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Intellectual Property Rights in Nigeria Agriculture

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Abstract: Intellectual Property Rights are basic to the process of ensuring and protecting incentives that accrue to individuals and systems whose dogged inputs generate scientific and technological innovations for society. Describing its relevance to agriculture, with specific reference to agricultural research system. The study examines the Intellectual Property Rights in Nigeria Agriculture. The objectives were, To determine the implication of intellectual property rights on agricultural production in Nigeria. To ascertain the degree of ownership rights and their exploitation. The problem of the study is as a result of lack of the information necessary to apply the analytic especially with respect to the incentive theory of intellectual property in the area of agricultural research. The method of the study is qualitative research design, while the methods of data collection were through secondary sources. The study found that intellectual property right has positive significant effect on national agricultural research system in Nigeria. The study observes existing low demand for agricultural IPR in Nigeria could be attributed to knowledge and capacity. The study recommends that Since it's a novel concept in some firms, awareness should be created to add to the knowledge of people especially in the south east Nigeria. Government should review the IP laws and policies in the country for an improved version. This will go in tandem with both international practice and standard and WIPO standard. Companies should establish IP policies and include it in their mission and vision statements and their core values. This will also enable them to establish IP management system in order to not only retain IP but also to boost release of knowledge.

Keywords: commitment, task identity, affective commitment, job feedback, normative commitment.

Introduction

Intellectual Property Rights are basic to the process of ensuring and protecting incentives that accrue to individuals and systems whose dogged inputs generate scientific and technological innovations for society. Describing its relevance to agriculture, with specific reference to agricultural research system, ¹ it was pointed out that it has been the most critical form of protection for agricultural biotechnology having the most effect on the freedom to operate within the innovation system. Intellectual property right in national agricultural research can be protected by means of copyrights trademarks, utility patents, plant breeders rights, and trade secrets. Intellectual property rights have a number of dimensions that are relevant here, including the

¹ E., C Binenbaum, et al South-North Trade, Intellectual Property Jurisdictions, and Freedom to Operate in Agricultural Research on Staple Crops in Economic Development and Cultural Change (2003)

requirements for obtaining the rights, the scope of what is protected, the geographical limits to the rights, and the duration of the rights. These dimensions vary according to the type of IP and the legal and administrative system of each country².

While these are expected in the national innovation legal framework, Nigeria national agricultural research system hardly has a coordinated implementation mechanism that makes it possible for scientists to adequately own and protect their intellectual property. It is the opinion in some quarters that this is largely a result of the absence of a scientist-entrepreneur culture in the research system.

Establishing a firm system of patency makes development of a national IPRs policy effective and sustainable³. This is because one of the most categorized as Industrial Property (functional commonly known set of IPRs are Patents. These are government issued grant which confers on the inventor the right to exclude others from making, selling, using or offering for sale, or selling the invention for a period of 20 years, measured from the filing date of the patent application. Patent protection for Nigeria patent extends only throughout Nigeria and its territories and possessions. ⁶ observed however that the Patents and Designs Act however does not provide for the meaning of patent. Agricultural research has been a major contributor to agricultural growth and economic development all over the world. Crop improvement research that led to the Green Revolution in wheat and rice in the 1960s to 1980s, in particular, has been a major success story of the public research systems-both national and international. As a result of agricultural research that led to the Green Revolution, there has been an unparalleled increase in food at lowered and the benefits have been equally shared among the poor in urban and rural poor. A practical guideline on intellectual property issues especially for agricultural research, other organizations and institutions would in the opinion of the researcher enrich the understanding of agricultural system, scholars, and other stakeholders who are working in the field. It will also go a long way in improving our economic activities and creating wealth both for the innovators. agricultural products and the country in general. It will again encourage more innovative activities and encourage the agricultural sector to perform better. Failure to do so will on the other hand result to further deterioration of the above factors and cause more negative attitude towards creation, innovation and invention which will again lead to negative effect on agricultural research system thereby affecting the nation negatively. Consequent upon this, the study on the intellectual property right in national agricultural research system in Nigeria is being undertaken.

Despite past successes, Nigeria continues to experience food insecurity, poverty and malnutrition. FOA (1993), ⁴defined as the inability to provide adequate food supplies to maintain a needed level of "per capita consumption" and to meet the nutritional requirements of all segments of the population, of about 70 of the world's poorest countries is projected to persist in the next 20 years (USAID 1997). Many developing countries, especially in Nigeria, are projected to remain a global "hot spot" for hunger and malnutrition for many years to come. In Sub-Saharan Africa, an estimated 344 million people presently have insufficient food to meet minimum daily nutritional requirements. By 2010, this number is projected to increase to 435 million, an increase of over 20 percent⁵

² V. Ibigbami Background and Status of National Partners Initiative (NPI) and Central Advisory Services on Intellectual Property (2010)

³ C. Colston, *Principles of Intellectual Property Law* (Cavendish Publishing Ltd., 1999), 20

⁴ FAO. World Food Security: a Reappraisal of the Concepts and Approaches. (Director General's Report, 1983) Rome

⁵ M. W., Rosegrant and others. *Looking into the Future for Agriculture*: Australian center for international agricultural research (2009)

A major concern in food deficient countries is whether the agricultural sector will have the ability to produce adequate food and fiber, or the economy will have the ability to import needed food and fiber to support the rapid population growth. Economists have estimated that a 3% annual growth in crop yields will be needed over the next two decades to provide an adequate food supply at affordable prices for the growing rural and urban populations in developing countries⁶. Agroclimatic constraints to yield increases are however informidable in many developing parts of the world. Drought, high temperatures, and low fertility soils predominate in extensive parts of Nigeria.

