1. Introduction

A top priority task of every government should be creating opportunities for economic growth and development. Therefore, nations have sought to produce or exploit resources that would pave the way for their economic growth and development. In recent times, intellectual resources like new knowledge and technology become such a resource because the development of industries, economy, health, and agriculture are largely founded on intellectual property exploitation. It is not in doubt that in today’s world, the accumulation of knowledge with its exploitation is a huge factor of socio-economic development. This explains why governments all over the world are constantly developing intellectual property systems that are responsive to the needs of industries generating knowledge within their national and developmental objectives (Owoeye 2018). A strategically-crafted intellectual property system is capable of being a major driver of economic development for any nation.

Nigeria should ordinarily be benefiting more from both the local and global intellectual property system to strengthen its foundation for economic development, but a major factor why it is not optimally benefiting from the system is because its laws are not deliberately shaped to derive maximum benefits from the intellectual property system and are not compatible with the global system and the developments therein.

Since its inception in 1995, the TRIPS Agreement has been regarded as the most ambitious and significant development in the protection of intellectual property because of its boldness and demand for high standards of protection, and its elevation of intellectual property to the forefront of international trade (Adewopo & Oguamanam, pg 646). The TRIPS is now also the major and most exhaustive international intellectual property law which all WTO member nations are expected to implement within various deadlines.

The major objective of the TRIPS Agreement as stated in its article 7 is as follows: The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

The above suggests that the intellectual property system should promote innovation, but also work for the interest of everyone. That it should be able to advance the poor and protect the rich; protect the author/inventor as well as the consumer; and that it should be an instrument of transfer of technological knowledge. Therefore, persons and nations should take advantage of the IP system to improve welfare.

Nigeria has not changed its local intellectual property laws since they came into force, and many countries from the developing world are sceptical and curious about domesticating TRIPS provisions due to genuine fears. This article attempts to expose the inadequacies and lacunas of Nigeria’s patent law, the inconsistencies between Nigeria’s patents laws and the TRIPS Agreement, and then how these inadequacies and lacunas can be strategically replaced with provisions that would bring about developmental gains to Nigeria, but still maintain consistence with the TRIPS Agreement.
2. Background

Strong views are being held that insinuate that the globalization of intellectual property standards has been a process whereby the wish-lists of various developed-world lobby groups are inscribed into public international law (Bentley & Sherman 2015, pg 10). Therefore, most developing countries seem to remain unconvinced about the benefits that they will obtain from the implementation of the new IPR standards introduced by the TRIPS (Correa C. 2005, pg 420). Many from the developing world fear that adhering to the TRIPS provision would cause them too much loss and pain particularly in critical areas such as public health. They essentially believe that the TRIPS Agreement is out to protect the economic interests of technology-rich countries even though it appears to strike a balance (Correa C. 2005, pg 420). The TRIPS Agreement is also criticized by many for protecting the interests of the developed nations and their huge companies without giving due consideration to the costs of its implementation for low and middle economy countries with weak innovation capacity and improper legal, administrative and enforcement infrastructure. That owing to weak innovation capacity, majority of patent owners in the third world are foreign inventors resulting to most of the benefits of stringent patent laws exported into the foreign pockets of the owners (Abbas and Riaz 2013, pg 3).

Despite the all the criticism, the introduction of TRIPS Agreement is argued, has hugely impacted on Nigeria in and its various spheres of activity, and it should promote economic growth and enhance national development if it can be fully utilized (Itanyi 2016, pg 3). It has also been argued (Oguamanam 2011, pg 4) that a country's level of involvement in the new global knowledge order is in part a factor for their resourcefulness in innovation and its strategic engagement with new technologies. Nigeria has to wake up to the reality that the ability of countries to optimize the benefits of these technologies which according to Oguamanam is largely dependent on their intellectual property laws and overall knowledge governance strategy. That intellectual property is the scheme through which law supervises the benefits arising from knowledge.

