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Intellectual Property Rights in Sub-Saharan Africa

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CLAREMONT McKENNA COLLEGE
INTELLECTUAL PROPERTY IN SUB-SAHARAN AFRICA

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I. Intellectual Property Rights in Sub-Saharan Africa

Globalization of the world economy has made knowledge a critical element of effectiveness in the global economy. A majority of sub-Saharan African countries have not exploited the benefits that intellectual property rights offer to its users, despite considerable improvements to existing knowledge and options for protecting knowledge. Current economic and trade conditions change rapidly and require constant improvement to ensure economic development. These conditions stimulate innovation and improvements in technology, designs, and other tangible and intangible assets. To create incentives for people to invent continuously, it is important to provide some form of compensation and guarantee that their innovation is credited to them. This is achieved through the establishment of intellectual property rights. Intellectual property rights policies are therefore, important for economic development.

Introduction: The Role of Intellectual Property Rights

According to the World Intellectual Property Organization (WIPO), Intellectual Property (IP) refers to creations of the mind: inventions, literary and artistic works, and symbols, names, images, and designs used in commerce¹. It refers to a number of distinct types of creations of the mind for which exclusive rights are recognized. These rights are granted to creators and inventors to regulate the use of their products. The main purpose of these rights is to provide an incentive to promote worthwhile innovation in a variety of areas, such as technology and pharmaceuticals. However, it is important to strike a balance to ensure that these innovations are made accessible to all. Hence, intellectual property rights are granted for a limited period of time.

Intellectual Property is divided into two categories: Industrial property, which includes

¹ World Intellectual Property Organization. www.wipo.int

inventions (patents), trademarks, industrial designs, and geographic indications of source; and Copyright, which includes literary and artistic works such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs². Laws governing intellectual property rights are put in place for two reasons: to give authorized expression to the moral and economic rights of creators in their creations and to the rights of the public in accessing those creations. The second is to promote creativity, the dissemination and application of its results, and to encourage fair trade, which would contribute to economic and social development. Although some of these assets are intangible, with intellectual property rights, owners receive certain exclusive rights.

There are several benefits to implementing policies that establish intellectual property rights. Some of these benefits accrue from the fact that ideas have some qualities of public goods. An example of such qualities is non-excludable consumption. This means that consumption of the good by one individual does not reduce the availability of the good for consumption by others and that no one can be effectively excluded from using the good. Inventors are rewarded for their creativity and are motivated to continue to produce goods and services that the entire society benefits from. These rights protect the innovator's investments and create a market for them. Without clearly defined rights, these intellectual outputs are subject to copying, which can prevent a return on investment sufficient to cover fixed costs and compensation for the high degree of market uncertainty.

The copyright system, in addition to creating a market, can, by promoting a common interest in the effective commercial exploitation of cultural ideas, help reduce conflicts between

² World Intellectual Property Organization: Understanding Intellectual Property. *WIPO Publication No. 895(E)*

different asset owners and share some of the risks arising from a volatile market³. Recognition of property rights creates a less vulnerable market for innovators by guaranteeing that there is a fixed reward to be earned on their investment in innovation. This is done by giving them the right to impose a charge on the use of their knowledge, thus providing the reward for their investment. Intellectual property is intricately related to trade, competition, industrial growth and economic development. Intellectual property plays a major role in the stimulation of industrial and commercial growth for economies. With innovation, new ground is created for other innovators to expand upon.

Intellectual property rights are important due to their sweeping effects on both the innovator and the economy. The existing Intellectual Property laws in Sub-Saharan Africa do not cover all categories of intellectual output, and the covered laws are inadequately enforced. These issues affect the administration and enforcement of intellectual property in these countries, and as such an analysis of the laws and policies regulating intellectual property rights in these countries is extremely important. The objectives of this thesis are to define what aspects of intellectual property rights are ineffectual, demonstrate the potential boost to the economy that stronger intellectual property protection could provide, and to detail steps to promote the comprehensive protection of the intellectual output of these countries.

The State of Intellectual Property Rights in Sub-Saharan African Countries

Because Sub-Saharan African countries were at some point colonies of other countries, their intellectual property laws were imported from the colonizer countries. Currently, most Sub-Saharan African countries are members of the World Intellectual Property Organization and are required to conform to international standards of intellectual property rights protection. This

³ Andersen, Brigitte, Zeljka Kozul-Wright, and Richard Kozul-Wright. (2000). Copyrights, Competition and Development: The Case of the Music Industry. *UNCTAD: Discussion Papers* No.145: 1-34.

poses a problem for individual countries because domestic laws are tailored to international laws, and are not written specifically for the intellectual output produced within the country⁴. This means that the intellectual output these countries specialize in, especially cultural intellectual output is not always included among the intellectual property needing to be protected. This is especially key for individualized innovators such as artists, musicians etc., who have some difficulty in taking advantage of the property rights system to protect their work.

To this end, the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement was drafted for all member countries to address the provision and applicability of adequate intellectual property rights, the provision of effective enforcement measures for those rights, multilateral dispute settlement, and transitional arrangements⁵. The agreement recognizes that there are widely varying standards in the protection and enforcement of intellectual property rights and the lack of a multilateral framework of principles, rules, and disciplines dealing with international trade in counterfeit goods have been a growing source of tension in international economic relations. A standard, universally accepted framework could be the much-needed solution to coping with these tensions.

The absence of a consistent and coherent national policy on intellectual property in most Sub-Saharan African countries creates issues as far as they relate to other developmental efforts. It is important to understand why innovators in these countries have difficulty protecting their work from being taken and reproduced illegally. The low levels of domestic applicants for all types of intellectual property rights could arguably be indicative of a low level of indigenous

⁴ Sikoyo, George M., Elvin Nyukuri, and Judi W. Wakhungu. (2006). "Intellectual Property Protection in Africa: Status of Laws, Research and Policy Analysis in Ghana, Kenya, Nigeria, South Africa and Uganda." African Centre for Technology Studies (ACTS): ACTS Press Eco Policy Series No. 16: 1-61.

⁵ Stiglitz, Joseph. (2008). "Economic Foundations of Intellectual Property Rights." *Duke Law Journal*, Volume 53: 693-724.

innovation. Domestic applications for intellectual property rights are sometimes hindered by the lack of awareness of applicable rights or the inability to afford registration fees. Some other factors affecting the records of intellectual property rights may include poor record keeping practices and lack of technical capacity and infrastructure at intellectual property registries.

Though most Sub-Saharan African countries have taken, or are in the process of taking the steps to ensure legislative compliance with international intellectual property rights norms, lawmakers may not possess the capacity to effectively implement and harness these laws for national development. Most Sub-Saharan African countries do not address intellectual property issues in their national development plans. The creators of intellectual property and government officials sometimes demonstrate a limited understanding of intellectual property rights and the implications of instituting effective intellectual property protection systems. There are very few people and institutions in the continent with experience and capacity to handle intellectual property rights, especially with respect to trade, competition, investment and other recent elements of globalization. Intellectual output may be stimulated at the national level, but blocked at an international level, because intellectual property rights are not adequately protected. This prevents these industries from developing into globally competitive industries.

For Sub-Saharan African countries to fully exploit intellectual property rights and to harness technological and economic development stemming from intellectual property regimes, it is imperative that individual countries enact intellectual property laws and policies that link property protection to other national imperatives such as trade, economic growth and competitiveness⁶. This can only be done successfully if countries have the necessary capacity in terms of legal and policy experts, technology and infrastructure. Protecting the innovator is an

⁶ Blakeney, Michael. (2011). Intellectual Property and Economic Development in Sub-Saharan Africa. *The Journal of World Intellectual Property*: Volume 14 No. 3/4: 238-64.

important factor for innovation and eventually trade. It is therefore, important to evaluate the current policies in place for intellectual property rights as well as their effects on the innovator and trade. The implementation of an intellectual property rights system requires a clear legal and policy framework on these rights, a supportive infrastructure for the implementation of the laws and policies, which includes trained personnel and office resources necessary to get the framework to be fully functional. The increased need for the judiciary and legal practitioners to be aware of developments in intellectual property law and the role of enforcement agencies such as the police, customs and revenue authorities cannot be over emphasized.

Problems with Insecure Intellectual Property Rights in Sub-Saharan Africa

Under intellectual property law, innovators are granted certain exclusive rights to a variety of assets they created, such as musical, literary, and artistic works; discoveries and inventions; and words, phrases, symbols, and designs. One of the reasons intellectual property rights are recognized is to promote investments in knowledge creation and business innovation by establishing exclusive rights to use and sell newly developed intellectual output. Research and development in technology is usually expensive, time consuming, and financially risky. Without these rights, innovations can easily be taken without compensation to the innovators. This indicates a loss of investment, because innovators do not get the opportunity to exclusively reap the benefits of their creations.

The creative process for musical, literary, and artistic works also requires significant financial commitment. Musicians are required to pay studio and equipment rental fees, producers and distributors' fees, and postproduction editing fees. Artists need supplies to produce their artwork and in formal sale settings such as art markets, are required to pay rental fees for their stalls. If people are sure the rights to their innovations will be protected at all

times, there is a lower risk factor involved and they are encouraged to participate in intellectual output creation.

Similarly, creative intellectual outputs need to be protected, because they are a means of cultural expression. Culture is an integral part of every society. “It includes creative expression (e.g., oral history, language, literature, performing arts, fine arts, and crafts), community practices, and material or built forms such as sites, buildings, historic city centers, landscapes, art, and objects.”⁷ Globalization and development brought about cultural homogenization, which is directed by the pressures of popular culture. This has led to discontinuity of several aspects of culture. Again, such changes have greater impact on poorer individuals, because they may sustain their livelihoods through creative cultural practices. These individuals do not have a steady source of income but rely on a number of different activities to provide income. It follows that each source of income is important to them because it contributes to the total amount of income obtainable. An example is artists who create sculptures and other traditional art. Development should not signify discontinuity of culture, because this erodes the unique aspects upon which a society is built. It is therefore important to protect these defining aspects of culture.

Poorly structured intellectual property rights leads to a loss of revenue. When people are unaware of existing rights, they cannot protect their intellectual output. When applicable property rights are infringed on, there is insufficient information about the system to use in their defense. An example is piracy in movie and book industries in most Sub-Saharan African countries. Nigeria, for instance, has a vibrant book publishing industry, with perhaps the largest number of foreign and indigenous publishing houses in any Sub-Saharan African country. The

⁷ Duer, Kreszentia, and Nancy Levine. (1999). "Culture and Sustainable Development: A Framework for Action." *World Bank Working Paper*: 1-48.

publishing industry in Nigeria is dominated by foreign publishing companies (notably Oxford University Press, Longman, Macmillan, Heinemann, and Evans). In recent years, textbooks in Nigeria have been subject to piracy. At a recent briefing in Lagos, Longman's Managing Director said that the company lost between N1.5 to N2 million, constituting 50 percent of its potential turnover yearly to book piracy⁸. Books are reproduced at several secret locations, in Nigeria and sometimes imported from Asia, distributed and offered for sale openly in markets and bookshops throughout the country. This is a problem for indigenously written and published textbooks because it leads to loss of revenue for writers and publishers and also inhibits creativity.