An infusion of new technologies that can transform an economy from subsistence agriculture to a more productive commercialized system is an essential component of the solution to projected food insecurity, malnutrition and poverty. Nigeria Agricultural systems the problems is how to revalidate it in such a manner that newly developed technologies can be integrated into the cropping systems without degrading natural resources and the ecology. Due to globalization and trade liberalization,

Nigeria is faced with the challenge of revitalizing their agricultural systems such that their farmers can compete in a global economy.

Competitiveness in a global economy will be based on farmers' ability to produce and profitably market his/her products at a low price, to provide important quality traits in the desired market classes and to supply the needed volumes to meet both the processing and consumption demand for agricultural products. Agricultural research in developing Nigeria is thus continually faced with the challenge to:

- i. Reduce hunger through increased household food security
- ii. Improve the health and nutritional status of growing populations
- iii. Expand employment/entrepreneurial opportunities for both urban and rural poor to generate income
- iv. Increase the competitiveness of small-scale farmers in domestic and global markets
- v. Conserve natural resources and thus assure the sustainability of agricultural systems

Furthermore, ⁷in his study believes that the effect of IP on research and development department attracts benefits but this is not the case with most African countries due to their negative attitude towards the development of R&D offices in their firms. The above situation could however be attributed to a number of factors militating against the nation. Such factors could be found in the following brief text;

Nigeria is still classified as a developing country. In the developed economy, intellectual

property is used as a tool for advancing technology innovation but this may not necessarily work in the same way as developing or under developed countries. This is because most developing countries have very low bargaining power and weak technology capabilities. Also factors like corruption, counterfeiting, poverty level and several other facilities that will support the operative system and process of the term militates against its' potentials.

Another problem which has also been observed is the lack of the information with respect to the incentive theory of intellectual property. To what extent is the production of specific sorts of

⁶ *ibid.*, (2009)

⁷ J. A Nnabuike, studied the Economics of IP (management and its effect on research and development of manufacturing companies 2000)

intellectual products dependent upon maintenance of intellectual property protection? With respect to some fields, some commentators have agreed that it does to a very little extent. Others also note that other monetary or non-monetary rewards such as profits attributable to lead time, inventors, opportunities to speculate in markets that will be affected by the revelation of their inventions, the prestige enjoyed by artistic and scientific innovators, academic tenure, and the love of art would be sufficient to sustain current levels of production even in the absence of intellectual-property protection.

A third group of commentators sharply disagree. The truth is that we do not have enough information to know who is right. Empirical work however has suggested that patent rights has been more important in stimulating innovation in certain industries (e.g., pharmaceuticals and chemicals) than in others, but has failed to answer the ultimate question of whether the stimulus to innovation is worth its costs. With respect to forms of intellectual-property protection other than patents, we know even less. Again, those values could be promoted equally well by providing persons rights to land or shares in private corporations. Consequently, properties may be classified private when followed strictly but the problem still remains that there will be little help in determining which resources to privatize and which to leave to the public. To the extent that intellectual-property rights have economic value and may be bought and sold, gained and lost, may contribute to their owners' abilities to avoid guilt, become autonomous, engage in independent political action, etc., is a huge reason for IP to be managed and protected. Unfortunately, this is not being given the attention it deserves in our country thus leading to huge loss in benefits accruable to it. To this regard, this study therefore examines the influence of intellectual property right in national agricultural research system of Nigeria.

Research Questions

The following research questions are formulated to guide the conduct of the study:

- 1. To what extent is the implication of intellectual property rights on agricultural production in Nigeria?
- 2. To what degree are the ownership rights and their exploitation in Nigeria?

Aim and Objectives of the Study

The aim of this research is to examine the intellectual property right in national agricultural research system in Nigeria. The following specific objectives are as follows

- 1. To determine the implication of intellectual property rights on agricultural production in Nigeria.
- 2. To ascertain the degree of ownership rights and their exploitation.

LITERATURE REVIEW

Conceptual Review

Trademarks

A trademark is a sign capable of distinguishing the goods or services produced or provided by one enterprise from those of other enterprises. ⁸Any distinctive words, letters, numerals,

⁸ G. A. Akerlof, (1970). The Market for "Lemons": Quality Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics*, 84(3), 488–500

drawings, pictures, shapes, colors, logotypes, labels or combinations used to distinguish goods or services may be considered a trademark. In Nigeria, advertising slogans are also considered trademarks and maybe registered as such at The Registry of Trademarks, Patents and Designs. An increasing number of countries also allow for the registration of less traditional forms of trademarks such as single colors, three-dimensional signs (shapes of products or packaging), audible signs (sounds) or olfactory signs (smells)⁹. However, Nigeria presently does not provide for the registration of olfactory signs (smells), and audible signs

Article 15 of the Agreement on Trade related aspects of Intellectual property Rights (TRIPs)1 provides a definition of trademarks stating that: "Any sign, or any combination of signs, capable of distinguishing the goods or services of one undertaking from those of other undertakings, shall be capable of constituting a trade mark¹⁰" There are several dimensions in this definition Firstly, a trade mark is defined in substance: a sign. It can be denominations, letters, numerals, combination of colors, or any combinations of these elements¹¹.

A trademark is defined by its function, the sign has to be distinctive. Originally the trademark law was designed to fulfill the public policy objective of consumer protection. It prevents the public from being misled as to the origin or quality of products. A trademark is defined in legal terms¹²: It is a type of industrial property. Trademark protection grants the owner the exclusive right to use the signs to identify the goods or services produced or to authorize another party to use them in return of payment. Practically, the owner can be any physical or legal person,(the majority of trademarks are owned by firms).Trademarks are defined as a combination of these different dimensions.