Oguamanam again posited that the steady rise of middle income regional and emerging powers such as Brazil, Russia, India, China and South Africa (the BRICS) as neutralizers to American and European domination of global political and economic space is also tied to the extent to which these countries have continued to exploit the information revolution (Oguamanam 2011, pg 5). That a significant part of their transformation which presently accounts for their strong and growing economic power and leverage is their active participation in the new technologies and their ability to adapt and critically exploit IP for their various national interests.

Nigeria is a developing country blessed with abundant human and natural resources but has always struggled to fully harness these resources to achieve economic development. Economic development can hardly be achieved today without intellectual property capacity, maximum and strategic utilization of the intellectual property system, and full exploitation of the intellectual property assets at one’s disposal. Sadly, Nigeria’s patent law embodied in the Patents and Designs Act 1970(PDA), which should be one of the pillars of driving technological and economic development, is too old and outdated to contemplate recent developments in science and technology, and with an ever-changing world focused on harnessing technological knowledge and creativity to build strong nations and economies, it is submitted that the Nigerian patent law is inadequate to accommodate modern intellectual property objectives.

There is a need for Nigeria to revamp and reposition its intellectual property regime with a view to making it fit to be a player and to benefit from the modern IP system. There is also the need to abide to its international legal obligation with the World Trade Organization (WTO) by domesticking the TRIPS Agreement. Because domesticking the TRIPS is something Nigeria must do someday as the time granted to developing countries has since elapsed, a strategic update of its intellectual property laws is a sine qua non towards helping Nigeria and derive maximum benefit from the IP system. This article intends to provoke a patent law reform, and to enlighten policy makers, lawmakers, and intellectual property rights stakeholders in Nigeria on some relevant issues that must be considered while drafting a new patent law.

3. Review of Notable Provisions in Nigeria's Patent System

3.1. Compulsory Licensing

The First Schedule to the Nigerian Patents and Designs Act which is the part that provides for compulsory licensing does not contain some of the flexibilities provided by the TRIPS Agreement to safeguard public health and access to medicine in developed countries and least developed countries. One notable lacuna in this regard is that paragraph 15 of Part 2 of the 1st schedule apparently contemplates compulsory licence for the service of a public interest in Nigeria only, whereas article 31bis of the TRIPS Agreement as amended authorizes members to grant compulsory licence for the supply of patented products to members with a low manufacturing capacity, meaning a country like Nigeria should be able to produce and export objects of compulsory licence to a country having a low manufacturing capacity, and vice versa.

Also, paragraph 17 of the 1st Schedule exempts the Government, any person authorised or any supplier of the Government, and any agent of any such supplier from making any payment to the patentee by way of royalty or otherwise. Whereas Article 31(h) of the TRIPS Agreement provides that the right holder shall be paid adequate remuneration in the circumstances of each case, taking into account the economic value of the authorization.

Under Part 2 Section 18 of the Schedule, where compulsory licence is granted by the Minister, the Minister is obliged to furnish the patentee with such information, as to the extent of the act as the patentee may from time to time require unless it appears to the Minister that it would be contrary to the public interest to do so. The above provision gives the Minister exceptional situations where he is not bound to not inform the patentee. But the TRIPS provides under Article 31bis that even in situations of national emergency or other circumstances of extreme urgency, the right holder shall,
nevertheless, be notified as soon as reasonably practicable. Denying the patentee remuneration and not notifying the patentee of a compulsory licence is against the basic objective of the intellectual property system.

3.2. Employee Invention

There are questions with the apportionment of benefits accruing from the exploitation of the invention by an employee by the PDA. The Act provides in section 2(4) that if the invention is of exceptional importance, then the employee is entitled to a fair remuneration, taking into account his salary and the importance of the invention. This arrangement has been object to and rightly submitted that as long as an invention can be patented, the inventor-employee should be rewarded (Ayodele and Damola pg 55). The provision for fair remuneration based on employee’s salary may work injustice because the worker’s salary may be very low compared to the importance of the invention. Also, the value and income yield of the invention may not be immediately known at the time of determining the importance of the invention (Ayodele and Damola pg 55).

