ABSTRACT

McRee, Aaron Nathanael, An Analysis of Sub-Saharan Africa's Textile and Apparel Industries. (Under the direction of Dr. Nancy L. Cassill).

A study was undertaken to determine the competitive nature of the sub-Saharan African countries specifically: South Africa, Mauritius, Kenya, Lesotho, and Madagascar. These countries' textile and apparel industries were examined with Michael Porter's Competitive Advantage of Nations theory model (1990) to assess the level of competitiveness. Using the Porter model along with an index adapted from Hunger and Wheelen's industry matrix (2001), it was determined that South Africa and Mauritius possess a certain level of competitiveness in their respective textile and apparel industries. To date, Kenya, Lesotho, and Madagascar have little or no competitiveness in their textile and apparel industries.

AN ANALYSIS OF SUB-SAHARAN AFRICA'S TEXTILE AND APPAREL INDUSTRIES

by

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BIOGRAPHY

Aaron Nathanael McRee was born on March 21, 1976 and attended elementary and middle school in Newton, North Carolina. Mr. McRee graduated in 1994 from Newton-Conover High in Newton, North Carolina. He entered Appalachian State University in the fall of 1994, graduating with a Bachelor of Science in Accounting in 1998. In the fall of 2000, Mr. McRee enrolled into the graduate program at the North Carolina State University College of Textiles where he completed the requirements for the Master of Science degree in Textile Management & Technology. Mr. McRee enjoys playing sports, traveling, and spending time with his family and friends.

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CHAPTER I

INTRODUCTION

Many companies throughout the United States have expanded globally for reasons other than finding new customers. Company executives have gone abroad to take advantage of low-cost suppliers because they are under enormous pressure to increase profit margins. This is especially true for the manufacturing sector (Hilsenrath, 2001). The textiles and apparel industry are among the manufacturing industries that are influenced by global trade. In order to take advantage of low-cost suppliers the textiles and apparel industry may have to look globally.

The Federal Government of the United States has recognized this movement toward global sourcing of textiles, and has passed several new legislatures into order to promote freer trade. In 1994, the North American Free Trade Agreement granted free trade for the United States, Mexico, and Canada (OTEXA, 2001). This Agreement increased the trade potential for the United States fiber, textile, apparel manufacturers, and retailers. The United States Government is still following this belief by passing the Trade and Development Act of 2000 (H.R. 434, Public Law 106-200, Jan. 4, 2000).

The Trade and Development Act of 2000 includes the Africa Growth and Opportunity Act (AGOA) and the U.S.-Caribbean Basin Trade Partnership Act

(CBTPA). This Act advances U.S. economic and security interests by strengthening the relationship with regions of the world that are making significant strides in terms of economic development and political reform. The Act is intended to 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 (H.R. 434, Public Law 106-200, Jan. 4, 2000). 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 of American exports (National Economic Council, 2000).

The Trade and Development Act of 2000 will have a substantial impact on the sub-Saharan region of Africa. The Act is designed to expand two-way trade for the benefit of both the U.S. and sub-Saharan Africa (SSA). Also, the Act encourages the SSA countries to undertake economic reforms in order to take advantage of the world economy, while for the United States, the Act will create new markets for U.S. exports once economic reform has taken place (National Economic Council, 2000).

An effective tool in analyzing the benefits that these countries may possess in the textile and apparel industry is Michael Porter's, *Competitive Advantage of Nations*' "diamond" (Porter, 1990, p.72). The theory provides a framework to examine a nation's competitive advantage by examining the "clusters" of determinants that make-up the diamond. The diamond is made-up of four primary determinants, which are: factor conditions, demand conditions, firm strategy, structure, and rivalry, and related and supporting industries (Porter, 1990). Michael Porter's Competitive Advantage of Nations

theory will provide a strategy to observe the potential competitive advantage of a nation's textile and apparel industry, because with the continuing trade legislation and various global dynamics occurring, there is a need to examine the textile and apparel industry in sub-Saharan Africa.

Purpose of the Study

The purpose of the study is to examine the sub-Saharan African textile and apparel industry using Porter's Competitive Advantage of Nations theory (1990). This study will highlight each factor within the Competitive Advantage of Nations theory: factor conditions; demand conditions; firm strategy, structure, and rivalry; related and supporting industries; and the two subsequent factors, the role of government and chance. 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 factors for each of Porter's conditions for sub-Saharan Africa particularly Kenya, Madagascar, Lesotho, Mauritius, and South Africa, and
2) How the governments within the sub-Saharan region affects the textile and apparel industry.

Limitations of the Study

Accessing data and the quality of data available are the limitations of this study. Actual market data from sub-Saharan Africa is limited due to the lack and consistency of textile industry data from the countries found within the sub-Saharan region. The primary and most abundant source of information available will be U.S. Government and

U.S. textile and apparel trade documents. Secondary sources will provide economic trade information from foreign business and trade literature. Since most data will be gathered from the United States, there will be a limited "world" perspective. In addition, many of the 48 countries that make up the African Growth and Opportunity Act have limited and or unreliable information regarding their textile and/or apparel industries; therefore only the nations that currently meet the requirements of the African Growth and Opportunity Act will be investigated.

In addition, caution should be used when using the adaptation of the Wheelen and Hunger Index (2001) for each country. This study's index was developed as a quantitative approach and was designed to help explain a country's competitive nature. However, since this was a first attempt at developing an index to quantify the country's competitive nature, possible future revisions of the index should be developed.

Assumptions

The assumptions made within this study are that Michael Porter's Competitive Advantage of Nations "diamond theory" is appropriate for examining one country's competitive advantage with existing trade information.

Nominal Definitions

African Growth and Opportunity Act:	An Act that 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).
Apparel Industry:	The Industry segment involved in the manufacture of garments and certain accessories (Dickerson, 1999).
Competitive Advantage of Nations:	The Competitive Advantage of Nations is the crucial characteristics of a nation that allow its firms to create and sustain a competitive advantage in a particular field (Porter, 1990).
Demand conditions:	The nature of home demand for the industry's product or service (Porter, 1990).

Factor conditions:	A nation's position in factors of production, such as skilled labor or infrastructure, necessary to compete in a given industry (Porter, 1990).
Firm Strategy, Structure, and Rivalry:	The conditions in the nation governing how companies are created, organized, and managed, and the nature of domestic rivalry (Porter, 1990).
Related and Supporting Industries:	The presence or absence in the nation of supplier industries and related industries that are internationally competitive (Porter, 1990).
Sub-Saharan Africa:	Sub-Saharan Africa is made up of 48 countries that are listed under the African Growth and Opportunity Act. A list of the countries can be seen in Table 1 (H.R. 434; Public Law 106-200, 2000).
Textile Industry:	The fiber-to-fabric segment of the industry (Dickerson, 1999).

Trade and Development Act of 2000:	The Trade and Development Act of 2000, includes the Africa Growth and Opportunity Act (AGOA) and the U.S.-Caribbean Basin Trade Partnership Act (CBTPA) that is designed to enhance new trade and investment between the United States and the two regions (H.R. 434; Public Law 106-200, 2000).

CHAPTER II

REVIEW OF LITERATURE

Theoretical Model

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 market place 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). *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 (Porter, 1990). *Demand conditions* are the quality of the home demand for a product or service in an industry (Porter, 1990). *Related and supporting industries* are defined by whether a nation has the supplier and related industries that are internationally competitive (Porter, 1990). 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 (Porter, 1990). 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).

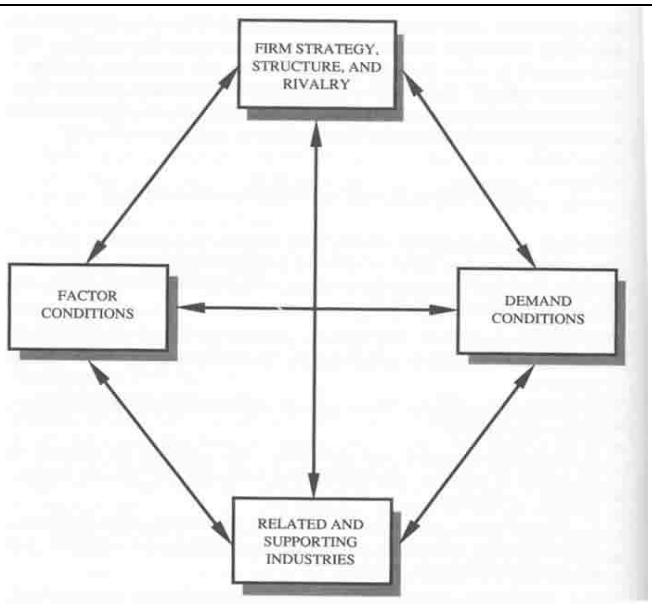

Figure 1: Determinants of National Advantage

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

The diamond's determinants are contingent on the state of other determinants. In order for a nation to achieve a competitive advantage, the determinants must all be favorable. For example Porter states, "Favorable demand conditions will not lead to competitive advantage unless the state of rivalry is sufficient to cause firms to respond to them. Advantages in one determinant can also create or upgrade advantages in others" (Porter, 1990, p. 72,). Porter notes that it is possible to gain a competitive advantage with one or two determinants, but these advantages come from natural resource-dependent

industries or industries that have minute sophisticated technology or skills. Porter also points out that these competitive advantages are not sustainable (Porter, 1990).

Factor Conditions

Porter's definition of factor conditions is what economists would term factors of production. These are the inputs that are necessary to compete (Porter, 1990). Porter breaks down the factors of production as human resources, physical resources, knowledge resources, capital resources, and infrastructure.

Porter defines human resources as the quantity and quality of workers along with the costs of personnel. Porter notes that working hours and work ethic should be included into this category of human resources. The physical resources of a nation would be land, water, mineral deposits, or other physical traits. Porter notes that a nation's location, climate, and geographic size would also fall under physical resources. Porter (1990) defines a nation's wealth of scientific, technical and market knowledge as knowledge resources. Knowledge resources are found in universities, government and private research institutes and facilities, business and scientific literature, and trade associations. Capital resources defined by Porter are the costs and amount of capital available to finance an industry. The final factor of product category is infrastructure. Porter defines infrastructure as the infrastructure that is needed in order for an industry to compete. This would include a transportation system, communications system, payments or funds transfer, health care, and parcel and mail delivery (Porter, 1990).