The main function of a trademark is to enable consumers to identify a product (whether a good or a service) of a particular company so as to distinguish it from other identical or similar products provided by competitors¹³. Consumers who are satisfied with a given product are likely to buy or use the product again in the future. For this, they need to be able to distinguish easily between identical or similar products¹⁴.

By enabling companies to differentiate themselves and their products from those of the competition, trademarks play a pivotal role in the branding and marketing strategies of companies, contributing to the definition of the image, and reputation of the company's products in the eyes of consumers. The image and reputation of a company create trust which is the basis for establishing a loyal clientele and enhancing a company's goodwill. Consumers often develop an emotional attachment to certain trademarks, based on a set of desired qualities or features embodied in the products bearing such trademarks.

Trademarks also provide an incentive for companies to invest in maintaining or improving the quality of their products in order to ensure that products bearing their trademark have a positive

⁹ Brahem, M.,El Harbi, S. and Grolleau, G. (2013). What drives trademarks registration among Tunisian clothing firms ? An econometric investigation. *International Journal of Intellectual Property Management*, 6, 1–14.

¹⁰ Davies, L., & Davies, J. (2011). To What Extent Do Trademarks Enhance – or Hinder - Innovation? Exploring an inriguing yet Ambiguous Relationship.

¹¹ Fink, C., Javorcik, B. S., & Spatareanu, M. (n.d.). Income -Related Biases in International Trade: What Do Trademark Registration Data Tell Us? Retrieved October 29, 2014,

¹² Flikkema, M. J., de Man, A. P., & Wolters, M. J. (2010). New trademark registration as an indicator of innovation : results of an explorative study of Benelux trademark data.

¹³ Flikkema, M. J., de Man, A. P., & Wolters, M. J. (2010). New trademark registration as an indicator of innovation : results of an explorative study of Benelux trademark data.

¹⁴ Gambardella, A., Giuri, P., & Luzzi, A. (2007). The market for patents in Europe. Research Policy, 36(8), 1163–1183

reputation In Nigeria, Trademark protection can be obtained through registration and through use. Even where trademarks can be protected through use, you are well advised to register the trademark by filing the appropriate application form at the national trademark office (Nigeria has no facilities for applying for registration on-line). Registering a trademark will provide stronger protection, particularly in case of conflict with an identical or confusingly similar trademark. For the registration of a trademark, the services of a trademark agent are often very useful

Industrial Design

Industrial design is another type of intellectual property rights used by industries to mark their products and processes.¹⁵design is the fundamental soul of a human made creation that ends up expressing itself in successive outer layers of the product or service. Manufacturers are no more concerned only with the core product or service; the way or method of presentation is also of significant importance. Articles of unique shape are produce den masses by industrial process and these started after the industrial revolution. Today, manufacturers are paying adequate attention to the designs of the article they produce to differentiate from their competitors. Here, visual attraction enhances the marketability of the product. The visual aspect covers the shape, the body, shape of packaging and the container. World intellectual property organization defines an industrial design as an ornamental or aesthetic aspect of an article. Usually, to be qualified for protection, the design must appeal to the eye. This means that industrial design does not protect any technical part of the product. When this protection is given, the owner, person or entity that has registered it is assured of an exclusive right against unauthorized copying or imitation of the designs by thirds parties. This will of course help to ensure a fair return on investment.

Patents

A patent is a right granted for an invention, a product or a process that provides a new way of doing something or offers a new technical solution to a problem¹⁶. it is taken that a patent is available to a person who invents, or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof. Despite the plain language of the statute, a patent does not necessarily belong to the person who creates a patentable product or device. The legal right is not automatic. One has to apply for it¹⁷.

It is pertinent to note here that in order for a product or process to be patentable, an invention must fulfil certain criteria of novelty including industrial use which is its utility. Subject to several important exceptions, patent enables the patent holder to exclude unauthorized parties from making, using or offering for sale or any economic use. It is usually offered for a period of 20years from the date of filling the application for patent and the term may also be extended for a period of time. ¹⁸conveys that patents as studies have found were rarely the principal means of

¹⁵ V.V Sople, (2010), *Managing Intellectual Property: The Strategic Imperative*; New Delhi, Learning Private Limited

¹⁶ Well, R. (2009), "Collaborative Mechanism for Intellectual Properties in the Life Sciences" (*OECD Publishing Haley*) *Organization for Economic Cooperation and Development* Doc. 39(26).

¹⁷ Roderick, D. and Friedlan M., (1997), "Intellectual Property", the Washington Post Washington D.C. 1(7)

¹⁸ Menell, S.P. (1999), *Intellectual Property, General Theoriesfor Law and Technology California*, University of California Press.

appropriating returns in most industries, except in pharmaceuticals and chemicals. Patents play an important role in the pharmaceutical industries. Sople (2010:266) points out that the pharmaceutical industry is one of the three technologies based industries in which the patent virtually equals the product. The others are the chemical industry (including agricultural chemicals) and the biotechnology industry where innovations span the spectrum from engineered plant variety to human pharmaceutical therapy. In summary, Patent rights protect inventions and some kinds of discoveries. It is an official document giving the holder of the patent the sole right to make, use or sell an invention and prevent others from imitating it. Inventions may be product or process. It gives the owner the exclusive right to commercially exploit the invention for the life of the patent. Copyright organizations and individuals use the protection to monitor their use of talents as this can be eternally difficult. The income generated contributes significantly to gross development product (GDP) of the nation.