Determining the value of an invention would hardly be accurate as there are several factors to consider. Also, the salary of an inventor should not be a factor in determining the value of remuneration to be given to an employee inventor as this would greatly discourage the lowest earners in an institution from contributing to innovative activity as the inducement would be too low. Creating better, clearer, and fairer reward for employee inventors such as awarding a percentage of the earnings would be the best solution, and such a provision would be TRIPS-compliant.

3.3. Exception on Novelty Requirement

For an invention to be patentable it must be new to fulfill the novelty requirement, therefore any public disclosure of an invention makes such an invention lose its novelty, with disclosure during a public exhibition carried out within 6 months of filing the patent as the only exception provided by the Patents and Designs Act (Patents and Designs Act Section 1(3)). It has however been argued that for some kind of inventions it is not feasible to carry out the experimentation other than in the public, therefore public use can also take place before the filing of the patent application if it can be shown that experimentation in respect of the invention had to take place before the patent specification can properly be drawn up (Ayodele and Damola pg 55). The above exception is not contemplated under the Nigerian law and it would be TRIPS-compliant.

3.4. Exception of Private Non-commercial Use

It is observed also that the PDA does not have provisions for the exception of private use and non-commercial use as excuse for exploitation of a valid and subsisting patent (Gwom, pg 378). Section 47(3) of the Indian Patent Act contains exceptions on experimental and scientific uses of product and process patents which may be made or used by any person for the purpose merely of experiment or research including the imparting of instructions to pupils which is an example of private non-commercial use contemplated under the TRIPS Agreement. Having this provision would promote the diffusion of knowledge, the production of utility models, and even incremental innovations in Nigeria.

3.5. Pharmaceutical Patents

Under the TRIPS Agreement (Article 27[3]B), and most national patent laws like the Nigerian Patent and Designs Act, an invention in all fields of technology is supposed to be patentable once it is new; involves an inventive step and is industrially applicable. But in some countries, inventions like pharmaceutical products are however excluded from such protection (Gwom, pg 380).

The reasoning is that such patenting such inventions would deprive access to drugs at competitive prices. But others are of the view that doing so will discourage innovation since the inventors in that field would feel deprived of the benefits of their hard work.

According various authors, Nigeria was with the first school of thought hence pharmaceuticals was excluded from patentability. However, the TRIPS Agreement arrived on the scene and obliged all WTO members through Article 27(1) to recognize patents in all fields of technology including pharmaceuticals, and according to Ayodele and Damola (Ayodele and Damola pg 49) Nigeria now supports the protection of pharmaceuticals so there is a strong need for review the PDA to make it TRIPS-compliant in this regard.

But this author respectfully disagrees with the position that pharmaceutical products are excluded from patentability in Nigeria on the premise that Paragraph 23 of the 1st Schedule to the PDA which describes patented articles against which a compulsory license can be obtained mentioned ‘any drugs or pharmaceutical preparations, substances or materials’ as part of the patented articles contemplated which suggests that pharmaceutical products are patentable in Nigeria. Anyway, granting patents on pharmaceuticals products without improving manufacturing capacity in order to leverage on generic drugs, or for effective utilization of the TRIPS flexibilities during a public health emergency would make all the debate irrelevant.

3.6. Definition of Some Key Terms

Under article 27(1) of the TRIPS Agreement, patents are provided for inventions, which are ‘new, involve an inventive step and are capable of industrial application’. But the agreement does not define these terms and so it is inherent with some flexibility, and according to Ho (Ho, pg 92) developing countries can interpret these terms in such a way that would restrict the number of patents and grant more freedom to operate to their inventors.
It should also be noted that there is no definition of an invention under Nigeria’s Patents and Designs Act. For the sake of a developing country like Nigeria, it would be prudent and strategic to limit the scope of what is considered an invention through a very narrow definition in order to increase the number of technological information that can be exploited within Nigeria to help build local technological capacity.

