

The Significance of Patent as a Tool for Development: Lessons for Nigeria

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Abstract

The drive for sustainable growth and development continues to remain a deep desire of the Nigerian state. In their quest for development, great nations of the world have realised the potentials locked in human intellect, the protection of the products resulting from the human mind by way of patent grant and deployment of the patent tool for its development. The deployment of patent as a tool for development cuts across ideological divide. While nations that have taken advantage of the patent system as a tool for development have continued to accelerate in the direction of growth, others that have ignored the system have invariably continued to struggle with development. The success of the patent system other nations provides useful lessons for a nation like Nigeria that is eager to climb up the ladder of development. Valuable lessons must therefore be learnt in not only affirming and protecting the intellectual output through patent, the lesson learnt should reflect in reform of the law and policy on patent, encouragement of research and development, stimulation of research and development and redirection of our efforts in attracting foreign investment. When we learn and imbibe these lessons, we may truly say that we are on the road to development.

1. Introduction

The harnessing of the product of human mind is protected through intellectual property. When such harnessing of the human mind and potential results in new products, it is protected by patent. A patent is defined as the exclusive right granted by state for a period of time to prevent others from exploiting a new invention in the country where

the patent is held.¹ In spite of the length of time since the first patent legislation was put in place in Nigeria, no significant progress has been made technologically through the adoption of a patent legislation. In contrast however, evidence abounds of other nations of the world who have been catapulted from poverty to prosperity through the adoption of the patent system. Where then lays the fault? Is the fault in us as a people or in the legislation itself? In this paper, I shall endeavour to uncover patent as a significant tool for development and how we can draw lessons for practical application in Nigeria. The paper is divided into seven parts. Part I is the introduction. In part II, I shall draw a connection between patent and development. In Part III, I shall examine the subject of technology determinism. In Part IV, I shall examine the use of patent in different political structures. In Part V, I shall look at the different ways that patent has contributed to economic development and technical change. In Part VI, I shall draw attention to lessons that Nigeria can draw from the use of patent if she make the giant stride to development. Finally, in Part VII I shall conclude.

2. Connection between Patent and Development

Early in 1886 Mr. Korekiyo Takahashi was sent by the Japanese Government to Washington, to study the U.S. Patent Office² He was to learn how to set up the Patent Office in Japan. He made diligent inquiries into all areas of his assignment. One of the persons he had discussions with, Dr. P. B. Pierce, a design examiner asked Mr. Takahashi: “Mr. Takahashi, I have answered many questions asked by you; would you object to answering a single question which I would like to put to you?” Mr. Takahashi answered in the affirmative. The question was “I would like to know why it is that

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¹ K. Hodkinson, *Protecting and Exploiting Technology and Designs*, (London: Spon, 1987), p. 32.

² K.W. Dobyns, *A History of the Early Patent Offices: The Patent Office* Pony, (Virginia: Sergeant Kirkland's Fredericksburg), p. 198.

the people of Japan desire to have a patent system.” Mr. Takahashi’s response was very instructive. He answered:

You know that it is only since Commodore Perry, in 1854, opened the ports of Japan to foreign commerce that the Japanese have been trying to become a great nation, like other nations of the earth, and we have looked about us to see what nations are the greatest, so that we could be like them; and we said ‘There is the United States, not much more than a hundred years old, and America was discovered by Columbus yet four hundred years ago;’ and we said “**what is it that makes the united states such a great nation’ and we investigated and we found that it was patents, and we will have patents.**”³ (emphasis supplied)

It is rare to find a more significant testimony of the significance of the patent system in its function of aiding economic growth. Every nation in the world that has risen to any economic significance endeavours to put the patent system in place. The early history of patent protection shows that it has its roots in the grant of “industrial and inventors’ privileges” usually dispensed by way of royal prerogative.⁴ The main purpose of the grant was to encourage foreign craftsmen to practice their trade and teach others the craft within the royal domain.⁵ There was a deliberate policy to promote industry and encourage transfer of technology.⁶ At that time it was irrelevant whether the craft being sought to be introduced was acquired “through travel or research.”⁷

Beier and Struass likened the situation that obtained then to what now obtains in developing countries in that foreign technology was sought to be introduced to domestic territories without regard to stimulation of domestic capabilities.⁸ By late eighteenth century

³ *Ibid.*, at p. 198-199.