Table 1: Estimated trade losses due to copyright piracy (in millions of U.S dollars and levels of piracy: 2002 -2006⁹)

	2006		2005		2004		2003		2002	
INDUSTRY	Loss	Level	Loss	Level	Loss	Level	Loss	Level	Loss	Level
Records & Music	52.0%	95.0%	52.0%	95.0%	50.0%	99.0%	29.0%	84.0%	4.3%	67.0%
Business Software	59.0%	82.0%	46.0%	82.0%	30.0%	84.0%	NA	NA	NA	NA
Books	8.0%	NA	6.0%	NA	4.0%	NA	NA	NA	NA	NA
Motion Pictures	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Entertainment Software	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTALS	119.0%		104.0%		84.0%		29.0%		4.3%	

Finally, losses from insecure intellectual property rights sometimes have effects that extend beyond the individual innovator. Poor enforcement of property rights deters foreign direct investment (FDI), especially with regard to technology. Foreign direct investment is thought to bring certain benefits to national economies. It can contribute to Gross Domestic

⁸ “Longman Plc. cries out over increase in book piracy”. September 06, 2007. The Guardian.

⁹ International Intellectual Property Alliance 2007 Special 301 Report.
www.iipa.com/rbc/2007/2007SPEC301NIGERIA.pdf

Product (GDP), Gross Fixed Capital Formation (total investment in a host economy), and balance of payments. Foreign companies are not encouraged to participate in local markets if it appears that the rights to their intellectual outputs are unlikely to be upheld. This issue is especially important for firms with easily copied products, such as software and pharmaceutical products. Such companies would be interested in the strength of intellectual property rights in a country, as would firms considering investments in local research and development facilities. Countries with weak intellectual property rights could be isolated from modern technologies and are forced to develop technological knowledge from their own resources, a difficult and costly task.

The means by which intellectual property rights influence foreign direct investment are complex and subtle. Intellectual property rights alone are insufficient incentives for firms to invest in a country. If that were the case, recent foreign direct investment flows to developing economies would have gone mainly to Sub-Saharan Africa and Eastern Europe. In contrast, China, Brazil, and other high-growth, large-market developing economies with weak protection would not have attracted nearly as much foreign direct investment¹⁰.

The magnitude of losses created by poor intellectual property rights represents a major setback to industries in Sub-Saharan African countries. An analysis of the laws and policies regulating intellectual property rights in these countries is extremely important. The objectives of this thesis are to define what aspects of intellectual property rights are ineffectual, recommend new policies and possible changes to current policies in place, to support African culture, demonstrate the potential boost to the economy these activities could provide, and to detail steps to promote protection of intellectual property of these countries.

¹⁰ Maskus, Keith E. (2000), *Intellectual Property Rights in the Global Economy* (Washington DC: Institute for International Economics).

Negative Effects of International Intellectual Property Law Conformation

Since signing the TRIPs agreement, most Sub-Saharan African countries have worked to conform to international standards of intellectual property protection. This has involved rewriting laws to protect certain intellectual output and recognizing rights granted by member countries. Adhering to the TRIPs agreement has brought about some unanticipated costs that tend to have a negative effect on poorer populations in sub-Saharan Africa. One area of high impact so far has been the pharmaceutical industry.

Intellectual property rights generally have two principal areas of impact in the pharmaceutical industry. The first area of impact is pricing and access, where the focus is on the links between intellectual property rights (particularly patent rights), exclusion of competitors and the availability and pricing of new medicines. This restricts the number of people who can produce and market these drugs, creating a monopoly market. Secondly, there is the issue of research and development incentives i.e., the role of intellectual property rights in providing incentives to discover, develop and market new drugs. If the rights to produce new pharmaceuticals are immediately given to several other producers, there is no direct incentive to develop new medicines, because the innovator does not have the opportunity to recoup research and development costs.

In recent years, all Sub-Saharan African countries have been re-writing their laws to conform to TRIPs. One component of the Agreement on Trade-Related Aspects of Intellectual Property Rights (the “TRIPS Agreement”) requires member countries to recognize patents that have been issued on intellectual output. Until recently, many nations did not issue patents on pharmaceuticals. The TRIPs agreement embodies an effort to harmonize globally the intellectual property systems of WTO Member States. The TRIPs agreement harmonizes the duration of

patent protection and requires TRIPs compliant countries to do the same. It is often argued that, because TRIPS provides for worldwide patent protection, drugs become more expensive in developing countries. Issuing patents on pharmaceuticals raises the price of drugs and reduces access to treatment. This is especially important for drugs used to treat widespread or commonly occurring diseases that are difficult to treat. An example of this in Sub-Saharan Africa is HIV/AIDS. An estimated 22.5 million people, including 2.3 million children, were living with HIV in Sub-Saharan Africa at the end of 2009¹¹.

Antiretroviral drugs have effectively improved the quality of life of patients and reduced the number of deaths caused by HIV/AIDS. Most HIV/AIDS drugs are subject to patent protection, and other pharmaceutical companies may not manufacture these drugs without the permission of the patent owner. The pharmaceutical industry maintains that high prices are necessary to support costly and time-consuming research and development efforts. The relatively high price of a patent-protected drug squeezes out buyers who are willing but unable to buy at a profit-maximizing price, and as a result, access to medication is limited. To combat the inability of citizens to access medication necessary for survival, some governments such as those of Brazil and South Africa have enacted policies to bypass patenting of pharmaceuticals.

In response to the magnitude of the HIV and AIDS epidemic in Africa, the South African government drafted The Medicines and Related Substances Bill of 1997, which included the South African Medicines and Medical Devices Regulatory Act¹². The aim of the South African Medicines and Medical Devices Regulatory Act (SAMMDRA) was to ensure increased access to medication in the event of widespread disease. The Act provides for several methods to improve

¹¹ <http://www.avert.org/africa-hiv-aids-statistics.htm>

¹² Kara M. Bombach, (2001). Can South Africa Fight Aids? Reconciling the South African Medicines And Related Substances Act with the Trips Agreement, Boston University International Law Journal Volume 19: 273-306.

access to HIV/AIDS drugs. In addition, it granted the South African Minister of Health the power to authorize parallel imports (i.e., the importation of pharmaceuticals from third parties not authorized by the patent-holding companies) and compulsory licensing for local production. Usually the drugs imported are from India and other low cost producers. Compulsory licensing overrides existing intellectual property protection by compelling the holder of a patent to grant licenses to local manufacturers who will in turn charge lower prices. The effect of these policies was to help achieve the primary aim of the Act, by ensuring access to affordable medicine. The South African Pharmaceutical Manufacturers Association and 41 pharmaceutical companies, including South African companies as well as subsidiaries of European and United States companies, filed a suit against the South African government. In 2001, the plaintiff's request to dismiss the case was granted¹³, and SAMMDRA was passed. Shortly after SAMMDRA was passed, the Act was rescinded for reasons such as high cost of providing medicines and low prospects of sustainability of the program.

Brazil's campaign against AIDS is often cited as a model case for developing countries with high rates of AIDS. While action taken in support of HIV/AIDS patients in South Africa was not as all-inclusive as the Brazilian government's efforts, both cases demonstrate action against patents to increase the supply of pharmaceutical products. The TRIPs agreement allows for two exceptions to recognizing patent rights: parallel importation and compulsory licensing. Both of these can be used to provide countries with lower cost options for drugs and effectively reduce patent holder monopoly.

In 1999, the Brazilian government declared AIDS a national emergency, allowing the government to invoke Articles XXV and XXVI of the TRIPs agreement, which waives the

¹³ "South Africa's moral victory". (28 Apr. 2001). *The Lancet*, Volume 357, Issue 9265, Page 1303.

required authorization from the patent holder in the event of a national emergency¹⁴. This has allowed Brazil to provide free antiretroviral drugs to over 100,000 AIDS patients¹⁵. The Brazilian government also ruled a decree allowing Brazilian pharmaceutical companies to manufacture drugs locally in cases of national emergencies¹⁶. This further reduced the cost of providing free antiretroviral drugs for patients.

Article 71 of the 1997 Brazilian patent law requires that foreign drugs be manufactured in Brazil within three years of receiving a patent, in the event of a national health emergency¹⁷. If a foreign company does not comply, Brazil may authorize a local company to produce the drug without the consent of the patent holder. Brazil has only issued a compulsory license once. The United States challenged Article 71 as destructive to research initiatives, and individual pharmaceutical companies threatened to pull out of the Brazilian market¹⁸. This move was difficult to pursue, because several other developing countries could follow Brazil's example, leading to the loss of greater market share.

Despite Brazil's example, South Africa was unable to effectively implement the provision of free access to antiretroviral drugs. SAMMDRA could have been modeled after the Brazilian government's efforts against HIV/AIDS. The major difference between both courses of action is that South Africa did not declare AIDS a national emergency, unlike Brazil. The South African government may have recognized that because of its weak healthcare infrastructure it would not

¹⁴ Chang, H. (2001). Intellectual Property Rights and Economic Development: historical lessons and emerging issues. *Journal of Human Development* Vol. 2.No. 2: 290.

¹⁵ Galvao, J. (2005). Invoking Rights and Ethics in Research and Practice. *Health Policy and Ethics - American Journal of Public Health* Vol. 95.No. 7: 7.

¹⁶ Galvao, J. (2005). Invoking Rights and Ethics in Research and Practice. *Health Policy and Ethics - American Journal of Public Health* Vol. 95.No. 7: 7.

¹⁷ Ministry of Health. (2004) *Boletim Epi-demiológico AIDS*. Brasília, Brazil: Ministry of Health. Available at: http://www.aids.gov.br/final/biblioteca/boletim_dezembro_2003/bol_dezem-bro_2003.pdf.

¹⁸ Chang, H. (2001). Intellectual Property Rights and Economic Development: historical lessons and emerging issues. *Journal of Human Development* Vol. 2.No. 2: 290.

be able to consistently provide the medication due to high cost of drugs¹⁹. Inconsistent use of antiretroviral drugs results in mutation of the HIV virus, making it more resistant to medication²⁰. This poses a greater danger of HIV/AIDS patients. Issues from lack of consistency would most likely arise due to the high cost of medication and the difficulty involved in earning the rights to produce the drugs locally. South Africa would benefit most from following in Brazil's footsteps, declaring AIDS a national emergency, and negotiating with pharmaceutical companies a contract to produce antiretroviral drugs locally.

¹⁹ Ashcroft, Richard E; Schüklenk, Udo. (2001) Affordable access to essential medication in developing countries: conflicts between ethical and economic imperatives. *Journal of Medicine and Philosophy* 27(2): 185

²⁰ Kara M. Bombach, (2001). Can South Africa Fight Aids? Reconciling the South African Medicines And Related Substances Act with the Trips Agreement, *Boston University International Law Journal*, Volume 19: 273-306.

II. Intellectual Property Protection

The Extent of Property Rights Coverage: What Is Covered and What Is Not

Intellectual property relates to items of information or knowledge, which can be incorporated into tangible and intangible objects. This makes intellectual property extremely vulnerable and difficult to protect, because its components span an extremely wide range. For intellectual property rights laws to be comprehensive, it is important that they protect all aspects of intellectual output. The '*Convention Establishing the World Intellectual Property Organization*' (1967) states that the following subject matter should be protected by intellectual property rights: literary, artistic and scientific works, performances of performing artists, phonograms, and broadcasts, inventions in all fields of human endeavor, scientific discoveries, industrial designs; trademarks, service marks, and commercial names and designations, protection against unfair competition, and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields.

Intellectual property rights laws in most Sub-Saharan African countries are loosely based on laws from the colonial era and copyright laws from their colonizer countries and the TRIPs Agreement signed by members of the World Trade Organization. Most Sub-Saharan African countries became independent between 1950 and 1975 and, as such, most of the intellectual property rights regimes in Sub-Saharan Africa have existed for over 50 years. Intellectual property policies in place after decolonization were not independently created and the laws were derived from elements of other existing laws.