According to Porter many nations contain some variation of these factors. Some nations have more resources than others, but Porter states that if one nation is to have

strong factor conditions, the appropriate industries within a nation must deploy these factors in an efficient and effective manner (Porter, 1990).

Porter (1990) addresses an interesting point that a competitive advantage can grow out of a selective disadvantage in some factors. Basically, Porter states that nations with limiting factors have to work aggressively to overcome their disadvantages. Porter noted how Japanese firms in a variety of industries faced extremely high land cost and severe factory space constraints. To avoid these difficulties the Japanese created just-in-time and other space-saving production techniques that considerably reduced needed inventory (Porter, 1990). Porter noted that factor shortages, unavailability, or strong restrictions on the use of factors can be or are more stimulating to innovation.

Demand Conditions

Home demand conditions for an industry's product or service is the next determinant of Michael Porter's national competitive advantage in an industry. Porter (1990) states that there are three broad attributes that are significant for home demand. They are the composition of home demand, the size and pattern of growth of home demand, and internationalization of domestic demand (Porter, 1990).

Porter suggests that home demand allows local firms to observe an earlier picture of the needs of the buyer before rival foreign firms. Home demand also creates a competitive advantage because in order to meet the home nation buyer's needs, local firms can innovate and adapt faster than rival foreign firms. According to Porter (1990), there are three components of home demand that are significant in gaining a national competitive advantage. They are segment structure of demand; sophisticated and demanding buyers, and anticipatory buyer needs (Porter, 1990).

The first component of home demand is the segment structure of demand. Porter (1990) argues that in most industries demand is segmented. Because demand is segmented, a nation has a greater likelihood to gain a competitive advantage in global segments where the nation's home demand segment is larger than other nations (Porter, 1990).

The next characteristic of home demand is the sophisticated and demanding buyers. Porter (1990) argues that in nations where domestic buyers are among the world's most sophisticated and demanding, firm's can gain a competitive advantage because the buyers help firms to perceive new needs. According to Porter, having sophisticated and demanding buyers is important to sustaining a competitive advantage (Porter, 1990).

The last characteristic of home demand is anticipating buyer needs. Porter explains that a competitive advantage can be created when the needs of the home nation buyers anticipate the needs of other nations (Porter, 1990). Firms find that the home nation buyer demand can be used as an early warning for the demand of foreign nations (Porter, 1990).

The second attribute of demand conditions is the demand size and pattern of growth. Porter (1990) writes that, "provided that its composition is sophisticated and anticipates international and not just domestic needs, the size and pattern of growth of home demand can reinforce national advantage in an industry" (Porter, 1990, p. 92). There are several factors that can contribute to demand size and pattern of growth such as size of home demand, number of independent buyers, and rate of growth of home demand, early home growth, and early saturation (Porter, 1990).

The third attribute of demand conditions is the internationalization of domestic demand. Porter (1990) states that a competitive advantage can be realized through mechanisms that make a nation's domestic demand international. Porter gives an example of this by looking at multinational companies. Multinational companies have an advantage because the domestic buyers are also foreign buyers. Multinational companies may have training within the home country and the domestic demands and influences are passed on to foreigners who in-turn practice these influences back home (Porter, 1990).

Related and Supporting Industries

The third determinant of a national advantage in an industry is related and supporting industries. Supporting industries help provide the necessary inputs that an industry may need to compete. Related industries help share or coordinate value chain activities within industries (Porter, 1990).

Competitive Advantage in Supplier Industries

Michael Porter clarifies the competitive advantage in supplier industries creates advantages in three ways. The first advantage would be an early, fast, or preferential access to the most cost-effective inputs can create a competitive advantage. Second, suppliers can help create a competitive advantage by having close working relationship with the firms they supply. According to Porter, the constant communication and interaction between firms and suppliers can lead to innovation and upgrading. The third advantage that firms can gain from suppliers would be that the suppliers are global competitors. According to Porter (1990), suppliers that are global competitors have more valuable sources of information and insight on competing internationally (Porter, 1990).

Competitive Advantage in Related Industries

Michael Porter argues that related industries that can share or coordinate their value chain activities can gain a competitive advantage. Porter (1990) states that these shared activities can occur in technology development, manufacturing, distribution, marketing, or service. Similar to supplier industries, related industries also provide a flow of valuable information and insight, which can help create a competitive advantage for an industry (Porter, 1990).

Firm Strategy, Structure, and Rivalry

The fourth determinant of national competitive advantage in an industry is the framework in which firms are created, managed, and organized along with the type of domestic rivalry (Porter, 1990). Porter argues that the goals and strategies in firms vary throughout the world. It is important that the right goals and strategies are applied in order to meet the motivations of employees and managers. Through company goals, individual goals, the influence of national prestige/priority on goals, and sustained commitment can lead to a competitive advantage (Porter, 1990).

Rivalry

From Michael Porter's research his findings suggest that, "the association between vigorous domestic rivalry and the creation and persistence of competitive advantage in an industry" (Porter, 1990, p.117). Porter explains that the constant pressure to gain market share firms must consistently improve and innovate, thus leading to a competitive advantage (Porter, 1990).

The Role of Chance

Michael Porter states that, "Chance events are occurrences that have little to do with circumstances in a nation and are often largely outside the power of firms to influence" (Porter, 1990, p.124). Some examples of a chance event would be war or political decisions by foreign governments. These events are important because they create disturbances within the competitive advantages one nation may have. These events may nullify the established advantages firms may have and create new nation's firms who can succeed them to achieve competitive advantage (Porter, 1990).

The Role of Government

Michael Porter's view of the role of government is that he believes that government affects the four determinants. For example, factor conditions can be affected by polices toward capital markets and polices toward education. The government can establish local product standards or regulations that mandate or influence buyer needs (Demand conditions). The government can affect related and supporting industries by controlling advertising media or regulating supporting services. Finally, government policy influences firm strategy, structure, and rivalry by procedures such as tax policy and antitrust laws (Porter, 1990).

Competitive Advantage versus Comparative Advantage

The concept of comparative advantage is a trade theory that describes how countries conduct trade. The definition of comparative advantage used for this study suggests that a country, "should specialize in producing and exporting those products in which it has a comparative, or relative, cost advantage compared with other countries and

should import those goods in which it has a comparative disadvantage" (Dicken, 1992, p.92).

From Michael Porter's book, *On Competition* (1998), he believes that comparative advantages still exists, but does not guarantee a competitive advantage. According to Porter, a competitive advantage of a particular location is gained when the conditions around the industry provide superior productivity from the use of inputs. The competitive advantage endures when the environment around the industry provides superior productivity and innovation. Porter argues that firms can source throughout the globe to take advantage of low costs, but most have the "home-base" area that stimulates production and innovation (Porter, 1998).

According to Porter, these locations must contain the four determinants that are listed within his Competitive Advantage of Nations theory. Industries that are in locations that contain strong conditions gain a competitive advantage because these conditions allow for greater productivity and innovation (Porter, 1990).

Porter's Competitive Advantage of Nations theory is used in this study because his theory allows one to look at specific characteristics of a nation that allow its firms to create and sustain a competitive advantage (Porter, 1990). Porter's (1990) theory is more oriented for this study because the African Growth and Opportunity Act is designed to stimulate production and innovation.

Porter's (1990) Competitive Advantage of Nations theory does provide a useful model of analyzing the competitiveness of the sub-Saharan region, but Porter's theory has limitations. Porter's theory is possibly limited when the theory is used with

developing countries. Developing countries have the overwhelming task of creating and upgrading the four determinants that are necessary to compete.

Trade Regulations and Organizations

Trade and Development Act of 2000: Summary of the Act

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). A detailed description of the U.S.-Caribbean Basin Trade Partnership Act can be examined in Appendix F. 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 of American exports (National Economic Council, 2000).

The African Growth and Opportunity Act (AGOA)

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 12 countries are currently eligible under the

African Growth and Opportunity Act. 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

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

Reference: The One Hundred Sixth 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, 2001).

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 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).

Exported textile and apparel products from sub-Saharan countries that are produced in sub-Saharan countries with United States or sub-Saharan yarns (regional fabrics) receive preferential treatment that is granted under the African Growth and Opportunity Act. Imports of apparel that are produced with regional fabrics in sub-Saharan countries were subject to an annual cap beginning on October 1, 2000. The cap is equal to 1.5% of the overall quantity of United States apparel imports in the preceding 12-month period. The cap will rise each of the seven succeeding one-year periods in equal increments, to 3.5% in the final one-year period beginning on October 1, 2007. There is a special rule that allows apparel to be entered under the cap from "lesser-developed" sub-Saharan countries. These countries can produce apparel made of third-country fabrics (other than U.S. or sub-Saharan fabrics) for the first four years, through September 30, 2004. The United States has a "surge mechanism" in place to protect United States industries from increased quantities of import that may cause damage to

industry. The United States Secretary of Commerce may suspend duty-free treatment to apparel of regional or third-country fabrics covered by the cap (The Trade and Development Act of 2000, 2000).

Potentials of the African Growth and Opportunity Act

According to the National Economic Council, this Act promises to deepen the United States' economic partnership with Africa and expand two-way trade for the benefit of both partners. The Act will also encourage sub-Saharan African countries to undertake economic reforms and engage in the world economy (National Economic Council, 2000). As reform spurs growth in Africa, it will create new and bigger markets for U.S. exports, as Table 2 statistics indicate.

