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INTELLECTUAL PROPERTY POLICY CREATION AND PROTECTION

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1.0 PROLOGUE

“Imagination is more important than knowledge”

Albert Einstein, Scientist (1879 – 1955) [5]

Albert Einstein’s apparent preference for imagination over knowledge does in no way belittle knowledge, rather implies that it is the ability to stand on an existing foundation of accepted knowledge and yet see beyond to the next frontier of discovery that is the source of personal, cultural and economic advancement. By extension, had Einstein been content to simply learn the rules of physics as they were passed down to him as knowledge, he might have been a successful student, worthy in learning and character, perhaps the best graduating student of the time, but he might never have developed the theory of relativity, which became the foundation for modern physics as it exists and continues to evolve today. Had the world been content with watching the stars with Galileo’s telescope, the journey to Mars could not have been completed. [7]

According to George Washington Carver a great African – American Chemist and Inventor, “Invention is valuable to all peoples, regardless of their economic condition, race or nationality.” Carver invented and obtained patents on crop-rotation methods for conserving nutrients in soil

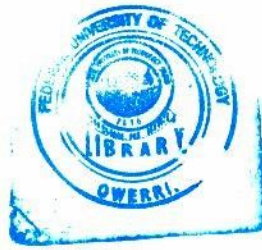
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and discovered hundreds of new uses for crops such as the peanut, which created new markets for farmers in the United States of America. His message drives home a point that the power of imagination applied to solving practical problem is not the exclusive province of any nation or race, but is a force that can empower individuals and nations to advance to great heights. From our contemporary standpoint, packaging water in bottle of sachet, (the much celebrated 'pure water'), though simplistic in concept and function, is an innovation that has provided relief to portable water problem of the masses.

The history of the human race is a history of application of imagination, innovation and creativity to an existing knowledge in order to solve a contemporary problem. From the early writings in Mesopotamia, the Chinese abacus, the Syrian astrolabe, Johannes Gutenbergs Printing Press (1440), Conrad Gesner's Pencil (1660), the ancient observations of India, (recall Marharraja Jai Singh's Astronomical Instruments in 1728), Alexander G. Bell's Telephone (1876), William Perkin's Mauve (1882) Orville and Wright's Air plane (1903) Ladistilo Biro's Ball point pen (1938), I.D. Rattee's reactive dye (1956), the internal combustion engine, penicillin, plant medicines and cures in Southern Africa, the transistor, semi conductor nanotechnology, Russell's Compact Disc 1965 and Getrude Elion's Immune System Drugs to fight Cancer and AIDS (1956: rec. Nobel prize 1998) and countless other discoveries and innovations, it has been the imagination of the World's creators that has enabled humanity to advance to today's levels of technological height. In general, innovation and inventions are created by individuals or groups who are not content with the old and instead see and express ideas and emotions in new ways.



1.1 IP IN RETROSPECT

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Intellectual Property is not a new concept. The Venetian Law of 1474 is often referred to as the first systematic approach to protecting inventions by a form of patent, as it stipulates an exclusive right of an individual which limited the public interest for the first time. Although 16th Century Tudor England already had a patent system, the “Statute Monopolies” of 1624 was the first written law which provided for the grant of a monopoly for an invention for a limited period of time.

Book production in the first millennium was a tedious and slow affair. Scribes wrote and copied books by hand, some with more artistic skills than others. Written works were for the elites and the rich only. The invention of moveable type and the printing press by Johannes Gutenberg 1440 was one of the historical events that contributed to the birth of the first copyright system in the world. In 1469, John of Speyer was granted exclusive right by Venice to “Print the Letters”. With the Gutenberg’s invention available everywhere in Western Europe, by the second half of the 15th century, the Roman Catholic Church began to ban books written by reformers and the monopolies of the press emerged in England and France in order to protect publisher’s profits and to permit control over printing. This also recognised author’s right, giving them or their next of kin exclusive powers to reprint a book for 14 years after it was first published. Known as an “Act for the encouragement of learning”, the Statute of Anne was one of the inspirations for the patent protections in the United States Constitution.