Since the TRIPs agreement was signed, there has been a significant change in technological advancements, making existing Intellectual Property regimes less effective at protecting intellectual output. New forms of output have also been created that do not quite fit into the existing forms of dominant property rights regimes. An example is in the Information

and Communications Technology (ICT) sector. In recent times, there have been considerable changes to the way ICT is used, such as in mobile technology. It follows that some of these laws need to be restructured and improved to suit modern requirements.

Previously colonized Sub-Saharan African countries were not independently allowed to register patents and copyrights in their countries. For instance, up until 1992, Ghana only had a patent re-registration system. In order to protect inventions in Ghana, the invention had to be registered in the United Kingdom and then re-registered in Ghana²¹. The existing intellectual property rights system did not provide any incentive for individual nations to develop new property rights laws or develop the human capital required to improve their existing systems. The only Sub-Saharan African country to initiate intellectual property protection with an independent system of intellectual property rights protection was South Africa. To understand the current state of intellectual property rights, it is important to first examine a number of existing intellectual property rights protection systems in Sub-Saharan Africa. Most of these systems are effectively very similar, and use mostly the same legislations.

Intellectual Property Rights Protection in Kenya

The Republic of Kenya was a British colony from 1897 to 1963. At independence, the Kenyan government implemented British common law, doctrines of equity, statutes of general application (such as the Fine Arts Copyright Act of 1862) and the Copyright (musical compositions) Act of 1888²². The Copyright Act of 1842 was the foundation of intellectual property law and the other Acts were treated as supplemental laws for more specialized areas.

²¹ George M. Sikoyo, Elvin Nyukuri and Judi W. Wakhungu. (2006). *Intellectual Property Protection in Africa: Status of Laws, Research and Policy Analysis in Ghana, Kenya, Nigeria, South Africa and Uganda*, Nairobi, Kenya: Acts Press.

²² Kameri-Mbote, Patricia. (2005) "Intellectual Property Protection in Africa: An Assessment of the Status of Laws, Research and Policy Analysis on Intellectual Property Rights in Kenya." *IELRC Working Paper 2*: 1-25.

After implementation, the enacted laws underwent a number of reforms in conjunction with British reforms and in 1963 the 1956 amended Copyright Act was added to Kenyan law²³. In an effort to eliminate traces of existing colonial legal instruments, the Kenyan government passed the Copyright Act within the Laws of Kenya. There were no substantial differences between the amended Copyright Act from the colonial era and the Copyright Act from the post colonial era, but it was indigenously written in order to liberate Kenya from colonist laws. The new Copyrights Act was amended in 1975, 1982, 1989, and most recently 2001 to customize existing laws to the current economic climate and political state of affairs. The most recent amendment restructured copyright law to make it compliant with international treaties to which Kenya is party.

Although the first registered patent in Kenya dates as far back as 1932, Kenya had no independent intellectual property protection system until 1989. Patents were first registered in the United Kingdom and then re-registered in Kenya. Only people who were grantees of patents in the UK or persons deriving their rights from a grantee by assignment or any other operation of law could apply to have their patents registered. Applications had to be made within three years from the date of the UK grant and the patent was recognized as official for as long as the patent remained in force in the UK. This limited patent is granted only to persons with access to registration in the United Kingdom. It also made the process expensive and time-consuming. Currently, Kenya has the following laws in place governing intellectual property rights:

- Industrial Property Act; Cap 509 (Laws of Kenya)
- Trademarks Act; Cap 504 (Laws of Kenya)
- The Copyright Act

²³ Wangwe, Samuel. (2000). Country Case Study for Study 9: Institutional Issues for Developing Countries in IP Policy-Making, Administration and Enforcement: Kenya. *Economic and Social Research Foundation*: 3.

The Kenya Industrial Property Institute (KIPI) manages the conferment of property rights, screening technology transfer licenses and agreements, and provides industrial property information for technology and economic development²⁴. The Industrial Property Act serves the purpose of granting industrial property rights to original creative works and inventions. Under the Industrial Property Act, patents, utility models, industrial designs, and ‘technovations’ are eligible to be granted²⁵. Patents are granted for product or process innovations that are new, non-obvious, involve inventive steps, and are industrially applicable. Utility models consist of any form, configuration of some appliance, tool, utensil, electrical, and electronic circuitry, instrument, handicraft, or object allowing a different or better functioning, use or manufacture that was previously unavailable in Kenya. The Industrial Property Act does not cover discoveries, scientific theories, mathematical methods, schemes, or rules, methods of doing business or performances of purely mental acts.

The Trademarks Act is responsible for registering trademarks and service marks. A trademark is a distinctive sign or indicator used by an individual, business organization, or other legal entity to identify that the products or services to consumers with which the trademark appears originate from a unique source, and to distinguish its products or services from those of other entities²⁶. The criteria for registering trademarks and service marks are distinctiveness and originality. Products and services likely to deceive consumers or cause confusion, or resemble existing trademarks do not qualify and will not be registered. The Trademarks Act is the most frequently used legislation in Kenya.

The Copyright Act of 2001 established the Kenya Copyright Board, which is responsible for directing, coordinating, and implementing laws and international treaties related to copyright

²⁴ Kenya Industrial Property Institute. <www.kipi.go.ke>

²⁵ The Industrial Property Act of 2001; Laws of Kenya. Sec 1 - 122 (2001).

²⁶ The Industrial Property Act of 2001; Laws of Kenya. Sec 1 - 122 (2001).

laws and organization and enforcement of copyright laws to ensure effectiveness and compliance²⁷. The Copyright Act covers literary and artistic works such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs. The Kenya Copyright Board is expected to promote and introduce copyright laws and related rights, ensuring that innovators are aware of the protection available to them. Collective management societies are licensed by the copyright board and report to the board frequently.

Together, these laws help to protect intellectual property rights in Kenya. Kenya has a very similar intellectual property regime as most sub-Saharan African countries. To be registered under the Kenyan Intellectual Property system, innovations must be tangible, as discoveries, ideas, and performances are not covered. The system lacks adequate coverage, as only certain innovations are covered and must fit into a certain framework. This limits the volume of intellectual property that is registered. To improve the volume of intellectual property registered, Kenya should implement rules for more expansive coverage to include ideas, theorems, performances, and other non-tangible intellectual output.

Intellectual Property Rights Protection in Nigeria

The protection of Intellectual Property (IP) in Nigeria can be traced back to the colonial era when the English Trademark Ordinance was introduced into the colonies even before the amalgamation of the then British Northern Nigeria and Southern Nigeria Protectorates in 1914²⁸. Intellectual Property is administered in Nigeria under two main set ups- industrial property, which deals with trademarks, patents and industrial designs as well as copyright. Trademark law

²⁷ The Industrial Property Act of 2001; Laws of Kenya Sec 1 - 122 (2001).

²⁸ Victor M. Ibigbami, Christopher Orji. 2009. A Review of the Nigerian System of Intellectual Property. Institutionalization of Intellectual Property Management: Case Studies from four Institutions in Developing Countries. CAS-IP, Rome, Italy.

regulates and protects a brand identity and a copyright serves the preservation of rights to creative work such as literary or musical art. Patent law deals with safeguarding rights over scientific/ technological inventions from outright copying to knowledgeable or unknowledgeable incorporation of already patented work and even to the incorporation of such a product that is sufficiently similar to another product.

Nigeria's intellectual property law is made up of common law and a number of specific acts designed to cover more sensitive issues such as patents and copyrights. The following international treaties have impacted Nigerian intellectual property law:

- The Universal Declaration of human rights (Article 27), which includes, the right to benefit from the protection of authorship of any scientific, literary, or artistic production.
- The Paris Convention for the Protection of Industrial Property of 1883. This was the first international agreement on the protection of intellectual property rights. It deals with only industrial property, as other forms of Intellectual Property Rights (IPR) were considered non-industrial in nature. The convention conveys protection of trademarks, patents and industrial designs.
- The Berne Convention of 1886 covers literary and artistic works. Nigeria became a member of the Berne Union in 1993.
- The Rome Convention of 1961 provides protection to producers of phonograms and broadcasting organizations.
- The PCT, Patent Cooperation Treaty facilitates patent filing in different PCT member states, using a streamlined procedure.

The Trademarks, Patents and Designs Laws are currently administered by the Commercial Law Department, Trademarks, Patents and Designs Registry, of the Federal

Ministry of Commerce and Industry. The system of Trademark registration is governed by the Trademarks Act 1965 found in Cap 436 Laws of the Federation of Nigeria (1990). Patents and Designs registration are governed by the Patents and Designs Act 1970, to be found in Cap 344, Laws of the Federation of Nigeria 1990. The Nigerian Copyright Commission (NCC), an agency under the supervision of the Federal Ministry of Justice is responsible for all copyright matters.

The Patent and Designs Act of 1990 is the governing Patent law in Nigeria. It prescribes if and whose product may be granted the statutory rights. The act states that intellectual output will qualify as new when it does not form part of any field of knowledge that has been made available to the public anywhere and anytime whether by oral, written description or by public use²⁹. It must have resulted from inventive activity and be capable of use in an industry. Alternatively, to qualify for patent protection, it must constitute an improvement on a previously patented invention.

Copyright in Nigeria follows slightly different rules regarding registration than other systems of intellectual property protection. With the 1992 and 1999 amendments, the powers of the Commission have been expanded to cover enforcement of the law. Nigeria is a member of the Berne Union. Consequently, Nigeria is bound by the formality-free principle of copyright protection and the law grants copyright protection in Nigeria automatically. Under the Nigerian Copyright law, beyond satisfying the basic requirement of originality and fixation in tangible medium from which it could be perceived or communicated, every copyright work is protected upon their creation with the import that copyright protection is automatic. There is no requirement of copyright registration under the Copyright Act.

Despite the ease of obtaining copyright protection in Nigeria, there is absurdly low patronage of the scheme by authors and copyright owners. Between 2005 when the scheme was

²⁹ The Copyright Act of 1999, Laws of the Federation of Nigeria (2000).

introduced in its present form and June 2008, the NCC received 995 applications only³⁰. Out of the 995 applications, literary works had 641, sound recordings-209, cinematograph film-115, artistic works-20, musical works-2, and transfer of rights-8³¹. This does not reflect the robust capacity of the creative industries that exist today in Nigeria. For instance the Nigerian film industry often called Nollywood is ranked as one of the most vibrant in the world. The often-cited reason for this low patronage is low level of awareness among authors. Another frequently cited major drawback is that the registry is inadequately funded and has thus not been able to restructure itself sufficiently to meet international standard especially in the area of database management.

The intellectual property regimes in sub-Saharan African countries are not very different from one another. In recent years, legislators have made propositions to modify intellectual property laws to conform to TRIPS requirements. These requirements are yet to be implemented, and doing so will help Nigerian intellectual property conform to international standards. The Nigerian government should also raise awareness of existing laws and strengthen the levels of enforcement. The most critical test for an intellectual property regime is the extent to which it promotes the creation of new intellectual output. Increased enforcement will encourage innovators to take advantage of the system and register their creations.

Intellectual Property Rights Protection in South Africa

The Union of South Africa was created on May 31, 1910. It became a sovereign state within the British Empire in 1934, and finally became a republic on May 31, 1961. The South African Parliament implemented the Patents, Designs, Trade Marks, and Copyright Act of 1916, after it became a Union. This act repealed the various provincial laws and incorporated the

³⁰ Data obtained from the Copyright Notification desk at Nigerian Copyright Commission.

³¹ Data obtained from the Copyright Notification desk at Nigerian Copyright Commission.