Table 2: General Statistics for the African Growth and Opportunity Act
The 48 countries of sub-Saharan Africa constitute a market of more than 700 million people.
United States exports to Africa, amounting to more than $6.5 billion in 1998, are more than 45 percent greater than those to all the countries of the former Soviet Union combined.
Although United States exports to Africa grew more than eight percent in 1998, the U.S. trade with Africa accounts for only 1 percent of our total trade.
The United States accounted for only 6.1 percent of the African market while Asian exports have captured 28 percent.

Reference: National Economic Council (2000). *The Trade and Development Act of 2000*. Retrieved January 15, 2002, from: http://clinton4.nara.gov/WH/EOP/nec/html/AgoaCbiPressFinal.html

The African Growth and Opportunity Act lies in America's interest because it promotes the types of reforms in Africa that will make sub-Saharan nations better allies and better trading partners. The Act has the support of virtually all-African governments, including that of South Africa (National Economic Council, 2000). Table 3 reveals the specific provisions of the African Growth and Opportunity Act.

Table 3: The African Growth and Opportunity Act's Specific Provisions
Establish, as U.S. policy, a framework of incentives to encourage greater economic growth and self-reliance through enhanced international trade and investment in Africa.
Expand the Generalized System of Preferences (GSP) program by providing duty-free treatment to virtually all products from sub-Saharan Africa. The GSP program provides preferential tariff treatment for imports of developing countries that satisfy certain eligibility requirements.
Extend duty-free, quota-free benefits to apparel made in Africa from U.S. yarn and U.S. fabric or from yarns not available in the U.S. Grant duty-free, quota-free benefits to apparel made in Africa from African fabric to a limit that grows over time. The escalating cap starts at 1.5 percent of U.S. imports of all apparels and rises over eight years to 3.5 percent. Africa's current share is only 1.1 percent of the U.S. apparel market.
Provide four years of special incentives for apparel industry investments in least developed countries.
Protect African workers and U.S. jobs by requiring tough safeguards against trans-shipment and respect for internationally recognized worker rights and human rights.
Institutionalize annual high-level discussions to promote trade, investment and development through creation of a U.S.-Africa Trade and Economic Cooperation Forum.
Develop a plan to establish a free trade agreement with SSA countries. Provide additional technical assistance to help Africans take maximum advantage of the opportunities available in the expanding global trading system.
Encourage the American private sector to take a more active role in combating AIDS/HIV in Africa and establish eradication of AIDS as top priority of the U.S. government. AGOA is the first trade bill to address the challenge of AIDS/HIV directly.
Other provisions of the Act include: creation of an Overseas Private Investment Corporation (OPIC) Infrastructure Fund to encourage investment in crucial transportation, power, and other infrastructure projects; and expansion of trade financing through the U.S. Export-Import Bank.

Reference: National Economic Council (2000). *The Trade and Development Act of 2000*. Retrieved January 15, 2002, from: http://clinton4.nara.gov/WH/EOP/nec/html/AgoaCbiPressFinal.html

Benefits of Freer Trade

The National Economic Council has stated that since the creation of the General Agreement on Tariffs and Trade in 1948, the United States government have completed eight negotiating Rounds, signed hundreds of bilateral trade agreements, and opened markets for American goods. This has helped increase global trade 15-fold, boost real production in the United States 5-fold, and enlarge real average American per capita income 3-fold (National Economic Council, 2000).

The National Economic Council also states that since the conclusion of the 1994 Uruguay Round, American exports have risen by over $200 billion. One quarter of United States economic growth between 1992 and 1998 has resulted from export expansion. The final benefit that can be seen from free trade is that average real wages have grown 6.3 percent with export-related jobs paying 15 percent more on average than non-export-related jobs (National Economic Council, 2000).

Textile and Apparel Markets

South Africa

The textile and apparel industry of South Africa is made up of over two thousand firms employing around 250,000 South Africans. Most of these firms are located around industrial centers throughout South Africa. The textile and apparel industry is an important sector in South Africa. The textile and apparel industry ranks sixth in the manufacturing sector of number of employees, and ranked eleventh as exporter of manufacturing goods. The textile and apparel industry also employs a substantial amount of South Africans with transportation and packaging of textiles and apparel products (OTEXA, 2000).

There has been a decline in the textile and apparel sector due to the reduction of trade barriers, and the inability of South African firms to source the necessary inputs at world prices. Also, there is low labor productivity in the textile and apparel industry (OTEXA, 2000).

In the sub-Saharan African region, South Africa is second largest exporter of textile and apparel products behind Mauritius. South Africa primarily exports to the European Union followed by other sub-Saharan countries and the United States

(OTEXA, 2000). The United States has exported textile and apparel products to South Africa, but there appears to be a decrease in the amount of exports to South Africa as presented in Table 4.

Table 4: Total U.S. Textile and Apparel Exports to South Africa

(Thousand dollars)

Product group	1996	1997	1998	1999
Textiles and Apparel	39,245	37,225	28,124	27,456
Apparel	3,425	3,405	2,267	2,492
Textiles	35,820	33,820	25,857	24,964
Yarn	3,290	2,207	1,444	4,722
Fabric	26,084	23,524	19,973	15,460
Made-up products, including textile home furnishings	6,446	8,089	4,439	4,782

Reference: United States Department of Commerce. (2001). *Total U.S. Textile and Apparel Exports to South Africa by Major Product Groups, 1995-99.* Retrieved February 19, 2001 from: http://web.ita.doc.gov/tacgi/overseas.nsf/09bd36aaf447589885256a290068248d/9ceac774ccabe87e8525693d006f358b!OpenDocument

Apparel Industry

The apparel industry in South Africa is made up of 1,600 firms that employ approximately two hundred thousand South Africans (OTEXA, 2000). However, only a small percentage of firms produce the largest annual apparel output. Apparel firms are facing problems with competing with other nations in terms of labor costs. A South African working in an apparel firm makes seven times more than the average apparel worker in China (OTEXA, 2000). Some firms have started to invest in high-tech production facilities, but the majority of firms operate with a low level of technology and production (OTEXA, 2000).

Despite the competition from low costs of labor in other countries, South Africa has seen enormous growth in apparel sales since 1990. Apparel sales have exceeded 24 billion in South African Rand, which is an increase of 258% since 1990 (OTEXA, 2000).

In 1995, South African exports in apparel products were $20 million more than imports in apparel products (OTEXA, 2000).

Textile Industry

The South African textile industry is predominately vertically integrated firms that concentrate on the domestic market (OTEXA, 2000). There are around 680 firms employing over 78,000 South Africans. These firms must rely on imports from neighboring countries for cotton production, and will continue to import cotton due to poor local cotton crops. Also the textile industry has "garage shops" that produce 20% of the total textile output (OTEXA, 2000).

Wool production has been valuable endeavor in South Africa. In 1996, the production of wool was valued around $200 million, and South Africa was one of the world's largest producers. Ninety percent of the production of wool in 1996 was exported (OTEXA, 2000).

Mauritius

The Mauritius textile industry consists of textile and apparel manufacturers. These manufacturers are almost exclusively located in Export Processing Zones throughout Mauritius (U.S. Embassy Mauritius, 2002). Most of the textile and apparel manufacturers must import machinery and raw materials from other nations in order to meet production. Textile Machinery is imported from Germany, Japan, Italy, Switzerland, and Taiwan (U.S. Embassy Mauritius, 2002).

Raw materials needed for production have to be imported. Textile yarn and fabrics, cotton, wool, and synthetic fibers are imported from India, China, France, Italy, and Taiwan. Chemicals are also imported (U.S. Embassy Mauritius, 2002).

Currently the textile and apparel industry is going through changes due to recent trade legislation. Under African Growth and Opportunity Act, Mauritian apparel products will be able to enter the United States duty-free and quota-free if yarn and fabric are sourced from the United States or other sub-Saharan African countries. Many companies within textile and apparel industry are making changes to meet the requirements of the African Growth and Opportunity Act. There is a current need for cotton yarn spinning factories to prepare for the African Growth and Opportunity Act's benefits (U.S. Embassy Mauritius, 2002).

Larger textile firms who are labor intensive are moving their firms out of Mauritius and into less-developed sub-Saharan countries to take advantage of the low-costs of labor. This has caused a shift in the local textile and apparel industry to move from labor-intensive operations to high-quality and high-value products. The textile and apparel firms are using computer-aided design and manufacturing operations to create a market for high-tech machinery for sewing, knitting, spinning, cutting, washing, and dyeing (U.S. Embassy Mauritius, 2002).

Kenya

The Kenyan textile industry is considered small when compared to South Africa and Mauritius. The textile industry is considered as a small-scale consumer goods industry in Kenya (CIA World Factbook, 2000). The textile factories that do exist in Kenya are staffed exclusively with women, and traditionally concentrated on cotton textile manufacturing (United States Department of Commerce, 2000).

There are opportunities for foreign investment in Export Processing Zones for production of yarn and garments, and opportunities may exist for the small-scale textile

industry. The small-scale textile industry could receive a boost from the African Growth and Opportunity Act. The Act will allow folklore textile products and cotton textile manufacturing from Kenya special trade benefits, which may boost the industry. However, Kenya will have to import materials such as cotton, due to the poor local production, dyes, chemicals, and machinery to satisfy any potential exporting opportunities to the United States (United States Department of Commerce, 2002).

Lesotho

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

Madagascar

Madagascar has a small-scale textile and apparel industry (United States Embassy Madagascar, 2001). The textile and apparel industry has only survived due to an Export Processing Zone program that was set-up in 1991. Since that time there has been an increase in light manufacturing of textiles and apparels. Currently, Madagascar is seeking foreign investment that would employ the large unemployed population in the types of production that dominate the manufacturing sector. Textiles, knitting, and clothing assembly would be examples of manufacturing needed in Madagascar (United States Embassy Madagascar, 2001).

CHAPTER III

METHODOLOGY

Research Objective

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

This study will highlight each factor within the Competitive Advantage of Nations theory: factor conditions; demand conditions; firm strategy, structure, and rivalry; related and supporting industries; and the two subsequent factors, the role of government and chance. 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 Kenya, Madagascar, Lesotho, Mauritius, and South Africa, and

2) How the governments within the sub-Saharan region affects the textile industry.