Theories of Intellectual Property

Utilitarian Theory

First is the familiar utilitarian guideline. ¹⁹indicates that the utilitarian theories of international property developed and evolved in a symbiotic relationship with the evolution of modern state from the formation and maturation of mercantilist nation- states through the industrial revolution to the rise of modern capitalist economy. Under this, managers and lawyers believe that the guideline should be the maximization of net social welfare in the context of intellectual property. An optical balance should therefore be struck between the power of exclusive rights to stimulate the creation of inventions and works of arts and on the other hand, the partially offsetting tendency of such rights to curtail widespread public enjoyment of those creations. In²⁰, it is agreed that the distinctive characteristics of most intellectual property products are that they are easily replicated and that enjoyment of them by one person does not prevent enjoyment of them by other persons. For them, these characteristics creates a danger that the creator of such product will be unable to recoup their cost because they will be undercut by copyists who bear only the low cost of production and thus can offer consumers identical products at very low prices.

Awareness of that danger therefore might deter innovators. Thus these economically inefficient outcomes can be avoided by allocating to creators exclusive rights for a limited number of years. For creators of work that consumers find valuable and for which there are no attractive substitutes, owners will be empowered to charge prices for access to those works substantially greater than they could in a competitive market. They contend that all other alternatives in which creators are empowered to recover their costs are more wasteful of social resources. The cost of expression to be recouped refers to the time and effort and money devoted to inventing the product or writing or composing it and the cost of putting it into tangible use.

They therefore argue that the utilitarian rational has been and should be used to shape up doctrines within the field of intellectual property. Another related argument by some authors dominates in their study of patents and trademarks where they identify the primary economic benefits as; reduction of consumers cost; creation of an incentives for business to produce

¹⁹ IBIDI 47

²⁰ W. Fisher, (2009), "Transparency and Corporate Governance for Capital Market Development in Africa: The Nigerian Case Study". *Securities market Journal*, 935 (9-28).

consistently high quality goods and services ²¹. Lands and Posner also claim that trademarks have unusual ancillary social benefits because they improve quality of language. This is because they increase our stock of nouns and create words of phrases that people value for their intrinsic pleasantness as well as their information value. These they argue simultaneously economize on communication costs and make conversations more pleasurable. They contend that intellectual property rights however can sometimes be socially harmful for example; enabling the first entrants into a market will discourage competitors by appropriating for itself an especially attractive costs or informative brand name. Markets should therefore be protected when and only when they are socially and economically beneficial and not when they are on balance deleterious.

Empirical Review

Titilope,²²Intellectual property rights protection in Nigeria: challenges and prospects Intellectual property right protection is of growing importance in most countries of the world due to its role in the development of any nation. However, intellectual property rights protection in Nigeria has not yielded any positive results as expected due to the problem of weak enforcement and non-implementation of protection laws. In view of this, the main purpose of this article is to unravel the challenges militating against the protection of intellectual property rights of creators and inventors in Nigeria. This article further discusses the benefits of intellectual property rights were also identified in this article. In conclusion, intellectual property rights protection in Nigeria should be given the highest priority by government to aid national development as well as promoting creativity and innovation on the part of creators and inventors.

Ayoola, Ayoola, & Chikwendu, ²³aimed at evaluating the existing gaps in knowledge, attitude and practice about IPR among researchers in the National Agricultural Research Institutes of Nigeria. Results showed good knowledge level on the concept of IPR, with an average score above 75%. Also, 84% of researchers knew with certainty the meaning of the concept, and the types of IP rights including copyright, trademarks, patents, and industrial design rights. Generally low knowledge (52%) was recorded about procedure for filling application for IPR; including the procedure for filling application for trademarks (0%), copyrights (6.7%), farmers' rights(13%), and patents and breeders' right (20%). About 67% of researchers expressed negative attitude about the procedure for application for IPR; that procedure was cumbersome (6.67%), not clearly understood (33.33%), and too lengthy (20%).Moreover, none of the respondents have been involved in filling application for any of the different forms of IPR. It was concluded that knowledge gap on agricultural IPR exist and could contribute to the weak IPR system in Nigeria. A more efficient IPR system could be achieved for the Nigeria agriculture subject to enhanced knowledge of agricultural researchers about procedure for harnessing IPR, capacity of agencies to deliver IPR, and a review of the legal framework for protecting IPR.

²¹ Ibidi 50

²² A.O Titilope, Intellectual property rights protection in Nigeria: challenges and prospects. *International Journal of Library and Information Services* (2020). *9* (*2*) 51-74

²³ J.B, Ayoola, G.B Ayoola, & D.O Chikwendu, An Assessment of Intellectual Property Rights in Nigeria Agriculture. International Journal of Innovative Research & Development (2016) 3 (6) 334-347

Adams ²⁴Intellectual property rights, political risk and economic growth in developing countries examines the impact of intellectual property rights (IPRs) on economic growth for a cross – section of 73 developing countries over a period of 19 years (1985 – 2003). The results of the study indicate that: 1) strengthening IPRs has a negative effect on economic growth; 2) the impact of patent protection on economic growth after the TRIPS agreement is far and above that of the pre – TRIPS era; 3) domestic investment and good economic and political institutional infrastructure are positively correlated with Economic Growth (EG)

Campi, ²⁵explored the impact of strengthening intellectual property (IP) protection on agricultural productivity in a panel of 69 countries for the period1961-2010. We study the effect of stronger IPRs on cereal yields, using an index of IP protection for plant varieties. Also, at a more disaggregated level, we analyze whether the impact of IPRs is different for two cereals that have specificities on the possibilities of reproduction: wheat and maize. We found that the strengthening of IPRs has a positive effect on productivity of cereals for high-income countries but it has no significant effect for middle-and low-income countries. We also found that the IP protection index is uncorrelated with the growth rate of yields, even when considering two periods: before and after the signing of the TRIPS agreement. Finally, we found evidence of the existence of non-linearities in the effect of IPRs on agricultural yields, both for different IP levels and income levels. The findings support the hypothesis that country specificities are important in determining the effect of IPRs and imply that there is no unique system that fits all.