British Imperial Copyright Act 1911 into South African law³². A few years later, this act was repealed and new legislation was developed for each category of intellectual output. The equivalent British and European Patent Convention Legislations guide the Statutes for South African intellectual property law. When South Africa became a republic in 1961, Parliament enacted its own copyright law, separate from that of the United Kingdom, in the Copyright Act, 1965. Nonetheless, this Act was largely based on the British Copyright Act 1956. In 1978 it was replaced by the Copyright Act, 1978, which (as amended) remains in force to date. The 1978 Act draws both from British law and the text of the Berne Convention. It has been amended several times, most notably in 1992 to make computer programs a distinct class of protected work, and in 1997 to bring it into line with the TRIPS agreement.

Currently, South African intellectual property legislation has eighteen legislations governing intellectual property rights including: the Patent Acts 1978, Trade Marks Act 1993, Copyright Act 1978, Designs Act 1993, and the Intellectual Property Laws Amendments 1997³³. Policy formulation and implementation for patents, trademarks, designs, and copyright is carried out by the Department of Trade and Industry. The department is also responsible for the registration of property rights, examination of materials, and adjudication in conjunction with the Companies and Intellectual Property Registration Office (CIPRO). CIPRO is accountable for registering all enterprises, trademarks, designs, and copyrights, as well as conducting hearings in cases of infringement, and arbitration. In early 2009, South Africa passed into law the “Intellectual Property Rights from Publicly Financed Research Act”, which provides a clear guidance on the ownership of intellectual property rights ensuing from publicly funded research

³² WIPO Country Profiles – South Africa: Constitution of the Republic of South Africa (1996).

³³ South Africa: Intellectual Property Laws, Amendment Act of 1997

and development in South Africa³⁴. According to the Department of Science and Technology, the objective of this Act is to ensure that intellectual property originating from publicly financed research and development must be commercialized for the benefit of all South Africans, and be protected from misappropriation. The Department also stated that the aim of the Act is also to facilitate the creation of new knowledge originating from public funding and secure the knowledge by a way of IPR, which could have economic and social benefits for the country³⁵.

While there are laws regarding patents in South Africa, South Africa is a non-examining country³⁶. It does not inspect creations for novelty. The responsibility for ensuring that the application is valid resides with the applicant. A patent is registered if it meets the stipulated formalities for registration. This is a major downside to the patent protection system in South Africa, because it could render it less competitive compared to stronger IP systems, which could be an issue for foreign participation in the South African market. As a member of the Patent Cooperation Treaty, South Africa allows for filing of international patents once the other countries have been selected and the registration process has been completed. In 2001 and 2004, the Patent Act (1978) was reformed to make the laws more compliant with the TRIPs agreement.

The Copyright Act covers different types of creative output such as literary works, musical works, artistic work, cinematographic films³⁷ etc. All works are eligible for copyright if they are original and in fixed form. Like Nigerian copyright laws, there is a formality free principle of copyright. Only filmmakers are required to apply for copyright. All other works

³⁴ Taplin, Ruth, and Alojzy Z. Nowak. (2010). Intellectual property, innovation and management in emerging economies. New York: Routledge.

³⁵ Taplin, Ruth, and Alojzy Z. Nowak. (2010). Intellectual property, innovation and management in emerging economies. London; New York: Routledge.

³⁶ South Africa: Patents Act No. 57 of 1978 as last amended in 2002

³⁷ South Africa: Copyright Act of 1978

receive automatic copyright protection. The Copyright Act was amended in 2001 to make provision for sound recordings in copyright law, which did not exist explicitly.

Trademark laws function similarly to copyright laws in South Africa. A trademark can be applied for, but in cases of infringement in the absence of an application, will still be defended under common law. Trademarks last seven years and can be renewed indefinitely, making it possible to keep trademarks forever. This provision is extremely valuable for producers establishing a continuous brand.

Most of the Intellectual property rights laws in South Africa are comprehensive and provide extensive coverage for innovators. In recent years, more laws have been drafted and passed to bring intellectual property protection up to international standards. The South African patent system however, is currently weak and would most likely benefit from more stringent policies. Effecting complete examinations of intellectual output to be registered for a patent would strengthen the patent protection system. Generally, all the intellectual property regimes in sub-Saharan Africa are extremely similar. This fact will be further demonstrated in case studies of specific industries in the next chapter.

III: Applications of Intellectual Property Protection in Sub-Saharan Africa

Entertainment Industries in Sub-Saharan Africa

Record companies (usually also music publishers) are essentially copyright producers and owners. These companies own the rights to the actual recording and make money by creating, manufacturing, distributing and marketing these copyrights. In addition, record companies make money through recompilation rights. A successful song has a life beyond the actual record that it was first issued on. Artists make money from album sales, airplay, product placement, and live performances; receiving a royalty on each sale. Composers and authors (who are often artists as well) receive royalties for the various uses of their compositions. These include recordings (for which they receive a mechanical royalty) and the live performance and broadcasting of the compositions, for which they receive performance royalties.

The greatest limiting factor on the sales of music within Sub-Saharan Africa is piracy. Estimates for West Africa suggest that the piracy level is as high as 85%³⁸. The poor legal framework does not allow for enforcement of royalty payment or prevention of piracy. An additional problem for artists and composers is that they often sign away their rights to the music they produce. This is done because there is no strong system of enforcement for collection societies, to ensure that royalties are collected and paid. Collection societies for African music industries are not effective in their role and as such artists are forced to forgo the royalties they should be entitled to. In the West, artists seek both an initial advance and royalties on subsequent record sales. In Sub-Saharan Africa, however, because artists have no expectation of receiving any royalties from record sales –because of piracy and the inadequate collections of

³⁸ Finger, J. M, and Philip Schuler. (2004). *Poor People's Knowledge: Promoting Intellectual Property in Developing Countries*. Chapter 4: The Africa Music Project. [Washington, D.C.]: Co-publication of the World Bank and Oxford UP. 95-113.

royalties – they prefer a “bigger” single up-front payment³⁹.

This upfront sale cuts the artist off from subsequent benefits that the records may stand to gain. To ensure some continuity in their revenue source, the artist is compelled to record another album. This action however, affects the total revenue the musician could make from the sales of previous albums. For this reason, many African musicians have had greater success outside of their home countries. These musicians have mostly recorded their albums in foreign countries and have established contracts with recording companies, allowing them to reap the benefits of stable management (marketing for albums, distribution, promotion of tours and appearances etc.) and high revenue.

The Senegalese Music Industry

The music industry in Senegal is a strong example of the typical music industry in Sub-Saharan African countries. There is no cluster of recording studios, agents, managers, and other pivotal components of the music industry. While this may signify the potential for the music industry to develop the way the country music sector developed in Nashville, a number of factors have prevented this growth.

“Many musicians interviewed said they would do other kinds of work to survive; however, finding a job in Senegal is difficult. The Africa Music Project estimates that US\$600 is the average annual income for a musician in Senegal.⁴⁰” A majority of Senegalese musicians are thus unemployed and only dream of making their livelihood from their craft. This is difficult because the current system by which the music industry operates does not support the artist.

³⁹ Finger, J. M, and Philip Schuler. (2004). *Poor People's Knowledge: Promoting Intellectual Property in Developing Countries*. Chapter 4: The Africa Music Project. [Washington, D.C.]: Co-publication of the World Bank and Oxford UP. 95-113.

⁴⁰ Finger, J. M, and Philip Schuler. (2004). *Poor People's Knowledge: Promoting Intellectual Property in Developing Countries*. Chapter 4: The Africa Music Project. [Washington, D.C.]: Co-publication of the World Bank and Oxford UP. 95-113.

Piracy is widespread and collection agencies do not enforce payment rules, and as such artists cannot receive compensation for their music. In cases where the collection agencies manage to gather payments, there are inadequate records. For instance, in Senegal, radio stations are not required to provide a log of the songs that received airplay to collection societies. Due to the lack of such key information, it is impossible to determine who receives what portion of the total sum the radio stations pay as royalties.

Many musicians are however, unwilling to take this up with the Bureau Sénégalais du Droits d’Auteur (BSDA). They cited a number of issues affecting the BSDA, such as the lack of means to effectively curtail piracy and the lack of information from distributors, which makes it difficult to collect royalties. The BSDA does catch pirates but often releases them on intervention from powerful leaders, which means there is a low level of accountability and law enforcement. Finally, the services of the BSDA come at a very high premium, which is out of reach for most musicians in Senegal.

“Other musicians belonging to the Musicians’ Association confirm that without financial means, they are often unable to record with the technology that makes a “sellable” recording, hire a promoter of their music, or obtain a basic contract”⁴¹. Financing poses a major problem for artists in the music industry. There is little or no financing available to musicians because financial institutions do not lend to the music industry, possibly due to lack of security (assets in the music industry are usually intangible). Financing a career in music involves studio rental fees, marketing fees etc., and is often out of reach for the artist. The need for a short-term source of income compels musicians to sell the rights to their music rather than pursue a licensing or other legal agreement, which would provide them with increased revenue over a longer time

⁴¹ Finger, J. M, and Philip Schuler. (2004). *Poor People's Knowledge: Promoting Intellectual Property in Developing Countries*. Chapter 4: The Africa Music Project. [Washington, D.C.]: Co-publication of the World Bank and Oxford UP. 95-113.

period.

In addition to financing issues, there is a major infrastructure issue. Musicians have a difficult time accessing instruments. This forces them to rent instruments or attempt to import them from foreign countries. There are high tariffs on these items, which restrict importation. As a result, loaners are free to charge exorbitant prices for the use of their equipment. This takes a significant amount of the income from the artist back to the loaners to support their craft. To avoid this, younger artists will occasionally ‘work-for-hire’ with for more established musicians with access to recording studios⁴². The less prominent artists are compensated by the hour and all the finished work is the property of the elite musician.

The Africa Music Project

African music has a wide appeal in major markets within and outside its borders. Thus, the music industry has major business potential. The purpose of the Africa Music Project is to help Africans enhance the business and cultural potential. Since the inception of the project in 2001, a number of the projects objectives have been achieved. While intellectual property rights have not been reformed completely, there have been advisory sessions with the government and law enforcement personnel as well as capacity building for the musicians.

The BSDA is currently under reform to make its services more accessible to smaller musicians. It has installed a copyright tracking system to prevent piracy, using difficult to counterfeit hologram stickers. These stickers are provided by the BSDA and signify that the distributors have paid royalties. There have been campaigns on the importance of ‘hologrammed’ music. The BSDA has conducted raids of shops selling albums without hologram stickers.

⁴² Hoekman, Bernard M., Aaditya Mattoo, and Philip English. Cultural Industries and Intellectual Property Rights. *Development, Trade, and the WTO: a Handbook*. Washington, D.C.: World Bank, 2002. 390-400.

Following threats of closure, most radio stations have begun to pay annual dues to BSDA for the use of intellectual property. Musicians have also been included on the BSDA Board to ensure that their interests are adequately represented. Finally, moves are being made to reform the current intellectual property rights policy and copyright laws in Senegal.

The Nigerian Movie Industry (Nollywood)

The Nigerian video/film industry, popularly known as ‘Nollywood’, is widely regarded as one of the largest in the world and the most dominant in the West African sub-region. The Nigerian film industry is the most prolific film industry in the world with an output of over 50 films a week, making it the world’s second most prolific film industry after India’s Bollywood⁴³. It is the world’s third largest by value, estimated at \$250 million per annum⁴⁴. Nigerian movies, and those from the smaller movie industry in Ghana, are by far the most popular bootleg DVDs sold in smaller markets where almost all media have been pirated from their original versions⁴⁵.