⁴ F.K. Beier, and J. Straus: “The Patent System and Its Informational Function – Yesterday and Today,” (1977), IIC, Vol 8, No. 5. p. 387 at 389

⁵ *Ibid.*, at p. 389.

⁶ *Ibid.*, at p. 391.

⁷ *Ibid.*, at p. 390.

⁸ *Ibid.*, at p. 390.

however, patent laws in the modern mould have been passed in the United States, France and England.⁹ Within the first half of the nineteenth century, the following countries had their patent laws: Austria, Russia, Prussia, Belgium, Netherlands, Spain, Bavaria, Sardinia, Vatican State, Sweden, Wurttemberg, Portugal and Saxonia.¹⁰ It is however noteworthy to remark that a great deal of debate over the desirability of the patent system took place across Europe during the nineteenth century.¹¹ The debate helped to filter the policy consideration upon which the patent system was built.¹² A country like the Switzerland that refused to pass a patent law did so out of a deliberate choice.¹³ In spite of sustained attack at the patent system, the system prevailed and even countries like Switzerland eventually passed a patent law in 1887.¹⁴

Certain patterns are observable in respect of most countries who adopt the patent system.¹⁵ At the point of industrializing process, countries are noted to utilise a form of protection for invention. Such adoption is accompanied by a strong desire for technical advancement.¹⁶ The adoption of the patent system is usually considered to be necessary for industrialisation. Also in adopting the patent system most of the countries do so after exhaustive analysis arguments either in favour or against patent protection.¹⁷ Finally, the existence of strong patent protection has always been closely associated with a level of industrialization higher than that of countries with weaker protection.¹⁸ Examples of countries in the

⁹ Ibid., at p. 390.

¹⁰ F. Machlup, and E. Penrose: "The Patent Controversy in the Nineteenth Century," (1950), *The Journal of Economic History*, Vo. 10, No. 1 (May) 1-29.

¹¹ Ibid., at p. 3.

¹² F.K. Beier, "The Significance of the Patent System for Technical, Economic and Social Progress," 1980, IIC, Vol. 11 No. 5, p. 563 at p. 571

¹³ Muchlup *et al.*, *ibid.*, at p. 4.

¹⁴ *op. cit.*, at p. 6.

¹⁵ See generally Beier, *ibid.*, note 12 at p. 571.

¹⁶ Ibid., at p. 571.

¹⁷ Ibid., at p. 571.

¹⁸ Ibid., at p. 573.

former group include, Britain, France, United States and Japan, countries in the latter group include the large number of developing countries.¹⁹ Many scholars have laboured to establish a connection between higher level of economic development and strong patent protection.²⁰ But does technology solely determine economic development?

3. Technology as Sole Determinant of Economic Development

It can be asserted without question that technology plays a significant role in economic growth of any society. The issue that has generated much controversy however is whether technology has an autonomous influence on societies.²¹ Bimber asserts that technological determinism is embedded in most response to the role of technology in human history.²² He points out technological determinism is imprecisely used and this gives rise to disagreement among writers. He sets out three criteria by which to identify the way that technological determinism is viewed: the normative account, the nomological account and the unintended consequence.²³ The normative account of technology sees technology as a human enterprise whose goal is essentially geared towards “an over reliance on the norms of efficiency and productivity.”²⁴ This point of “**view excludes other ethical values.**”

The normative account considers technology to be:²⁵

Autonomous and deterministic when the norms by which it is advanced are removed from political and ethical discourse and when goals of efficiency or productivity become surrogates for value-based debate over methods, alternatives, means and ends.

¹⁹ Ibid., at p. 573.

