cents to each garment produced in his factory (Key Informant 53). Another stated that transport costs added 10% to the final product (Key Informant 96). These additional costs, plus the uncertainties associated with the possibility of delays along the road between Tamatave and Antananarivo contribute to the precarious situation of garment producers in Madagascar.

Manufacturers also complained of the long delays in moving containers through customs. Customs inspectors were considered inefficient, and a few firms claimed that sometimes minor bribes such as cigarettes were necessary to facilitate the inspection of containers. Although customs inspectors had improved over the past few years, problems still remain in moving containers quickly through. One firm mentioned that a new computerized system for tracking containers through the port had been instituted, but that the customs inspectors 'refused' to learn the new system. One factory manager faced a delay of three days when the main customs inspector took two days leave, without appointing someone else to inspect containers. Thus, the container was delayed for 3 days due to the leave taken as well as the resulting backlog of containers that needed to be inspected.

6.2.2 Electricity and Rent

Another difficulty that firms in Madagascar are facing is increasing rent costs. Six firms interviewed (29%) report high or increasing rent costs. The firms interviewed pay \$2 to \$5 per square metre per month, amounting to 10-20% of the price of the finished

garment. One firm is considering moving elsewhere within Madagascar or relocating entirely due to rent costs (Key Informant 71). One firm bought its premises after the crisis when rent prices were low, and has found that buying and building is cheaper than renting.

Energy prices are also increasing for producers in Madagascar. One key informant told us:

JIRAMA's prices have increased 25% over the past 18 months. It will go up 18% this month [April] (Key Informant 63).

Additional increases are expected to pay for the modernization of the outdated equipment that JIRAMA, the national electricity company, currently uses (Key Informant 4).

In May and June 2005 after the field research was undertaken, producers have experienced further difficulties with the electricity supply. According to an industry official in Madagascar, prices for electricity have increased an additional 30-60%, further squeezing producers' bottom lines. Besides cost increases, fluctuating power currents and power outages of up to two hours during the day occur daily, making it difficult for producers to fill their orders. Several of the companies interviewed are in difficulty as they have been unable to finish their orders (Key Informant 6). Power outages and fluctuations, in addition to halting production, also introduces flaws into fabrics and knit-to-shape items, thus requiring that the item or fabric being knitted be redone or scrapped.

6.2.3 Raw Materials

The main raw material used in clothing is fabric; buttons, thread, tags and other accessories must be sourced. Despite the presence of textile factories and accessory makers in Madagascar, all but two of the factories reported obtained the majority of their fabric and accessories from other countries. One firm is vertically integrated and weaves and dyes its own fabric, finding this more efficient than purchasing and shipping fabric from Asia. Another firm sources approximately 85% of their fabric from their own mill in Mauritius.

Firms that source from abroad usually source from China and India. Eleven firms (52%), source solely from Asia, six of whom said they only source from China. Other Asian countries mentioned include Sri Lanka, Indonesia and Pakistan. Within Europe, four firms source a portion of their fabric from Italy, three from France, one from the Netherlands and one from Switzerland. Three firms (14%) said that they sourced fabric locally, but no more than 40% of their fabric needs. Many firm owners would have like to source from Cotona, but their quality is unacceptable for the international market or its

prices are too high. Within sub-Saharan Africa, one firm sourced jean fabric from a denim mill in Lesotho, and two firms sourced fabric from Mauritius.

6.2.4 Wages and Productivity in Madagascar

One of the main attractions for producers in Madagascar is the low wage rates and relatively productive workforce. As mentioned in the previous chapter, wages in Madagascar are amongst the lowest in the world and productivity, although low, is improving. Workers in Madagascar are considered to be skilled with their hands, with many firms using hand and machine embroidery. This section goes into further detail about wages, training, turnover, and absenteeism.

According to the firm managers interviewed, workers are given a base salary with a minimum required number of pieces to be completed. In addition to the basic salary, workers are given individual or team bonuses, depending on the bonus strategy used by each firm. Twelve firms (57%) used an individual bonus system and four firms (20%) used a team bonus system. Five firms (24%) did not report what type of bonus system they used. Firms reported that workers base salaries start at 20€ per month and rise to 40€ per month, plus bonuses (Key Informant 85). Over half (57%) of manufacturers feel that workers are not necessarily motivated to produce more, despite incentive programs, agreeing with this statement:

The Malagasies could produce more if they put their minds to it. Right now they just do enough to put food on the table, and nothing more (Key Informant 28).

However, six producers (29%) said that productivity was not a problem, and three (14%) gave no response to the question.

High productivity levels are key for a firm's and an industry's ability to compete. It allows a firm to complete an order faster and lowers the number of workers necessary to complete an order, thus lowering the average costs. In 2002, productivity levels of Malagasy workers, although high for African workers, were computed at being less than half of those of Chinese workers and 75% of those of Mauritian workers (Tait 2002). However, indications are that since 2002 productivity levels have increased substantially.

We now have 700 employees, but we are 40% more productive than when we had 1100 employees before the crisis. The crisis [of 2002] allowed us to restructure our factory. But is this enough to compete with China? No (Key Informant 34).

An industry official believes that productivity in Madagascar is about 70-80% the international average, with slight variations between firms (Key Informant 85). As one

interviewee stated, if workers in China can produce 10 shirts in a day, workers in Madagascar can only produce 6 or 7 (Key Informant 50).

Depending on the type of work, productivity levels varied. Filling repeat orders for large US and EU buyers is easier as productivity levels are higher and turnaround times faster on repeat orders.

We are trying to do core product runs with our buyer so that our productivity is quite high (Key Informant 96).

Firms preferred doing repeat goods because that allowed their workers to obtain very high levels of productivity. One manufacturer explained that it always takes a few days turn around time to change the production line from one order to the next. This takes a few days, longer if workers have difficulties adapting to the new product. When manufacturers have large orders of 30,000 – 100,000 pieces, turn around time does not matter as much because workers have time to learn.

When orders are smaller, it is hard to maintain quality (Key Informant 40).

For an order of 10-30,000 pieces, productivity isn't a problem, but for an order of less than 1,000, it's a problem (Key Informant 39).