3.7. Plant Variety Protection

Article 27(3) B of the TRIPS Agreement states that countries shall provide a system for protecting plant varieties either by the patent system or a sui generis regime or a unison of both, but Nigeria’s patent law openly bars the protection of plant varieties via patent, and there is presently no intellectual property-based plant variety protection system. Lack of IP protection for plant varieties would deprive Nigerian farmers of access to new varieties of seeds that are protected under IP laws. Such seeds usually have greater propagating qualities, higher yields, greater disease resistance, higher nutritional value and many other desirable attributes.

Some countries such as the United States protect plant varieties through patents, while many other countries protect through sui generis laws. It is recommended for Nigeria to maintain the status quo of not granting patents to plant varieties, and rather establish a tailor-made sui generis system to protect inventions in plant varieties which would reflect its peculiarities in agricultural innovation because the high level of exclusivity inherent in the patent regime would threaten food security in Nigeria (Wakle, 2020pg 190-191).

3.8. Utility Models

It is worthy of note that the TRIPS Agreement (Article 2) endorses Articles 1 to 12 of the Paris Convention, and Article 4 of the Paris Convention recognizes protection for utility models. But utility models are not protected under Nigeria’s patent law or any other intellectual property law. It is suggested that it is in the interest of Nigeria as a developing country with poor innovation capacity to establish a utility model system so as to boost its innovation capacity by encouraging inventions around expired patents many of which would qualify as utility models. Also, Nigeria can utilize access to patent documents to develop utility models. A utility model system is a must-have for Nigeria if it desires to build the base for technological power, and for the development of small and medium scale enterprises.

3.9. Substantive Examination

Lastly, Nigeria’s Patent and Designs Act provides for only formalities examination before a patent is granted, it does not empower the Registrar to make enquiries as to the patentability of the invention (Section 4[2][a]). One would think that the provision was drafted with questions as to whether Nigeria had the capacity to carry-out substantive examination in terms of personnel. It is submitted that even though the TRIPS Agreement does not compel substantive examination, Nigeria would benefit more from carrying out substantive examination as part of the process of granting patent to enable the screening of undesirable patent application. Without substantive examination Nigeria would not be able to prevent ‘evergreening’, it would also not be able to narrow its patentability requirements so as to expand the public domain. Granting a patent without substantive examination is akin to signing a document that is potentially very dangerous without reading it.

Lack of substantive examination of patent applications deprives Nigeria of the confidence of inventors and investors about the safety of their inventions and investments. It makes them reluctant to bring their knowledge and technology to Nigeria as they law does not sufficiently protect their inventions from exploitation. This trend is making Nigeria loose potential foreign direct investments and technology transfer initiatives.

4. Concluding Remarks

Nigeria’s Patents and Designs Act needs to be amended to make it serve the interest of the country better and to incorporate new developments in the global IP system, but in such a way that it would ensure compliance with the TRIPS Agreement. It is possible to update the Patent and Designs Act to be TRIPS-compliant, but still serve the interest of the country if it is done in a strategic manner. This is because the TRIPS is ingrained with flexibilities that developing countries and least-developed countries can exploit to their advantages.

It is therefore recommended as follows:

- The PDA should be amended to incorporate Article 31bis of the TRIPS which would enable Nigeria declare compulsory license on essential pharmaceutical products, and even supply these products to other countries with low manufacturing capacity. Exempting the Minister and his agents from liability to pay royalties to patentees or to inform the patentees of the grant of compulsory licences is unjust and against one of the basic principles and objectives of the intellectual property system. The patentee must receive adequate remuneration and should be informed of a grant of a compulsory licence as soon as practicable in accordance with the TRIPS Agreement.