²⁰ Ibid., at p. 573.

²¹ B. Bimber, “Three Faces of Technological Determinism,” in M.R. Smith and L. Marx, *Does Technology Drive History? The Dilemma of Technological Determinism*, (Cambridge: The MIT Press, 1994), p. 80.

²² Ibid., at p. 80.

²³ Ibid., at pp. 81-86.

²⁴ Ibid., at p. 82.

²⁵ Ibid., at p. 82.

The normological account rests on the view that the past and laws of nature determine the future.²⁶ By this technology is seen as “exercising a causal influence on social practice.”²⁷ In other words once a particular technological enterprise is embarked upon, other necessary technologies are associated with it independent of economic, social or cultural requirement.²⁸ A classical example of this view is cited as that of Heilbroner who argues that:

The steam-mill follows the hand-mill not by chance but because it is the next stage in a technical conquest of nature that follows one and only one grand avenue of advance.²⁹

The third view which is the Unintended Consequence focuses on the “inability to know completely the consequences of technological choices.”³⁰ For instance the inventors of the automobile did not foresee the quantum of damage pollution could cause to the environment.

Now determinism is ordinarily construed to mean: “the doctrine that future phenomena are causally determined by preceding events or natural law.” The question then is in what sense of determinism as outlined by Bimber is technology deterministic of economic growth and social change. He argues that the normological account comes closest to defining technological determinism.³¹

4. The Use of Patent in Different Economic and Political Structures

²⁶ *Ibid.*, at p. 83.

²⁷ *Ibid.*, at p. 83.

²⁸ *Ibid.*, at p. 83.

²⁹ Heilbroner R., Do Machines Make History?, *Technology and Culture*, Vol. 8, No. 3, Jul. 1967, p. 335.

³⁰ Bimber, *op. cit.*, note 21 at p. 86.

³¹ *Ibid.*, at p. 89.

The patent protection is adopted in all systems without regard to economic or political structure as long as the objective is to engender industrial progress and economic development.

4.1 Use of Patent in Planned Economies

In spite of differences in ideologies and political structures, most countries of the world have economic and technical progress as its goal. This includes the former socialist countries and other planned economies.³² There is consensus with the capitalist world that it is desirable to provide for protection of invention. Beier posits that the basis for the law on invention in the East is to accord the inventor a “special recognition and reward him for his useful services to the society.”³³ In addition patent protection is seen as desirable in order for the inventor to disclose his invention which eventually results in the general good of the society.³⁴ The inventor’s right was protected by the grant of an inventor’s certificate³⁵ in place of the grant of patent in the free economies. It must be noted that there is a difference between the certificate and a patent grant in that the certificate rewards only the individual but not the enterprise.³⁶

Beier was of the view that the system of inventor’s protection as operated in the planned economies would fail to stimulate invention and predicted that in the long run those economies would have to turn to patent protection.³⁷ With the collapse of socialism and the move towards the post-capitalist society with emphasis on knowledge capital,³⁸ the adoption of patent system by the former socialist countries is proving to be inevitable.

4.2 Use of Patent in Free Market Economies

The patent system took root and was nourished on the fertile ground of the free market. It has also made the most dramatic impact on the

³² Beier, *op. cit.*, note 12 at p.576.

³³ *Ibid.*, at p. 576

³⁴ *Ibid.*, at p. 576.

³⁵ *Ibid.*, at p. 577.

³⁶ *Ibid.*, at p. 577.

³⁷ *Ibid.*, at p. 577.

³⁸ P. F. Drucker, *Post-Capitalist Society*, (Oxford: Butterworth Heinemann, 1993), p.6.

economic growth of the free world. Although the first patent legislation was passed in Venice in 1474 it was not until 1623 that the Statute of Monopolies was passed in England. The Industrial Revolution came on the heels of the passing of the Statute of Monopolies. The question that has been asked is why the industrial revolution took place in England rather than Venice?³⁹ Two factors were said to be responsible for this state of affairs. First, the Statute of Monopolies for the first time provided for grant of patent to the first and true inventor.⁴⁰ It should be noted that the system by which royal prerogative was granted to inventors to carry on their trade within the sovereign territory was granted notwithstanding whether the introducer acquired the knowledge “by travel or research,” and was granted to enable them use the invention within the territory.⁴¹ The Statute of Monopolies changed all that.

