

## PROPOSED THEORETICAL FRAMEWORK FOR DEVELOPMENT OF A POLICY FOR IK MANAGEMENT IN NIGERIA

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### Abstract

The global economic trends of this century have put the management of knowledge at a level never before seen in human history. While the scope of known science and engineering fields keep shrinking as a result of emerging new frontiers that occasion break-a ways and multi-disciplinary interests, knowledge management as a matter of necessity continues to be on the increase because old knowledge is never thrown away but improved upon to evolve better products and better ways of achieving set objectives. Most African economies have evolved over several millennia and it is interesting to note that the various ethnic nationalities in Africa have been able to overcome the challenges of extinction because of the rich pool of their indigenous knowledge (IK). Indeed, the nations of the continent can emerge as global players faster if efforts are made to better understand and exploit this knowledge pool. This paper looks at the opportunities in the rich IK pool of the Nigerian ethnic nationalities, the possibility of evolving the appropriate intellectual property inherent and proposes a model that will energize the profitable and proper management of IK in Nigeria.

**Keywords:** indigenous knowledge, intellectual property, knowledge acquisition, knowledge assimilation, dispersion and diffusion

### INTRODCUTION

Historically, the greatest effort of man has been to subdue both his immediate and far environments. This primordial quest has produced individuals and communities with distinct knowledge that helped them to survive in their environment. These efforts provided solutions to their basic needs in sectors such as health, agriculture, animal husbandry, cuisines and the provision of tools for various trades. The evolution of people with distinct knowledge and know-how was therefore inevitable. This knowledge and know-how, though unique and effective as solutions to their challenges, does not satisfy the criteria of patentability and therefore does not qualify for patent protection. However, this does not diminish the fact that they can still be the bedrock of vibrant economic leeway for most African economies. In a world with the present level of stiff neck competition in trade and commerce, it is expected that nations should therefore chart economic developmental strategies that revolve around their areas of strength. In Nigeria, like in most sub-Saharan African countries, indigenous knowledge (IK) is a veritable area of strength on which her economy can be built on a sustainable platform. The focus of this paper is the emphasis on the proper management of IK. This will be profitable to the custodians of IK and the Nigerian national economy.

### The Nigerian Nation

According to History World (2011), Nigeria is said to contain more cultures and empires than any other nation in Africa. (It has been stated in official statistics that Nigeria is made up of more than 250 ethnic nationalities, each with their unique IK.) These cultures and empires are said to date as far back as the 5<sup>th</sup> century BC. The indigenous nations living around the southern slopes of

the Jos plateau produced explicitly expressive terracotta figures. These figures are known as being from a traditional people called the Nok. The Nok people are a neolithic tribe, who were known to have acquired the iron technology as the technology was spreading south wards of Africa. The Jos plateau on the other hand is historically considered to be the centre of Nigeria. However, documented evidence also cites other extensive kingdoms such as the Kanem-Bornu, Songhai, Oduduwa, Benin Empires. These kingdoms traded extensively with the North through the Sahara and east of Sudan as well as the Portuguese and Colonial empires from across the Atlantic Ocean. The Kanem Bornu Empire converted to Islam only in the 11<sup>th</sup> century (History world, 2011). There are other archaeological findings that place the existence of some indigenous nationalities at about 9000 years before the Nok Empire along Lake Chad, in what is regarded today as the Kanem-Bornu Empire. Other empires within the geographical entity of Nigeria had equally been historically documented to have acquired glass blowing technology, bronze works, cloth weaving, etc.

These historical facts give credence to the hypothesis that these empires, as indigenous nationalities, had evolved very high technological knowhow in their time. This high level technological know-how could only have evolved through the acquisition of knowledge either formally or informally. Indeed the political administrative systems of most indigenous nationalities in Nigeria necessitated a clear distinction between the ruling class in the form of monarchs and members of their council. In the Igbo nation of the South East of Nigeria, for instance, there was usually a traditional council of elders and the spiritual ruling class in form of high priests to their