With smaller orders, the turnaround time is the same, but only 10-20,000 pieces are produced. Maintaining quality is also difficult as the number of rejected garments is usually the same no matter how large the order

Malagasy workers are considered by the firms to be very adept with close-up work requiring the hands.

Workers learn very fast and have quick hands (Key informant 40).

For work requiring fingers, Madagascar does better. This isn't rumour: it's the truth (Key Informant 4).

It is these abilities, especially in embroidery, that give Madagascar an advantage over other countries, but as other countries' workers become skilled, such advantages may erode over time.

6.2.5 Training

Lack of training was mentioned by many interviewees as being a hindrance to efficient production. Due to the lack of a training school for textile and clothing workers, workers arrive without any skills at all and must be trained in-house. As mentioned in the previous chapter, there are no permanent training schools for sewing machine operators

and others in the clothing and textile industry. Firms are always looking for trained workers to fill in empty positions. It takes time to train a worker on the different machines:

It takes 3-6 months to train people on knitting machines... We need stable people who stay and are skilled (Key Informant 4).

A lack of training goes hand in hand with high turnover. As soon as people acquire skills, they become valued workers and move to another factory that pays more for a skilled person.

Three firms mentioned that university graduates were working on the production lines. It was difficult for these graduates to find jobs that pay well, and production line jobs allowed them to not only earn a base salary, but the firms mentioned that they were the most likely to profit from the bonuses offered to workers.

6.2.6 Turnover and Absenteeism

Relatively speaking, turnover was less pressing than increasing rent and shipping costs. Turnover seemed to be related to the location of the factory. Interviewees in factories located in large industrial zones in and around Antananarivo complained about workers leaving as soon as they were trained. As mentioned above, after being trained, workers go to the firm next door and receive higher wages because they were then considered as having experience. Firms mentioned turnover rates of 2-10% of their total workforce. Knitting factories in particular reported high turnover at the beginning stages of training.

Turnover is very high for new workers – after three days they leave. Empty machines don't produce anything. We always have empty machines (Key Informant 39).

Knit workers leave – it's hard, heavy work, and you stand all day. It isn't pleasant (Key Informant 39).

But some firms mentioned that absenteeism is a more of a problem than turnover. One firm, which normally has a turnover rate of 2% found that its absenteeism rates increased during the planting and harvesting seasons, as workers left to look after their farms (Key Informant 96).

One firm has been more proactive about reducing their turnover. The firm decided to relocate outside of the industrial zones to make it more difficult for workers to leave.

We wanted a location far away from other factories – to stop our employees from skipping to other factories. Workers in the industrial parks were leaving for 10

FMG⁸ more. Although we had to pay a lot in the beginning to train the unskilled workers here, we now have less than 2% turnover per year (Key Informant 34).

For this firm, it seems to have been a successful strategy, but obviously not every factory can do the same. In December 2004, an ILO-sponsored workshop between producers, workers and government in Madagascar found the producers are not looking for a training school per se, but rather for government assistance with in-hour training (ILO 2004). As another strategy to combat absenteeism, some factories give a bonus at the end of each month if the worker was present every day (Key Informant 6).

6.2.7 Social Actions

‘Social actions’ or non-monetary benefits some firms provide to their workers are particular to Madagascar. During the devaluation in 2004, some firms, for example, offer as a non-monetary benefit a bag of rice. A number of firms provide rice at a subsidized price to their employees, the cost of which is later withdrawn from the employee’s pay check. Otherwise, to receive duty-free rice the employee would be forced to stand in line for government (imported) duty-free rice, causing them to be absent from work. From January to June 2004, workers would miss work to stand in line for government-subsidized rice, the only rice workers could afford. It appears that such assistance has been discontinued since the currency has stabilized. Factories reported serving free lunches for their employees, with one factory providing three meals per day (Key Informant 63). Three firms also had clinics onsite.

6.3 Typology of Performance

While researching, it became apparent that firms fell into four distinct categories of status based on the criteria of employment (whether or not they had laid off workers), investments made in manpower or machines, and future orders. This section provides a snapshot of firms at the time research was undertaken. Firms are classified as ‘shrinking,’ ‘stable,’ ‘wait and see,’ or ‘expanding’. A firm identified as *shrinking* had no orders past August 2005, were currently producing at partial capacity, and had permanently laid-off one-third to one-half of their employees. Closure appeared to be imminent. *Wait and see* means that a firm has orders for six months, but will not be making any investments in the near future as the future is unclear. Some *wait and see* firms had temporarily laid-off workers. *Stable* firms have orders at least through next year and had no changes in

⁸ Franc malgache – Malagasy franc. The official currency in Madagascar until January 2005. It has been replaced by the ariary. However, the FMG is still in circulation.

employment levels; they did not seem in danger of closing their doors. *Expanding* firms are increasing the number of production lines and employees. Using this rubric, four (19%) firms were identified as are shrinking, two (10%) are wait and see, 11 (52%) as stable, and four (19%) as expanding (Table 6.6).

Table 6.6: Firm Current Status by Nationality and Market Destination

	Firm Nationality					Market	
						US	EU
Current Status	Asian	US	European	Mauritian	Malagasy		
Shrinking	F I K				N	F I K N	
Wait and see	O		S			O S	
Stable	HU B	W	A Q	R	CG J V	C H U V W B*	A G J R Q B*
Expanding	E	T	X	D		T	D E X

* Firm B exports equally to both markets.
 Note: Firms are identified by a randomly assigned letter.

The four firms identified as shrinking and the two that are wait and see are firms serve the US market, indicating that half of those producing for the US have uncertain futures past 2005. There are no firms serving the EU market that are identified as shrinking or wait and see (Table 6.6). Of the 11 firms considered stable, five serve the US and five serve the EU markets, with one firm equally serving both markets.

This implies that market destination plays a role in stability of production. Performance seems to be dependent on the market to which firms export. Significantly, there are no firms serving the EU market that are identified as shrinking or wait and see. Furthermore, three out of the four classified as expanding and half the firms identified as stable serve the EU market. No firms serving the EU market were identified as shrinking or wait and see. It appears that in this sample, market of destination partially determined the current status of firms, possibly due to the different nature of the EU value chain. This appears to reinforce the claim that European buyers being easier to work with and better at maintaining relationships than US buyers.

