



## Sub-Saharan Africa: Potential Production Source for Textiles and Apparel?

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### ABSTRACT

*As globalization continues, textile and apparel firms have many opportunities to source from areas located throughout the globe. Recently, the Trade Development Act of 2000 has brought light to two regions of the world, the Caribbean Basin and Sub-Saharan Africa. This study will concentrate on the sub-Saharan region and examine if the sub-Saharan African region can be a potential source of production for textile and apparel firms. This study has found that certain countries such as South Africa and Mauritius have the potential to have competitive textile and apparel industries.*

KEYWORDS: Sub-Saharan, globalization, sourcing, Trade Development Act of 2000, AGOA, textiles, apparel

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### **The Trade and Development Act of 2000**

The Trade and Development Act of 2000 includes the African Growth and Opportunity Act (AGOA) and the U.S.-Caribbean Basin Trade Partnership Act (CBTPA). This package advances U.S. economic and security interests by strengthening our relationship with regions of the world that are making significant strides in terms of economic development and political reform. The Act will expand two-way trade and create incentives for the countries of sub-Saharan Africa (SSA) and the Caribbean Basin to continue reforming their economies and increase their participation in the benefits of the global economy. Also, the Act will contribute to the continuation of the United States' own strong economic performance by encouraging the opening of markets and the

reduction of poverty in countries with hundreds of millions of potential consumers for American exports (National Economic Council, 2000).

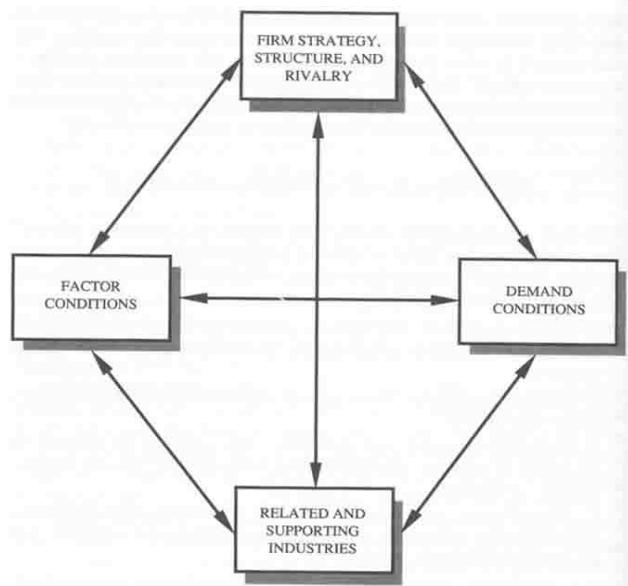
### **The Competitive Advantage of Nation's Theory by Michael Porter**

Michael Porter's Competitive Advantage of Nations will be used as the theoretical model for this study (Porter, 1990). This theory provides a framework to examine how nations gain a competitive advantage in the global marketplace based on specific determinants found within the industries within a nation. Michael Porter's Competitive Advantage of Nations explores how businesses within a nation gain a competitive advantage. Porter believes that, "groups or clusters of interconnected firms, suppliers, related industries, and institutions

that arise in particular locations, have become a new way for companies, and governments to think about economies, assess the competitive advantage of locations, and set public policy” (Porter, 1990, p.xii).

The four primary determinants of his model are factor conditions, demand conditions, related and supporting industries, and firm strategy, structure, and rivalry. (See Figure 1; Porter, 1990). *Factor conditions* are the basic inputs of production that is necessary to compete in an industry. Examples of factor conditions are skilled labor, infrastructure, or capital resources. *Demand conditions* are the quality of the home demand for a product or service in an

industry. *Related and supporting industries* are defined by whether a nation has the supplier and related industries that are internationally competitive. The fourth determinant is *firm strategy, structure, and rivalry*. Firm strategy, structure, and rivalry is defined by the conditions within a nation that administer how companies are created, organized, and managed along with the type of domestic rivalry. According to Porter, these determinants individually and as a structure provide the atmosphere for nations to gain a competitive advantage. Porter positions these determinants in a “diamond” pattern (See Figure 1 for the presentation of the determinants for a country to gain a competitive advantage) (Porter, 1990).