deities who administered the nations. The former remain to date in most traditional societies as the custodians of IK. They contacted the oracles for the people and in cases of disease and epidemics are looked upon for solutions which take the form of appeasing the gods and ancestors as well as administering various herbs and concoctions for relief. On the other hand, the ruling class often has specific individuals who see to their welfare by offering unique services such as overseeing their stables, offering midwifery services to their wives, farming their lands and fishing their waters. The unique position here is that these are families that have been chosen to perform these functions over the centuries and have therefore developed very high knowledge and know-how in the fields of their endeavor. They pass on this knowledge and know-how through the generations in the same family and in most cases not to all the members of the family but to particular individuals mentored from childhood by the custodian of the particular knowledge and know-how. The existence of this extensive pool of IK could be used as the basis for building modern economic models with several existing theories put together to draw up an appropriate policy for IK management. Two theories are exploited here.

**The Cultural Interface Theory**

The Cultural Interface theory refers to indigenous/non-indigenous inter-cultural space, accepting that all knowledge systems are culturally embedded (Taylor, 2003; Nakata, 2002). The theory thus suggests interfacing the different elements of culture which includes language, religion, arts and styles, customs (like etiquette), morality, cuisine, tastes and standards of beauty/aesthetic norms, family structures and notions of kinship, attitudes towards sex and gender, attitudes towards property, attitudes towards the boundaries of the self etc. This interfacing or blending is represented in the model below where the depth of knowledge is seen to bridge the gap between two opposite cultures.



Figure 1: 8-Ways representation of Cultural Interface - the higher the knowledge, the greater the overlap across cultures

The above graphic representation clearly depicts the Nigerian situation. At the colonial era, there was no overlap. However, over the years, as the processes and interactions evolved, the inter-cultural space began to overlap to a point where common ground for profitable innovation management was found.

**PERSONALITY THEORY: AS AN INDIGENOUS KNOWLEDGE MANAGEMENT FRAMEWORK**

Personality theory maintains that individuals have moral claims to their own talents, feelings, character traits, and experiences. Property rights are important in two ways according to this view. First, by controlling and manipulating objects, both tangible and intangible, our will takes form in the world and we obtain a measure of freedom. Second, in some cases our personality becomes fused with an object—thus moral claims to control feelings, character traits, and experiences may be expanded to intangible works (Humboldt, 1792; Kohler, 1969 cited in Moore, 2011).

The attitude towards the boundaries of the self as enshrined in ethnic nationalities culture makes the personality theory apt for the IP management of indigenous common wealth. For instance, in the Nigerian Igbo culture, a man’s first son is bequeathed the management of his entire estate at his demise. Same culture dictates how that first son will relate with his younger siblings in the management of the said estate without usurpation. The common-wealth that belongs to the larger society equally has its own laws governing exploitation for the common good. In a particular community, Okwuzi – Egbema, the exploitation management of a host of lakes commonly owned is traditionally the responsibility of a particular age grade. The leader of the age grade is naturally the personality on whose shoulders the direct administration of the various aspects of the exploitation falls. The time frame for the management for every age group is traditionally fixed and cannot be changed. In the case of the Arungu fishing festival (in Arungu, Kebbi state), an international tourist event, its management has been entrusted on the Emir of the community to administer exploitation for the common good. The traditional estate management of a demised individual’s estate and management of communal common wealth cited above indicate that IK can be managed and exploited along the personality theory lines of IPR blended with the indigenous cultural common wealth estate management laws.

**Bayh - Dole Act: Basis for Formulation of the Proposed Theoretical Framework**

The examples cited earlier clearly indicate that individual boundaries are very well traditionally established within the confines of the society that it belongs. The Nigerian ethnic nationalities clearly have evolved common wealth property management structures which can be dovetailed into the management of IPR along the *sui generis* resolution of the UN. The United Nations (UN) General Assembly adopted the UN Declaration on the rights of indigenous peoples on 17<sup>th</sup> September, 2007, which can be used for *sui generis* protection of IK. *Sui generis* protection entails an acquisition of an alternate right that is separate from the rights that are recognized under the formal IP system, by the IK holders, as provided for under the system. According to Vandana (1994), while protecting national laws which have ensured that the ethical and economic imperatives are fulfilled, we need to

evolve new and complementary legislation which allows us to protect our biodiversity and our indigenous knowledge in this era of bio-piracy.