Nationality also relates to performance. Asian firms find themselves in more a precarious position as half of Asian firms surveyed are identified as shrinking or wait and see. One Malagasy firm was identified as shrinking. These firms are facing tough competition from China and other competitors on the product level; these firms considered

to be shrinking specialize in basic denim jeans and t-shirts and have seen prices forced down by intense international competition.

Despite how dire the situation was predicted to be, 70% of the sampled firms will survive at least until next year. Overall in the industry, only five of 118 textile and clothing firms had closed up to April 2005, leaving 5000 people unemployed; an additional three firms laid off a total of 3000 people (Rambelo 2005a).

6.4 Macroeconomic Conditions and Context

The operating conditions for firms in Madagascar do not occur in isolation. Macroeconomic conditions, including the currency and government focus on rural development, have affected industry in Madagascar. Prices that producers obtain for their garments are in flux: since the quotas ended, prices have dropped dramatically. As costs rise while prices received drop, producers are being squeezed from both sides. This section discusses government's industrial policy, falling international prices and competition with China.

6.4.1 Government Industrial Policy

As mentioned in the previous chapter, the clothing and textile industry in Madagascar is not the main focus of the government's development strategy. Interviews with industry officials and firms confirmed this view. The government is currently focused on rural development, not industrial development. Firms repeatedly mentioned that there was a lack of interest of government in the industry, despite the industry's importance in terms of employment and revenue generated. Most interviewees reported never having seen a government official. Firm managers with experience in other countries compared the interest of government in Madagascar to elsewhere, finding that other countries tend to be more attentive to the problems the clothing and textile industry faces.

Government is concentrating on agriculture because [that way] people 'will always have enough to eat'. At this point, it is too late for the government to do anything anyways [for the clothing industry] (Key Informant 28).

In [other countries with garment factories], the government comes as soon as there is a problem to see if they can do something" (Key Informant 71).

The government is a wall. They are not interested in textiles. The companies in the EPZ are foreign firms, not Malagasy, so we are not considered important (Key Informant 61).

Firms operate with little assistance or communication from government. It appears that an open channel of communication between the Ministry of Industry and firms or their associations would assist the industry in clearing up inconveniences that hinder the smooth flow of commerce. The major government program towards industry is the EPZ legislation: firms pay no or little corporate tax for the first five years of production. Apart from the EPZ legislation, little is being done to support industry.

What assistance the government has provided is more crisis-driven than policy-driven. After the 2002 political crisis, the government program set up the Fonds d'appui pour le Secteur Privé (Support Funds for the Private Sector: FASP) program that assisted firms with their post-crisis recovery, by providing funds for capital investments and training.

Government has helped. They gave us a loan through FASP, and offered training for heads of production and workers (Key Informant 58).

However, that program reached the end of its mandate in 2004. JUMPSTART, a program funded by USAID, assisted small and medium handicraft and clothing enterprises develop their business skills and find clients. One firm interviewed found their clients in this manner.

6.4.2 Post-crisis Resilience

Before the crisis, an estimated 120,000 people were employed in EPZ garment firms. Between 30 and 40,000 jobs were lost due to the crisis as companies restructured or closed permanently (Salinger 2003 and Manchester Trade Team 2005). Of the estimated 140 to 160 EPZ textile and clothing firms open in 2001, approximately 25% of the textile and clothing firms left. There are currently 118 EPZ textile and clothing firms registered with the Ministry of Industry.

Of the 21 firms interviewed, 17 were present and producing in Madagascar when the 2002 political crisis started. Of those 17, seven firms managed to stay open despite the conditions. Ten firms were unable to meet orders over the crisis period and closed. Firms that remained open continued to produce because they were concerned about losing longstanding clients with whom they had developed a relationship.

During the crisis, it was better to get the product out no matter what than lose the client (Key Informant 25).

We didn't lose any customers in 2002. We did everything possible to satisfy our customers, even flying raw materials in to Tana (Key Informant 96).

Firms went to great lengths to export their garments, especially once the main road to the port was blockaded. The road between Tamatave and Antananarivo was blockaded from March to July 2002, during which time firms had to find other means of transport. Some firms had to send their shipments by air at an enormous cost, causing some to fall deeply into debt. Three firms reported sending shipments via a combination of truck and canoe to the port after the roads were blocked.

Interviewees stressed that they could not lose a client, to do so was to let the parent company down. It was unknown if the clients would come back after the crisis was finished. The buying offices for MAST, Li & Fung, Eddie Bauer, Gap, Dockers and Levi's closed during the crisis or in its immediate aftermath and have not reopened. Such buying office are quickly set up and quickly moved, giving the industry a footloose nature. When there is no buying office in-country, there is an additional distance between the buyers and the producer, making it more difficult for firms to have steady contact with buyers in Madagascar, and in turn, to obtain orders from buyers.

6.4.3 Prices and Upgrading

Not only has the end of the MFA released China from the quota restraints, but as the volume of garments available internationally increases, prices are decreasing for core products that most factories in Madagascar produce. For producers who make basic denim products, which China produces in abundance, prices per dozen have decreased substantially since January 2005. Eleven firms (52%) report that prices offered per dozen have decreased 30-50% in the past six months. These firms reported difficulties making ends meet with the lower prices that their clients offered. One firm said it could not make ends meet if prices fall further and would be forced to close (Key Informant 25). Madagascar also has several cashmere garment manufacturers, but the prices for their product are relatively stable.

Firms were hesitant to report on prices received per garment from the buyers. Only one firm was forthcoming with this information. As an example of how far prices have dropped, this firm reported that price it receives per pair of basic five pocket jeans has dropped from \$5.25 to \$3.75, a 30% drop (Key Informant 25). This same firm has seen its margin on its products be reduced from 55 cents per garment to 20 cents per garment. (In a similar study conducted on the clothing and textile industry in Swaziland,

prices for school uniform pants reportedly fell from \$21 per dozen to \$9.50 per dozen in January 2005.)

At the same time as there is a race to the bottom for prices, a better price can be obtained for quality. Firms mentioned that clients are willing to pay more for a better product. “The basic product price has decreased, but clients are ready to pay for more value-added” (Key Informant 39). Producers reported receiving more orders and larger orders as they improve their quality standards. Several firms mentioned quality improvements as a strategy for the future: the firms are trying to make more fashion-dependent items with higher value-added. In essence, as per value chain theory, producers are trying to move up the value chain by acquiring higher rents within the value chain via quality improvements and more value-added.