**Figure 1: Determinants of National Advantage**

Reference: Porter, Michael E. (1990). *Competitive Advantage of Nations*. New York, NY: The Free Press, p. 72.

**The African Growth and Opportunity Act**

The United States International Trade Commission states, “the African Growth and Opportunity Act grants duty-free benefits under the Generalized System of Preferences program to imports of qualifying apparel from eligible sub-Saharan

African (SSA) countries for eight years beginning on October 1, 2000” (H.R. 434; Public Law 106-200, 2000). There are 48 countries (see Table 1) that are listed in the sub-Saharan region and out of the 48 countries, only 16 countries are currently eligible under the African Growth and Opportunity Act. (Note: Only 34 countries

were approved in the October 2000 trade bill). Also, the African Growth and Opportunity Act will eliminate current United States quotas on imports of textiles and apparel from sub-Saharan countries, and will allow imports of such goods from sub-Saharan countries to enter free of quota during a eight-year period (Trade and Development Act of 2000, 2000).

**Table 1: Sub-Saharan Africa Countries Eligible for AGOA**

Angola	Guinea-
Benin	Bissau
Botswana	Kenya
Burkina	Lesotho
Burundi	Liberia
Cameroon	Madagascar
Cape Verde	Malawi Mali
Central	Mauritania
African	Mauritius
Republic	Mozambique
Chad	Namibia
Comoros	Niger
Democratic	Nigeria
Republic of	Rwanda
Congo	Sao Tome
Republic of	and Principe
Congo	Senegal
(Congo)	Seychelles
Cote	Sierra Leone
d'Ivoire	Somalia
Djibouti	South Africa
Equatorial	Sudan
Guinea	Swaziland
Eritrea	Tanzania
Ethiopia	Togo
Gabon	Uganda
Gambia	Zambia
Ghana	Zimbabwe
Guinea	

Reference: The One Hundred Sixt Congress of the United States of America. (2000). *The Trade Development Act of 2000* (H.R. 434; Public Law 106-200). Washington, DC: U.S. Government Printing Office.

The Office of the United States Trade Representative has determined that

the following African nations are eligible for preferential tariff treatment for imports of certain textile and apparel products: Kenya, Madagascar, Mauritius, Lesotho, South Africa, Ethiopia, Swaziland, Botswana, Malawi, Uganda, Namibia, and Zambia (OTEXA, 2002). These nations meet the customs and procedures required by the African Growth and Opportunity Act. Preferential tariff treatment is given when a country has adopted an effective visa system and related actions to prevent unlawful transshipment and use of counterfeit documents (Federal Register, 2002).

The African Growth and Opportunity Act (Title I of the Trade and Development Act of 2000, Pub. L. No. 106-200) states that imports of eligible textile and apparel products receive trade benefits if they come from countries that the President designates as “beneficiary sub-Saharan African countries” (Trade Development Act of 2000, 2000). Beneficiary sub-Saharan African countries are defined as countries that meet a minimum per capital GNP, and have adopted an effective visa system and related actions to prevent unlawful transshipment and use of counterfeit documents. Also, countries must implement and follow certain custom procedures that help the Custom Service verify the origin of the products (Federal Register, 2001).

The African Growth and Opportunity Act allows for unlimited preferential treatment when apparel is made from sub-Saharan countries and made of fabric that is produced in the United States with United States yarn. The production of such apparel is cut into garment parts and sewn by United States thread (The Trade Development Act of 2000, 2000).

## Methodology

### Research Objective

The purpose of the study is to examine the sub-Saharan African textile and apparel industry using Porter’s Competitive Advantage of Nations theory (Porter, 1990).

This study will identify each factor for five countries within the Competitive Advantage of Nations theory: factor conditions; demand conditions; firm strategy, structure, and rivalry; related and supporting industries; and the role of government. (Note: chance was not analyzed). Analyzing sub-Saharan Africa's textile and apparel industries will examine the competitive nature of the region.

### **Objectives**

The two research objectives are to determine:

- 1) The positive and negative conditions for each of Porter's determinants for sub-Saharan Africa particularly South Africa, Mauritius, Kenya, Lesotho, and Madagascar, and
- 2) How the governments within the sub-Saharan region affects the textile industry.