The Declaration focuses on the rights of indigenous people and it has provisions, specifically Articles 11 and 31 which can be used for protecting IK. Article 11(1) provides that 'indigenous people have the right to practice and revitalize their cultural traditions and customs', while Article 11(2) obliges states to provide redress through effective mechanisms with respect to indigenous peoples' cultural, intellectual, religious and spiritual property taken without their free, prior and informed consent or in violation of their laws, traditions and customs. Article 31(1) provides, in part, that indigenous people 'have the right to maintain, control, protect and develop their IP over such cultural heritage, traditional knowledge and traditional cultural expression'. Article 31(2) obliges states to use effective measures, in conjunction with indigenous peoples to recognize and protect the exercise of these rights (Andanda, 2012). The effective measures depicted in Article 31(2) in the case of Nigeria should be the enactment of effective legislature that will consider domiciling the exploitation rights to IK with the ethnic nationalities who, as shown above, have the necessary mechanisms to manage and exploit their common wealth. Such legislature should be considered along the WIPO member states' concluded biennium work of the committee tasked with finding agreement on international legal tools to prevent misappropriation and misuse of genetic resources, traditional knowledge and folklore in July, 2013 (Saez, 2013).

The established position of the individual boundaries within the ethnic nationality brings the *sui generis* resolution of the United Nations practicable within the Nigeria national ethnic nationalities into a more viable instrument when put into the context of the Bayh-Doyle Act of 1980 in the United States. Indeed the management of IPR has been a long and winding journey that evolved over several centuries. Although many of the legal principles governing IP have evolved over centuries, it was not until the 19<sup>th</sup> century that the term IP began to be used, and not until the late 20<sup>th</sup> century that it became commonplace in the United States. The significance of this Act is the transfer of original ownership of IP resulting from government funded research to the institutions who in turn developed institutional policies that put in place equitable sharing formula between the evolving team of the IP and the Institutions. The explicit transfer of government IPR to the institutions places an obligation on the institutions to maximize the benefits arising from their government funded research. This indeed happened as seen from the study by "the Association of University Technology Managers (AUTM)" who collected data since 1991 on technology transfer in US and Canadian universities and research hospitals. The astonishing results indicated that, before the enactment of the Bayh – Doyle Act, universities obtained less than 250 patents per year as against 5,327 new license agreements signed in 2002 alone. When the influence of the enactment is considered and this

astronomical increase is considered alongside the Bay-Doyle enactment, it means that the inherent personality nuance brought into the IP management of the US funded research gave rise to the giant successes recorded. The same success could be applied in the proposed legislature by domiciling the management of indigenous common wealth of ethnic nationalities with those who are traditionally appointed to do so such as the first sons, the appropriate age grade with the leader as the focal point or the Emir, paramount ruler or king.

A challenge immediately crops up even with the above proposition. Knowledge in most of the Nigerian ethnic nationalities cannot be commercialized. This on its own creates a lot of problems because the *sui generis* resolution of the United Nations foresees that, the appropriate IK management framework put in place by the nations should form the bedrock of the economic emancipation of the indigenous people. This can only be achieved through the commercialization of knowledge. Another obvious problem is that of linkage. How will the profitable knowledge become known so that the exploitation process could be consummated? The above obstacles are very true of most Nigerian ethnic nationalities. Furthermore, there is a lot of confusion amongst the younger generation about the coloniser's position that every IK is primitive and useless. This has gained so much ground in the Nigerian society that the entire moral, cultural and traditional heritage bequeathed by the fore-fathers are abandoned for the coloniser's way of life. Indeed, the wholistic practitioners' position for the evolution of a proper society "is to remember and reconnect with wholistic knowledge, pick up our bundles and activate them again" and this holds true in the Nigerian situation. Picking up our bundles means to relearn, reclaim, pick up and own the teachings and practices that emanate from wholistic concept and knowledge. The axiom "going back to our roots" means to live and practice a good life from that which was left us by our ancestors. This is only possible when considered from the perception of the cultural interface theory as depicted by the cultural interface in figure 1.