Nollywood films were first aimed at a mainly Nigerian audience, but soon gained enormous presence all over Anglophone (and increasingly Francophone) Africa. It is likely that given the cultural content of local ‘copyrighted’ outputs, the demand for them will always be there. The popularity of Nigerian films extends through a number of the former British colonies in the region including Dominica, St. Kitts and Nevis, Trinidad and Tobago, and Guyana. Nigerian films in their original VCD format are generally shipped from West Africa to Europe and then to Guyana, a former British colony on the South American continent, before being copied and distributed throughout the smaller islands⁴⁶.

The high level of piracy of these local products suggests that if piracy is checked, the

⁴³ *The Economist*, (18 December 2010). Nollywood: Lights, camera, Africa, pp. 85-88.

⁴⁴ Nigeria: Growth & Competitiveness, World Bank Country Economic Memorandum, 2006.

⁴⁵ Cartelli, P. (2007). Nollywood comes to the Caribbean. *Film International* v. 5 no. 4 p. 112-14

⁴⁶ Cartelli, P. (2007). Nollywood comes to the Caribbean. *Film International* v. 5 no. 4 p. 112-14

market share of these goods will increase, thereby, stimulating creativity and further investment. Nigeria generally has a weak legal and regulatory environment, which poses a problem to reducing piracy. The software market has an alarming 82% of piracy rate, contributing to a loss of more than US\$82m per annum⁴⁷. The absence of a formally enforced protection of intellectual property undermines the Nigerian film industry. The Nigerian Copyright Commission (NCC) in a statement released in December 2007 said that the film industry loses an estimated N4, 200, 000,000 annually to illegal digital duplication, on-line piracy and unauthorized rental of video works within the country⁴⁸.

When Nollywood first started, piracy could have been perceived as a positive factor, since it facilitated the distribution of movies across the country in a short span of time and thus helped the movies become extremely popular. As industry conditions have changed over time, piracy has become a menace. Nollywood has now become a popular industry domestically, but the profit margins from individual films remain low and unpredictable because the producers are not always able to make adequate profit due to piracy. Although there are laws against piracy, these are hardly enforced, leaving room for “pirates” to control most of the distribution and retail outlets.

While the government has the major role in fighting piracy, the industry can also play an important role in raising social awareness against buying pirated copies of films. The Nigerian government can play an active role in formalizing the industry, and put greater emphasis on law enforcement to reduce the effect of piracy. This can be done by publicizing the importance of supporting the industry, ensuring that producers understand their rights, and enforcing the law regarding the consequences of buying or selling pirated movies.

⁴⁷ Nigeria's film industry. The Economist. Economist.com. 2006-07-27

⁴⁸ Waziri, K. Intellectual Property Piracy and Counterfeiting in Nigeria: The Impending Economic and Social Conundrum. *Journal of Politics and Law* Vol. 4.No. 2 (2011): 198

Intellectual Property Laws and Manufacturing Industries

Some of the existing intellectual property laws confer on the inventor the rights to a process by which intellectual outputs are produced. This is especially important for industries based on comparative advantage. The accepted processes for production under distinctive conditions can be patented and developed for domestic consumption and exports. Since independence, Sub-Saharan countries have made attempts to develop different industries to support their economy. These efforts have been more successful in some industries than others.

Currently, in most Sub-Saharan African countries, markets are poorly balanced in terms of structure. The two main productive sectors are agriculture and natural resource extraction (forestry, mining, and oil production). Sub-Saharan African countries have developed mostly primary industries, and as such over 80 percent of the economy is generated by primary sector industries⁴⁹. A small number of African countries do have manufacturing industries, but South Africa is the only sub-Saharan African country with a substantial manufacturing industry. Africa is the least industrialized continent; only South Africa, Egypt, Morocco and Tunisia in general have substantial manufacturing sectors⁵⁰.

A high proportion of the population in Sub-Saharan African countries are involved in the service sector, and the rest in agriculture and natural resource extraction. Despite readily available cheap labor, nearly all of the continent's natural resources are exported for secondary refining and manufacturing. High population figures usually translate to excess supply of cheap labor. While this should attract multinational corporations' foreign direct investment for

⁴⁹ Foreign Direct Investment in Africa. (2005). United Nations publication, Sales No. E.105.II.A.9. UNCTAD (Geneva: United Nations).

⁵⁰ Ajayi, Ibi. (2006). Foreign Direct Investment in Sub-Saharan Africa: Origins, Targets, Impact and Potential. Nairobi, Kenya: African Economic Research Consortium, Chapter 2:11.

efficiency reasons, this is not the case in Sub-Saharan Africa⁵¹.

Several studies support the expectation that stronger intellectual property rights protection does indeed enhance foreign direct investment. Multinational corporations operate in sub-Saharan African countries, primarily in service and extractive industries. This is particularly true for countries such as Botswana, Nigeria, and Angola. Most Sub-Saharan African countries have been described as having “unfavorable foreign investment climates”. This could be due to low levels of industrialization, amongst other factors. According to some studies, relatively weak intellectual property rights protection in a developing country may reduce the likelihood that multinational firms will invest there. Moreover, if they do invest there, they may be willing (because of weak intellectual property rights protection) to invest only in wholly owned subsidiaries (not joint ventures with local partners) or to transfer only older technologies⁵².

Africa has a weak industrial base. Three key facts illustrate this low industrialization level. First, there are only a few countries where manufacturing as a share of Gross Domestic Product (GDP) exceeds 25 percent – the benchmark for considering a country as having achieved critical threshold of industrial takeoff⁵³. Secondly, primary rather than processed or semi-finished products dominate the export composition of African countries. Finally, the proportion of public expenditure and private investment in scientific research and development remains diminutive as percentage of GDP in all African countries. There are many reasons that could account for the low levels of industrialization in sub-Saharan Africa. Possible reasons for low

⁵¹ Ajayi, Ibi. (2006). Foreign Direct Investment in Sub-Saharan Africa: Origins, Targets, Impact and Potential. Nairobi, Kenya: African Economic Research Consortium, Chapter 2:13.

⁵² Wallerstein, Mitchel B., Mary Allen Moguee, and Roberta A. Schoen (1993). Effects of Intellectual Property Rights Protection on the Transfer of Technology via Foreign Direct Investment. Global Dimensions Of Intellectual Property Rights In Science In Science And Technology. Washington, D.C.: National Academy Press. Section II, Chapter 5: 111

⁵³ Roberts, S. (2000). Understanding the Effects of Trade Policy Reform: The Case of South Africa. South African Journal of Economics, Vol. 68(4): 607.

industrialization include low levels of education, poor infrastructure, and corruption.

To determine the factors preventing Sub-Saharan African countries from sustaining successful manufacturing industries, it is important to study a country that has maintained a successful manufacturing industry, and compare it with another country with a less successful manufacturing industry, noting differences between the policies in place that support the manufacturing industry. The automotive industry is one of the most important contributors to the economies of many developed countries, particularly in relation to employment, exports and innovation. In Sub-Saharan Africa, South Africa has the most productive automotive manufacturing industry. I will also compare and contrast the policies in place for a successful manufacturing industry (Mauritius) to those in place for a country with a less productive manufacturing industry, Nigeria.

The South African Manufacturing Industry

The manufacturing industry in South Africa is one of the largest and most competitive in Sub-Saharan Africa. The industry is extremely diversified, makes up a large component of exports, and contributes significantly to Gross Domestic Product (GDP). The most dominant sectors in the South African manufacturing industry include: automotive, information and communications technology (ICT), metals, and textiles and apparel. The manufacturing industry serves as a tool for stimulating the growth of other activities, such as services, and achieving other outcomes, such as employment creation and economic empowerment. In many of these industries, foreign multinational companies are major players, developing subsidiary plants to cater to domestic needs and international export. In order to fully understand how the growth of these industries in South Africa has been successfully promoted, it is important to review the

existing policies regarding manufacturing (trade policies), the role of foreign direct investment, and intellectual property laws.

The South African Automotive Industry

The automotive industry in South Africa is one of its most important sectors, being the largest contributor to exports (10 percent) and 7 percent of GDP⁵⁴. The industry includes most of the major multinationals involved in the manufacture of automobiles such as BMW, Ford, Toyota, and Volkswagen. Multinational firms expand usually to capitalize on cheap labor and new markets. These multinationals also use South Africa to source components and assemble vehicles for both the local and international markets.

A number of factors such as its distance from some of the major markets within Africa and the characteristics of countries surrounding it make South Africa an unlikely contender for high levels of investment by automobile manufacturing companies. South Africa has however, become a valuable investment destination because of the high quality of goods manufactured within South Africa and competitively low production costs. These low prices are maintained through low interest rates, which reduce the cost of investing. This encourages foreign direct investment, as it significantly reduces the cost of operation.

The development of South Africa's automotive industry has been one of slow but progressive development. The first South African car assembly plants were established in the 1920s. The South African automotive industry was initially protected as infant industry with high tariffs. The domestic industry developed mainly as an assembly industry to provide the needs of the local market. This was because high tariffs, coupled with local content requirements typically produced a market structure characterized by a large number of small-

⁵⁴ Black, A., and Mitchell, S. (2002). Policy in the South African Motor Industry: Goals, Incentives, and Outcomes. South African Journal of Economics Vol. 70 No. 8: 1275.

scale plants, frequently producing a wide range of models at low volume⁵⁵. To increase the economies of scale, South Africa as well as many other developing countries, opted to liberalize existing trade policies.

While South Africa has a seemingly perfect host climate for manufacturing industries, there are a few problems with intellectual property rights being upheld. One issue regarding intellectual property in the automotive industry in South Africa is counterfeiting⁵⁶. Counterfeiting is defined as any manufacturing of a product, which so closely imitates the appearance of the product of another to mislead a consumer that it is the product of another. Counterfeit products are sold at greatly reduced prices in comparison to the genuine articles and are often successfully passed-off as the genuine products. The counterfeit and gray market automotive industry component accounts for 3.2% of global counterfeit trade amounting to losses of \$16 billion for the automotive industry every year and grows at a rate of 9 to 11 percent⁵⁷.

Counterfeiting erodes the market for individuals and businesses involved in the selling of genuine products, reducing the market share of the legitimate business. It is the sellers of genuine products who incur the expense of obtaining licenses to sell their products and invest heavily in infrastructure, while counterfeiters enter the market with no prior investments. This reduces profitability of investments by the foreign multinational in the new market. Counterfeiting also poses a danger to consumers. Items produced by counterfeiters are usually substandard and sometimes endanger the lives of people who purchase them. This is important

⁵⁵ Black, A., and Mitchell, S. (2002). Policy in the South African Motor Industry: Goals, Incentives, and Outcomes. *South African Journal of Economics* Vol. 70 No. 8: 1275.

⁵⁶ <http://www.saiipl.org.za/couterfeiting.htm>

⁵⁷ ABRN, U.S. Seeing More Counterfeiting Within Its Borders, May 6, 2005
<http://www.abrn.com/abrn/article/articleDetail.jsp?id=160148>

for the automotive industry, because recurrent danger could reduce brand credibility (reputation) and as such, success within a certain market.

Automotive parts are important because consumption is directly linked to the demand for new vehicles, since a high percentage (about 70 percent)⁵⁸ of automotive parts production is for Original Equipment (OE) products. The remainder is produced for repair and modification (aftermarket) sales. The size of aftermarket is especially important for foreign investors, because it provides a sizeable portion of their income within the African market. For instance, Toyota is the leading retailer of original equipment from manufacturer (OEM), with a 22 percent market share⁵⁹. In 2008, Toyota South Africa became the company's seventh largest market outside of Japan, according to Ulrich Taylor of Frost & Sullivan's automotive and transportation division⁶⁰.