### **Research Design**

The case study approach was used for this study because this approach provides the best strategy for the design, analysis, and reporting of the results. The case study approach allowed for an analysis of the data that has taken place over the past two years. This descriptive case study provided a strategy for interpreting the data collected and reporting the results (Yin, 1989).

### **Data Collection**

#### **Stage I**

Data collection consisted of three stages. The first stage of the study was to create a spreadsheet of Porter's Competitive Advantage of Nation's determinants that listed each determinant (e.g. factor conditions, demand conditions). Under each determinant, all the positive and/or negative factors were listed that the sub-Saharan countries in the study possessed. This was done in order to observe the likelihood of the sub-Saharan countries garnering a competitive advantage.

#### **Stage II**

The second stage of the research was to gather data through documentation, archival records, trade and academic literature, government documents, websites (government and trade), and textile and apparel journals. Some examples of the resources used were OTEXA or the Office of Textiles and Apparel, the United States Department of Commerce and subsequent web sites STAT-USA and USAtrade, the Textiles Unlimited journal, and United States Embassies. These documents provide insight on international trade of textiles and apparel within sub-Saharan Africa. Many of the documents provide a macro-view on the international trade of these countries, along with information on current and potential global textile and apparel trade.

#### **Stage III**

The final phase of gathering information was to interview a) two United States and North Carolina government trade specialists, b) three industry personnel, and c) three government personnel for their insight on the advantages or disadvantages of sub-Saharan Africa's potential in the global textile market. An interview questionnaire was developed by the researchers and consisted of 14 questions. Questions asked of each consisted of a) Sub-Saharan countries currently being explored for competitive production and market opportunities, b) Factor Conditions within the five countries (4 questions), c) Demand Conditions (3 questions), d) Firm Strategy, Structure, and Rivalry (3 questions), e) Related and Supporting Industries (2 questions), and f) considerations that the respective company or government were exploring in Sub-Saharan Africa. The information gathered from the interviews was incorporated into the spreadsheet to provide a comprehensive examination of each country's textile and apparel industry.

#### **Data Analysis**

In order to determine the positive and/or negative factors for each of Porter's (1990) determinants for sub-Saharan Africa

countries, a spreadsheet was developed listing the positive or negative conditions within the region (research objective 1). Also, the analysis of data determined how the government affects the textile industry within the sub-Saharan region (research objective 2). Once the spreadsheet was created with the countries listed and Porter's four determinants and role of government listed, Stages I-III was applied to provide the information to determine whether the sub-Saharan region has enough favorable conditions to gain a competitive advantage.

### **Sample**

The sample consisted of five sub-Saharan countries that were chosen for examination: South Africa, Mauritius, Kenya, Lesotho, and Madagascar. These five were chosen based on a) eligibility under the African Growth and Opportunity Act, b) eligibility for apparel provision, c) their country's developing textile and apparel industries, d) considered beneficiary sub-Saharan African countries, and e) countries that have adopted an effective visa system and related actions to prevent unlawful transshipment and use of counterfeit documents. The selection of these five countries has been validated by industry personnel as priority countries. Also, these five countries must implement and follow certain custom procedures that help the Custom Service verify the origin of the products. Therefore, imports of eligible products from South Africa, Mauritius, Kenya, Lesotho, and Madagascar qualify for enhanced trade benefits (Federal Register, 2001).

### **Results**

#### **South Africa Introduction**

South Africa has undergone many political and economic changes over the past few years (U.S. Department of Commerce, 2000). In 1994, South Africa gained independence from the apartheid government that resulted in a more stable country. Currently, the government's main goals are to increase living conditions, decrease unemployment, and promote

exports. The South African government has shown its commitment towards these goals through privatization, free trade, and promoting foreign investment (Mbendi, 2002).

South Africa has in place a solid infrastructure to support their economy, which is based largely on mineral and energy resources (CIA World Factbook, 2000). Mining accounts for much of the manufacturing industry, and gold and diamonds dominate exports. South Africa has in place good transportation, water and electricity networks, and numerous dams for irrigations for industrial and domestic use. South Africa also has a well-suited professional services sector (Mbendi, 2002). Table 2 provides South Africa's determinants.