- As for employee innovations, since it is almost impossible to know the real value of an invention at the time of its completion, and because the salary of a worker might be too little vis-à-vis the importance of an invention and the effort invested in it, using the employee’s salary and the value of the invention at the time of its completion may not be the most logical or fairest basis to compensate an employee inventor. It suggested that the law be amended to provided for a certain percentage of the income to accrue to the inventor as remuneration so that employee innovation is not discouraged.
It is also recommended that the law be amended to accommodate inventors that must experiment their inventions publicly before completing the invention and by doing so are unable to meet novelty requirements by granting such category of inventions an exception. Another important exception that the PDA should provide is for private non-commercial use, and use for teaching and research. The Objective should be to promote knowledge diffusion, to encourage utility models and some incremental innovation to build the country’s technological base.

Terms like invention, novelty, and inventive-step that are not defined by the TRIPS Agreement should be defined in the PDA and made narrower so as to increase the number of patents in the public domain and therefore more technological information to exploit. The narrow definitions can also control the ‘evergreening’ strategy adopted now by some inventors.

The PDA should be amended to provide for the protection of utility models because it is in the best interest of a developing like Nigeria which is yet have the capacity to create many patentable inventions. Having a utility model system would help nurture the creation of patentable inventions in future and would help in the development of small and medium scale enterprises to support employment, boost economic activity and gradually help to build the country’s technological power.

It is further recommended that the non-protection of plant varieties by patent be continued, but a bespoke sui generis system of plant variety protection be established such that would balance the interests of local farmers and the high-tech inventors to promote food security.

Carrying out only formalities examination of patent applications was perhaps unavoidable several decades ago due to doubt about the country’s capacity to handle that, but Nigeria should be able to boast of such personnel today. It is therefore recommended that substantive examination be introduced to the PDA.

Deliberate efforts be made by the government to develop the manufacturing capacity of the country’s pharmaceutical sector to make the country ready to exploit compulsory licensing in that regard, and for manufacturing generic drugs for local consumption and export.

A national IP policy and strategy be drafted for Nigeria to guide the implementation and interpretation of IP laws, and taking IP related decisions, so that they are all in line with set objectives and the national interest. Having a national IP policy and strategy is crucial to the development of industrial and technological base for the country.

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1) Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299, 33 I.L.M. 1197 Jan.1,1995 Article 65. Also see https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/L/1081.pdf&Open=True.

2) Article 30 TRIPS Agreement. Which provides that ‘Members may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.’ Having this exception in Nigeria’s law would also be TRIPS-compliant as it would be consistent with Article 30 of the TRIPS which authorises members to provide limited exceptions to the exclusive rights conferred by a patent as long as such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner.

3) Section 2(1) of Indian Patent Act 1970; Sections 102-105 of the USA Patent Act; Section 1 of the United Kingdom Patents Act 1977.

4) Ayodele O. & Damola F. (2017). Patentability of Inventions under the Nigeria’s Patents and Designs Act: An Examination. Nnamdi Azikiwe University Journal of International Law and Jurisprudence 8(2). 48-57. Retrieved from https://www.ajol.info/index.php/naujilj/article/view/156739.

49. See also Gwom Solomon, ‘Exceptions and Limitations To Patent Rights Under The Nigerian Patents And Designs Act: Analysing the Provisions and the Gaps. International Journal of Law and Policy Review 8(2).368-382. 380.

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6) Section 161 of the USA Patent Act U.S. Patent Act, 35 U.S.C. §§ 1 et seq. (consolidated as of May 2015) provides that whoever invents or discovers any distinct and new variety of plant, including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state, may obtain a patent subject to the conditions and requirements of this title. And that the provisions of this title relating to patents for inventions shall apply to patents for plants.

7) Such as the International Union for the Protection of New Varieties of Plants Convention (UPOV) UPOV which has 76 members, who all have laws that compliant with the Convention; and India which has unique plant variety law different from the UPOV Convention.