Research Design

The case study approach is being used for this study because this approach provides the best strategy for the design, analysis, and reporting of the results. The case study approach also allows for an analysis of the data that has taken place over the past

two years. This descriptive case study will provide a strategy for interpreting the data collected and reporting the results (Yin, 1989).

Data Collection

Stage I

Data collection will consist 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 (See Table 5). This was done in order to observe the likelihood of the sub-Saharan countries to gain a competitive advantage.

Table 5: Spreadsheet of Porter's Competitive Advantage of Nations Determinants

Sub-Saharan African Countries (South Africa, Mauritius, Kenya, Madagascar, and Lesotho)	Results
Factor conditions	
Demand conditions	
Related and Supporting Industries	
Firm strategy, structure, and rivalry	

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

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 various trade specialists, industry personnel, and government personnel for their insight on the advantages or disadvantages of sub-Saharan Africa's potential in the global textile market. Listed below are the questions to ask during an interview. These questions are from Porter's Competitive Advantage of Nations theory, and are the questions that firms should ask themselves to gain a competitive advantage (See Table 6). Also listed (See Table 7), are the personnel interviewed. The information gathered from the interviews was incorporated into the spreadsheet to provide a comprehensive examination of each country's textile and apparel industry.

Table 6: Sample Interview Questions

Factor Conditions	• Does the nation have particularly advanced or appropriate factors of production?
Demand Conditions	• Are the nation's buyers for the industry's products the most sophisticated or demanding?
Related and Supporting Industries	• Does the nation have world-class supplier industries?
Firm Strategy, Structure, and Rivalry	• What type of management and organizational structures in the nation match industry needs?

Reference: Porter, Michael E. (1990). *Competitive Advantage of Nations*. New York, NY: The Free Press, p. 601.

Table 7: Government and Industry Personnel to be interviewed

Government	Name	Position	Date of Interview
	Dan Holt	U.S. Export Assistance Center	April 25, 2001
Industry	Jock Nash	Milliken and Company	March 5, 2002
	Gary Raines	Fiber Economic Manager, Cotton, Inc.	March 5, 2002

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 determinants 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.

After each of the spreadsheets was developed a matrix that was adapted from Wheeler and Hunger Industry Matrix (2001) was established to provide a quantitative analysis of how each country compares with one another. Within each matrix there was a listing of strategic factors, which are Porter's (1990) determinants (see Table 8).

Table 8: Michael Porter's Determinants

Determinants (a)	Weight (b)	Rating (c)	Weighted Score (d)
List of determinants			
1) Factor Conditions			
2) Demand Conditions			
3) Related and Supporting Industries			
4) Firm Strategy, Structure, and Rivalry			
Total	XX		XX

Reference: Adapted from J. D. Hunger and T. L. Wheelen, *Essentials of Strategic Management*, 2nd edition (Upper Saddle River, N.J.: Prentice Hall, 2001), p. 46.
a) Michael Porter's determinants (1990).
b) Weight each determinant from 1.0 (most important) to 0.0 (not important).
c) Rate each determinant from 5 (outstanding) to 1 (poor).
d) Weighted score is determined by multiplying the determinant's weight times the rating. (Weight * Rating = Weighted Score)

The four key determinants (Porter, 1990) are listed in column 1 that is important to each sub-Saharan country (Wheelen & Hunger, 2001). A weight was assigned for each determinant in column 2, with 1.0 (most important) to 0.0 (not important) based on that determinant's probable impact on the textile industry's success. The higher the weight, the more important the factor is to the textile industry's success (Wheelen & Hunger, 2001). It should be noted that the weight for each determinant was given equal weight as illustrated in each of the country matrices. Each determinant was given equal weight because from Porter's Competitive Advantage of Nations theory, he states that the "cluster" of determinants work as a system with each reinforcing the other (Porter, 1990). This can be observed for each of the country matrices' weight for the calculation of a numerical score.

In column 3, a rating was assigned to each factor from 5 (outstanding) to 1 (poor) based on the textile industry personnel's response to that particular determinant. Each

rating was a judgment regarding how well the industry is dealing with each determinant (See table 9 for interpretation of scores) (Wheelen & Hunger, 2001).

Table 9: Score rating

Score	Rating
5	Outstanding
4	Above Average
3	Average
2	Below Average
1	Poor

In column 4, a weighted score was determined by multiplying the weight in column 2 for each determinant times its rating in column 3 (weight * rating = weighted score). This will result in a weighted score for each determinant ranging from 5.0 (outstanding) to 1.0 (poor) with 3.0 as average (Wheelen & Hunger, 2001). Example: Factor Conditions Column (b) weight of .25 * Column (c) rating of 4 = weighted score of 1, (.25 * 4 = 1). This format was repeated for each of Porter's (1990) determinants and the total weight score was summed together for a final score. Note- the above weight and rating are examples used for illustration.

Finally, comments were added below the table of each country to explain why a particular weight and ranking was given. After each country has a weighted score a table will be constructed in order to compare how each country responds to each of Porter's determinants. Under the table a short comments section will explain the table.

Sample

The sample consisted of five sub-Saharan countries that were chosen due to their eligibility under the African Growth and Opportunity Act and their developing textile and apparel industries South Africa, Mauritius, Kenya, Lesotho, and Madagascar were selected because they are considered beneficiary sub-Saharan African countries, and are

defined as countries that have adopted an effective visa system and related actions to prevent unlawful transshipment and use of counterfeit documents. 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).

Operational Definitions

Apparel Industry:	Industry segment involved in the manufacture of garments and certain accessories (Dickerson, 1999).
Competitive Advantage of Nations Theory:	The theory of competitiveness based on the causes of the productivity with which companies compete (Porter, 1990).
Demand Conditions:	The nature of home demand for the industry's product or service (Porter, 1990).
Factor Conditions:	A nation's position in factors of production, such as skilled labor or infrastructure, necessary to compete in a given industry (Porter, 1990).

Firm Strategy, Structure, and Rivalry:	The conditions in the nation governing how companies are created, organized, and managed, and the nature of domestic rivalry (Porter, 1990).
Related and Supporting Industries:	The presence or absence in the nation of supplier industries and related industries that are internationally competitive (Porter, 1990).
Textile Industry:	The fiber-to-fabric segment of the industry (Dickerson, 1999).

CHAPTER IV

RESULTS

Introduction

Chapter IV presents the data that has been collected in a format that will illustrate the positive and negative factors for each of Porter's determinants for sub-Saharan Africa particularly South Africa, Mauritius, Kenya, Lesotho, and Madagascar. In addition, information is provided about the current governments' may affect the countries within the region.

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 10 below is an overview of the currently economic and political environments in South Africa.

Table 10: South Africa Political and Economic Environments

Political Environment (a)	Economic Environment (b)
The multiracial democracy of South Africa has had trouble over the years in stimulating the economy. The current Mbeki administration is facing problems of corruption in arms deals, conflicts with Zimbabwe, and a substandard AIDS policy.	South Africa is a developing country with many resources. The Most Developed Sectors include: • Financial • Legal • Communications • Energy • Transportation **Infrastructure:** South Africa's exceptional infrastructure allows for the movement of goods throughout the region. **Poverty:** South Africa still has a high unemployment rate, and economic problems that have lingered since the apartheid era. Poverty is one of the most prevalent economic problems. **Future economic growth:** President Mbeki has promised to encourage economic growth and foreign investment along with reducing poverty. His plan includes relaxing restrictive labor laws, accelerate privatization, and cut unnecessary governmental spending. **Population:** 43,586,097 **GDP- per capita**: purchasing power parity- $8,500

a) Mbendi Information Services. (2002). South Africa Overview. Retrieved February 20, 2002, from: http://www.mbendi.co.za/land/af/sa/p0005.htm
b) Central Intelligence Agency. (2000). *The World Factbook 2000: South Africa.* Retrieved August 14, 2001, from: http://www.cia.gov/cia/publication/factbook/.htm

Table 11 provides South Africa's determinants.

Table 11: South Africa Determinants

South Africa	Results
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 of 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)

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

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

Table 12 provides a numerical score for South Africa.

Table 12: South Africa's Score

Factor Conditions	Weight	Rating	Weighted Score
a) Human Resources	.05	3	0.15
b) Physical Resources	.05	2	0.1
c) Knowledge Resources	.05	3	0.15
d) Capital Resources	.05	3.5	0.175
e) Infrastructure	.05	4	0.2
Demand Conditions	.25	3	0.75
Related and Supporting Industries	.25	2	.50
Firm Strategy, Structure, and Rivalry	.25	2	.25
Total	1.00		2.275

Reference: Adapted from J. D. Hunger and T. L. Wheelen, *Essentials of Strategic Management*, 2nd edition (Upper Saddle River, N.J.: Prentice Hall, 2001), p. 46.

Comments

Factor conditions

The human resources factor received an average rating because 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).

Physical resources received a below average rating because South Africa has most of the physical resources located around five cities (OTEXA, 2001). Outside the urban areas resources are difficult to obtain.

Knowledge resources received an average rating because 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).

The capital resources of South Africa received an above average-average rating because of the well-developed financial institutions and capital markets (United States Department of Commerce, 2000).

South Africa received above average ranking for infrastructure because 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).

Demand Conditions

The demand conditions of South Africa received an average rating for various reasons. South Africans are astute buyers who are generally brand conscious and price 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

Under the related and supporting industries, South Africa received a rating that is below average. The reason for this is because 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 and 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. 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). Since there are only a small number of firms who may be potentially competitive internationally, this determinant received a below average rating.

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

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 13 will examine the current political and economic environment of Mauritius.