### **Comments**

#### **Factor conditions**

There is a skilled workforce in South Africa, but there is a strong need for highly skilled workers that work with specialized machinery and sophisticated management systems (Salinger, 2001). South Africa has most of the physical resources located around five of the most urban cities (OTEXA, 2001). Outside the urban areas resources are difficult to obtain. In South Africa there are resources (e.g. trade associations) available in helping the textile and apparel industry. The CSIR Textile Technology and the CSIR Manufacturing and Material Technology assist businesses with the challenges of the textile industry (Stephenson, 2000). South Africa has an excellent infrastructure conducive for the textile and apparel industry, and has an excellent infrastructure for industries such as manufacturing, telecommunications, and transport (Salinger, 2001). Also, South Africa's financial institutions and capital markets are well developed for business (United States Department of Commerce, 2000).

#### **Demand Conditions**

South Africans are astute buyers who are generally brand conscious and price

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**Table 2: South Africa Determinants**

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<b>South Africa</b>	<b>Results</b>
Factor Conditions	Human resources- Need for higher skilled workforce. (a) Physical resources- The physical resources available are only found around urban areas. (d) Knowledge resources- Have trade associations in textiles and apparel. (b) Capital resources- Well developed financial Institutions and capital markets. (c) Infrastructure- Excellent infrastructure for manufacturing. (a)
Demand Conditions	Some degree of sophistication in buyers. Buyers are segmented. South Africans spend 7% of their annual income on clothing. (d) Conservative, not susceptible to Western fads. (d)
Related and Supporting Industries	Must import most of the textile and apparel inputs for production. South Africa is one of the largest wool producers. (d)
Firm Strategy, Structure, and Rivalry	Nature of the Textile and Apparel Industry is a few vertically integrated firms who concentrate on the domestic market. Twenty percent (20%) of the total textile output is from “garage shops” (d)

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**Reference:**

- Porter, Michael E. (1990). *Competitive Advantage of Nations*. New York, NY. The Free Press.
- a) Salinger, Lynn. (2001). Can African Clothing Companies Learn to Compete? *Textiles Unlimited*, Vol. 2, No. 1. p. 4-7.
- b) Stephenson, Peter. (2000). A Brand New Sourcing Hub for Southern Africa. *Textiles Unlimited*. Vol 1, No. 2., p 9-16.
- c) United States Department of Commerce. (1999). *Investment Climate Statement South Africa*. Retrieved July 18, 2001, from: (STAT-USA) [http://www.stat-usa.gov/mrd.nsf/vwIMI\\_Da...942D?OpenDocument&sessID=6076075718219.html](http://www.stat-usa.gov/mrd.nsf/vwIMI_Da...942D?OpenDocument&sessID=6076075718219.html)
- d) Office of Textiles and Apparel. (2001). *South Africa-Local Industry and Market (Textiles and Apparel)*. Retrieved January 20, 2002, from: <http://web.ita.doc.gov/tacgi/overseas.nsf/09bd36aaf447589885256a290068248d/9ceac774ccabe87e8525693d006f358b!OpenDocument>

conscious and demand certain goods and products when available. This level of sophistication in buyers could help businesses to become competitive by supplying the needs of consumers (OTEXA, 2002).

South Africans are generally not susceptible to Western fads and because of this textile and apparel companies may tend to look inward. Concentrating on the home market may satisfy local demand, but does not increase the level of competitiveness at an international level (OTEXA, 2002).

### **Related and Supporting Industries**

South Africa must import most of its inputs for textile and apparel production. Cotton must be imported due to the poor cotton crops throughout South Africa; cotton is usually imported from neighboring countries (OTEXA, 2002).

### **Firm, Strategy, Structure, and Rivalry**

The textile and apparel industry within South Africa is made up of a handful of vertically integrated firms who are focused on the domestic market. (Note: Historically, the industry developed to serve the internal needs). This focus on the domestic market may harm the competitiveness of South African textiles and apparel industry internationally. Other than the firms mentioned, twenty percent of total textile output is from “garage shops” (OTEXA, 2002).

### **Government Assistance Towards the Textile and Apparel Industry**

The South African Government has taken steps to attract foreign investment by implementing a series of Industrial Development Zones (United States Department of Commerce, 1999). These zones provide ideal environments for export-oriented production facilities for foreign and local investors. The zones have excellent infrastructure, access to skilled labor, expedited custom procedures, and are generally located near ports and airports

(United States Department of Commerce, 1999).