Eruanga²⁶ investigate awareness and perception of IPPR as correlates of RPL in public universities in Southern Nigeria. John Campbell's Job Performance and John Locke's Property theories provided the framework, while the descriptive survey design of the correlational type was adopted. Five hundred and fifty-five (326 federal and 229 state) university librarians from 36 (18 federal and 18 state) public university libraries in Southern Nigeria were enumerated. A questionnaire with three sub-scales– Librarians' Awareness of IPPR ($\alpha = 0.88$). Librarians' Perception of IPPR ($\alpha = 0.78$) and Librarian Research Productivity ($\alpha = 0.74$) scales – was used. In-depth interview sessions were held with 18 senior librarians. Quantitative data were analysed using descriptive statistics and Pearson product moment correlation at 0.05 level of significance. while gualitative data were content-analysed. The gualifications of Librarians were Ph.D. (23.0%) and Master's degree (65.7%). The participants were University Librarian (4.0%), Principal Librarian (11.0%), Senior Librarian (17.7%), Librarian I (20.2%) and Librarian II (19.0%). Poor administration of IPPR (71.3%), high rate of piracy and plagiarism (73.7%) and ignorant of copyrights laws (73.7%) constituted major challenges to RPL. Awareness of IPPR (\overline{x} = 40.3), perception of IPPR (\overline{x} = 25.5) and RPL(\overline{x} = 22.8) were high against the thresholds of 34.7, 21.3, 32.0, respectively, among the librarians. There were significant positive relationships among awareness of IPPR (r = 0.11), perception of IPPR (r = 0.16) and RPL. Perception of IPPR (β = 0.123) made positive significant contribution to the prediction of RPL. The perceived IPPR were mainly the fear of misuse of publications, writers and publishers agreement and publications enforcement. Librarians' awareness and perception of intellectual property protection rights affected research productivity of librarians in public university in Southern Nigeria. Therefore,

²⁴ A Adams, 'Intellectual Property Rights, Political Risk and Economic Growth in Developing Countries. *Journal of Economics and International Finance* (2019). 1(6), 127-134

²⁵ T. Campi, The Effect of Intellectual Property Rights on Agricultural Productivity: *Journal of Development and Agricultural Economics*, (2016). 5(10), 382-389.

²⁶ C.E Eruanga, awareness and Perception of Intellectual Property Protection Rights as Correlates of Research Productivity of Librarians in Public Universities in Southern Nigeria. A Thesis in the Department of Library, Archival and Information Studies, Submitted to the Faculty of Education in Partial fulfillment of the requirement for the Degree of ph.d 6 (6) 56-77 (2021)

concerted efforts should be made by various institutions to expose librarians to research and training opportunities on these rights.

Akinola, and Adeyemo, ²⁷examine the effects of property rights and other factors on the outputs of maize, yam and cassava in three zones of Osun State in Nigeria. Their study employed a multistage sampling technique to select 105 farmers involving growers of maize, yam and cassava in the study area. Data were analyzed with the aid of descriptive statistics, budgetary techniques and a multiple linear regression model. The results of budgetary analysis showed that variable cost was highest in yam production.. The result of the multiple regression model revealed that farm size significantly affect the outputs of the three crops. Land rights type (having either use right/use and transfer right) and security of land defined by duration of land use affected maize output while duration and ownership type affected yam output, whereas, duration only affect cassava output. There is therefore the need to review the land distribution and administration policies based on the identified significant factors affecting each crops.

SECTION THREE

Strategy Framework

Trade Secret

A trade secret is defined as any information that is: (1) not generally known to the relevant business circles or to the public²⁸. Confers some sort of economic benefit on its owner. This benefit must derive specifically from the fact that it is not generally known, and not just from the value of the information itself; and the subject of reasonable efforts to maintain its secrecy. A trade secret continues for as long as the information is maintained as a trade secret. Anything that is easily and completely disclosed by the mere inspection of a product put on the market cannot be a trade secret²⁹

Traditionally, the concept of trade secrets would fall under the rubric of confidential information under the Common Law. In the United States for instance, it is the conventional wisdom that hitherto there existed at least three separate regimes of the trade secret doctrine. For instance, the Restatement (First) of Torts provides that: A trade secret may consist of any formula, pattern, device, or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. It may be a formula for a chemical compound, a process of manufacturing, treating or preserving materials, a pattern for a machine or other device or a list of customers. From this definition, the need for relative secrecy is almost indispensable to the idea of a protectable trade secret. While some have argued that the requirement of Reasonable Secrecy Precautions (RSP) is for the most part redundant, some indication or colorable attempt to keep valued information from general knowledge is still an important pre-requisite of trade secret protection under US law. The 1977 commentary to the Restatement clarifies that: "...[a] substantial element of secrecy must exist, so that, except by use of improper means, there would be difficulties in acquiring the information...

²⁷ A. A. Akinola, & R. Adeyemo, Effects of Property Rights on Agricultural Production: The Nigerian Experience. *Journal of Development and Agricultural Economics*, (2013). 5(10), 382-389.

²⁸ Almeling, D.S. et al. (2009), "A Statistical Analysis of Trade Secret Litigation in Federal Courts," Gonzaga Law Review 291. Descriptive survey of US law.

²⁹ Almeling, D.S. et al. (2010), "A Statistical Analysis of Trade Secret Litigation in State Courts," Gonzaga Law Review 57. Descriptive survey of US law

The protection is merely against breach of faith and reprehensible means of learning another's secret³⁰".