The second half of the 18th Century was a golden age of trade and industry for many countries as well as a time of artistic creativity, scientific



innovation and political revolution. It was during this time that some countries established their first patent system. For instance, in 1788, the US constitution specifically provided for patents and the protection of inventions by granting exclusive rights to inventors. Also the first patent law in France, which provided for the protection of inventor's rights, was enacted in 1791 after the French Revolution and the Declaration of the Rights of Man and of the Citizen. [10]

2.0 EMERGENCE OF INTERNATIONAL PATENT LAWS [11]

In the second half of the 19th Century, goods and workers crossing national borders brought a wave of globalization to industrial powers and although patent laws had been enacted in several countries, the demand for international protection of inventions began to be felt. In fact, foreign exhibitors refused to attend the International Exhibition of Inventions in Vienna in 1873 because they were afraid the ideas will be stolen and exported commercially in other countries. This incident gave birth to the Paris Convention for the Protection of Industrial Property in 1883. Indeed, this was the first major international treaty designed to help people of one country obtain protection in other countries for the intellectual creations. Such protection took the form of industrial property rights, in the form of patents (invention), marks and industrial designs.

In the mid 1800s, renowned authors were finding their works illegally reproduced and for sale in countries other than their own, and from which they received no royalties. In order to eliminate this practice, the famed French author of "Les Miserables" and the "Hunchback of Notre Dame", Victor Hugo, organized a group of prominent authors into the International Literary Association, which later became known as the International Literary and Artistic Association, with the intention of establishing some basic form of international protection for their works. This led to another



major international treaty known as the Berne convention of 1886. Both treaties, the Paris and Berne Conventions, centre on the principle of equal protection between nationals and foreigners.

3.0 WHAT IS INTELLECTUAL PROPERTY? [12,13]

Intellectual property (IP) is the term that describes the ideas, inventions, technologies and works of art, music and literature that are intangible when first conceived but became valuable in tangible form as visible products. It may also be defined as Works of the human mind – inventions, patents, trademarks, industrial designs, geographical indications, books, films, musical works, etc. or New or original knowledge which provides basis for creating sustainable business and competitiveness. In economic sense IP is the commercial application of imaginative thought to a technical or artistic challenge.

The peculiarity of IP does not lie in the product itself but in intellectualism or special idea behind it and the way the idea is expressed or named or described. [14]

Property here depicts value attached to the product of intellectualism since a person or group of persons can claim ownership of it just as houses, land, cars or personal effects can be owned. As the private property of their original creators, they are prized by society for many reasons – economic, political and cultural role, but their particular value is that the legacies of human endeavor live in their expression. IP is thus neither strange nor mysterious. Kamil Idris (2003) contends that ‘Intellectual Property is a power tool for economic development and wealth creation that is yet being adapted to optimal effect in all countries, particularly the developing world’. IP is relevant to agriculture as well as to analog signals, to



medicinal roots as well as to microbiology, to folk music as well as technology.

Today's music, works of art and modern technologies such as phonogram, celluloid film, wireless broadcast, software and digital recordings are indicators of social progress and the quality of life. In a broad sense IP embraces the following:

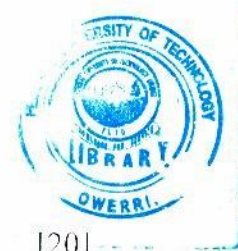
- Original and Novel Creations of the Intellectual [15]
- An Invention
- A Discovery
- An Improvement on existing work
- Copyrightable [16]
- Integrated Circuit
- Trade Mark
- Trade Secret
- Licensable Know-how and Related rights.
- Individual or multimedia works of art or music, records of confidential information
- Instructural materials, tests, data, texts bibliographies
- Biological materials, plant lives, DNA sequences, Chemical compounds, Thesis
- Records of confidential information generated or maintained by the University/R&D institution.