The implementation of the Industrial Development Zones is the extent to which the government goes to help the textile and apparel industry. The South African Government does not provide any financial assistance for export-oriented products (Cotton, Inc., 2001). The South African Government is reluctant to provide financial assistance to help exporters in South Africa compete with foreign competitors because members of GATT have deemed many of the programs in the past as anti-competitive (Cotton, Inc., 2001).

### **Mauritius Introduction**

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Mauritius has a democratic government along with a free market economy. Mauritius has had positive economic growth due to sound economic policies. The strongest sectors include manufacturing, tourism, textiles, and sugar cane processing (CIA World Factbook, 2000). Oil is a key element of the Mauritius economy along with the agricultural and textile industries. Tourism and the agricultural and textile industries bring in the majority of Mauritius’ income (Mbendi, 2002). Table 3 provides Mauritius’ determinants.

### **Comments**

#### **Factor Conditions**

Mauritius has a labor force that has secondary education and some type of technical training, but there is a need for high skilled workers. The Mauritian labor force is in need of high skilled employees in areas of management, human resources, and quality control (United States Department of Commerce, 1999).

Mauritius has set-up Free Trade Zones that have attracted foreign investment. In addition, Mauritius is in a location that bridges both Africa and Asia (United States Embassy Mauritius, 2002).

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**Table 3: Mauritius Determinants**

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<b>Mauritius</b>	<b>Results</b>
Factor Conditions	<p>Human resources- Many workers have basic secondary education and technical training. There is a need for highly skilled workers, especially in management, human resources, and quality control. (a)</p> <p>Physical resources- Mauritius has set-up several Export Processing Zone (Freeports) that attract foreign investment looking to enter the African market. Commercial bridge between Asia and Africa. (b)</p> <p>Knowledge resources- The education system failing to produce the level of education needed for the current labor market. (b)</p> <p>Capital resources-The financial and capital market of Mauritius is one of the best in the African region. (b)</p> <p>Infrastructure- Mauritius has excellent infrastructure (b)</p>
Demand Conditions	<p>The Mauritian textile industry may need more sophisticated textile machinery due to the African Growth and Opportunity Act or use U.S. fabric. Specifically there will be a need for cotton yarn spinning facilities. (b)</p>
Related and Supporting Industries	<p>Mauritius has strong suppliers for the textile and apparel industry, they are located overseas. (b)</p>
Firm Strategy, Structure, and Rivalry	<p>The overall business climate in Mauritius is very competitive. The textile and apparel industry is made-up of textile and apparel manufacturers that are located primarily in Export Processing Zones. The current strategy of textile and apparel firms is to produce high-value, high quality products. (b)</p>

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Reference: Porter, Michael E. (1990). *Competitive Advantage of Nations*. New York, NY. The Free Press.

a) United States Department of Commerce. (1999). *Investment Climate Statement Mauritius*. Retrieved July 18, 2001, from (STAT-USA) [http://www.stat-usa.gov/mrd/nsf/vwIMI\\_Da...9565?OpenDocument&sessID\\_6025075D18A12.html](http://www.stat-usa.gov/mrd/nsf/vwIMI_Da...9565?OpenDocument&sessID_6025075D18A12.html)

b) United States Embassy in Mauritius. (2002). *Country Commercial Guide Mauritius*. Retrieved August 14, 2001, from: [http://usembassymauritius.mu/Econ\\_Comm/Commercial\\_guide.html](http://usembassymauritius.mu/Econ_Comm/Commercial_guide.html)

The financial and business services sector of Mauritius is relatively strong. Mauritius has enjoyed annual growth in banking, insurance, capital market, and other financial intermediaries (United States Embassy Mauritius, 2002).

The infrastructure of Mauritius is excellent for the conduct of business. Mauritius has good transportation, communications, and special facilities that would be conducive for textile and apparel manufacturing (United States Embassy Mauritius, 2002).

### **Demand Conditions**

There is a demand for sophisticated textile machinery, which will have to be imported from other countries. Also, the African Growth and Opportunity Act is creating a demand for cotton yarn spinning factories. Presently there is a shortage of cotton yarn spinning factories in Mauritius to meet the demands that are forecast from the implementation of the African Growth and Opportunity Act (United States Embassy Mauritius, 2002).