Most firms reported that clients would often compare their prices to those that could be obtained in China or India. Some firms reported not being able to meet their clients’ price demands and then having that client leave.

6.4.4 David versus Goliath: Competition with China

Firm managers recognized that their toughest competitor is China. Interviewees constantly discussed the competition from China, in terms of its higher productivity, political stability, in-country availability of raw materials, and proximity to the US market (Key Informant 40). All these attributes make doing business in China easier, compared to Madagascar. Higher productivity and comparatively lower wages make competing with China difficult.

In Madagascar, workers work 8 hours/day for \$50/month, which is cheap. But in China they work 12-16 hours/day with twice the productivity (Key Informant 40).

Despite these advantages, two firms reported that buyers returned after going to China. Chinese firms prefer large orders of relatively simple products. EU buyers tend to have smaller orders, which may be why firms that export to the EU are more stable than those who produce for the US market.

We have clients that don’t go to China because the product they want is too complicated (Key Informant 39).

Prices have decreased 15% to 25%. But the styles we are doing are more and more complicated because buyers pass to us orders they cannot have made in China [because the garments are too complicated] (Key Informant 63).

In addition, firms reported that buyers returned to Madagascar because of problems faced in China, including cultural and linguistic barriers.

Buyers don't want to have all their orders in China, even if China is the best competitor. So what is the alternative? Madagascar (Key Informant 85).

We have clients that have come back to us after going to China. They prefer a more stable environment (Key Informant 83).

Sourcing entirely from one country can be a risky business strategy, so buyers will continue to source from other countries. The most oft-quoted phrase was that buyers "do not like to put all their eggs in one basket," indicating that buyers will not source entirely from China so as to better manage their supply chain.

Finally, one firm manager visits firms in China to learn new techniques and processes. A firm owner reported visiting China regularly to see new technologies, production techniques and fabrics.

I go to China twice a year. I see what the fabric suppliers are doing in China. I see what the competition is doing. They [Firms in China] don't see us as competition. Other firms in Madagascar don't do this [visit Chinese firms] (Key Informant 34).

Manufacturers in Madagascar face almost overwhelming competition when competing with China. In China, logistics are better organized, more services are offered, fabric and accessories are widely available, and the time to market is much shorter than for Madagascar. But what manufacturers in Madagascar do have are links to Europe and a common language and business culture. Most manufacturers are finding ways to survive.

6.5 Conclusion

This chapter summarized the essential findings of the field research undertaken in Madagascar, including the sampled firms' basic characteristics and the challenges these firms face in terms of productivity, physical infrastructure, government policy, and international competition.

Firms in Madagascar are vulnerable to changes in local and international conditions. Madagascar lacks reliable service delivery of electricity and roads, while the cost for these services are rising. At the same time, prices manufacturers receive for their products are declining. Profit margins are thin. Increases in production costs and decreases in prices cannot be predicted, making it difficult for manufacturers to prepare for the future.

Despite these challenges, manufacturers have been able to survive. Yet there are many support measures that can be implemented to assist firms. Something as simple as a

dual carriageway 300 kilometres long between the capital and the port would lessen the vulnerability of firms in Madagascar. Government is focusing its energies and resources on rural development while neglecting industrial development. Basic programs such as monetary support for capital investment or interest subsidies could help firms make important capital purchases that would help stabilize their position in the international clothing context. Government pressure on the port authorities could accelerate the clearance time at the port, saving manufacturers valuable time in the production process. With a little support firms can continue to operate and expand in Madagascar, facilitating the industrial development of the country. What is certain is that the international clothing and textile condition are in continual flux, and firms must be able to continuously adapt.

Chapter 7 : Conclusion

The structure of the clothing and textile industry as a whole is changing. China is surging ahead, increasing its production output at unbelievable rates. At the same time, competition is forcing prices down for garments around the world, making it difficult for manufacturers to compete. The Multifibre Arrangement, the backbone of the industry for 40 years, has now been abolished. It was the MFA that gave rise to quota-hopping and thus triangular manufacturing, which brought the industry to Madagascar. It is these problems that garment firms in Madagascar must face.

There are indications in the research undertaken in Madagascar that the process of triangular manufacturing is changing. Firms mentioned that relationships were becoming more direct with buyers, in particular European buyers. This may have huge implications for Madagascar for two reasons. First, this could mean the end or at least the diminishing of importance of triangular manufacturing. Second, most of manufacturers' orders originally came via sourcing houses, rather than directly from buyers. The question remains as to how manufacturers will receive orders in the future. These direct relationships between manufacturer and buyer are a sort of 'black box'; little is known by researchers how this process works. This is an area of the value chain that deserves further research.

Another element that gave rise to the industry is the special trade treatment that Madagascar has received from both the major markets. The tariff-free entry for goods from Madagascar that AGOA and ACP preferences provided, gave the industry the jumpstart necessary to grow. Madagascar will face new pressures in the future for two reasons. First, AGOA preferences are being eroded as similar preferences are being awarded to other countries. Tariff-free preferences may not offer such a major advantage to sub-Saharan African countries much longer. Second, in September 2007, countries in sub-Saharan Africa will be forced to source fabric locally or regionally. Fabric from SSA is currently considered by manufacturers and buyers alike to be too expensive and too flawed to meet quality guidelines. A solution therefore will need to be found to deal with post-2007 constraints.

Not only must firms in Madagascar face challenges in the international arena, they must also contend with many local problems. In terms of the infrastructural environment, costs for electricity and transport are increasing, the roads and ports are inefficient, and

government is considered unhelpful. These factors are unique to the situation in Madagascar and have affected the competitive performance of the industry. A clear question would be what can be done to assist firms in dealing with these issues.

Pressures on firms have increased: in addition to worker productivity being low, manufacturers must cut costs and wages, and produce more at a higher quality. There is no protection from China. To deal with these new international conditions, firms and the industry as a whole can upgrade. Upgrading – by function, process or product – is the generally accepted way of ensuring that a firm maintains or strengthens its position within the chain. Upgrading increases the competitiveness levels. Individual firms or the industry as a whole can upgrade, and government can assist upgrading by offering support. The section below discusses the various strategies that firms and the industry are following to become more competitive in the increasingly competitive apparel industry.