4.0 NEED FOR PROTECTION FOR IP. [17]

There are quite a number of reasons why IP should be protected nationally and internationally:



- Society has been desirous of laws or Policies which serve to deter trespass against persons and property, and provide penalties in case of violation of those laws
- Need for sanctity of property and offences against it are checkmated, for example, by laws related to trespass and theft. Theft here means appropriating a property belonging to another with the intention of permanently depriving the other of the possession.
- Intangible assets comprise over 50% of the value of many firms, large and small.
- Intellectual Property is a major asset which if leveraged and managed effectively can contribute in increasing value of firms and wealth of nations
- Success today depends on harnessing the power of human mind...to create wealth
- Generating wealth from intellectual property requires appropriate laws, systems, enforcement mechanisms and competencies
- Enterprises need to utilize IP assets effectively to ensure quality of their products [18]
- IP has become an important instrument of economic and trade policies
- Protection of IPRs enables countries to participate actively in international trade
- IPR protection is linked to competitiveness in international trade
- protection seen as determining factor in safeguarding results of technological developments
- Incentive and reward required to spur such investment
- Key component of the infrastructure required for economic growth promotes social-economic development
- Promotes development of national indigenous technological capacity [19]



5.0 OBJECTIVES OF IP POLICY

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Socio-economic benefits of IP protection stem from qualitative competitiveness of products produced and delivered under appropriate IP policies aimed at:

- Promoting development of national indigenous technological capacity
- Generating export opportunities through enhancement of competitiveness
- Helping to attract foreign investment e.g., through joint ventures

OTHER AIMS OF THE POLICY

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- ▣ Creation of an environment that encourages and expedites the dissemination of discoveries, creations and new knowledge generated by researchers;
- ▣ Protection of the traditional rights of scholars to control the products of their scholarly work;
- ▣ Ensuring that the commercial results, financial or other, are distributed in a fair and equitable manner that recognizes the contributions of the inventors and the institutions as well as those of any other stakeholders;
- ▣ Creation of an environment that encourages and expedites the dissemination of discoveries, creations and new knowledge generated by researchers;

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- ▣ Protection of the traditional rights of scholars to control the products of their scholarly work;
- ▣ Ensuring that the commercial results, financial or other, are distributed in a fair and equitable manner that recognizes the contributions of the inventors and the institutions as well as those of any other stakeholders;

6.0 THE WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO) AN AGENCY FOR IP PROTECTION

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The World Intellectual Property Organization (WIPO) is one of the specialized agencies of the United Nations (UN) system of organization. The adoption of the Paris and the Berne conventions led to the establishment of WIPO at a convention signed in Stockholm in 1967 but came to force in 1970.

7.0 MEMBESHIP OF WIPO

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There are about 179 member states of WIPO. Nigeria ranks among the last 50 with its registration on June 9, 1995, trailing behind Guinea Bissau and Liberia that joined in 1988 and 1989 respectively.

List of entries from Africa with dates:

S/NO	STATE	DATE OF WIPO MEMBERSHIP
1	MALAWI	JUNE 11, 1970
2	CHAD	SEPTEMBER 26, 1970
3	MOROCCO	JULY 29, 1971
4	KENYA	OCTOBER 5, 1971
5	CAMEROON	NOVEMBER 3, 1975
6	COTE D'IVOIRE	MAY 1, 1975
7	SUDAN	FEBRUARY 15, 1975
8	BENIN	MARCH 9, 1975
9	SOUTH AFRICA	MARCH 23, 1975
10	ALGERIA	APRIL 16, 1975
11	NIGER	MAY 5, 1975
12	GABON	JUNE 6, 1975
13	GHANA	JUNE 12, 1975
14	BURKINA FASO	AUGUST 23, 1975
15	CONGO	DECEMBER 2, 1975
16	GUINEA	NOVEMBER 13, 1980
17	MALIANGOLA	APRIL 15, 1985



18	SENEGAL	MAY 18, 1986
19	GUINEA BISSAU	JUNE 28, 1988
20	LIBERIA	MARCH 8, 1989
21	NIGERIA	JUNE 9, 1995
	ASIAN TIGERS:	
22	REPUBLIC OF KOREA	MARCH 1, 1979
23	CHINA	JUNE 3, 1980
24	BRAZIL	MARCH 20, 1975

Source: WIPO Report: April, 2001.

8.0 UNIVERSITIES AND THE SOCIETY

In the medieval times, the University was regarded as an **“Ivory Tower”** – An institution of higher learning (exclusively charged with teacher – student interaction) with the power to teach and grant degrees. in effect, a purely an Intellectual Community. The acronym ‘Ivory tower’ is most uncomplimentary in the modern sense because it refers to a *retreat from reality and action to the world of dreams and ideals*.(3). Kamba (4), Birt (5) and Blume (6) all agree that Universities are expensive Institutions to establish and run and normally represent a heavy drain on the countries’ resources. Therefore the pursuit of knowledge for its own sake by Universities is a luxury that African countries cannot afford. Consequently the almost orchestrated emphasis on knowledge for its own sake and which elevated the Universities to an **‘Ivory tower’** virtually detached from the community in which it exists should be discountenanced. In the new dispensation it should be realized that the community and the state are entitled to expect returns which should be seen to contribute too national development.