Table 13: Mauritius Political and Economic Environments

Political Environment (a)	Economic Environment (b)
In September of 2000, a new administration was elected and is currently settled in to run the country. The main goal of the new administration is to strengthen the economy and ridding out corruption.	Mauritius has moved from a low-income, agricultural economy to a middle-income diversified economy since Mauritius gained its independence (1968). **The Most Developed Sectors:** • Industrial • Financial • Tourism **Infrastructure:** Mauritius has excellent infrastructure due to vast improvements over past years. **Future Economic Growth:** The Mauritius government's strategy for economic growth has been to promote foreign investment. This has lead to thousands of offshore entities mainly from India and South Africa. Presently, Mauritius enjoys solid growth and low unemployment. **Population:** 1,189,825 **GDP- per capita:** purchasing power parity- $10,400

a) Mbendi Information Services. (2002). *Mauritius Overview*. Retrieved February 20, 2002, from: http://www.mbendi.co.za/land/af/mr/p0005.htm
b) Central Intelligence Agency. (2000). *The World Factbook 2000: Mauritius.* Retrieved August 14, 2001, from: http://www.cia.gov/cia/publication/factbook/geos/mp.htm

Table 14 provides Mauritius' determinants.

Table 14: Mauritius Determinants

Mauritius	Results
Factor Conditions	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) 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) Knowledge resources- The education system failing to produce the level of education needed for the current labor market. (b) Capital resources-The financial and capital market of Mauritius is one of the best in the African region. (b) Infrastructure- Mauritius has excellent infrastructure (b)
Demand Conditions	The Mauritian textile industry will need more sophisticated textile machinery due to the African Growth and Opportunity Act. Specifically there will be a need for cotton yarn spinning facilities. (b)
Related and Supporting Industries	Mauritius has strong suppliers for the textile and apparel industry, they are located overseas. (b)
Firm Strategy, Structure, and Rivalry	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)

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

Table 15 provides a numerical score for Mauritius.

Table 15: Mauritius' Score

Factor Conditions	Weight	Rating	Weighted Score
a) Human resources	.05	3	0.15
b) Physical resources	.05	3.5	0.175
c) Knowledge resources	.05	2	0.1
d) Capital resources	.05	4	0.2
e) Infrastructure	.05	4	0.2
Demand Conditions	.25	2.5	0.625
Related and Supporting Industries	.25	2	.5
Firm Strategy, Structure, and Rivalry	.25	3	.75
Total	1.00		2.70

Reference: Adapted from J. D. Hunger and T. L. Wheelen, *Essentials of Strategic Management*, 2nd edition (Upper Saddle River, N.J.: Prentice Hall, 2001), p. 46.

Comments

Factor Conditions

Human resources received an average rating because 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).

Physical resources received an above average-average rating because 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).

Knowledge resources received a below average rating because the current education system is not providing the level of educational skills that are needed in the workforce (United States Embassy Mauritius, 2002).

Capital resources received an above average rating because the financial and business services sector 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 received an above average rating because 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

The demand conditions received an average-below average rating for the following reasons. 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

The related and supporting industry determinant received a below average rating because there are no domestic suppliers for the textile and apparel industry only overseas suppliers 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 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 subject to time constraints, communication problems, and transportation costs (United States Embassy Mauritius, 2002).

Firm Strategy, Structure, and Rivalry

This determinant received a moderate ranking for the following reasons. One, 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, therefore receiving an average rating.

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 16 below illustrates the current political and economic environments of Kenya.

Table 16: Kenya's Political and Economic Environments

Political Environment (a)	Economic Environment (b)
The political environment of Kenya is unstable. Kenya's faces massive corruption and complications of ethnicity within the political arena. The government has not done enough to rid out corruption, which may lead to the decline in foreign aid. A final note, Kenya is facing other factors such as long periods of draught and an increase in availability in small arms.	Kenya's economy has staggered due to mismanagement and the lack of commitment to reform. **Economic Future:** Kenya's government has implemented programs to strengthen the economy along with the help of the World Bank and IMF, but the economy in Kenya is seeing little or negative growth. The main reasons for Kenya's lack of economic performance: • Political violence • The government's commitment to reform • Severe drought throughout the late nineties • Widespread corruption • High population growth. **Population:** 30,765,916 **GDP- per capita:** purchasing power parity- $1,500

a) Mbendi Information Services. (2002). *Kenya Overview.* Retrieved February 20, 2002, from: http://www.mbendi.co.za/land/af/ke/p0005.htm
b) Central Intelligence Agency. (2000). *The World Factbook 2000: Kenya.* Retrieved August 14, 2001, from: http://www.cia.gov/cia/publication/factbook/geos/ke.htm

Table17 provides Kenya's determinants.

Table 17: Kenya's Determinants

Kenya	Results
Factor Conditions	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) Physical resources- The Kenyan highland's is one of the most successful agricultural regions in Africa. (c) Knowledge resources- The population of Kenya is relatively educated. (b) Capital resources- The resources available for capital is flawed due to a high-level of corruption. Corruption is present in financial institutions. (b) 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)
Demand Conditions	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.
Related and Supporting Industries	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 for items such as machinery and transportation equipment. (c)
Firm Strategy, Structure, and Rivalry	The firm strategy, structure, and rivalry are difficult to assess due to high unemployment and the large concentration of agriculture within Kenya. (c)

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
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

Table 18 provides a numerical score for Kenya.

Table 18: Kenya's Score

Factor Conditions	Weight	Rating	Weighted Score
a) Human resources	.05	2.5	0.125
b) Physical resources	.05	2	0.1
c) Knowledge resources	.05	2	0.1
d) Capital resources	.05	1	.05
e) Infrastructure	.05	2	0.1
Demand Conditions	.25	1	.25
Related and Supporting Industries	.25	1	.25
Firm Strategy, Structure, and Rivalry	.25	1	.25
Total	1.00		1.225

Reference: Adapted from J. D. Hunger and T. L. Wheelen, *Essentials of Strategic Management*, 2nd edition (Upper Saddle River, N.J.: Prentice Hall, 2001), p. 46.

Comments

Factor conditions

The human resources received an average-below average rating because the there are substantial 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).

The physical resources of Kenya received a below average rating because there are very few resources available that may be beneficial to the textile and apparel industry. However, Kenya does have some of the more successful agricultural regions in Africa (CIA World Factbook, 2000).

The Knowledge resources received a below average rating due to the lack of highly skilled or professional individuals (U. S. Department of Commerce, 2002).

Capital resources received a poor rating because of the level of corruption 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).

Infrastructure received a below average rating because of the deterioration of the overall Kenya infrastructure. The deterioration is due to the lack of the government's commitment to maintenance and repair (United States Department of Commerce, 2002).

Demand Conditions

The demand conditions received a poor rating because the presence of these conditions is difficult to assess. 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

The related and supporting industry determinant received a poor rating because there is a small industry sector and the dependence on imports to supply the industry sector (CIA World Factbook, 2000).

Firm Strategy, Structure, and Rivalry

The firm strategy, structure, and rivalry determinant received a poor rating 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

The political climate of Kenya has a negative influence on business in general due to the high-level of corruption. 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 19 illustrates the current political and economic environments of Lesotho.

Table 19: Lesotho's Political and Economic Environment

Political Environment (a)	Economic Environment (b)
The political environment of Lesotho is divided and fragile. Lesotho has had problems with infighting with political rivals, which has led to a South African led intervention. The outlook appears that the feud between political rivals will not be settled in the near future.	Lesotho is a small mountainous landlocked state. The economy is based on agriculture and livestock. The primary natural resource that is contained in Lesotho is water, which is often exported to South Africa. Lesotho's manufacturing sector is based on: • Farm products • Milling • Canning • Leather • Jute industries Most of Lesotho's exports are agricultural products. Recently Lesotho is participating with the IMF program of Poverty Reduction and Growth Facility. **Population:** 2,177,062 **GDP- per capita:** purchasing power parity- $2,400

a) Mbendi Information Services. (2002). *Lesotho Overview.* Retrieved February 20, 2002, from: http://www.mbendi.co.za/land/af/le/p0005.htm
b) Central Intelligence Agency. (2000). *The World Factbook 2000: Lesotho.* Retrieved August 14, 2001, from: http://www.cia.gov/cia/publication/factbook/geos/It.htm

The table 20 provides Lesotho's determinants.

Table 20: Lesotho's Determinants

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)

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
c) Cotton, Inc. (2001). Lesotho Overview. Retrieved: March 5, 2002, from: http://www.cottoninc.com/CottonImporter/homepage.cfm?PAGE=2798#lesothooverview

Table 21 will provide a numerical score for Lesotho.

Table 21: Lesotho's Score

Factor Conditions	Weight	Rating	Weighted Score
a) Human resources	.05	1	.05
b) Physical resources	.05	1	.05
c) Knowledge resources	.05	1	.05
d) Capital resources	.05	1	.05
e) Infrastructure	.05	1	.05
Demand Conditions	.25	1	.25
Related and Supporting Industries	.25	1	.25
Firm Strategy, Structure, and Rivalry	.25	1	.25
Total	1.00		1.00

Reference: Adapted from J. D. Hunger and T. L. Wheelen, *Essentials of Strategic Management*, 2nd edition (Upper Saddle River, N.J.: Prentice Hall, 2001), p. 46.

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 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 22 portrays the current political and economic environment of Madagascar.

Table 22: Madagascar's Political and Economic Environment

Political Environment (a)	Economic Environment (b)
The government of Madagascar is making progress politically and economically. The current election of the senate has proven that the government is maturing, but still needs to make further progress.	The economy of Madagascar is based on: • Agriculture • Fishing • Forestry These are also the primary exports. Industries within Madagascar include: • Textile manufacturing • Processing agricultural products **Future Economic Outlook**: Madagascar has little or no economic growth over the years due to lack of the government's commitment to economic reforms and antigovernment strikes. Madagascar's economic growth in the future will depend on the government's commitment towards economic growth, foreign aid, and foreign investment. **Population:** 15,982,563 **GDP- per capita:** purchasing power parity- $800

a) Mbendi Information Services. (2002). *Madagascar Overview*. Retrieved February 20, 2002, from: http://www.mbendi.co.za/land/af/md/p0005.htm
b) Central Intelligence Agency. (2000). *The World Factbook 2000: Madagascar.* Retrieved August 14, 2001, from: http://www.cia.gov/cia/publication/factbook/geos/ma.htm

Table 23 provides Madagascar's determinants.