7.1 Strategies for Post-MFA Survival

There are firms that are leaving Madagascar for a variety of reasons. Some find the local problems within Madagascar too great and believe the future lies elsewhere. Other firms can no longer survive in the new international context and have closed their doors. But the industry is far from dead. The next section discusses the different strategies that firms have developed. As one key informant stated

It is survival of the fittest in this industry, but there are many ways for factories to survive here (Key Informant 2)

As per value chain theory discussed in Chapter 3, firms have different ways of upgrading or strategizing for the future. Firms in Madagascar recognized their precarious position and are working to improve their situation, either by increasing productivity, upgrading quality, or expanding to different markets. Five firms (24%) are focusing solely on offering more services to clients as a post-MFA strategy, four firms (19%) are working on increasing the quality of their product to attract more buyers and three firms (14%) are concentrating on productivity. Two firms are focusing on upgrading both services and quality, while one firm is focusing on both services and productivity. The four firms that have been classified as shrinking in Chapter 6 produced either jeans or t-shirts, two categories of product that face head-on competition from China. Firms in Madagascar could also upgrade by switching production to other garments that China produces less of, or garments that have high tariff barriers, like synthetics.

7.1.1 Firm Specific Strategies

Besides general upgrading strategies, three firms in particular are following unique strategies. Although also incorporating the basics of improving productivity and quality, the strategies also include different perspectives on options open to manufacturers in Madagascar

OWNING THE PRODUCTION: FIRM T

One firm in Madagascar is a wholly-owned subsidiary of a brand name in a major market. Despite the international trend of disconnecting production from design, the parent company of Firm T has decided to own most of their production units outright rather than deal with intermediaries. Setting up shop in Madagascar was a strategic decision: lead times were calculated, capabilities of the workforce were taken into account. Firm T has a continuous production arrangement so that there is never a wait for raw materials and the sewing lines never stop. Firm T's edge over the others is that the parent company purchases all the raw materials to receive bulk discounts, as well as takes care of the financing for transport and production. Each factory associated with the parent company fills in a different niche of the market. Some do high-end garments, while other factories like the one in Madagascar produce mainly lower-end jeans. All production is destined for retail stores in the United States.

Instead of employing different actors along the value chain for design, production and sourcing, this company has everything within the same company except the manufacturing of raw materials. By keeping everything within the same company, costs are lower than if the stages of design, sourcing and production were separate entities. However, the individual factory in Madagascar has little say in its future – if the strategy for the company as a whole is to pull out of sub-Saharan Africa, then there is little that can be done to ensure the factory remains. This company has gone against international trends of slicing up the different stages of the value chain to different actors and has instead taken control of almost all the stages.

FOCUSING ON ONE CLIENT: FIRM J

Having only one client might be risky, but one firm's strategy is to work with one client. So far this strategy has been successful, as the firm's one-year contract with its buyer has been renewed for an additional year. The buyer Firm J works for produces high-end garments for the European market.

Formerly a subcontractor specializing in denim jeans, Firm J had the opportunity in late 2003 to work for a very high-end brand name. Firm J operates as a CMT (cut, make, trim) operation for their buyer. All the raw materials needed to make the garments arrive on the container and Firm J only assembles the final garment. This is partially due to the high costs of the specialized raw materials needed for the garment.

Firm J's buyer seems intent on developing a long-term relationship with this firm. Technicians sent by the buyer came and instructed the workers at Firm J on how to assemble the garments due to the complexity of the garments. And due to the fact that the production line workers are always working with the same type of garment and fabric, workers have increased their productivity.

This buyer consumes most of the production time and space in Firm J. It would be difficult for this firm to find other clients to fill in the production space left open during season changes. This firm would like to diversify its buyer portfolio, but the manager did not appear eager to expand due to the risk and costs involved with expansion.

This is not an easily replicable situation; this type of opportunity may not be available to every factory. Firm J is a small factory of less than 400 employees and cannot take on more orders for other clients without radically expanding production and number of employees, a strategy which the manager feels might compromise quality. For the near future, the strategy is to focus on this one client. Thus far, the strategy appears to be working; Firm J is in the running for a five-year contract.

IF YOU CAN'T BEAT THEM, JOIN THEM: THE CASE OF FIRM D

Instead of watching orders flee from factories in Madagascar to factories in China and India, one firm has decided to take the initiative and invest in India. The typical set-up of factories is having a parent company in Asia, and a subsidiary factory in Madagascar. Instead, one firm is doing the reverse. The company is based in Mauritius, but has moved production units to India while keeping production units in Madagascar. The parent company analyzed buyer behaviour and found that buyers only go to where the sourcing offices are located. If there is no sourcing office in a country, buyers are less likely to order from that company. The parent company of Firm D has found that many buyers go to sourcing offices located in a particular area of India.

We have been in India for two months now. Buyers go to India. Before, we had to go search for buyers, now they visit India twice a year . . . In India, there are all the [fabric and accessory] suppliers we need (Key Informant 83).

The parent company not only opened up an office and a factory in India in January 2005, but also expanded production units in Madagascar. The firm expects to double the number of employees in the future (Key Informant 83).

At the same time, the firm has focused on developing high levels of quality by employing quality control officers who are trained by the buyer and act on the buyers' behalf while the order is in production. This has led to the firm being able to dictate prices to buyers and to be at full production capacity. This firm is producing for mid- to high-range buyers. This firm has been able to move up the value chain from producing low-end, low-price garments to high quality, fashion-oriented garments.

In addition, the firm has access to fabric produced by a textile mill within its group. Approximately 80% of their fabric comes from the firm's own mill, with the remainder coming from COTONA (the textile mill in Madagascar) and China, Taiwan, and Indonesia. The parent company has been preparing for the effects of the end of the MFA for three years, and now feels competent to handle the new context.