### **Related and Supporting Industries**

Currently there are no domestic suppliers for the textile and apparel industry, only overseas suppliers who are supporting the textile and apparel industry's needs. Textile machinery is imported from countries such as Germany, Japan, and Italy. Raw materials are imported from countries such as China, France, and Italy. Since the majority of suppliers to the textile and apparel industry are not located in Mauritius, the textile and apparel firms may be subject to time constraints, communication problems, and transportation costs (United States Embassy Mauritius, 2002).

### **Firm Strategy, Structure, and Rivalry**

The business climate is welcoming but highly competitive. The general make up of the textile and apparel industry within Mauritius is that there are two hundred textile and apparel manufacturers that are located predominantly in Export Processing

Zones. The textile and apparel industry is moving towards high quality and value added products (United States Embassy Mauritius, 2002).

Mr. Nash, of Milliken & Company, has stated that Mauritius' textile and apparel firms are generally foreign firms who bring their own workers, managers, equipment, business culture, and business practices into the country for production (J. Nash, personal communication, March 5, 2002). These are the general characteristics that make up the firm strategy, structure, and rivalry for Mauritius, but there is limited information regarding this determinant.

### **Government Assistance Towards the Textile and Apparel Industry**

The Government of Mauritius has implemented programs that are designed to attract foreign investment particularly in export-oriented industries (United States Department of Commerce, 1999). One program that the Mauritian Government implemented is the Export Processing Zone, which caters export-oriented manufacturing. The next program is the Freeport Zone, which provides warehousing, packaging, assembly, and logistic facilities. These areas receive exemptions from corporate taxes, relief from customs duty, and relief from valued added tax on raw materials and machinery (United States Department of Commerce, 1999).

### **Kenya Introduction**

Kenya is mostly dependent on the agricultural and service industries and its export of tea (CIA World Factbook, 2000). The industrial sector is small with modest growth in industries such as tourism and horticultural. Oil has become a key element in Kenya's economy since the deregulation in 1994, and the chemical industry has grown to be one of the larger markets in the East African region (Mbendi, 2002).

Despite Kenya's economic progress, Kenya still has serious economic and political troubles. Kenya has political violence, government inefficiency, and corruption, which have led to economic declines. Kenya's government has almost no revenue due to enormous foreign debt. The IMF and the World Bank have supported Kenya, which lead to some economic growth, but the rise in corruption and political violence has negated any economic growth (Mbendi, 2002). Table 4 provides Kenya's determinants.

### Comments

#### Factor conditions

In Kenya there is an abundance of skilled laborers within Kenya. However, most of the labor is relatively young and found in agriculture. Also there is real impact from mortality rates within the population due to the HIV/AIDS pandemic. It has been estimated that 500 Kenyans die daily due to the virus (United States Department of Commerce, 2000).

There is a need for knowledge resources due to the lack of highly skilled or professional individuals (U. S. Department of Commerce, 2002).

There is a certain level of corruption found within the financial institutions. Many of the positions found in the financial institutions have been politically motivated appointments. These appointments are inserting political influences on the business climate (United States Department of Commerce, 2002).

#### Demand Conditions

The demand conditions are difficult to assess because nearly half of Kenya's population is under fifteen and also below the poverty line. With these conditions it is difficult to assess the demands that the domestic population would have regarding textiles and apparel (CIA World Factbook, 2000).

#### Related and Supporting Industries

There is a small industry sector and the industry sector must depend on imports to supply the industry sector (CIA World Factbook, 2000).

#### Firm Strategy, Structure, and Rivalry

The firm strategy, structure, and rivalry condition was difficult to assess because there is high unemployment throughout Kenya, and Kenya is mostly an agriculturally based economy (CIA World Factbook, 2000).

#### Government Assistance Towards the Textile and Apparel Industry

In general, the political climate of Kenya has a negative influence on business. Political appointments to financial institutions, particularly banks, have made these institutions less effective (United States Department of Commerce, 2002).