In 1998, the South African government passed into law the Counterfeit Goods Act No. 37, to protect against the following offences: the possession of infringing goods in the course of business, the manufacture, making or production of infringing goods for use which is not of a private or domestic nature, the selling, hiring or exchanging of infringing goods, the exhibition of infringing goods for the purposes of trade, the distribution of infringing goods for the purposes of trade, or any other activity or action which could cause prejudice to the rights of an intellectual property owner, and the importation of infringing goods into or through the Republic of South Africa⁶¹. Since 1997, counterfeit goods worth in excess of R600 million have been seized across several different industries, with the highest proportion being in the automotive

⁵⁸ <http://www.southafrica.info/business/economy/sectors/>

⁵⁹ South African Market Showing Strength. AfterMarket Business, October 1, 2008.

<http://aftermarketbusiness.search-autoparts.com/aftermarketbusiness/article/articleDetail.jsp?id=556784>

⁶⁰ South African Market Showing Strength. AfterMarket Business, October 1, 2008.

<http://aftermarketbusiness.search-autoparts.com/aftermarketbusiness/article/articleDetail.jsp?id=556784>

⁶¹ <http://www.saiipl.org.za/couterfeiting.html>

industry⁶². Police and border control officers have been trained to identify and seize counterfeit goods to prevent market infiltration.

Enforcement of intellectual property rights (IPR) in South Africa has been challenging. In recent years, the South African government has introduced new measures to enhance enforcement of the Counterfeit Goods Act No. 37, such as retrained police and custom officers. While the South African government may not be able to effectively curtail counterfeiting in other African countries serviced by its automotive industry, it is effectively reducing the level of uncertainty foreign investor's face regarding intellectual property rights protection.

The government has appointed more inspectors, designated more warehouses for securing counterfeit goods, destroyed counterfeit goods, and improved the training of customs, border police, and police officials. While it is difficult to quantify the amount of losses created by counterfeit goods, it is important for countries to work to mitigate its effects. Counterfeiting and piracy must be addressed through sustained efforts by governments, IPR owners, and other organizations. Governments must focus on reforming and modernizing IP legislation.

Comparing the South African and Nigerian Automotive Industries

The South African automotive industry represents an advanced level of industrialization compared to developing and industrialized nations. The Nigerian automotive industry is one of the least developed automotive industries in the world. Key players in the South African automotive industry are foreign multinationals, indicating high levels of foreign direct investment. To achieve and maintain such levels of foreign direct investment, it is important to have significantly strong intellectual property laws in place. While stronger IPRs are likely to have a positive impact on foreign investment, it is clear that they are not the sole determinant of foreign direct investment. These laws are important to the success of industries with high levels

⁶² www.saiipl.org.za/couterfeiting.html

of foreign direct investment.

South Africa's patent regime is ranked highly among developing countries in terms of strength and efficiency. Lesser constructed an IPR score for a number of countries based on three criteria: TRIPS and compliance with the International Union for the Protection of New Varieties of Plants (UPOV); PCT applications and prices and a corruption index, with the strongest weighting to the first criterion⁶³. In 1998, of a total of 44 developing and industrializing countries, South Africa scored highest⁶⁴. Nigeria, on the other hand was ranked one of the lowest, placing in the bottom three with Tanzania and Honduras. In 2005, South Africa scored 4.25 on the Ginarte Park index – higher than many countries at comparable stages of development and comparable with a number of industrialized countries⁶⁵. Nigeria scored a much lower 2.86. More recently, a report that utilized the Ginarte Park index on the strength of patent protection, but also assessed the extent of copyright and trademark protection to construct an overall IP score, awarded South Africa seven out of a possible 10 – 22nd highest out of 115 countries⁶⁶.

Weak intellectual property rights laws could lead to the loss of competitive and marketing advantage and thus loss of profits and investments. Easily accessible property rights make it easy for companies to begin operations in host countries, because in the event of an infringement, it is easy to seek the enforcement of the appropriate laws. With respect to trademarks, South Africa has offered strong protection, including for well-known global brands.

⁶³ Lesser, W. (2001). 'The Effects of TRIPS Mandated Intellectual Property Rights on Economic Activities in Developing Countries', paper prepared under WIPO Special Service Agreement; <http://www.wipo.int/about-ip/en/studies>.

⁶⁴ Lesser, W. (2001). 'The Effects of TRIPS Mandated Intellectual Property Rights on Economic Activities in Developing Countries', paper prepared under WIPO Special Service Agreement; <http://www.wipo.int/about-ip/en/studies>.

⁶⁵ Park, W.G., (2008). 'International Patent Protection: 1960-2005', *Research Policy* 37, 761-766.

⁶⁶ Property Rights Alliance, (2008). 'International Property Rights Index, 2008 Report', Property Rights Alliance: <http://www.IntellectualPropertyRightsIndex2998.htm>, Washington, D.C.

For instance, courts upheld the McDonald's trademark against a local trading firm, even though McDonald's had not been trading in South Africa for several years⁶⁷. This is an added incentive for multinational corporations, because there is assurance that property rights will be upheld at all times. Overall, therefore, the IP system in South Africa can be considered generally as favorable to foreign investors, especially those who are concerned with the protection of their intellectual property.

The Nigerian Intellectual Property Protection system is one of the weaker intellectual property systems in Sub-Saharan Africa. While there is an existing framework, there is a problem with enforcement. Despite the country's active participation in international conventions as outlined in the previous section and growing interest in IPR's protection in the international scene, the colonial model had persisted without considerable variation. Until the Nigerian government can find a way to effectively enforce laws against piracy, counterfeiting, and other property rights violations, it will continue to have a weak intellectual property rights system.

Relatively weak intellectual property rights protection in a developing country may reduce the likelihood that multinational firms will invest there. More than 30 percent of the U.S. firms felt that intellectual property rights protection in India, Nigeria, Brazil, and Thailand was too weak to permit them to invest in joint ventures there⁶⁸. If they do invest there, they may be willing to invest only in wholly owned subsidiaries, and not joint ventures with local partners or

⁶⁷ Kaplan, David. (2009). Intellectual Property Rights and Innovation In South Africa: A Framework. The Economics of Intellectual Property in South Africa. <http://www.wipo.int/ip-development/en/economics/1013.html>: WIPO Publication.

⁶⁸ Wallerstein, Mitchel B., Mary Allen Moguee, and Roberta A. Schoen. Effects of Intellectual Property Rights Protection on the Transfer of Technology via Foreign Direct Investment. Global dimensions of intellectual property rights in science in science and technology. Washington, D.C.: National Academy Press, 1993. Section II, Chapter 5:116

transfer only older technologies to prevent loss of investments in research and development⁶⁹.

This is especially important for companies in the manufacturing industry and firms in most other industries investing in areas excluding sales and distribution.

Survey data stated that of 100 major U.S. firms in six industries (chemicals (including drugs), transportation equipment, electrical equipment, machinery, food, and metals), about half stated that for investment in facilities to manufacture components or complete products, intellectual property rights protection was important, and for investment in research and development facilities, about four-fifths of the firms surveyed said it was important⁷⁰.

Weak intellectual property rights protection increases the probability of imitation, which erodes a firm's ownership advantages and decreases localization advantages of a host country. Piracy and counterfeiting are key issues in both countries that result in loss of ownership. An inadequate IPR regime, therefore, deters foreign direct investment and encourages exporting.

Ultimately, the South African government has effectively provided effective protection of intellectual property for both citizens and foreign investors. The success of the automotive industry has depended on several policies, and the ability of foreign investors to securely develop manufacturing subsidiaries using their technology without incidence of piracy or theft. This opportunity has not been afforded to foreign automotive manufacturing companies in Nigeria. The Nigerian government needs to work on enforcement of intellectual property rights to develop a secure environment devoid of intellectual property theft. This could help to bridge the

⁶⁹ Wallerstein, Mitchel B., Mary Allen Mogue, and Roberta A. Schoen. (1993). Effects of Intellectual Property Rights Protection on the Transfer of Technology via Foreign Direct Investment. Global dimensions of intellectual property rights in science in science and technology. Washington, D.C.: National Academy Press. Section II, Chapter 5:111.

⁷⁰ Wallerstein, Mitchel B., Mary Allen Mogue, and Roberta A. Schoen. (1993). Effects of Intellectual Property Rights Protection on the Transfer of Technology via Foreign Direct Investment. Global dimensions of intellectual property rights in science in science and technology. Washington, D.C.: National Academy Press. Section II, Chapter 5: 112.

gap between the levels of foreign investment and increase manufacturing in Nigeria.

The Mauritian Textile and Apparel Manufacturing Industry

The Mauritian economy has developed over time into a middle-income, diversified economy with growing industrial, financial, and tourist sectors. The economy is composed of a number of different sectors including sugar, tourism, textiles and apparel, and financial services, and is expanding into several others. The government's strategy focuses on creating vertical and horizontal clusters of development in these sectors. The World Bank's Doing Business 2010 study ranks Mauritius as the best country in which to do business in Africa. Overall, Mauritius is ranked 17th out of 183 countries ranked in the 2010 survey, up from 24th out of 183 in 2009⁷¹.

Currently, Mauritius is among the top-performing developing countries in starting a business and protecting investors. Of the 33 economic sectors looked at in the World Bank report, 32 are fully open to foreign investment in Mauritius⁷². Mauritius has attracted more than 32,000 offshore entities, many aimed at commerce in India, South Africa, and China⁷³. The World Economic Forum's 2010-2011 Global Competitiveness Report lauded Mauritius as "a country characterized by strong and transparent public institutions, with clear property rights, strong judicial independence, and an efficient government⁷⁴."

Mauritius maintains a legal system based on both Napoleonic code and British common law. The system protects all tangible property. Mauritius is a member of the World Intellectual Property Organization (WIPO) and party to the Paris and Bern conventions for the protection of industrial property and the Universal Copyright Convention. The Copyrights Act of 1997 and the Patents, Industrial Designs and Trade Marks Act of 2002, which are in line with international norms, protect intellectual property rights.

⁷¹ World Bank (2010). World Development Indicators Database. World Bank, Washington, DC.

⁷² World Bank (2010). World Development Indicators Database. World Bank, Washington, DC.

⁷³ CIA World Fact book. <https://www.cia.gov/library/publications/the-world-factbook/geos/mp.html>

⁷⁴ The Global Competitiveness Report 2010-2011. 2010 World Economic Forum. www.weforum.org/issues/global-competitiveness

Textile and Apparel Manufacturing in Mauritius

The Mauritian textile industry is heavily involved in most aspects of apparel manufacture, from the simpler processes such as spinning yarn, to mass production for retailers. Mauritius has received Chinese, Indian, and Pakistan investment in spinning capacity to provide domestic production of yarn for fabric production in the local and international market⁷⁵. Investment is encouraged by Mauritius' established textile and apparel sector, preferential market access to the EU and U.S. markets, as well as government incentives⁷⁶. The textiles and apparel industry together make up more than three-quarters of cumulative foreign direct investment in manufacturing⁷⁷. This is due to its high comparative advantage in the production of textiles and apparel⁷⁸. Apparel manufactured by Mauritian companies is targeted towards leading fashion retailers and international companies such as Austin Reed, House of Fraser, H&M, Zara, and Mango (mostly European brand fashion retailers)⁷⁹.

The Patent, Industrial Design and Trade Mark Act of 2002 was introduced by the government, in part, as a response to the rise in the production and trade of counterfeit goods, such as Ralph Lauren shirts⁸⁰. In 2004, Polo Ralph Lauren (PRL) successfully sued local manufacturers and retailers of PRL counterfeit products in Mauritian courts, which resulted in the closure of the counterfeit operations. The Anti-Piracy Unit has over the years seized a

⁷⁵ OECD African Economic Outlook 2008.