7.1.2 Industry-specific strategy

As a general industry upgrading strategy, the government could pursue the development of more forward and backwards linkages in the clothing and textile industry. Backwards linkages include developing fabric mills and cotton production within Madagascar. There is just one major woven fabric mill in Madagascar. As stated in Chapter 4, this mill does not have the capacity to produce for even half the garment manufacturers in Madagascar. Madagascar also produces cotton, but most is exported. In 2007, the AGOA third country fabric provision will expire, and clothing manufacturers must find regional sources for fabric in order to qualify for duty-free access. Having fabrics available within the same country would be an added bonus, saving manufactures three to four weeks of lead time. Government could target the development of fabric mills within Madagascar as an industrial policy. However, with less than two years remaining before the third country fabric provision expires, timelines are very tight, and government must act quickly.

In February 2005, a clustering organization called 'Text'Ile Mada' officially opened for business, intending to assist the firms in Madagascar upgrade and compete at a higher level internationally. Supported with funds from the Centre for the Development of Enterprise (CDE) of the European Union, the objective is to foster a textile cluster

similar to those found in Italy and France and help firms in Madagascar survive the intense competition expect after the end of the MFA.

Regarding the MFA, firms knew that there must be an industry-level response for 2005: we must organise. This was an element of motivation in creation the cluster: together we are strong (Key Informant 85).

The cluster hopes to limit vulnerability by acquiring new know-how and experience as members share their knowledge.

There are currently 17 members of the cluster, each with a different specialization. The cluster is comprised of garment and lingerie manufacturers, industrial and manual embroidery firms, quality controllers, and a transport company (Zafimaharo 2005). This grouping of different firms allows the cluster members to offer a wider range of services.

The objective of the cluster is to seize the opportunity to offer Madagascar as an alternative to China . . . We are relying on the quality of production and on [offering] services. That's our focal point (Key Informant 85).

The variety of firms available in Madagascar is one of the advantages the cluster has, providing clients with a 'one-stop shop' at which they can order fabric and embroidery and different styles of garments. Since many orders are too large for smaller firms to manage, the cluster will coordinate production sharing amongst members.

Some firms cannot offer more than 12,000 pieces of production capacity at a time. The cluster permits firms to share production capacity and access new opportunities in terms of orders (Key Informant 85).

The cluster hopes to help members to access new markets with the expansion of production capacity (Zafimaharo 2005). Not only can the cluster obtain economies of scale on production, but also on transport. Already, the cluster has obtained a bulk discount of 25% on transport costs for members (Rambelo 2005b).

The cluster will also organize workshops on production techniques, orders, and training costs among members. The cluster organisers hope that the sharing of knowledge between members will increase productivity. As members of the cluster have a maximum of 1000 employees; not all firms can take part. The organizers of the cluster believe that the larger firms would find it difficult to work with others due to differing needs (Key Informant 85). The cluster is hoping that the combination of extra services offered to clients, higher value-added and better quality garments produced within the cluster, and larger production capacity will attract buyers who would have otherwise filled their orders in China.

7.2 Infrastructure

Infrastructure, particularly affordable utilities and quality roads, plays an important role in the survival of any industry. Madagascar lacks efficient ports and sufficient roads to handle the volume of container traffic the clothing industry entails. One policy direction the government could take is to address these concerns by improving the road system and ensuring that the ports function efficiently. Firms mentioned infrastructure as the main problem they face. Government could assist firms just by enlarging the road from the port to Tana, which would not only help the clothing firms, but commerce in general.

Electricity supply and costs were also mentioned by manufacturers as a hindrance to production. Government could prioritize electricity distribution to manufacturers or encourage the electricity company JIRAMA to offer lower rates for industrial consumers.

7.3 A Regional Strategy – Synergising the Value Chain

Another alternative would be to create a regional strategy. Although sub-Saharan Africa accounts for less than 1% of global exports of clothing and textiles, within the region a wide variety of textile and clothing producers are available, particularly in South Africa. Unfortunately, four key informants reported that the fabric quality produced out of South Africa was not acceptable and the lead times were too long. Lesotho and Swaziland also have fabric mills: Lesotho a denim mill, and a knitted fabric mill is opening in Swaziland in early 2006. It would make sense to create a regional strategy so that countries in SSA work together to face competition from countries in Asia. Fabric mills could be upgraded and their production capacity expanded to cater for manufacturers in SSA. Mills could specialize in different fabrics so there is no duplication. More buyers would be attracted to a unified region rather than separate small countries vying against each other. A regional cluster approach might result in the expansion of industry in all countries. For example, Coughlin *et al* studied the Southern African Development Community (SADC) region, and found that great opportunities lie in working together as a region on such simple policies such as customs clearance and financing, besides on fabrics (Coughlin *et al* 2001). Although needing further research to better understand the capacities of the textile industry in Southern Africa and the needs of the marketplace, a regional strategy does hold promise.

Madagascar is an interesting case of industrial development brought on by global factors as well as internal ones. The country is in desperate need of formal employment,

which the clothing and textile industry has provided. However, the global apparel value chain is in flux and firms are faced with increasingly difficult circumstances as costs rise and prices fall in the intense competition. Madagascar's major advantage, tariff-free preference to the US market is being eroded. The third country fabric provision that allows Madagascar to import fabric from the cheapest country will expire in 2007, and there is currently no regional alternative fabric source. This thesis researched in greater depth the industry to better understand its dynamics as well as looked at how firms are coping with the changing international conditions. For the most part, firms are adapting and upgrading, but the future with the end of the third country fabric provision and the changes to the EU preferences schemes is still uncertain. Hopefully, the firms will continue to upgrade and invest to cope with these changes.

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Appendix: Interview Schedules

MADAGASCAR & THE POST-ATC QUOTA CONTEXT

FIRM INTERVIEW SCHEDULE

Date:
Company Name:
Name & position of respondent:
Type of firm & product⁹

1. Basic about the industry

Current situation in T&C; Origin of investments;
 Current problems;
 History of set up –pre- & post crisis discussion

2. Basic about the firm

- a. Basic **History** of set up (set up date, origin) – if pre-crisis, what happened in 2002? And afterwards? Why stayed?
- b. Origin of **ownership**
 - i. part of a foreign company? **YES**

NO
 - ii. Parent company country: _____
 - iii. what is the origin of ownership: % domestic: _____
 % foreign: _____

Note that total domestic & foreign = 100
- c. **Employees**: current number & change over time
- d. **Product**
 What are your 3 major **products** that you manufacture? Confirm knitted/woven – cotton/synthetics (HS code to 2 digits?).
- e. **Market** of destination & main product exported to market & changes over time. Choice of Markets: feelings about **AGOA** – **EU** (& individual EU markets) vs. US market.
 Markets of destination and what % of your production value do they constitute?