Table 23: Madagascar's Determinants

Madagascar	Results
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)

Reference: Porter, Michael E. (1990). *Competitive Advantage of Nations.* New York, NY. The Free Press
a) United States Embassy in Madagascar. (2001). *Country Commercial Guide Madagascar.* Retrieved August 14, 2001, from: http://www.usmission.mg/guide.htm
b) Cotton, Inc. (2001). Lesotho Overview. Retrieved: March 5, 2002, from: http://www.cottoninc.com/CottonImporter/homepage.cfm?PAGE=3044#madagascarbanking

Table 24 provides a numeric score for Madagascar.

Table 24: Madagascar's Score

Factor Conditions	Weight	Rating	Weighted Score
a) Human resources	.05	1	.05
b) Physical resources	.05	1	.05
c) Knowledge resources	.05	1	.05
d) Capital resources	.05	1	.05
e) Infrastructure	.05	1	.05
Demand Conditions	.25	1	.25
Related and Supporting Industries	.25	1	.25
Firm Strategy, Structure, and Rivalry	.25	1	.25
Total	1.00		1.00

Reference: Adapted from J. D. Hunger and T. L. Wheelen, *Essentials of Strategic Management*, 2nd edition (Upper Saddle River, N.J.: Prentice Hall, 2001), and p. 46.

Comments

Each of the determinants listed in the table received a poor rating because the resources available that make up the determinants are simply not available. 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).

Final Scores

Table 25 shows each of the five countries and their numerical scores.

Table 25: Total Scores for Lesotho, Kenya, Madagascar, Mauritius, and South Africa

Country	Score (5- Outstanding, 1- Poor)
Lesotho	1.0
Madagascar	1.0
Kenya	1.225
South Africa	2.275
Mauritius	2.7

Comments

The scores indicate that South Africa and Mauritius have the best potential to be competitive in their respective textile and apparel industries within sub-Saharan Africa. Kenya, Madagascar, and Lesotho have small-scale textile and apparel industries and limited amount of resources available to be competitive. In the appendices, each country has been placed in the Porter diamond (1990) to give an illustration of how each of the determinants is interdependent on one another (See Appendices A-E).

CHAPTER V

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Conclusions

There are five conclusions drawn from the results:

1) Porter's (1990) model was helpful in formulating 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) For a quantitative perspective, a numerical score was developed to ascertain a level of competitiveness. While this process was to some extent objective, the process generated a numerical score that confirmed that the more developed countries and free market countries had certain level of competitiveness. Mauritius' score of 2.7 and South Africa's score of 2.3 are the highest scores of the five countries. These scores represent how well the country's textile and apparel industry meets Porter's (1990) determinants. Mauritius and South Africa have conditions that meet the four determinants, but the conditions that they possess are not plentiful enough to obtain a high level of competitiveness. Lesotho, Kenya, and Madagascar's numerical scores are low; therefore these countries have little or no competitive advantages.

4) 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 an average or above average rating 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.

5) 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.

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.

Implications

The following are implications for researchers:

1. Provides a model for comparing the level of competitiveness of nations by using Michael Porter's Competitive Advantage of Nations theory (1990),
2. Validation of Porter's (1990) model for future comparisons of competitiveness of nations that may be of interest in the future.

The follow are implications for Industry Personnel:

1. An examination of the five countries that are included in the African Growth and Opportunity Act, specifically South Africa, Mauritius, Kenya, Lesotho, and Madagascar, to shed light on the impact of this region's textile and apparel industries.
2. An examination of each of the five sub-Saharan countries and the competitive nature that surrounds the textile and apparel industry.
3. Analysis and identification of potential countries that may be able to attract foreign investment opportunities.
4. The countries that are the most competitive within the sub-Saharan region and may be possible areas for sourcing.

Recommendations

The following are recommendations for the textile and apparel industry:

1. Continue to use Porter's Competitive Advantage of Nations theory (1990) to analyze the competitiveness of nations of future nations of interest,
2. Continue to use Porter's Competitive Advantage of Nations theory to analyze future members of the African Growth and Opportunity Act,
3. Examine new areas for potential sourcing of low-cost inputs for production, the Trade Development Act of 2000 is opening new areas that may be beneficial for textile and apparel companies,
4. Consider close examination of new markets that receive special trade status particularly the level of competitiveness these countries may possess.

The following are recommendations for future research:

1. Refining the quantitative index used in comparing the sub-Saharan African country's level of competitiveness.
2. Examine Michael Porter's Competitive Advantage of Nations theory (1990) in comparison with other trade theories, especially the comparative advantage theory.
3. Expand the analysis of the sub-Saharan African countries to other countries who were not mentioned in this study, but are listed in the African Growth and Opportunity Act.

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from:
http://web.ita.doc.gov/tacgi/overseas.nsf/09bd36aaf447589885256a290068248d/9ceac774ccabe87e8525693d006f358b!OpenDocument.

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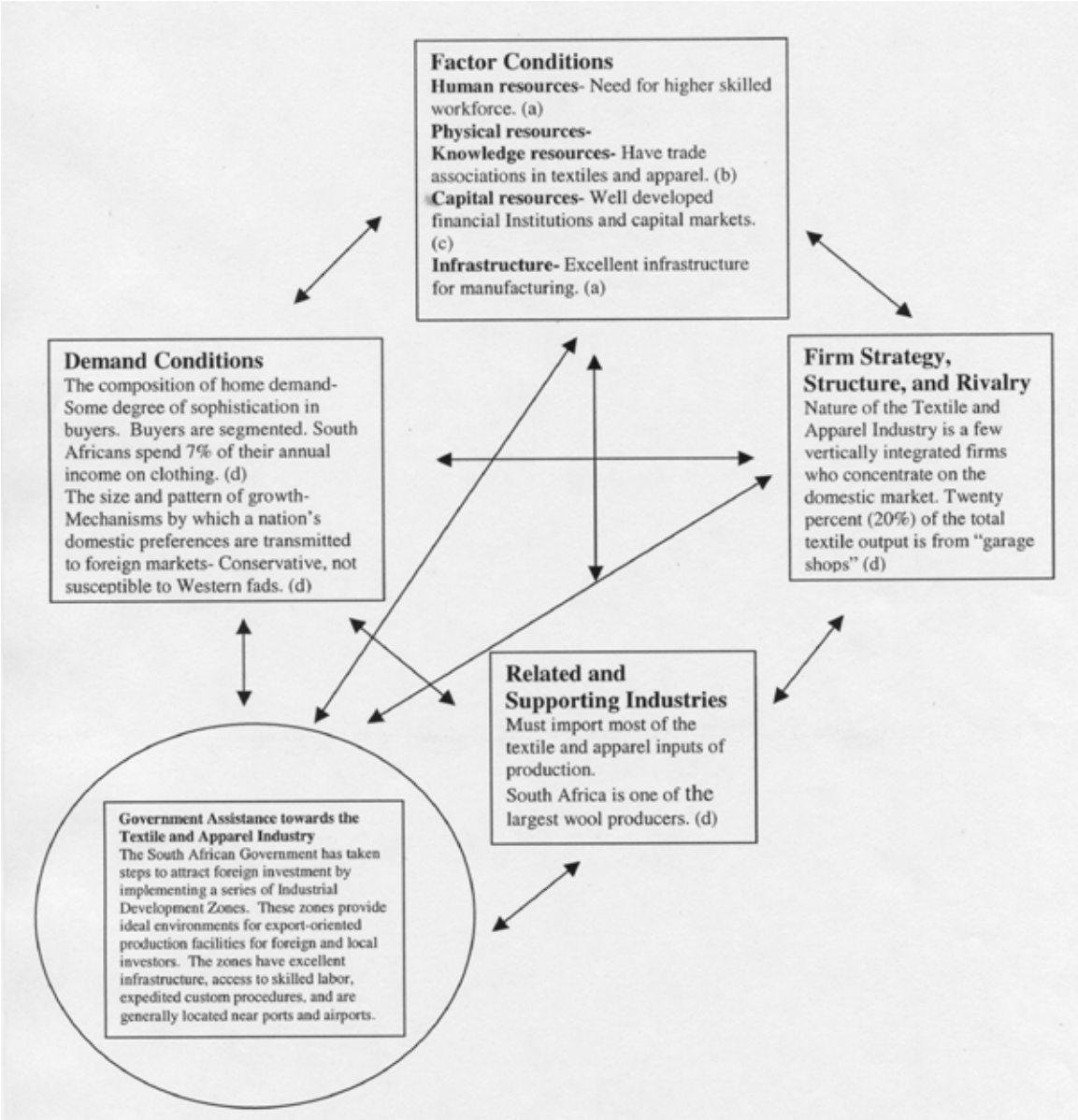
APPENDICES