The cultural interface is essentially possible as knowledge of both cultures increase on both sides. In Nigeria for instance, the cultural interface indeed has grown appreciably without any noticeable effort on the part of government or structured authority. It simply just evolved from processes and interactions of both cultures over time. Formal training of artisans has successfully imbibed the indigenous coaching methods of observation and oral instruction with western literature to turn artisans into high construction and maintenance technology content products. For instance in a mechanic workshop, one hardly finds the structured learning equipment such as black boards, chalk, syllabus, etc. However, the product of such training remains the source from where formal and informal sector of the economy get the requisite workforce to drive businesses. It is worthy of note that the existing indigenous mentoring system ensures the availability of the requisite skilled man-power as opined by Nwosa (2011). On the other hand, the

indigenous cultures have established accepted instruments for the management of common wealth which had earlier been explained. This gives room for adequate application of the *sui generis* resolution of the United Nations for the management of the common wealth in IK across most of the Nigerian ethnic nationalities. Suggestions given in literature on factors that should be considered in developing a *sui generis* system of protection should also be considered. The three factors that Dutfield (2006) has proposed are very relevant in this regard.

First, registration of the rights should be encouraged as a way of fostering enforceability of the rights but it should not be made a legal requirement. This makes sense in view of the concern that the current IP registration system is inaccessible and costly for IK holders.

Secondly, the government can determine the rights by law or a private collective management institution can be established to manage the rights. Already existing are the Nigerian Natural Medicine Development Agency (NNMDA) and National Centre for Genetics Resources and Bio-technology (NAGRAB) whose Laws could be reinforced to cater for this suggestion.

Thirdly, the envisaged *sui generis* system should take the world views and customary norms of IK holder communities into consideration since their customs regulate social and economic behaviour. Notably, the intergovernmental committee (IGC's), WIPO draft articles have incorporated this suggestion already in its 2012 version of the legal instrument.

Furthermore, these established instruments can actually be traceable to a single individual - the first son, the chief priest, the emir, the paramount ruler, etc. With this circumstance in place, a possible application of a similar Act to the Bay-Doyle Act that brings in the personality concept is possible. The traditionally appointed custodians from the ethnic nationalities have enough knowledge of the particular IK to discern the sacred and religious boundaries necessary for an effective disclosure without damaging their cultural heritage. Again these custodians are in constant consultation with the leaders of the ethnic nationalities such that decisions can actually be said to be collective.

**CONCEPTUAL MODEL**

From the foregoing, this work proposes that the cultural interface theory, as represented by the diagram in figure 1, forms the building block of an adapted IK management model that will tap from existing United Nations *sui generis* resolution and the Bayh- Doyle Act of the US congress. The enabling environment of the emergent cultural interface between IK pools and the western culture should be a platform to actualize this proposal. The “Three Dimensions of IK Management” (IK management model) below demonstrates this further:



Figure 2: Three Dimensions of IK management

Common ground and innovation can safely be said to be existent in Nigeria. This is clearly demonstrated by the fact that a majority of the artisan work force driving the economy were largely trained using IK transfer methods to acquire the skills to manipulate, maintain and construct high tech equipment and machinery. The *sui generis* resolution provides the ample opportunity for the Nigerian policy makers to begin to manipulate existing legislature as well as introduce new laws in a bid to forge alternative legislature to a very vibrant IK. This should be done after a careful SWOT analysis of the various protection and management options available for identified knowledge. For instance, some IK such as bone setting/healing could be best protected and managed by trade secret, while indigenous cuisines could most viably be managed through franchise, etc.

The Bayh - Dole Act having successfully transformed the face of knowledge management in the United States and the rest of the developed and emerging nations can be used as a very veritable instrument here. It can be used to effectively manage IK in Nigeria when put in context of existing traditional norms of Nigerian ethnic nationalities which on the long run boils down to an individual as earlier explained. This means that the proposed policy can conveniently be tailored such that the individual who traditionally manages the ethnic nationalities’ common wealth can legally do so by the new legislature. In the new legislature, a few other details can be made to discourage dishonest individuals who somehow meander through the traditional process of selection (which is usually quite tedious). For instance, in every ethnic nationality in Nigeria, there are very strong societal norms (almost as strong as faith beliefs) binding all indigenes of the particular place. Perhaps the greatest deterrence to dishonesty and other similar vices is the belief of most of the indigenous nationalities that life itself is a continuum as opined by Mgboji (2006). Hence the belief that death does not necessarily mean the end of life and the punishment or reward of any individual for personal failures does not end with death.