### Lesotho Introduction

Lesotho is a landlocked country surrounded by South Africa. The majority of the Lesotho people either work in subsistence agriculture or work in the mining industry (CIA World Factbook, 2000). Lesotho has very few natural resources, but does have an abundance of water. There has been a low level of growth in the manufacturing sector and oil industry. (Mbendi, 2002). Table 5 provides Lesotho's determinants.

### Comments

The Kingdom of Lesotho has a small-scale textile and apparel industry. Currently Lesotho is trying to encourage foreign investors with the financial, managerial, and technical skills to expand industry, textiles and apparel included (Lesotho Government, 2002). Lesotho has had success in exporting wool and mohair, and hand-woven tapestries. Most of the textile and apparel related

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**Table 4: Kenya's Determinants**

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Kenya	Results
Factor Conditions	<p>Human resources- Kenya has a substantial labor force that is relatively skilled. Currently there are limited employment opportunities for Kenyans. HIV/AIDS is a real issue in Kenya because 70% of infections are found in the economically active Kenyans (15 to 39). (a) Almost half of Kenya's population is under fifteen. (b) 70-80% of Kenya's labor force works in agriculture. (c)</p> <p>Physical resources- The Kenyan highland's is one of the most successful agricultural regions in Africa. (c)</p> <p>Knowledge resources- The population of Kenya is relatively educated. (b)</p> <p>Capital resources- The resources available for capital is flawed due to a high-level of corruption. Corruption is present in financial institutions. (b)</p> <p>Infrastructure- The overall condition of the infrastructure of Kenya has deteriorated over the past 30 years due to the government's lack of maintenance and repair. (b)</p>
Demand Conditions	<p>The Demand conditions are difficult to assess because of several factors. 42% of Kenya's population is below the poverty line, and half of Kenya's population is under fifteen. Also the unemployment rate for Kenya is around 50% (c) With these conditions, it would be difficult for Kenya to have a demanding population that demand a thriving textile and apparel industry.</p>
Related and Supporting Industries	<p>The entire industry sector only makes up 18%. Most of the industry sector produces small-scale consumer goods such as furniture, textiles, and plastic. Kenya is dependent on imports of items such as machinery and transportation equipment. (c)</p>
Firm Strategy, Structure, and Rivalry	<p>The firm strategy, structure, and rivalry are difficult to assess due to high unemployment and the large concentration of agriculture within Kenya. (c)</p>

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Reference: Porter, Michael E. (1990). *Competitive Advantage of Nations*. New York, NY. The Free Press.

a) United States Department of Commerce. (2000). *Investment Climate Statement Kenya*. Retrieved July 18, 2001, from (STAT-USA) [http://www.stat-usa.gov/mrd/nsf/vwIMI\\_Da...FADE?OpenDocument&sessID=702507A11801A.html](http://www.stat-usa.gov/mrd/nsf/vwIMI_Da...FADE?OpenDocument&sessID=702507A11801A.html)

b) United States Department of Commerce. (2002). *Kenya Country Commercial Guide for year 2002. (Chapter 5)*. Retrieved January 20, 2002, from: <http://www.usatrade.gov/Website/CCG.nsf/CCGurl/CCG-KENYA2002-CH-5:-004CCF9A>

c) Central Intelligence Agency. (2000). *The World Factbook 2000: Kenya*. Retrieved August 14, 2001, from: <http://www.cia.gov/cia/publication/factbook/geos/ke.htm>

products are produced by hand. To boost the textile and apparel industry Lesotho will try to attract foreign partners to set-up export orientated manufacturing facilities (Lesotho Government, 2002). Lesotho's lack of an established textile and apparel industry makes it difficult to assess the level of competitiveness.

### **Madagascar Introduction**

Madagascar has seen little growth economically in the past due to the inconsistency of the government's commitment to economic reforms. Currently, with the help of the World Bank, Madagascar is making economic reforms to promote economic growth. Bank restructuring and privatization have led to some economic growth, but meeting Madagascar's growth potential will depend on foreign investment and foreign aid (Mbendi, 2002). Table 6 provides Madagascar's determinants.

### **Comments**

Madagascar is a poor nation with high unemployment. One of the only resources available is an abundance of labor. Madagascar has a very small industry sector and must rely on imports to sustain what little industry they have. The textile and apparel industry within Madagascar is located in Export Processing Zones, which primarily focus on apparel production (United States Embassy in Madagascar, 2001).