Appendix A. South Africa Diamond

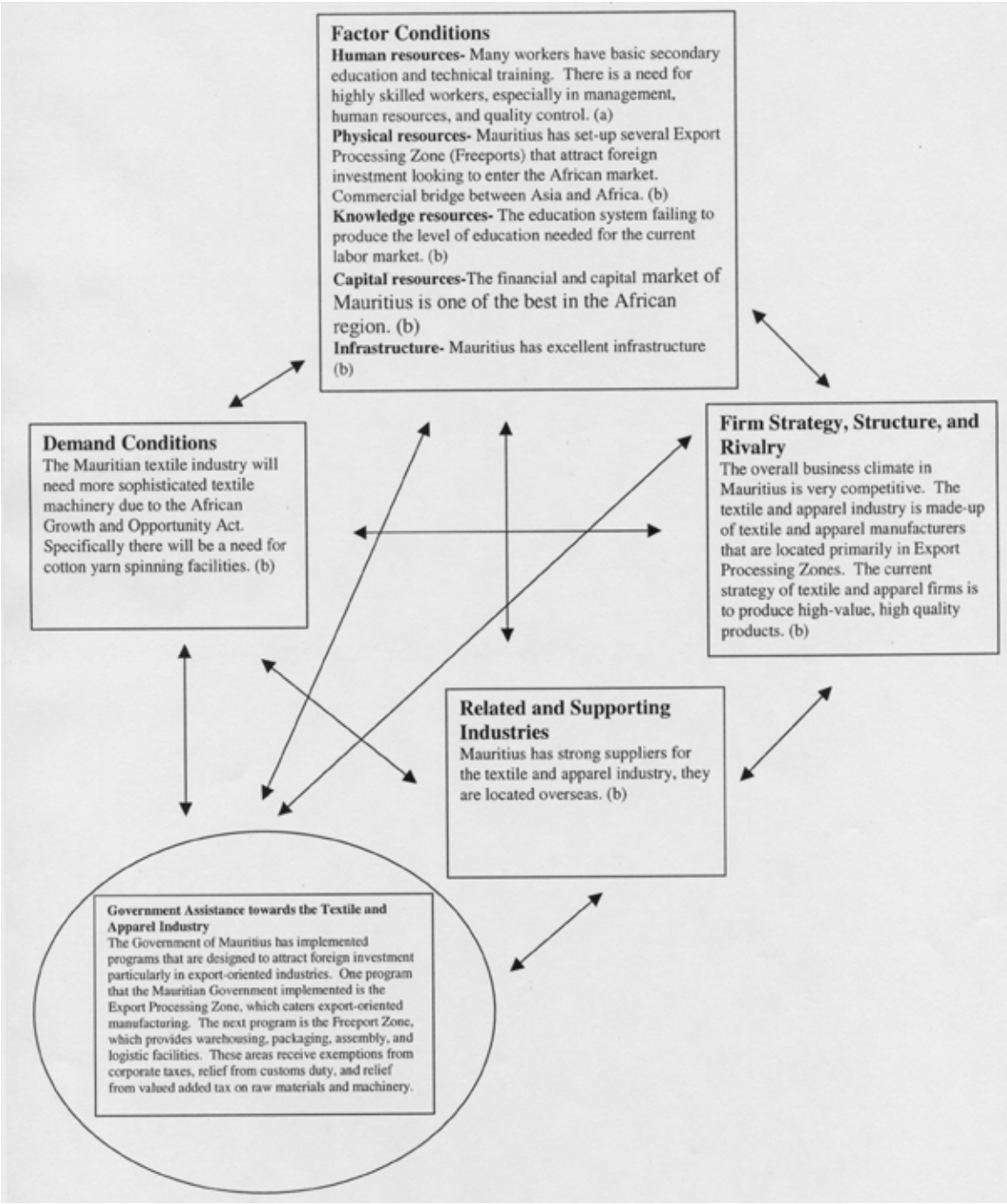
Table 26: South African Diamond



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
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

Appendix B. Mauritius Diamond

Table 27: Mauritius Diamond



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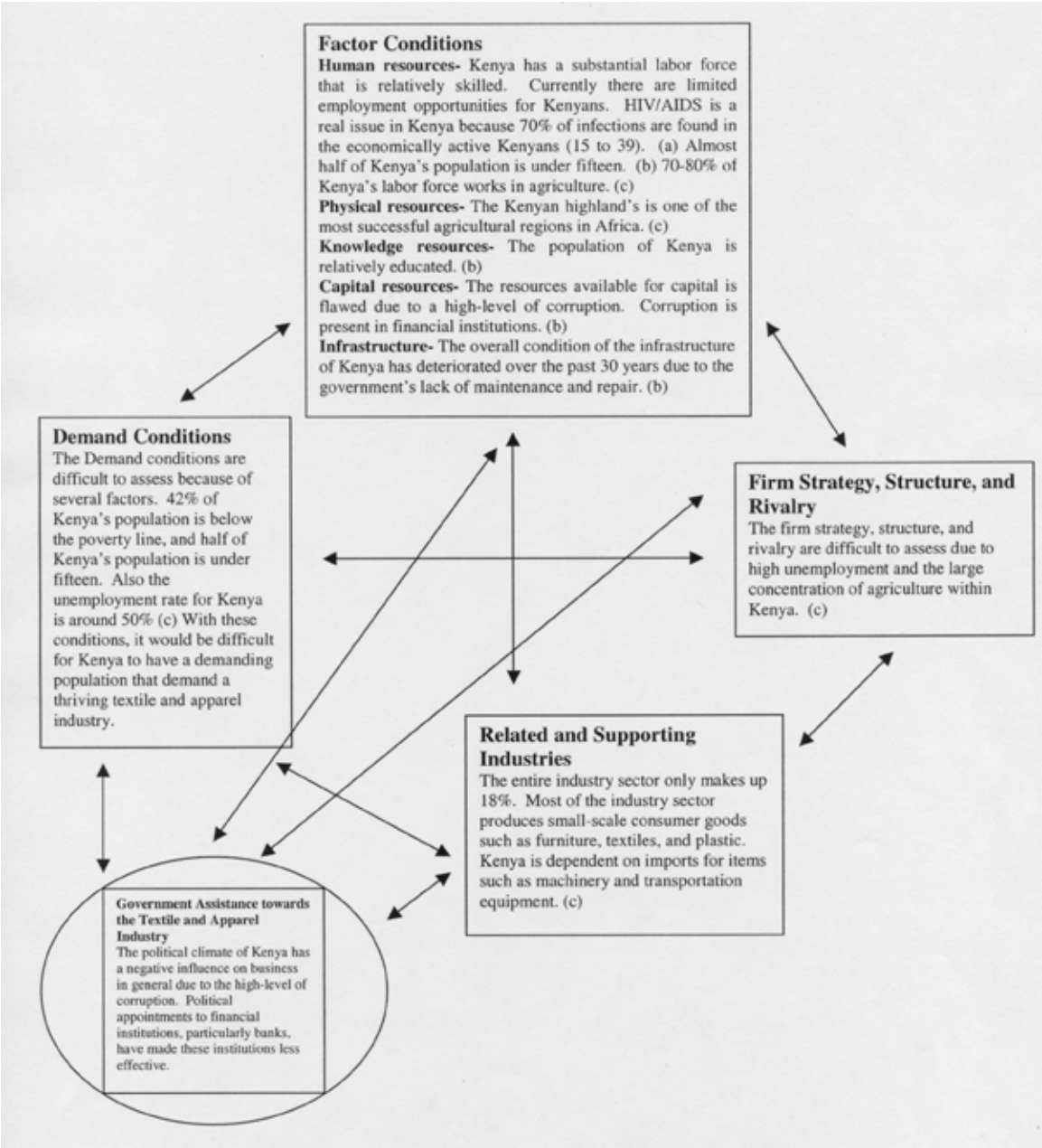
a) United States Department of Commerce. (1999). *Investment Climate Statement Mauritius.* Retrieved July 18, 2001, from (STAT-USA) http://www.stat-usa.gov/mrd/nsf/vwIMI_Da...9565?OpenDocument&sessID_6025075D18A12.html
b) United States Embassy in Mauritius. (2002). *Country Commercial Guide Mauritius*. Retrieved August 14, 2001, from: http://usembassymauritius.mu/Econ_Comm/Commercial_guide.html

Appendix C. Kenya Diamond

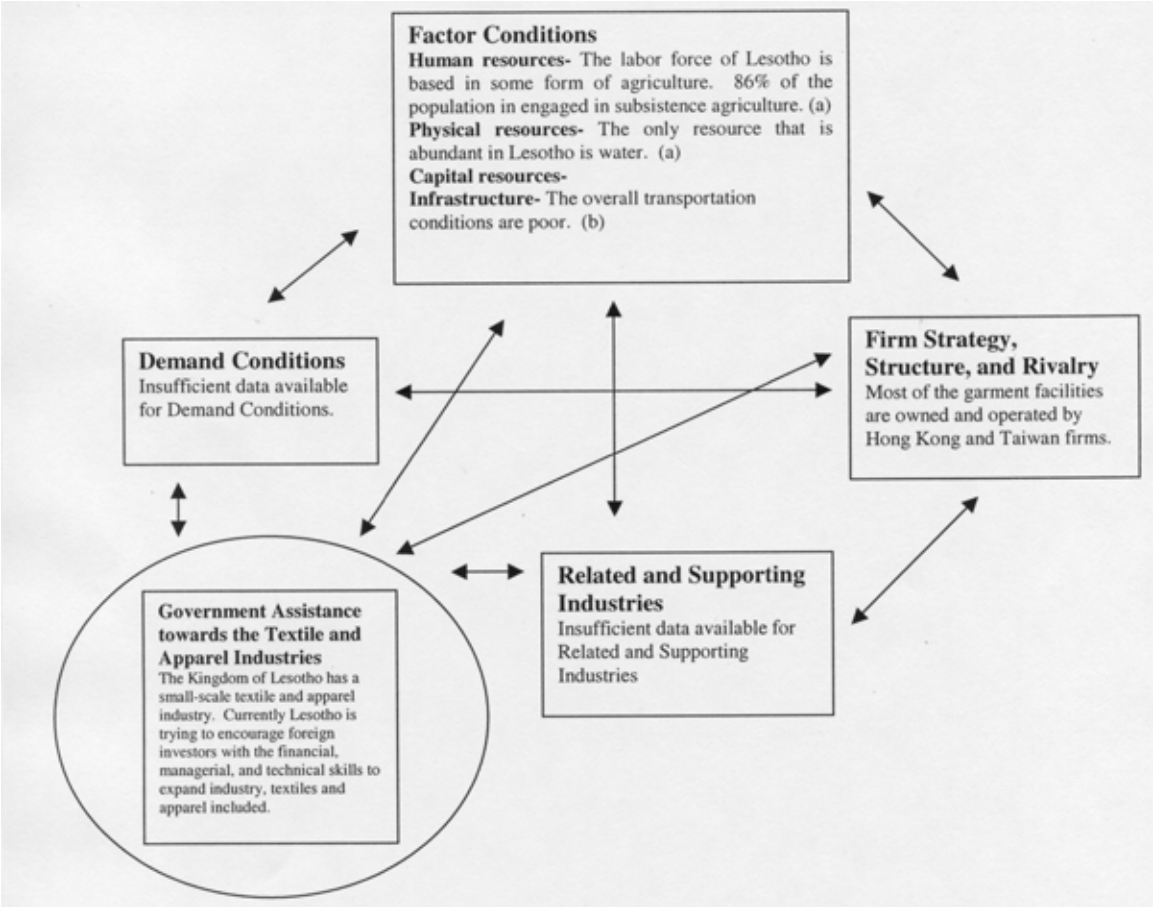
Table 28: Kenya Diamond



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
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