The Statute provided for grant of patent to not only the first and true inventor, but the grant was to exclude other from exploiting the invention.⁴² In the latter connotation, patent does not confer permission to use the invention. But it was the possibility created by the law to transfer the right to patent that created a more revolutionary opportunity. The situation enabled inventors to collaborate with entrepreneurs who in turn began to set up research centres and employ the sole inventors.⁴³ With capitalist entrepreneurs putting their innovative capacities to work, the eruption in the economic and technological system is only to be expected. The Industrial Revolution was thus a born of entrepreneurs turning invention into a collective activity.⁴⁴ Since the industrial revolution, I have noted the spread of the patent system throughout Europe and America many of whom occupy the forefront of industry and economic growth today.

³⁹ See generally N.P. Carvalho, *The TRIPS Regime of Patent Rights*, (The Hague: Kluwer Law International, 2005), pp. 14-16.

⁴⁰ *Ibid.*, at p. 14.

⁴¹ W. Hulme, “The History of the Patent System Under the Prerogative and at Common Law,” 1896, *Law Quarterly*, Vol. 12, p. 186

⁴² *Ibid.*, at p. 14.

⁴³ *Ibid.*, at p. 15.

⁴⁴ *Ibid.*, at p. 15

5. Patents as a Tool for Economic Development and Technical Progress

The prosperity of a country in the world today depends less on the amount of natural resources it possess but upon the “efficiency of its technologically creative energies.”⁴⁵ The patent system provides a significant tool for managing creative energies and technical progress of any nation. Several areas of patent significance will be examined. First, I will examine the economic significance of the patent system. Next, I will examine its significance in encouraging research and development, encouragement in investment in production of patented invention, the provision of pool of information from which knowledge can be disseminated, the stimulation of innovation and encouragement of transfer of technology, in that order.

5.1 Economic Significance

The economic significance of the patent system may be examined from two perspectives: the value of the goods and services protected by patent and the value of the patent itself.⁴⁶ The value of goods covered by patent constitutes a substantial part of goods traded globally. Although the dearth of evidence on this important area has been acknowledged,⁴⁷ the point is quite self evident. On the value of patent itself the question whether patent protection operates to the benefit or to the disadvantage of the economy has been subjected to critical economic analysis. The oft cited work of Muchlup⁴⁸ answers the question in the negative and concludes that:

No economist, on the basis of present knowledge, could possibly state with certainty that the patent system, as it now operates, confers a net benefit or a net loss upon society.

⁴⁵ E. Haussner, “Patents as Instruments for the Management of Technology,” 1991-1992 *Managing Intell. Prop.* 20.

⁴⁶ F. Braun, “The Economic Role of Industrial Property,” *European Intellectual Property Review*, October, 1979, p. 265.

⁴⁷ *Ibid.*, at p. 266.

⁴⁸ W. Machlup, *An Economic Review of the Patent System*, Report to the Sub-Committee on Patents, Trademarks and Copyrights of the United States Senate Judiciary Committee, 1963.

The best he can do is to state assumptions and make guesses about the extent to which reality corresponds to these assumptions.

Braun acknowledges that the problem goes beyond purely academic interest and cited the opposing views on the issue by Columbia and the United States as practical existence of the problem.⁴⁹ The views were aired at the Preparatory Intergovernmental Committee of the WIPO in the course of revision of the Paris Convention. While Columbia, leading other developing countries, was of the view that the patent protection is a monopoly would be justifiable if the patent holder works the invention in the country where it is registered, the United States, together with other advanced countries, expressed reservations at such proposition.