⁷⁶ Joomun, Gilles. "The Textile and Clothing Industry in Mauritius." In *The Future of the Textile and Clothing Industry in Sub-Saharan Africa*, edited by Herbert Jauch and Rudolf Traub-Merz, 193–211. Bonn, Germany: Friedrich-Ebert-Stiftung, 2006.

⁷⁷ Joomun, Gilles. "The Textile and Clothing Industry in Mauritius." In *The Future of the Textile and Clothing Industry in Sub-Saharan Africa*, edited by Herbert Jauch and Rudolf Traub-Merz, 193–211. Bonn, Germany: Friedrich-Ebert-Stiftung, 2006.

⁷⁸ African Economic Outlook: Mauritius. <http://www.africaneconomicoutlook.org/en/countries/southern-africa/mauritius/>

⁷⁹ Made in Mauritius: A profile of the Mauritian Textile and Apparel Industry. http://www.just-style.com/analysis/made-in-mauritius_id92767.aspx

⁸⁰ Intellectual Property Law: Mauritius. <http://www.wipo.int/wipolex/en/profile.jsp?code=MU>

number of other products with counterfeit marks, such as, Louis Vuitton and Quick Silver⁸¹.

In December 2009, Nike and Adidas lodged a legal action at the Supreme Court against a local businessman, who imported 2,000 pair of shoes suspected of being counterfeit goods⁸². Mauritius Customs seized the goods and when the case was heard in March 2010, the two parties came to a settlement whereby the importer agreed to have the goods destroyed and undertook never to import counterfeit goods again⁸³.

The Police, Customs, and Judicial authorities have effectively enforced trademark and copyright protection for firms like Polo Ralph Lauren and legitimate distributors of Bollywood films that have established a legal or commercial presence in Mauritius. The Customs Department requires right holders or authorized users to register their trademarks and copyrights with its office in order to take action to protect their marks/copyrights at the borders of Mauritius. Since the Mauritian Textile and Apparel Industry serves a number of foreign brands, it was imperative that it took action against counterfeiting within its industry. By doing so, it has made it clear to investors that as long as the intellectual property is registered, it will be protected. Cases of counterfeiting in major brands such as Polo Ralph Lauren could have caused other retail brands to pull out of these markets, resulting in a loss of the investment and decline of the textile industry.

When making an investment decision there is a number of crucial factors to consider which will ultimately determine the success of the investment. For apparel retailers, it is necessary to consider the total cost of production when deciding on where merchandise will be

⁸¹ Mauritius: L'express Newspaper. (21st Sep 2005). Des faux Eden Park et Louis Vuitton saisis a Grand Baie.

⁸² U.S Department of State 2011 Investment Climate Statement: Mauritius
<http://www.state.gov/e/eeb/rls/othr/ics/2011/157323.htm>

⁸³ U.S Department of State 2011 Investment Climate Statement: Mauritius
<http://www.state.gov/e/eeb/rls/othr/ics/2011/157323.htm>

manufactured. Initially it may seem more efficient for foreign apparel retailers to invest in a fairly cheap textile and apparel industry. However, there are other external factors that may affect cost indirectly, and prevent firms from investing in the cheapest textile and apparel industry.

This situation is applicable to the Polo Ralph Lauren case of 2004. It is interesting to consider what factors may have influenced the decision to produce clothing in Mauritius and not another Sub-Saharan African country, such as Nigeria. Mauritius is a middle-income, diversified economy, with a high per capita income (\$12,918)⁸⁴. Nigeria, on the other hand, is a less developed country with a much lower per capita income (\$2,203)⁸⁵. In 2002, the average monthly wage level in the manufacturing industry in Mauritius was \$340⁸⁶, while in Nigeria; the average monthly wage level was \$111⁸⁷. Nigeria has a significantly larger market and lower cost of labor, making it a more attractive country for mass production of manufactured goods. It follows that the economic advantage of producing in Mauritius is lower because the wage rate is higher compared to the wage rate in Nigeria.

While it appears to be more efficient to produce in Nigeria, there are several factors that deter investors. One important factor is intellectual property protection and enforcement. The strength of intellectual property regimes and the level of enforcement can have long-term effects of the profits of apparel retailers. In the Mauritian textile and apparel industry case study, the

⁸⁴ Human Development Report 2011 Sustainability and Equity: Towards a Better Future for All. New York: Palgrave MacMillan. Human Development Statistical Annex: 129.

⁸⁵ Human Development Report 2011 Sustainability and Equity: Towards a Better Future for All. New York: Palgrave MacMillan. Human Development Statistical Annex: 131.

⁸⁶ Soderbom, M., & Teal, F. (2002). The Performance of Nigerian Manufacturing Firms: Report on the Nigerian Manufacturing Enterprise Survey 2001. Centre for the Study of African Economies; University of Oxford, CSAE REP/2002-01, 51.

⁸⁷ Soderbom, M., & Teal, F. (2003). How can policy towards manufacturing in Africa reduce poverty? A review of the current evidence from cross-country firm studies. Centre for the Study of African Economies; University of Oxford, CSAE, 6.

Mauritian government worked diligently to combat counterfeiting and piracy in both local and international textile and apparel manufacture. The Nigerian government has struggled with the protection of intellectual property rights in the textile and apparel industry, especially concerning locally produced textiles.

Textile and Apparel Manufacturing in Nigeria

The Nigerian textile and apparel industry was started in the late 1950s, and peaked after Independence, with about 200 textile firms in the industry by the late 1980s⁸⁸. The industry became the second largest textile industry in Africa. In the 1980s and early 1990s, Nigeria's textile industry received a lot of foreign investment. These foreign textile mills formed joint ventures with Nigerian textile mills. Several of the textile mills were either directly owned by Indian investors or were subsidiaries of Indian-owned companies; for instance, Afprint Nigeria Plc., was in turn part of the Indian Kewalram/Chenrai group. Spintex Mills (Nigeria) Limited was also an Indian company⁸⁹. During the same period, CHA Textiles, a Chinese company, bought United Nigeria Textile Plc. (UNTPLC), a Kaduna-based company that was established in Nigeria in 1964⁹⁰. There were also a number of Lebanese owned firms⁹¹.

The principal products of the Nigerian textile industry are cotton, synthetic materials, multi-colored fabrics, and wax-resist prints popularly referred to in local parlance as "Ankara". In recent times, however, the textile industry has fallen from its advanced state, to one of complete decline. These days, most of the fabric used in Nigeria is imported from China, even

⁸⁸ Akinrinade, S., and Ogen, O. (2008). Globalization and De-Industrialization: South-South Neo-Liberalism and the Collapse of the Nigerian Textile Industry. *The Global South* Vol. 2 No.2: 163.

⁸⁹ Aggarwal, R., and Weekly, J. (1982). Foreign operations of Third World multinationals: a literature review and analysis of Indian companies. *The Journal of Developing Areas* Vol. 17 No. 2: 18.

⁹⁰ Onyeiwu, S. (1995). Why in Africa Research Rarely Reaches Use: A Comment on Paul B. Vitta's Article. *Canadian Journal of Development Studies* Vol. 16.No. 1: 15.

⁹¹ Vasudevan, Parvathi. (2010). *The Changing Nature of Nigeria-India Relations*. Chatham House 1: 4.

though there is a strict ban on the importation of fabric⁹². The importation of relatively cheap fabrics remains the most important factor responsible for the decline of the industry. The products are imported into Benin or Togo, from where they are to Niger before being smuggled across the border.

“ . . . About 40 percent of the 40 million meters of wax and other fabrics imported monthly from China to Africa find their way to Nigeria through smuggling. Reports also show that the imported Asian textiles have captured about 80 percent of Nigeria’s textile market as they are 20 percent cheaper than local products”⁹³.

Nigeria once held 63 percent of the remaining West African textile manufacturing capacity. Nigerian wax-resist textiles were found in almost every marketplace in Sub-Saharan Africa. But Nigerian manufacturers faced a major challenge in the African market: cheap Asian imports. Local designs are illegally copied and taken to China for mass production. The fabrics from China are then exported to Nigeria and labeled as ‘Made in Nigeria’ for effective distribution⁹⁴. The introduction of preferential textile quotas for Africa under the African Growth Opportunities Act (AGOA) encouraged Chinese firms to establish trading operations in Nigeria. It was one of the basic reasons for establishing Chinatown, the trading hub for counterfeit wax-print textiles. The skills of textile workers have since become redundant due to unfair trade practices such as copying designs, counterfeiting trademarks and falsifying place of origin descriptions.

Since the increased involvement of the Chinese in the textile industry, most of the textile

⁹² Akinrinade, S., and Ogen, O. (2008). Globalization and De-Industrialization: South-South Neo-Liberalism and the Collapse of the Nigerian Textile Industry." *The Global South* Vol. 2 No.2: 163.

⁹³ Jimoh, Azimazi Momoh. (October 29, 2007). Senate Seeks Measures to Revamp Textile Industry. *The Guardian*.

⁹⁴ Ngo Mbem, Stephanie. (2008). *Issues of protection of industrial designs in development in Africa: the case of the member countries of the African Intellectual Property*. Paris: L'Harmattan.

mills in Nigeria have been closed down. Foreign investors have pulled out of the market, due to the inability to protect their designs from Chinese counterfeiting. The textile industry now has fewer than 40 mills remaining⁹⁵. The Nigerian government has taken no action against producers of counterfeit textiles and apparel. Until strong action is taken against counterfeiting, it is unlikely that there will be increased foreign investment in this sector.

The low volume of design registration in Africa's highly creative society is generally attributed to a lack of knowledge that such protection exists and lack of funds to pay for registration. The first step in encouraging stakeholders and users of the IP system, as well as in supporting the textile industry, is to enforce IP rights. Coordinated efforts are required from stakeholders and government agencies such as IP offices, police, customs, the judiciary and the revenue and taxation offices. Companies, like the Nigerian textile firm Nichem, which create over 200 new designs a year⁹⁶, can benefit from copyright protection. To redevelop the industry, the Nigerian government must work harder to enforce intellectual property rules and train police and other law enforcement agents to effectively prevent the sale of counterfeit goods. The government should also ensure that manufacturers are aware of the protection that is available to them for their designs.

Although mass production in Nigeria would ultimately be cheaper for foreign investors, it is difficult to invest there because designs are not well protected. The designs by foreign apparel retailers can just as easily be copied and dispersed to other countries for mass production. This leads to an expansive distribution network for counterfeit clothing, eventually causing investors greater losses. There is already a market for counterfeit clothing and textiles in Nigeria and easy access to designs will only increase the spread of the market for counterfeit clothing. Given the

⁹⁵ Vasudevan, Parvathi. (2010). *The Changing Nature of Nigeria-India Relations*. Chatham House 1: 5.

⁹⁶ Ngo Mbem, Stephanie. (2008). *Issues of protection of industrial designs in development in Africa: the case of the member countries of the African Intellectual Property*. Paris: L'Harmattan.

large domestic market, stronger protection against counterfeit clothing targeted to the domestic market might encourage manufacturers to invest in the Nigerian textile and apparel industry for the advantages of the domestic market and the export market.

Comparing the Mauritian and Nigerian Textile and Apparel Manufacturing Industries

The Mauritian textile and apparel industry has contributed significantly to industrialization and development of the Mauritian economy. The Nigerian textile industry is now one of the least developed textile industries in the world. The Nigerian textile industry presents a slightly different case because although it was previously developed, it collapsed due to lack of effective property right protection. Key players in the Mauritian textile and apparel industry are foreign multinationals, indicating high levels of foreign direct investment. To achieve and maintain such levels of foreign direct investment, it is important that there are significantly strong intellectual property laws in place. These laws are important to the success of industries with high levels of foreign direct investment.