Appendix D. Lesotho Diamond

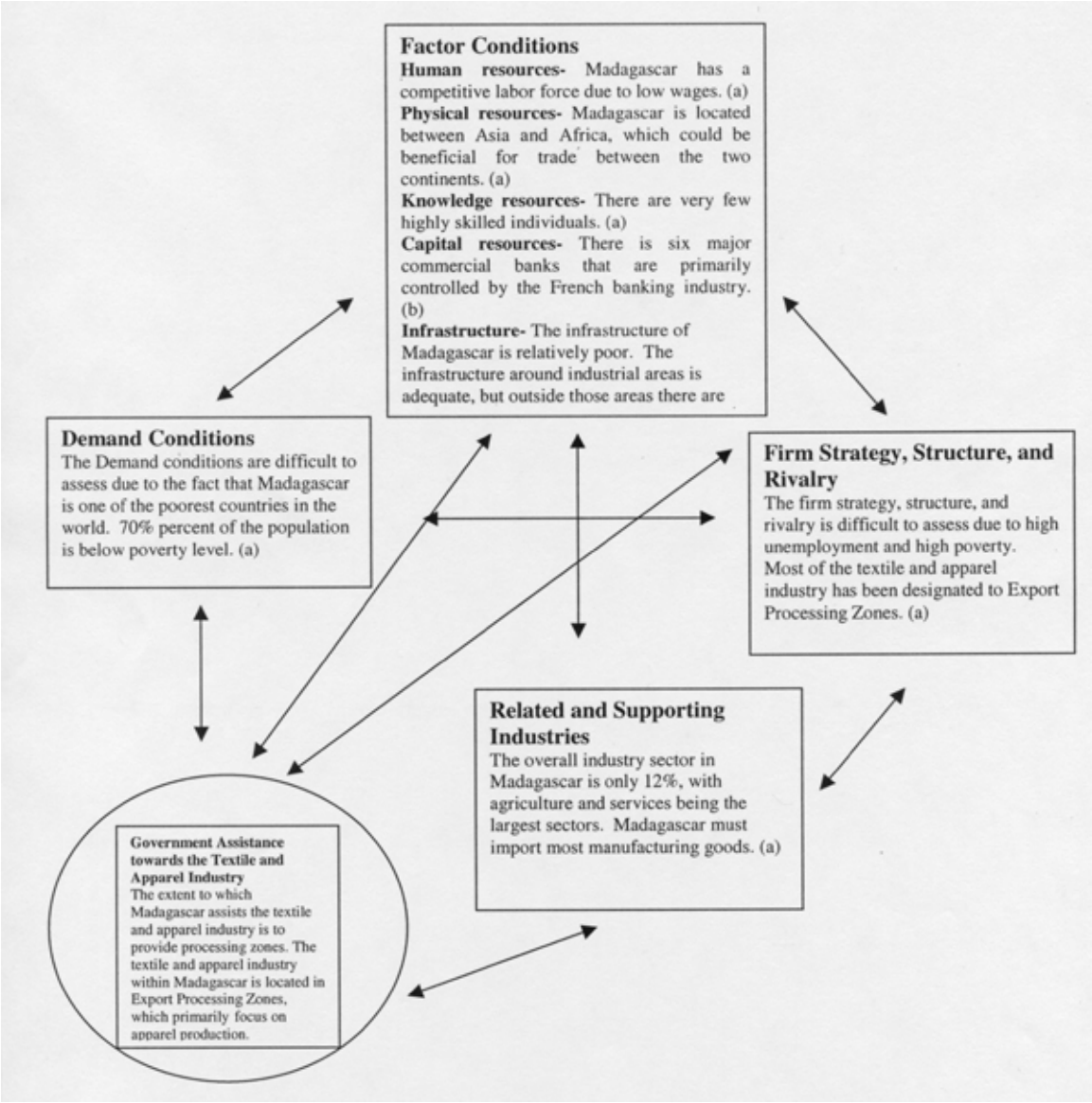
Table 29: Lesotho Diamond



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
c) Cotton, Inc. (2001). Lesotho Overview. Retrieved: March 5, 2002, from: http://www.cottoninc.com/CottonImporter/homepage.cfm?PAGE=2798#lesothooverview

Appendix E. Madagascar Diamond

Table 30: Madagascar Diamond



Reference: Porter, Michael E. (1990). *Competitive Advantage of Nations.* New York, NY. The Free Press
a) United States Embassy in Madagascar. (2001). *Country Commercial Guide Madagascar.* Retrieved August 14, 2001, from: http://www.usmission.mg/guide.htm
b) Cotton, Inc. (2001). Lesotho Overview. Retrieved: March 5, 2002, from: http://www.cottoninc.com/CottonImporter/homepage.cfm?PAGE=3044#madagascarbanking

Appendix F. The Trade and Development Act of 2000: Caribbean Basin Trade Partnership Act

The Trade Development Act of 2000: Caribbean Basin Trade Partnership Act

The United States International Trade Commission clarifies the United States Caribbean Basin Trade Partnership Act as allowing the imports of qualifying apparel from the Caribbean Basin Recovery Act (CBERA) beneficiary countries. These countries will enter free of duty and quota during a transition period beginning on October 1, 2000, and ending September 30, 2008. The preferential treatment status on imports is essentially the same as the preferential treatment status that is found in the North American Free Trade Association (The Trade and Development Act of 2000, 2000).

Apparel assembled from fabrics made in the United States of United States yarn is granted unlimited preferential treatment under the Act. There are exceptions according to the United States International Trade Commission. If United States fabric is used in the production of apparel goods and is cut into garment parts in CBERA countries instead of the United States, then the apparel must be sewn together with United States thread. Unlimited preferential treatment will be granted to textile luggage made from United States fabrics and considered to be in "short supply" (The Trade and Development Act of 2000, 2000). Hand loomed, handmade and folklore article also fall under preferential treatment (The Trade and Development Act of 2000, 2000).

Also according to the United States International Trade Commission, the Act grants preferential treatment for restricted amounts of knit apparel made of fabrics knitted in CBERA countries and fabrics produced with United States yarns.

Further Explanation and Potentials of the CBTPA

In recent years, the countries of the Caribbean Basin have formed an increasingly important export market for United States goods (see Table F-1).

Table F- 1: Caribbean Basin Trade Partnership Act Potentials

The 23 independent countries of the Caribbean Basin together formed the sixth largest export market for U.S. goods in 1999.

Since the enactment of the Caribbean Basin Economic Recovery Act (CBERA) in 1984, U.S. exports to the region have more than tripled to $19 billion in 1999. The Caribbean Basin countries absorbed 2.7% of total U.S. exports in 1999.

Specifically, CBTPA will:
Offer temporary trade benefits to Caribbean Basin countries to facilitate their economic development and reconstruction after 1998's devastating hurricanes, place them on a more equal competitive basis with Mexico in the U.S. market, and reinforce the region's trend toward more openness in the conduct of economic policy.
Encourage development of trade and investment policies that will facilitate their ultimate participation in the Free Trade Area of the Americas (FTAA).

Extend preferential tariff treatment to textile handicrafts and all non-textile products currently excluded from such treatment under the existing Caribbean Basin Initiative.
Expand the CBI program to extend preferential tariff treatment to certain textile and apparel products assembled from U.S. fabric that have been excluded from the program. This will encourage additional U.S. exports of cotton and yarn and U.S. investment in the region and strengthen the international competitive position of the U.S. textile industry.

Reduce duty rates for textiles covered by the agreement by up to 100 percent, and such products would be free of quantitative restrictions. For other products, the tariff rate would be reduced up to 100 percent of the difference between the current rate and the rate applicable to Mexican goods under the NAFTA.

Provide safeguard provisions on covered textile products. Tariff benefits could be modified under the same conditions as in the NAFTA in the event of disruptive import surges.

Reference: National Economic Council (2000). *The Trade and Development Act of 2000*. Retrieved January 15, 2002, from: http://clinton4.nara.gov/WH/EOP/nec/html/AgoaCbiPressFinal.html

Table F-2 lists the other provisions that make up the Trade and Development Act of 2000.

Table F- 2: Trade and Development Act of 2000 Provisions

Improves enforcement of fair trade rules by requiring periodic changes in foreign products subject to U.S. retaliation when a foreign government persists in its failure to comply with a WTO decision.
Expands the list of worker rights criteria countries must meet to be eligible for trade preference programs like GSP, CBI, and AGOA to include implementation of the recent International Labor Organization Convention banning the worst forms of child labor.
Provides relief from high tariffs on wool fabric that has hurt competitiveness of the U.S. wool suit manufacturing industry.
Promotes economic growth and democracy in other developing countries. The Act determines that the emigration laws and practices of Albania, Kyrgyzstan, and other countries are in compliance with the Jackson-Vanik amendment of the 1974 Trade Act, and thus are now eligible for normal trade relations' status with the United States. That means that the U.S. will grant these countries the same trading rights we grant to other WTO members when these nations join that organization in the near future. Increased trade will lead to a better relationship with the U.S. and a surer path to democracy for these newly independent nations.

Reference: National Economic Council (2000). *The Trade and Development Act of 2000*. Retrieved January 15, 2002, from: http://clinton4.nara.gov/WH/EOP/nec/html/AgoaCbiPressFinal.html