The issue at stake boils down to what stage in a nation's economic life the patent is being put to use – at the developing stage or at the developed stage. At the developing stage, even the advanced nations saw the patent system as a tool for development. However, once a nation crosses the threshold of development, it is conceivable and most nations begin to see the patent system from a protectionist perspective.⁵⁰ This is understandable. Achieving technical progress is a costly and painstaking step. In the words of Pointet:⁵¹

It calls more for financial resources, sometimes considerable, and for a particularly keen intelligence on the part of numerous researchers, and for long and patient effort.

The position of patent particularly with regards to the demand for working of the patent as a condition for its continued operation is different today from the days of the 'backyard inventor.' It is little

⁴⁹ F. Braun, note 46 at p. 266.

⁵⁰ See generally P. Drahos and J. Braithwaite, *Information Feudalism: Who Owns the Knowledge Economy?* (London: Earthscan Publications Ltd., 2002).

⁵¹ P.J. Pointet: "The Role of Industrial Property in the economic Development of States," (1967), *Industrial Property*, March, p. 60, at 63.

surprising therefore that at that stage, the patent system is perceived by advanced nations as a tool for trade protection.

5.2 Encouragement of Research and Development

It is generally acknowledged that the patent system operates to encourage research and development.⁵² Research and development has become the livewire of the inventive process and every nation that desires industrial progress commit every possible resources to assist research.⁵³ Research and Development (R & D) is costly, time consuming and risky. The exclusive right granted by patent serves to encourage R & D in that the researcher has monopoly of exploitation of the patented goods or process for a period of time to enable his recoup his investment.⁵⁴ A note of caution however needs to be entered. It appears that some industries like the pharmaceutical industry are more sensitive to patent protection than some other industry.⁵⁵

In the latter case therefore patent protection may not be the spur for R & D in such industry. One reason for such state of affairs is that competition in some industries has become very stiff. The desire to keep ahead of competition rather than patent protection may be the spur for R & D in such industry.

5.3 Encouragement of investment in patented invention

The production and marketing of patented invention in many instances involve large capital outlay. For an individual inventor, provision of necessary capital may prove a great challenge. In such situation, finance is provided by some entrepreneur. But it is common now to have big corporations as patent holders. In both events, patent protection ensures that investor would have the opportunity to recoup his capital and profit. Patent protection

⁵² G.S. Yankey, "International Patents and Technology Transfer to Less Developed Countries: The Case of Ghana and Nigeria," 1987, Aldershot: Avebury, 10.

⁵³ Pointet, *loc. cit.*, note 51 above at p. 63.

⁵⁴ Yankey, *ibid.*, at p. 10

⁵⁵ C.T. Taylor, and Silberston Z.A., *The Economic Impact of the Patent System: A Study of the British Experience*, (Cambridge, Cambridge University Press, 1973), p. 197.

therefore ensures that patented invention attracts required investment.⁵⁶

5.4 Encouragement of Dissemination of Knowledge

In the early stages of patent development, the inventor or introducer was under a duty to disseminate the knowledge by practising his invention and teaching others the craft. In respect of modern patent however, the invention is described in the patent document. The patent document provides an intangible record by which others can learn of the invention, where appropriate, practice it, or build upon it. Although dissemination of knowledge is possible by free access to patented information, it would appear, as Beier suggests, that real dissemination does not often take place in this manner.⁵⁷ The more effective manner of dissemination usually take place when the patent is assigned or licensed to another.

5.5 Stimulation of Innovation

As noted earlier, patent secures for the innovator the economic space to practice his innovation. Innovation is crucial to the boom experienced in the industrial revolution and economic prosperity experienced across Europe and America. Innovation is perceived as the most difficult of the process of technological growth.⁵⁸

According to Pointet:⁵⁹

Technical progress depends upon the genius of men and as a consequence, also upon the evolution of the population and its degree of education, with the fullest possible use of the resultant 'grey matter.'

The innovator faces risks such as technical or market risks.⁶⁰

The innovator's effort may not result in an invention or there may be

⁵⁶ Braun, *op. cit.*, note 46 at p. 268.