The American Uniform Trade Secrets Act now adopted in about 47 States in the US similarly but more comprehensively provides that: A trade secret means information, including a formula, pattern, compilation, program, device, method, technique, or process, that: (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy³¹

The requirement that secrecy be maintained by the owner of a trade secret in order to obtain the protection of the law is analogous to the often proffered advice to intellectual property rights holders to effectively police their rights or risk encroachment and possible evisceration by competitors³². The necessity to take active and precautious steps to contain the dissemination of such information is inextricably linked to the perceived value of the know-how or technical information sought to be preserved, such that the lack thereof creates the appearance of a voluntary assumption of risk which the courts are generally reluctant to encourage. Additionally, the ephemeral nature of trade secrets as essentially wasting assets (considering the high probability of independent creation, the relative ease of re-enactment by reverse engineering and the likelihood of dissipation by disclosure) imposes a compelling need that actual verifiable steps are taken to keep them from becoming public knowledge³³. Consequently, the existence of these verifiable steps would provide circumstantial evidence of value, actual secrecy and improper appropriation, as the case may be. Another writer in highlighting an ancillary notice requirement has correctly opined that: It is clear that the efforts must be actual, affirmative measures. Mere intent to maintain secrecy is not enough. The trade secret claimant must manifest its intent by making some effort to keep the information secret. The law also requires such efforts to be a continuing course of conduct, signaling all concerned that the information is secret

Salient Issues in the Licensing of Trade Secrets

There is often a tendency to group together all sensitive material over which a company seeks to exercise some form of property control as proprietary information. When faced with the business decision entailed in the possible transfer of technology or an alleged trade secret, it is vital to ascertain the value of the information or data to be received. This is in view of the fact that certain 'submitted ideas', 'know-how' and 'proprietary information' could indeed be of doubtful legitimacy or lack any real technical value. A strategy adopted in some quarters is to limit exposure to liability to the submitter of such information by the use of an appropriate clause in the license agreement³⁴. This shields the receiving party from being saddled with the weighty responsibility of maintaining the secrecy of clearly useless information. Be that as it may, it is prudent to be mindful that "...subject matter called simply 'Licensor's Data' for example, may be highly

³⁰ AmCham China (2013), "China Business Climate Survey Report: 2013", The American Chamber of Commerce in the People's Republic of China, Beijing

³¹ Ampollini, D. (2010), "Italy" in C. Noorda and S. Hanlose (eds.), E-Discovery and Data Privacy: A Practical Guide, Kluwer Law International, Alphen aan den Rijn, The Netherlands

³² Anawalt, H.C. (2011), Idea rights: a guide to intellectual property, Carolina Academic Press, Durham, N.C

³³ Anawalt, H.C. & West Group (2011), IP strategy: complete intellectual property planning, access and protection, Thomson Reuters/Westlaw, St. Paul, MN.

³⁴ Andrews, N.H. (1987), "Abuse of Anton Piller Orders," The Cambridge Law Journal, 46(1), pp. 50-52.

protectable if the data referred to are limited by the contract to safeguarded information that is of esoteric quality and substantial business value". It is also necessary to define the nature and scope of the transferred information or technology, the obligations to be assumed by the recipient regarding their use and protection and the conditions of use as well as associated responsibilities riahts³⁵. following termination such When the transfer the of is in the nature of valuable information there are practical constraints that follow from termination of obligations in a license arrangement which render the Licensor's restoration to exclusive ownership somewhat challenging once there is disclosure. Therefore, it may be expedient to acknowledge that certain portions of the transferred data or information are hypothetically discoverable by the licensee by the application of reasonable efforts and investment³⁶. The Licensor can however insist on the return of all related data, drawings, specifications and sketches, as well as all modifications, copies and adaptations thereof by means of which the technology or trade secret was transferred and to insist on the non-application or utilization of the technology for a definite period after the termination of the agreement.

Patent Infringement

A patent gives its owner the exclusive right to prevent third parties that do not have the patent holder's consent from performing certain acts with the patented invention within the territory in question. The restricted acts are derived from what is now Article 25 of the 1989 Draft Community Patent Convention (CPC). The CPC never came into force, but at the time that the original EPO member states were re-drafting their national laws to bring them into line with the EPC, it looked as though it would. Accordingly, the states based their primary infringement provisions upon it³⁷. The restricted acts include making, selling and using as well as importing or stocking for these purposes. Secondary infringement is also possible. As already mentioned, at present there is no such thing as a transnational patent. If an individual or company wants their invention to be protected in different states, they must ensure that they hold rights in each of those states³⁸. Producing the invention of a German patent in France(for example), or selling allegedly infringing products there, does not constitute infringement. It would, however, be an infringement to import infringing products made in France into Germany

SECTION FOUR

Important of Intellectual Property Rights Protection Laws

The enforcement of Intellectual property rights protection laws in Nigeria contributes immeasurably to the robustness of the Nigeria economy based on several benefits identified in this paper such as individual, social and economic benefits respectively. The specific benefits include: promotion of creativity and innovation, high returns on intellectual investment such as royalties and proceeds from the sale of intellectual products, increased

³⁵ Aplin, T. & F. Gurry (2012), Gurry on Breach of Confidence: The Protection of Confidential Information, Section, Oxford University Press, Oxford, UK.