Market		% Total production value
EU	US	

- f. **Strengths of the firm** (price, product, quality, technical standards, delivery services, logistics etc.)
- g. Current state of **competition** - Experience with their competitors relative to China (overseas production experience? Market knowledge base?) – **Asian, international, regional**
- k. Area(s) in which the parent company supported your establishment in 2004. **Specify for any change in involvement that would have occurred between 2004 and 2005** the extent to which it is caused by the abolition of the MFA. Comment if appropriate.

⁹ *Need to approach, all the Mau, EU & Mala. Firms & a sub-set of Asian. Minimum = 30 firms. 5 embroidery. In plan B: 5 veg. Fibres. One accessory firm.*

3. Export / specific

- a. Export pattern discussion – **history of export**.
- b. Orders: how orders were secured? Relationship with **customers**.
En faisant référence à vos plus grands clients étrangers, en quelle année avez-vous établi une relation avec ceux-ci? Quel genre de relation est actuellement en place avec ces clients? **Modèle des relations avec les clients**
Année où une relation a été établie/histoire des liens
- **Commandes faites directement par le détaillant à l'étranger**
 - **Commandes par le biais d'un grossiste**
 - **Commandes par le biais d'un agent ou d'un représentant à l'étranger**
 - **Commandes par le biais d'un agent ou d'un représentant basé à Madagascar**
- Segments de marche:**
- **Lignes pour des grandes marques (Armani etc.) – sous licence ?**
 - **Lignes de marque pour des magasins spécialisés dans les vêtements/succursales (chaînes) – qualité**
 - **Magasins de rabais**
 - **Catalogues**
 - **Supermarchés**
 - **Autres (boutiques)**
- c. key determinants of **export success**
Changements au niveau des déterminants de la performance - over the last **12 months** (*1=not important, 5=moderately important, 10=critically important*).
General problem areas.
- **Economies of scale, average cost & MC change.**
 - **Price competitiveness**
 - **Technology competence & Product development capacity – design (dessinateurs & stylists?) & Investment depuis 2001?**
 - **Manufacturing processes**
 - **Product quality**
 - **Labour & Management skills**

OU

key constraints to exporting. Ampleur des problèmes (*1=not important, 5=moderately important, 10=critically important*)

- Problème propre à l'entreprise – par exemple rejet, mauvaise synchronisation des commandes, etc.
- National – augmentation des coûts (salaires, transport, prix des matières premières)
- International:
 - Augmentation de la compétition causée par le déclin des prix internationaux pour vos produits;
 - Déplacement par les acheteurs en faveur de nouveaux producteurs Asiatiques
 - difficultés chez les détaillants dans votre marché étranger principal

4. VC

- a. **Present VC**
- **Origine des importations des produits textiles & accessoires** - most important raw material component suppliers by **country** and give us a sense of their relative importance. **Check whether fabrics supplied from within the company. ROO;**
 - **Linkages**, changes in product ranges etc. Import / input quality & link input quality to output quality.

- b. **Employees** – Labour **recruitment** dimension. Discussion of minimum entry requirements and/or employee **qualifications** as well as of training programme. Characteristics of employment / **migration** – importance of the sector in terms of generating an income. Productivity changes / current productivity level
- c. Payment of employees – **salaire a la pièce** / système de bonus.

5. **MFA abolition:**

- d. How long have been thinking and **planning** for the predicted/possible effects of the end of the MFA? If foreign company, discuss role of the parent company & changes of behaviour around foreign company's response being shaped by the MFA.
- e. Current changes & **changes in strategy (VC)** – reason for change.
 - Intra-firm changes – EOS
 - Inter-firm changes – subcontracting?
 - Product changes
 - Functional changes
 - Expanding scope
- f. **Changements au niveau des clients en 2004.**
- g. Ability to **influence changes** (brand product image). Future plans: expansion, relocation etc. over **the next year**. Over the coming **2 years (end of the AGOA?)**.
- h. **Future Opportunities?** In Madagascar? Possibility of a further relocation?

6. **SUPPORT:**

Industry organisation

- i. Activities, support. Role to play in terms of trade impact.

Government

- j. Activities, support, strategy.
- k. Assessment of what is lacking in the area of govt support.

MADAGASCAR & THE POST-MFA QUOTA CONTEXT

GOVERNMENT

Date:

Government unit & main function:

Name & position of respondent:

5. **Basics**

- a. Comment on the current **industrial policy** of Madagascar.
- b. Comment on the **trade policy** & on **trade devts.**
- c. Comment on the T&C industry
 - Importance of the industry:
 - for the economy?
 - Workforce dimension - Characteristics of employment / migration – importance of the sector in terms of generating an income.
 - performance and changes over time. Number and changes in employees – if recent changes in number of employees explain.
 - workers – general level of education/training facilities. Productivity support.
 - System of payment of employees – **salaire a la pièce** / systeme de bonus.
- d. Role & challenges facing the government department (general and specific) in dealing with the problems facing the industry.

6. **Support**

- a. Relationship with the industry? Comment on Public-private partnership. Input from the industry?
- b. (State of) research carried out on the industry for the government. International indicator of performance: where is Madagascar situated? Has gvt got a sense of this? Source of information?
- c. Support to the industry?
 - How is Madagascar & the Malagasy industry represented overseas – EPZ advertising, fairs etc.? (Incentives for fairs, back-up of representative organization etc.)
 - Plan to support the industry?
 - Positions of the WBk? / IMF? Donor agencies?

7. **Context**

- a. Main changes in strategy exhibited by the industry over a 1 year (to 2 year) period.
- b. Origin of investment & motivation of the investors. Relations with parent companies?
- c. How are the various markets perceived? US/EU – Other markets?
Importance of AGOA in terms of its role in the expansion of the industry. How does the industry as a whole relate to AGOA?
EU market access advantages?
- d. Obstacles facing the industry
 - transport, suppliers, credit etc.
 - **Present value chain**
 - Main players. Import / input quality & link input quality to output quality.
 - Relationship between textiles and clothing firms / main players. Changes in linkages?