⁵⁷ Beier, *op. cit.*, note 12 at p. 382.

⁵⁸ Yankey, *loc. cit.*, note 52 at p. 19.

⁵⁹ Piontet, *loc. cit.*, note 51 at p. 63.

⁶⁰ Yankey, *loc. cit.*, note 52 at p. 19.

no market for the invented product. In any of the cases, the innovator stands the risk of substantial loss of his investment. The patent system, however, provides him some assurance of recouping his investment where his effort is successful.⁶¹

5.6 Encouragement of Transfer of Technology

It is often perceived that the adoption of the patent system leads to transfer of technology. This perception has an obvious root in the early use of the patent system by the advanced countries. First under the system of sovereign grant of prerogative to inventors, they were indeed obliged to cause a transfer of their technology to the granting territory. Secondly, the adoption of the patent system seemed to be accompanied by rapid industrialisation particularly in Europe and America in the eighteenth and nineteenth centuries. However, several other factors, some which we have earlier alluded to, acted in concert with the patent system to produce the achieved result for those nations. It is important to note that adoption of the patent system per se would not lead to transfer of technology.⁶²

Yankey has identified a number of conduits through which transfer of technology may be effected. These include imports of patented products, foreign direct investments (FDI), joint ventures, disclosure of the invention in a foreign country and patent licensing.⁶³ In respect of the first three means, substantial resources are devoted to investment in foreign goods.

The main challenge particularly for the party importing technology however lies in the diffusing of technology. Contrary to the often mistaken belief that machinery or other hardware bearing the technology (e.g. the Automated Teller Machines used by banks to dispense cash) technology is already made available), transfer of technology involves “exchange of technological information.”⁶⁴ Such information is made available in patent information.

⁶¹ *Ibid.* at p. 19.

⁶² *Ibid.* at p. 22.

⁶³ *Ibid.*

⁶⁴ M. Blakeney, *Legal Aspects of the Transfer of Technology to Developing Countries*, (Oxford: ESC Publishing Limited, 1989), p. 85.

In Nigeria, we seem all too soon get carried away by the products of technology made available without making efforts towards the diffusion of the technology involved in those goods. Kim,⁶⁵ relying on South Korean experience, presents a model of stages of developing industrial technology for developing countries. The first stage involves the implementation stage which involves assembling of foreign components and parts. The second stage involves assimilation of foreign technology which involves a process of diffusion and capacity improvement. The third stage is improvement which is devoted to increased local capability. Except a model like Kim's is applied, no substantial gain may be made from foreign investment. With respect to the use of information disclosed in invention, it has been shown that it is not a very effective means of transfer of technology.⁶⁶ Transfer through patent licensing may be expensive but quite rewarding as can be seen from the Japanese experience.⁶⁷

6. Lessons for Nigeria

The first lesson we need to learn about the importance of patent for development is that we need to understand that the protection given by patent is for the recognition and appreciation of the inventive ideas of the patentee. By placing a premium of useful ideas, such individual and others are given the encouragement to produce further ideas. In our society, we seem to place premium on acquisition of wealth, no matter how such wealth is obtained. In spite of the fact that patent was first introduced to Nigeria in 1900⁶⁸ and an home grown patent Act had been in place for over forty years without much

⁶⁵ L. Kim: "Stages of Development of Industrial Technology in a Developing Country: A Model," *Research Policy*, 9 (1980) 254-277.

⁶⁶ Yankey, *loc. cit.*, note 52.

⁶⁷ H. Iwata, "The Patent System and the Pharmaceutical Industry," *Journal of the Japanese Group of International Association for the Protection of the Industrial Property of Japan (AIPPI Journal)* Vol. 19, No. 2 March 1994, p. 51.

⁶⁸. Patent Ordinance No. 27 of 1900. See G. Ezejiofor: "The Law of Patents in Nigeria: A Review" in 1973, 9 *African Legal Studies*, p. 39,

to show for it clearly demonstrates that merely enacting the law is not sufficient. Our value system is crucial to the working of the patent system within our community.