### **Conclusions**

There are four conclusions drawn from the results:

- 1). Porter's (1990) model was provided a research framework to formulate an opinion on the competitiveness of the five countries from sub-Saharan Africa. Porter's model

provided a macro view of how nations can gain a competitive advantage by having the four key determinants (e.g. factor conditions, demand conditions), and government support.

- 2). From Porter's Competitive Advantage of Nations theory (1990), two countries, Mauritius and South Africa, possess some level of competitiveness. Both Mauritius and South Africa have enough conditions to make up the "cluster" or "diamond," whereas Lesotho, Kenya, and Madagascar are lacking in one or more of the necessary components of the diamond. Therefore, Mauritius and South Africa are more likely to be the most competitive countries within sub-Saharan Africa region with their textile and apparel industries in the international market.
- 3). The Factor Conditions determinant was found to be the strongest determinant throughout the five countries studied with human resources being the most abundant resource available. Only Mauritius and South Africa had a strong presence for physical resources, knowledge resources, capital resources, and infrastructure. These countries have the skilled labor that would be suitable for textile manufacturing and apparel production; however these countries lack the other resources (e.g. Infrastructure, capital resource) necessary to be competitive.
- 4). The governments within the sub-Saharan region are in the process of establishing an effect on the textile and apparel industry by economic reforms, investment in infrastructure, and attracting foreign investment.

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**Table 5: Lesotho's Determinants**

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Lesotho	Results
Factor Conditions	Human resources- The labor force of Lesotho is based in some form of agriculture. 86% of the population in engaged in subsistence agriculture. (a)  Physical resources- The only resource that is abundant in Lesotho is water. (a)  Capital resources- The banking industry is run almost exclusively by South African banks. (c)  Infrastructure- The overall transportation conditions are poor. (b)
Demand Conditions	Insufficient data available for Demand Conditions.
Related and Supporting Industries	Insufficient data available for Related and Supporting Industries
Firm Strategy, Structure, and Rivalry	Most of the garment facilities are owned and operated by Hong Kong and Taiwan firms. (c)

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Reference: Porter, Michael E. (1990). *Competitive Advantage of Nations*. New York, NY. The Free Press

a) Central Intelligence Agency. (2000). *The World Factbook 2000: Lesotho*. Retrieved August 14, 2001, from: <http://www.cia.gov/cia/publication/factbook/geos/It.htm>

b) United States Department of State. (2002). *Consular Information Sheet*. Retrieved February 20, 2002, from: <http://travel.state.gov/lesotho.html>

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**Table 6: Madagascar's Determinants**

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<b>Madagascar</b>	<b>Results</b>
Factor Conditions	Human resources- Madagascar has a competitive labor force due to low wages. (a)  Physical resources- Madagascar is located between Asia and Africa, which could be beneficial for trade between the two continents. (a)  Knowledge resources- There are very few highly skilled individuals. (a)  Capital resources- There is six major commercial banks that are primarily controlled by the French banking industry. (b)  Infrastructure- The infrastructure of Madagascar is relatively poor. The infrastructure around industrial areas is adequate, but outside those areas there are poor transportation and communication. (a)
Demand Conditions	The Demand conditions are difficult to assess due to the fact that Madagascar is one of the poorest countries in the world. 70% percent of the population is below poverty level. (a)
Related and Supporting Industries	The overall industry sector in Madagascar is only 12%, with agriculture and services being the largest sectors. Madagascar must import most manufacturing goods. (a)
Firm Strategy, Structure, and Rivalry	The firm strategy, structure, and rivalry is difficult to assess due to high unemployment and high poverty. Most of the textile and apparel industry has been designated to Export Processing Zones. (a)

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The African Growth and Opportunity Act is designed to encourage the sub-Saharan African countries to make economic reforms in order to engage in the world economy. It can be observed that the governments within each of the five sub-Saharan African countries are taking measures to comply with the provisions of the Act. Also, to attract foreign investment these countries' governments are setting up Export Processing Zones or Industrial Zones that employ relatively low-skilled workers. These zones have attracted foreign investment are well suited for textile manufacturing and apparel assembly.

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