8. **The MFA abolition**

- a. How long has the industry been thinking and **planning** for the predicted/possible effets of the end of the MFA?
- b. Current changes & **changes in strategy (VC)** – reason for change.
 - Intra-firm changes – EOS
 - Inter-firm changes – subcontracting?
 - Product changes
 - Functional changes
 - Expanding scope
- c. **Changements au niveau des clients et des relations au niveau du commerce international en 2004.**
- d. Specific issues facing the industry since Jan. 2005. Changes 2004/2005?
Competitiveness issues – factors that underlie improved competitiveness?
 - **Production changes?**
 - **Price competitiveness?**
 - **Product development? Product quality**
 - **Labour & Management skills development?**
 Au niveau des problemes:
 - Commentaires qui concernent les problèmes propres à l'entreprise – par exemple rejet, mauvaise synchronisation des commandes, etc.
 - Au niveau de l'augmentation des coûts (salaires, transport, prix des matières premières)?
 Que disent les entreprises au sujet de la competition? (déclin des prix internationaux?, Déplacement par les acheteurs en faveur de nouveaux producteurs Asiatiques? Etc.)
- e. Commentaires au niveau de la loi en ce qui concerned les conditions de travail? / droit du travail & droits des travailleurs? Labour law. Etc.
- f. Ability to **influence changes** (brand product image). Future plans: expansion, relocation etc. over **the next year**. Over the coming **2 years (end of the AGOA?)**.
- g. **Future Opportunities?** In Madagascar? Possibility of a further relocation?

9. **The future**

- a. Ability of the industry itself to generate changes (e.g. brand product image, product change). Future plans: expansion, relocation etc. over **the next year**. Over the coming **2 years (end of the AGOA?)**. Expansion of the industry.
- b. Future Opportunities?
 - i. In Madagascar or threat of relocation?
 - ii. ROO, APE, pertes des avantages preferentiels?
- c. Future plans for the EPZ?
- d. Diversification strategy? How does gvt think about diversification?
- e. Changes to the organization structure, objectives etc. and changing government role in this regard.

Feedback on the questionnaire & list of firms that has been/will be visited.

MADAGASCAR & THE POST-MFA QUOTA CONTEXT

INDUSTRY ORG

Date:

Industry org:

Name & position of respondent:

10. Basics about the organisation

- a. History of the organisation
- b. Role & change in role
- c. Membership base (main feature, change)
- d. Relationship with other organizations? Proliferation of organization?
- e. Effectiveness of organization?

11. Context - The MFA abolition

- a. Trade EU vs. US: How important is AGOA – in terms of its current (relative to former) role in the expansion of the industry? How does the industry as a whole relate to AGOA? EU market access advantages?
- b. Domestic focus. How do the Malagasy firms fare compared to others? Models of production?
- c. Specific issues facing the industry since Jan. 2005. Changes 2004/2005?

How long has the industry been thinking and **planning** for the predicted/possible effects of the end of the MFA?

Response to the changes?

- d. Other obstacles facing the industry – transport, suppliers, credit etc.
Relationship between textiles and clothing firms / main players. **Present VC** –Import / input quality & link input quality to output quality.
Competitiveness -
 - General direction of changes?
 - Intra-firm changes – EOS
 - Inter-firm changes – subcontracting?
 - Product changes
 - Functional changes
 - Expanding scope
 - Linkages, changes in product ranges etc. Export / relationship with buyers.

What is happening in terms of foreign customers & of price-point / orders?

Modèle des relations avec les clients

Année où une relation a été établie/histoire des liens

- **Commandes faites directement par le détaillant à l'étranger**
- **Commandes par le biais d'un grossiste**
- **Commandes par le biais d'un agent ou d'un représentant à l'étranger**
- **Commandes par le biais d'un agent ou d'un représentant basé à Madagascar**

Segments de marche:

- **Lignes pour des grandes marques (Armani etc.) – sous licence ?**
- **Lignes de marque pour des magasins specialises dans les vetements/succursales (chaines) – qualite**
- **Magasins de rabais**
- **Catalogues**
- **Supermarches**
- **Autres (boutiques)**

- e. key determinants of **export success**
 Changements au niveau des déterminants de la performance - over the last **12 months** (*1=not important, 5=moderately important, 10=critically important*).
 General problem areas.
- **Economies of scale, average cost & MC change.**
 - **Price competitiveness**
 - **Technology competence & Product development capacity** – **design** (dessinateurs & stylists?) & **Investment** depuis 2001?
 - **Manufacturing processes**
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OU

key constraints to exporting. Ampleur des problèmes (*1=not important, 5=moderately important, 10=critically important*)

- Problème propre à l'entreprise – par exemple rejet, mauvaise synchronisation des commandes, etc.
- National – augmentation des coûts (salaires, transport, prix des matières premières)
- International:
 - Augmentation de la compétition causée par le déclin des prix internationaux pour vos produits;
 - Déplacement par les acheteurs en faveur de nouveaux producteurs Asiatiques
 - difficultés chez les détaillants dans votre marché étranger principal

12. Emploi

- a. Importance of the industry in terms of generating an income - Characteristics of employment / migration. Labour recruitment dimension. Discussion of minimum entry requirements and/or employee qualifications as well as of training programme.
- b. Situation with the workers – general level of education/training facilities – is that important? Flexibility, labour legislations. Productivity performance and changes over time. Number and changes in employees – if recent changes in number of employees explain.
- c. Productivity changes / current productivity level – suggestion scheme to the workers.

13. The future

- a. Ability of the industry itself to generate changes (e.g. brand product image, product change). Future plans: expansion, relocation etc. over **the next year**. Over the coming **2 years (end of the AGOA?)**. Expansion of the industry.
- b. Future Opportunities?
 - i. In Madagascar or threat of relocation?
 - ii. ROO, APE, pertes des avantages préférentiels?
- c. Role of the government:
 - Should the govt help the industry?
 - Future contribution of the EPZ? Diversification strategy? How does govt think about diversification?
- d. Changes to the organization structure, objectives etc. and changing relationship with government?

Feedback on the questionnaire & list of firms that has been/will be visited.