New York Times of April 5, wrote: “Most Universities and Research Institutions in Africa are now entering a stage where the will be expected to



interact with Industry as well as governmental and non-governmental organizations in terms of consultancy, research contracts and commercialization of inventions, innovations and research finding. In this regard, Intellectual Property will have been transformed from a sleeping area of law and business to one of the driving engines of high technology economy”.

Since the 19th century Government's expectation have understandably shifted to seeking solution to problems from the Universities thus disposing to them the additional role of:

- ❖ Sourcing financial support for research
- ❖ Commercialization of research results
- ❖ Collaboration/linkage with the Industry
- ❖ Entrepreneurship development.

9.0 CONSTRAINTS IN NIGERIAN UNIVERSITIES

Compared to their counterparts in developed countries and the emerging economies of Asia and Latin America, in particular, the Asian tigers, India and Brazil, Universities in Nigeria depend entirely on public funds from Government and therefore faced with a number of problems. These include:

- ✓ Inadequate funding of education and research activities
- ✓ Poor infrastructural facilities and the poor state of the existing ones, and which continue to deteriorate on account of lack of proper maintenance
- ✓ Low wages/salary with no motivation such that Universities are finding it increasingly difficult to attract and retain highly qualified staff and effectively reverse the much talked about Brain-drain or capital flight.
- ✓ Level of internally generated revenue to augment Government funding is inadequate.

Consequently, the Universities are not enabled to fulfill their mission effectively and achieve its desired target of:



- providing quality training to students
- offering intensive technological advisory services
- financing Field trips and Laboratory Practicals
- making available current information through modern communication technology
- developing, protecting and commercializing viable R & D results
- offering consultancy and contract research services to Industry.

As a result of the above constraints the level of knowledge transfer (KT) from Universities and its utilization for national wealth creation is low and by extension the contribution to national development remains insignificant.

10.0 WIPO UNIVERSITIES INITIATIVE PROGRAM [28] [29]

According to WIPO's statute of 2002, the WIPO – Universities Initiative is designed to:

- ❖ make Universities the hub of IP creation and development.
- ❖ Build IP and technology management capacities in Universities and R & DIs.
- ❖ Establish technology advisory services and information centers in Less Developed Countries.
- ❖ Encourage research and studies on the contribution of IP in technological and economic development.
- ❖ Build licensing and technology transfer capacities.
- ❖ Introduce training on IP valuation and audit capabilities.
- ❖ Forge links between Universities, R & DIs, Industries and financial Institutions.
- ❖ Provide advice and assistance on creating IP policies and strategies in the institutions.

In general, the WIPO University Initiative Program aims at encouraging Universities and R & D Institutions in developing countries and countries in transition to create, protect and exploit intellectual property (IP) assets. The program as at the last count in 2007 records about 100 Universities worldwide including FUTO.

11.0 WIPO – NOTAP STAKE-HOLDERS FORUM

Established by Decree No. 70 of 1979 as National Office of Industrial Property (NOIP) as a Parastatal of the Federal Ministry of Science and Technology, now renamed the National Office for Technology Acquisition and Promotion (NOTAP) in collaboration with WIPO is taking positive steps to generate cognate awareness of the importance of IP in the Universities and Research Institutions in Nigeria. Its activities aim at:

- ❖ Provision of Intellectual Property Rights for inventions and creations generated in the Institutions.
- ❖ Ensuring that discoveries, inventions and creations by staff and students are utilized for the greatest public benefits.
- ❖ Creation of an environment that encourages and expedites the dissemination of discoveries, creations and know-how generated by researchers.
- ❖ Ensuring compliance with applicable laws and regulations and enabling Universities/Polytechnics/R &D Institutions secure sponsored research.

12.0 WAY OUT OF THE WOODS

Aziz Ungku (1983) recommends that in order to attain a high level of creativity and innovation, African Universities and R&DIs must