The second lesson we need to learn is that deploying patent as a tool for development involves coordinated government policy on deployment of patent. Development and technical change is rarely the product of chance.⁶⁹ Also achieving technical progress is not for dreamers who will not take conscious effort at achieving technical progress.⁷⁰ In the United States, patent was made a constitutional affair in the first constitution for the country.

In addition, in the first Congress under the constitution, patent was one of the enactments passed by the Congress.⁷¹ In England, the monarch took active interest in the introduction of new inventions into the realm. In Japan the Meiji Government enforced the “Rules of Monopoly” in 1874 only 6 years after the restoration and revised its laws after extensive study of those in the USA, UK, France and Germany in 1885. The Government also ratified the Paris Convention in 1899.⁷²

According to Iwata:

Many young students were sent to study abroad and many foreigners were hired by the Government in the fields of technology, education, administration, military etc. as advisors and teachers.⁷³

The third lesson for Nigeria is that using patent as a tool for development involves substantial financial commitment provision of education, research and development, investment in patent licensing and the provision of other technology infrastructures. It must be noted that there must be clear commitment to financing basic and applied research.

⁶⁹ Pointet, *loc. cit.*, note 51.

⁷⁰ W.L. Hayhurst: “‘Dreamers’ and the patent system,” [1983] 10 *European Intellectual Property Review* 263.

⁷¹ Patent Act 1790, Ch. 7, 1 Stat. 109-112 (April 10, 1790).

⁷² Iwata, *loc. cit.* note 67, p.52.

⁷³ *Ibid.*, at p. 52.

As at 1965, research shows that the world estimate of research expenditure stood at \$60b with the USA accounting for one third of the expenditure, USSR also spent one third and the remaining one third spent by the rest of the world.⁷⁴ Given the prevalent poverty in Nigeria, the need for the initial government support for research cannot be underestimated. Furthermore, it is important that a well managed specialized fund be established to take care of applied research. Of course, government cannot be left alone to bear the cost of research and development. Once government devotes itself to the course of deploying patent for development, the private sector would have to be mobilized to take its own part in national development. Public and private support for research and development is the order around the world today and we have to learn to follow the good lead.

The fourth lesson for Nigeria is that in the negotiation of all contracts, there is the need to involve specialist to ensure that terms that would ensure technology being made available are negotiated into the contract. It must be borne in mind that technology transfer goes beyond making available technological products, purchase of machines and equipment. It involves the “exchange of technological information” embedded in the patent. It involves how such information would be diffused such that we are enabled to start production without aid. It should be remembered that the bearers of technology are multinational enterprises. Dealing with multinational companies requires informed negotiation as they would attempt to get away with so much they can. Multinationals are not charities. However, they can be made to deliver upon what is negotiated.

The fifth lesson we need to learn is to be patient. It must be remembered that the period between the commitment to invention, granting of patent and the working of the patent involves commitment of resources, both men and materials, but also of patient wait. In Nigeria, we seem to have imbibed an attitude of: “get rich quick.” This is one area we also would have to learn to change.

The sixth lesson we need to learn is to streamline the law on patent in order to take account of our peculiar circumstances and also

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Pointet, *loc. cit.*, note 51, at p. 64.

with a view towards ensuring compliance with the international obligations we have entered into.⁷⁵ Our laws on patent have become outdated and requires overhaul which would take account of the national needs, the needs of inventors and innovators. The law would also take account of creation of technological infrastructures.

7. Conclusion

In this paper, I have endeavoured to show that if properly deployed, patent furnishes an important tool to be deployed by Nigeria and any developing country in their quest for development. However, deploying patent is not just by wishful thinking or mouthing homilies on the need for development. It requires adopting a clear policy path and pursuing it with vigour. In that quest, all effort must be geared towards making the use of patent as a tool for development a realizable objective.

⁷⁵ For example, compliance with the TRIPS agreement particularly with regards to patent.