Mauritius' economy and patent regime is ranked highly among developing countries in terms of strength. On the 1998 Intellectual Property Score index by Lesser, Mauritius scored 4.72. The World Economic Forum's 2010-2011 Global Competitiveness Report lauded Mauritius as "a country characterized by strong and transparent public institutions, with clear property rights, strong judicial independence, and an efficient government"⁹⁷. Earlier in 2008, the textile industry was hit by the closure of hundreds of Ralph Lauren outlets. The shops were shut permanently after Ralph Lauren claimed that the shops had been using its trademark without permission.

While this represented a loss in foreign investment, the Mauritian government was able to offset the effects by implementing a law in response to the counterfeiting and effectively

⁹⁷ World Economic Forum: Global Competitiveness Report. 2010

managed to reduce the incidence of the sale of counterfeit goods⁹⁸. The Nigerian textile industry was unable to prevent the influx of counterfeit goods in their markets from outside the country. This resulted in the loss of foreign investment in their industry, because they could not protect their investments in textiles and apparel. If this trade continues at its current rate, it is not just the wax-resist textile mills that may disappear, but also Sub-Saharan cotton cultivation, natural dye making and other supporting industries for the textile and apparel industry. Further cooperation between the government and all stakeholders will help turnaround this trend, which threatens one of Africa's best-known products.

Ultimately, intellectual property rights protection is one of several factors considered prior to investing abroad. For some industries, the level of piracy or counterfeiting is more important to the success of the investment, and for other industries it is less important. The strength of intellectual property protection has far reaching effects to other areas of the economy such as trade and employment levels. Stronger intellectual property rights do indeed provide some domestic benefits for developing nations, but tend to be more important for more valuable and readily copied inventions. Sub-Saharan African countries wishing to attract increased foreign investment are advised to strengthen their intellectual property rights protection systems.

⁹⁸ African Economic Outlook: Mauritius. <http://www.africaneconomicoutlook.org/en/countries/southern-africa/mauritius/>

IV. Recommendations for Effective Intellectual Property Rights

Intellectual property rights in Sub-Saharan Africa have a number of faults that prevent protecting intellectual output from being completely effective. The strength of intellectual property protection systems play a larger role in the functioning of each country's economy. Throughout this thesis, the effects of intellectual property rights protection on pharmaceuticals, manufacturing, culture, and technology have been discussed. The current intellectual property rights protection systems have not been effective in protecting output in Sub-Saharan Africa. Sub-Saharan African countries can effectively modify the current intellectual property protection systems in place to protect more of the intellectual outputs where their strengths lie. When the property rights system protects the output these countries are best at producing, the complete benefits of intellectual property begin to accrue. The reforms that intellectual property systems in Sub-Saharan African countries need can be categorized into three sections; perceptions, use, and enforcement.

Perceptions of Intellectual Property Rights Systems

A country like the United States that is a world leader in technology and carries out huge amounts of research and development obviously stands to gain more from the patent system than a small, impoverished country with practically no scientific or technological capabilities⁹⁹. Most Sub-Saharan African leaders perceive intellectual property laws to be unfair¹⁰⁰, barring access to

⁹⁹ Wallerstein, Mitchel B., Mary Allen Mogee, and Roberta A. Schoen (1993). Effects of Intellectual Property Rights Protection on the Transfer of Technology via Foreign Direct Investment. Global Dimensions Of Intellectual Property Rights In Science In Science And Technology. Washington, D.C.: National Academy Press. Section II, Chapter 5: 109.

¹⁰⁰ Integrating Intellectual Property Rights and Development Policy. (2002). Report of the Commission on Intellectual Property Rights. Section 1: 2.

new technology and other output from developed countries¹⁰¹. Intellectual property rights are not designed merely to facilitate the transfer or export of technology from one country to another. They are designed to stimulate research and development and inventive activity in all countries. They also are designed to encourage the removal of secrecy from ideas so that those ideas can facilitate and inspire other inventions. The governments of most Sub-Saharan African countries have failed to use intellectual property rights in the best interests of the country as a whole. Disputes over the terms of importing intellectual property have overshadowed the possible benefits that could be realized by developing domestic inventive competence and capacity. The response to these conflicts has been to pass laws, and integrate a nominal system of enforcement with minimal funding, in the hope that this will help avoid paying "unfair" licensing fees for new intellectual output.

In cases of easily pirated, counterfeit goods, weak intellectual property rights have allowed certain groups to gain, because there is easy access to goods without paying for them. Few policymakers in developing countries are asking whether the current intellectual property regimes in place actually stimulate domestic invention and capacity development or whether they improve the ability of developing countries to buy technology on better terms. Leaders of Sub-Saharan African countries will have to invest more in their intellectual property protection systems than they do currently. They will also have to include intellectual property rights into their industrial policy if they hope to realize their potential benefits.

Recommendations for Intellectual Property Rights on Pharmaceuticals

The appropriate recommendations for intellectual property rights in Sub-Saharan African countries will ensure that benefits people gain in terms of the development of new treatments for

¹⁰¹ George M. Sikoyo, Elvin Nyukuri and Judi W. Wakhungu. (2006). Intellectual Property Protection in Africa: Status of Laws, Research and Policy Analysis in Ghana, Kenya, Nigeria, South Africa and Uganda, Nairobi, Kenya: Acts Press.

diseases that afflict them will be, at best, long term. The main issue presented by intellectual property rights in the pharmaceutical industry is access to drugs, due to high pricing and rules against manufacturing drugs without a license from patent holder. Tools of the international intellectual property systems allow for parallel imports and compulsory licensing in extreme cases. National laws in developing countries should retain the right for the government to admit parallel imports and to issue compulsory licenses. The governments of developing countries should determine cases that adhere to the conditions under which compulsory licensing and parallel importation can be invoked. This will help achieve the lowest possible cost of medicines in developing countries in order to facilitate access.

This will however, prove to be problematic for countries with limited manufacturing capacity. In cases where there is limited capacity, one way to reverse the poor performance of manufacturing industries is to provide incentives for firms to become more export oriented. This will improve the levels at which these industries can produce. To assist industry growth and development to a globally competitive level, the government would have to improve working conditions for industries. This includes issues such as erratic power supply, poor infrastructure, and weak institutions (for instance, legal and judicial systems). The government should also review economic policies in place, which are extremely important for development of industries.

For now, most low-income developing countries have to rely on imports for the supply of pharmaceuticals. Patents in potential supplier countries may allow the patentee to prevent supplies being exported to another country, particularly by controlling distribution channels. For this reason, some companies may selectively patent in countries such as South Africa because it is a potential supplier to its poorer neighbors in the rest of Southern Africa and other countries. In this case, it may be more effective for Sub-Saharan African countries to group together with

countries that have stronger manufacturing industries, such as South Africa, to negotiate a regional contract with pharmaceutical industries, to ensure the licensed provision of pharmaceuticals to areas with a high prevalence of diseases.

Recommendations for Intellectual Property Rights in the Manufacturing Industry

Manufacturing industries in Sub-Saharan Africa have been categorized as weak in comparison to manufacturing industries in the rest of the world. The industries in these countries have several weak points such as power supply, awareness of and regulation of intellectual property protection, poor infrastructure, and low levels of education. While this may be seen as problematic, it presents an opportunity to develop manufacturing equipment and processes that are compatible with the unique conditions in the manufacturing industries in Sub-Saharan Africa. Instead of purchasing technology, Sub-Saharan African countries should focus on developing their own technological industrial property. This will help develop the manufacturing industries to meet domestic demand for semi-finished and finished products.

Many innovators in Sub-Saharan Africa are unaware of the applicable intellectual property rights to protect their inventions. This means several inventions and creative works are left unprotected and vulnerable to counterfeiting and piracy. The government and intellectual property offices should work together with manufacturer's associations to raise awareness of intellectual property rights protection. Manufacturers and innovators should be educated on the appropriate rights applicable for inventions and what level of protection they receive. They should also be kept aware of what action to take in the event of infringement.

Sub-Saharan African countries will benefit most from providing alternative forms of protection for local innovation. To afford more protection to intellectual output developed within their countries, it is important to acknowledge the differences in the innovation systems,

and attempt to protect the intellectual output each country is best at producing. Each country should also take greater account of traditional knowledge when examining patent applications. As well as the development of appropriate regulatory frameworks, an important part of effective regulation is the undertaking of regular, periodic reviews of all aspects of the national intellectual property rights regime, to ensure that the laws established are relevant and appropriate.

For these reforms to be effective, it is imperative that legal and judicial systems function efficiently. Sub-Saharan African countries would benefit from increased capacity building in the area of intellectual property law. With more professionals equipped to handle issues of intellectual property, leaders in Sub-Saharan African countries can develop a means of protecting the output they have the greatest ability to produce or that is unique to them. With a new system that allows for the protection of distinctive output from Sub-Saharan African countries, these countries will be better positioned to reap the benefits of their innovations.

Recommendations for Enforcement of Intellectual Property Rights

In Sub-Saharan Africa, enforcement of intellectual property rights laws is often the weakest aspect of the law. Enforcement is often hindered by inadequate funding of enforcement agencies, lack of trained staff, poorly paid enforcement (police, customs and specialized institutions) agents. These issues coupled with a weak institutional base and a disorganized judicial system, are at the heart of the ineffective enforcement regimes in Sub-Saharan Africa.

The governments of these countries will benefit from training law enforcement agents to be more effective at curtailing counterfeiting and piracy, and following through on punishment of offenders. Consumers should be made aware of the existence of counterfeit goods and anti-counterfeiting systems such as hologram stickers should also be implemented where possible to help consumers differentiate between the original and counterfeit goods. Innovators and

consumers should be made aware the effects and consequences of counterfeiting, and work together with responsible bodies to report cases of counterfeiting and avoid purchasing counterfeit or pirated goods.

V. Conclusion

This thesis sought to analyze the current state of intellectual property rights in Sub-Saharan Africa, review current policies in place, and their effect on productions, trade, and foreign direct investment in different industries. This exercise showed that although there are several policies that should protect intellectual property, in most Sub-Saharan African countries, these laws were ineffectual. This is because innovators are not always aware of the existence of intellectual property rights, do not believe that intellectual property right protection is effective, or the enforcement of property rights is inadequate. These three factors contribute to the relatively low use of intellectual property rights.

Some countries such as South Africa, have managed to successfully use intellectual property rights to protect developing industries, which have grown to become some of the largest and most effective in this region. Following an in depth analysis of existing policy frameworks, this thesis sets out recommendations for a more effective intellectual property rights regime. To gain the full benefits of a strong intellectual property rights system, Sub-Saharan African countries should develop industries most important to manufacturing output for which they have comparative advantage and develop intellectual property rights to protect the intellectual output that is unique to their countries.

While much of this thesis has focused on analyzing industry frameworks, it has argued that these positions have direct implications on policy creation. As the case studies of Brazil and South Africa demonstrated, it is possible for developing countries to use the TRIPs agreement to the advantage of the country's economy. In order to fully analyze the implications of an intellectual property rights regime, it is important to make the underlying property rights laws more explicit. This will allow everyone to be able to fully understand what the significance of

these policies is and how to use them effectively. Only with this fuller understanding can effective and appropriate intellectual property protection systems capable of protecting and encouraging innovation, be properly designed and implemented.

Notes

1. ABRN, U.S. Seeing More Counterfeiting Within Its Borders, May 6, 2005
<http://www.abrn.com/abrn/article/articleDetail.jsp?id=160148>
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