### LIMITATIONS OF THE PROPOSAL

Nigeria is a very large geographical entity with an approximate land area of 923,768 km<sup>2</sup> and an estimated population: 168.8 million (World Bank 2012) and as stated earlier, consists of over 250 ethnic nationalities with unique IK with different operational methods of exploitation. This may pose a serious challenge as it may probably be very difficult to forge an omnibus legislature that can cover all the necessary nuances of the existing IK pool. However, the use of Addendums and Caveats could facilitate for individual nuances where necessary.

### CONCLUSION

Man, irrespective of his location, always has what it takes in knowledge to sustain himself and make a difference in the society. Economic wealth creation is driven, under globalization, more by knowledge and its application than the production process. Considering that IK is the base of most technological innovation known to man, it becomes obvious that IK, as an avenue for sustainable development and human capacity building, needs to be adequately and properly managed and exploited. The IK management model can fuse the distinctive operational methods inherent in the Nigerian cultures and traditions for profitable management on the intellectual property rights platform.

### REFERENCES

Andanda, P. (2012). Striking a balance between Intellectual Property Protection of Traditional Knowledge; Cultural preservation and access to knowledge. *Journal of Intellectual Property Rights*, Vol 17, p.547-558.

Bay-Dole (2004-2008) P.L. 96-517; The Bayh-Dole Act. Retrieved from [www.ipo.uc.edu/index.cfm?fuseaction=policies.bayh-Dole](http://www.ipo.uc.edu/index.cfm?fuseaction=policies.bayh-Dole)

Dutfield, G. (2006). Protecting traditional knowledge: Pathways to the Future. International Center for Trade and Sustainable Development. Issue paper No. 16, Geneva, Switzerland, p. 22-32.

History World: History of Nigeria. Retrieved from <http://www.historyworld.net/wrldhis/>

Mgboji, I (2006). Lost in Transition? Traditional healers of South-East Nigeria, and the delegitimation of traditional knowledge and cultural expressions in the age of modernity. A paper presented to World Intellectual Property Organization, Geneva.

Nakata, M. (2002). Indigenous knowledge and the cultural interface: Underlying issues at the intersection of knowledge and information systems. Retrieved from [ifl.sagepub.com/content/28/5-6/281.refs](http://ifl.sagepub.com/content/28/5-6/281.refs)

Moore, A. (2011). "Intellectual Property", *The Stanford Encyclopedia of Philosophy* (Summer 2011 Edition), Edward N. Zalta (ed.). Retrieved from <http://plato.stanford.edu/archives/sum2011/entries/intellectual-property/>.

Nwosa, L (2013). Sociological and Psychological Factors as Correlates of Spousal Abuse among Couples in Tertiary Institutions in Rivers State: Implications for Counselling. Unpublished doctoral thesis. University of Port Harcourt, Nigeria.

Taylor, R. (2003). An indigenous perspective on evaluations in the inter-cultural context: How far can one throw a Moree Boomerang? *Evaluation Journal of Australasia* 3(2) 44 – 51.

Saez, C. (2013, August) Interviews: What protection of traditional knowledge means to indigenous peoples. Intellectual Property Watch from <http://www.ip-watch.org/2013/08/20/interviews-what-protection-of-traditional-knowledge-means-to-indigenous-peoples/>

Vandana, S. (1994). The Need for sui generis rights. Grains. Retrieved from <http://www.grain.org/es/article/entries/506-the-need-for-sui-generis-rights>  
8 - way Cultural Interface (n.d). Retrieved January 15, 2014 from <http://8ways.wikispaces.com/Interface+theory>

World Bank, (2012). The land area and Population of Nigeria. Retrieved May, 8<sup>th</sup> 2014 from [https://www.google.com.ng/?https://www.google.com.ng/?gws\\_rd=cr&ei=eRdrU9iBAuva0QWCiCIDQ#q=the+land+area+of+Nigeria+](https://www.google.com.ng/?https://www.google.com.ng/?gws_rd=cr&ei=eRdrU9iBAuva0QWCiCIDQ#q=the+land+area+of+Nigeria+)