³⁶ Arrow, K.J. (1962), "Economic Welfare and the Allocation of Resources for Invention", in The Rate and Direction of Inventive Activity: Economic and Social Factors, 609, 615, National Bureau of Economic Research

³⁷ Cornelli, F., and M. Schankerman. 1999. Patent Renewals and R&D Incentives. Rand Journal of Economics 30, 2, 197-213

³⁸ Cremers, K. 2004. Determinants of patent litigation in Germany. Discussion Paper No. 04-72. Mannheim: Centre for European Economic Research (ZEW

foreign exchange earnings, increased taxes and tariff payment among other³⁹ Basically, intellectual property rights protection laws are set up to protect the rights of creators and investors as regard their intellectual works. However, the level of implementation and enforcement of intellectual property rights protection laws differs across countries⁴⁰. These benefits address creators and inventors' rights. However, there are economic and social benefits that are capable of fostering economic growth for the nation through: (i) Revenue generation based on the proceeds from the sale of intellectual products. (ii) Reduction of criminal activities/ offenders (iii) Creating stable market for creators and inventors due to the sale of their intellectual works (iv) Taxes and tariffs collected by government from intellectual works⁴¹

CONCLUSION AND RECOMMENDATIONS

Summary of Findings

The post-production stage features activities of processing, marketing, transportation, sales and consumption and is a good point at which to focus on IPRs like trademarks and geographical indications of origin (GIs) which play an important part in these processes⁴².

Trademarks can be used to protect words, signs, three-dimensional shapes or similar features used to distinguish a product. GIs restrict the use of a name to products that have a specific geographical origin and a reputation linked to that origin. A primary effect of these is to prevent passing-off by a product not associated with the brand or geographical region which may wish to ride on the good will of the protected products. They are useful to consumers as a means of identification or a marker of the quality of the products protected⁴³.

In the Nigerian poultry market, for instance, certain breeds for day-old chicks such as the Arbor Acres and ISA Brown are popular. Licensed companies in the sector import the parent stock for breeding from the US and Europe. The Arbor Acres (and Arbor Acres Plus), as well as ISA Brown, are protected by trademarks owned by Aviagen and Hendrix Genetics respectively. It is important for many along the supply chain, including the importers, breeders, hatcheries commercial broiler farmers and layer farmers, that the parent-stock, fertilized eggs or day-old chicks they purchase have the qualities attached to those brands⁴⁴. It is also important for the business continuity of the trademark owners that others cannot profit off their work or ruin their business reputation by introducing substandard breeds into the market under the name of the brand. Trademarks can also be used to promote sustainability in agriculture by providing the consumer with information on how the product has been produced. In the oil palm industry, palm oil that has been certified

³⁹ V Chiappetta, 'Je Desirability of Agreeing to Disagree: J e WTO, TRIPS, International Exhaustion and a Few Other Jings' 2000 *Michigan Journal of International Law* 21(3) 333

⁴⁰ O.T, Afolayan, (2022) Intellectual Property Rights Protection in Nigeria: Issues and Perspectives. Information Impact: *Journal of Information and Knowledge Management*, 13:1, 1-9,

⁴¹ T. A., Adekola & S. C. Eze, (2015). Intellectual property rights in Nigeria: A Critical examination of the activities of the Nigerian copyright commission. Journal of Law, Policy and Globalization 35, 56-61

⁴² Ibidi 100

⁴³ A Endeshaw, 'Free Trade Agreements as Surrogates for TRIPs-Plus' 2006 European Intellectual Property Review (28), 374

⁴⁴ G Evans, 'A Preliminary Excursion into TRIPS and Non-Violation Complaints' 2000 Journal of World Intellectual Property 3(6) 867

in line with the requirements of the Roundtable on Sustainable Palm Oil (RSPO) can be packaged with the RSPO trademark⁴⁵.

GIs can assist to develop the market for a product in ways that could be beneficial to smallholder farmers or developing regions who cannot ordinarily compete with mainstream products. They signal the unique qualities of products from those localities to consumers. A 2018 study by FAO showed that GIs have a positive effect on the price of a product, allow for a greater percentage of the price to be distributed to the primary producers, increase production over time and enhance access to markets for the producers⁴⁶. They can also be used to promote environmental sustainability in cases where the specifications are linked to sustainable practices. The FAO study showed that after registration of the Cameroon "Penja pepper" in 2013, organization of the supply chain and increase in pepper prices led to a 328 per cent increase in production (from 70 tonnes in 2010 to 200-300 tonnes in 2015).

This overview of IPRs within the agricultural supply chain at selected points shows that it can encourage innovation or conversely stifle the exchange of ideas; serve as a means of quality assurance for products and tools; impact agro biodiversity and sustainability; facilitate trade / potentially grow a market for produce; and encourage certain agricultural methods. The effect of the IPRs depend on the type of system involved and its application. Policymakers need to prioritise effective IPRs systems as central parts of the basket of related issues such as trade, environment and land use policy that are examined in efforts to drive agricultural productivity.

Recommendations

Following the hypothetical example given earlier, the study makes the following. recommendations;

1. Early and continuous interaction between business executives, Managers, Lawyers and Engineers are critical to identify the best opportunities for developing intellectual properties.

2. Since it's a novel concept in some firms, awareness should be created to add to the knowledge of people especially in the south east Nigeria.

3. Government should review the IP laws and policies in the country for an improved version. This will go in tandem with both international practice and standard and WIPO standard.

4. Companies should establish IP policies and include it in their mission and vision statements and their core values. This will also enable them to establish IP management system in order to not only retain IP but also to boost release of knowledge.

5. Research and Development department should be an important department for any Agricultural firms.

⁴⁵ G Evans and M Blakeney, 'Je Protection of Geographical Indications A[er Doha: Quo Vadis?' 2006 Journal of International Economic Law 9(3) 575

⁴⁶ Frankel, 'WTO Application of "the Customary Rules of Interpretation of Public International Law" to Intellectual Property' 2005 Virginia Journal of International Law 46(2) 365

Bibliography

- Adams, A (2019). Intellectual property rights, political risk and economic growth in developing countries. *Journal of Economics and International Finance* 1(6), 127-134
- Adekola T. A., &. Eze, S. C (2015). Intellectual property rights in Nigeria: A Critical examination of the activities of the Nigerian copyright commission. *Journal of Law, Policy and Globalization* 35, 56-61
- Afolayan, O.T, (2022) Intellectual Property Rights Protection in Nigeria: Issues and Perspectives. Information Impact: *Journal of Information and Knowledge Management*, 13:1, 1-9,
- Akerlof, G. A. (1970). The Market for "Lemons": Quality Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics*, 84(3), 488–500.
- Akinola, A. A. & Adeyemo, R. (2013). Effects of property rights on agricultural production: The Nigerian experience. *Journal of Development and Agricultural Economics*, 5(10),
- Ayoola J.B, , Ayoola, G.B & Chikwendu, D.O (2016) An Assessment of Intellectual Property Rights in Nigeria Agriculture. *International Journal of Innovative Research & Development* (2016) 3 (6) 334-347
- Binenbaum, E., C. Nottenburg, P.G. Pardey B.D.Wright and P. Zambrano South-North Trade, Intellectual Property Jurisdictions, and Freedom to Operate in Agricultural Research on Staple Crops in Economic Development and Cultural Change (2003)
- Brahem, M.,El Harbi, S. and Grolleau, G. (2013). What drives trademarks registration among Tunisian clothing firms ? An econometric investigation. *International Journal of Intellectual Property Management*, 6, 1–14.

Campi, M (2016). The Effect of Intellectual Property Rights on Agricultural Productivity

Chiappetta, V (2000) 'Je Desirability of Agreeing to Disagree: J e WTO, TRIPS, International Exhaustion and a Few Other Jings' 2000 *Michigan Journal of International Law* 21(3) 333

Colston, C. Principles of Intellectual Property Law (London GB: Cavendish Publishing Ltd., 1999),

Correa, (2006) Trade-Related aspects of intellectual property rights: A Commentary on the TRIPS Agreement (Oxford: Oxford University Press, 2006)

- Davies, L., & Davies, J. (2011). To What Extent Do Trademarks Enhance or Hinder Innovation? Exploring an inriguing yet Ambiguous Relationship.
- Davies, S. and Ebbe, K. (1995) Traditional knowledge and sustainable development; proceedings of a conference, held at the World Bank in September 1993, World Bank, Environmentally sustainable development proceedings Series No. 4, Washington D.C.
- Encaua, H., and Antonet, W. (2006), "Intellectual Property Use, Choice between Patent and Secrecy within the Content of Weak Patents", *Journal of Intellectual Property Ecuador*, 1111(48-55)
- Endeshaw, A.(2006) 'Free trade agreements as Surrogates for TRIPs-Plus' 2006 *European* Intellectual Property Review (28), 374
- Evans G and Blakeney, M (2006) 'Je Protection of Geographical Indications A[er Doha: Quo Vadis?' 2006 *Journal of International Economic* Law 9(3) 575, at 607–8.
- Evans G and Blakeney, M (2006)'Je Protection of geographical indications A[er Doha: Quo Vadis?' 2006 Journal of International Economic Law 9(3) 575
- Evans, G (2000)'A Preliminary Excursion into TRIPS and Non-Violation Complaints' 2000 Journal of World Intellectual Property 3(6) 867
- FAO, (2001) The Impact of Intellectual Property Rights (IPR s) on food and agriculture in developing countries. Electronic Forum on Biotechnology in Food and Agriculture. Background document to Conference 6. March 20 Nay 13.
- Fink, C., Javorcik, B. S., & Spatareanu, M. (n.d.). Income -Related Biases in International Trade: What Do Trademark Registration Data Tell Us? Retrieved October 29, 2014,
- Fisher, W. (2009), "Transparency and Corporate Governance for Capital Market Development in Africa: The Nigerian Case Study". *Securities market Journal*, 935 (9-28).
- Flikkema, M. J., de Man, A. P., & Wolters, M. J. (2010). New trademark registration as an indicator of innovation : results of an explorative study of Benelux trademark data.
- Gambardella, A., Giuri, P., & Luzzi, A. (2007). The market for patents in Europe. Research Policy,36(8),1163–1183.

- Ibigbami V. (2010) Background and Status ofNational Partners Initiative (NPI) and Central Advisory Services on Intellectual Property (CAS-IP) Proceedings of the National Workshop onIntellectual Property (IP) Issues, Rights andObligations held at NCRI, Badegi, Nigeria, 14th December, 2010http://casiblog.files.wordpress.com/2011/06/iprworkshop-proc nigeria-2
- Menell, S.P. (1999), *Intellectual Property, General Theoriesfor Law and Technology California*, University of California Press.
- Nnabuike, J. A. (2000) studied the Economics of IP management and its effect on research and development of manufacturing companies
- Roderick, D. and Friedlan M., (1997), "Intellectual Property", *the Washington Post Washington D.C.* 1(7)
- Sople, V. V. (2010), *Managing Intellectual Property: The Strategic Imperative*; New Delhi, Learning Private Limited
- Titilope, A.O (2020). Intellectual property rights protection in Nigeria: challenges and prospects. International Journal of Library and Information Services 9 (2) 51-74
- Well, R. (2009), "Collaborative Mechanism for Intellectual Properties in the Life Sciences" (OECD Publishing Haley) Organization for Economic Cooperation and Development Doc. 39(26).