

**AWARENESS AND PERCEPTION OF INTELLECTUAL PROPERTY PROTECTION  
RIGHTS AS CORRELATES OF RESEARCH PRODUCTIVITY OF LIBRARIANS IN  
PUBLIC UNIVERSITIES IN SOUTHERN NIGERIA**

**BY**

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## CERTIFICATION

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## **DEDICATION**

This thesis is dedicated to God Almighty.

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## ABSTRACT

Research Productivity of Librarians (RPL), which is a major criterion for assessment of librarians in public universities in Nigeria, is facing serious criticism among other categories of academics. There are doubts on the actual intellectuality of the librarians owing to the quality of their research outputs which is alleged of not being subjected to intellectual property protection right (IPPR) test. Previous studies focused largely on trademarks and patent rights, with little attention on awareness and perception of IPPR among Librarians. This study, therefore, was carried out to 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 qualitative data were content-analysed.

The qualifications 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 ( $\bar{x} = 40.3$ ), perception of IPPR ( $\bar{x} = 25.5$ ) and RPL ( $\bar{x} = 22.8$ ) 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 ( $\beta = 0.123$ ) 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, concerted efforts should be made by various institutions to expose librarians to research and training opportunities on these rights.

**Keywords:** Librarians' research productivity, Intellectual property protection rights, Academic librarians in Southern Nigeria

**Word count:** 434

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## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the study

Research, according to Kowalczyk (2015), is a careful and detailed investigation into a specific problem of great concern using several scientific methods. It is an investigation into well-known problems or activities. Therefore, it could be used to confirm or establish facts, reestablished the results of previous work and provide answers to new or existing problems that may seem intractable. Research is the creation of new/existing knowledge, the use in a new and creative way so as to develop new ideas, methodologies and understanding. This could be about investigating of previous research to leads to new and creative results. Research in every field requires some level of creative thinking. It follows a sequential process from initiating the idea through finding out what others have done, planning the investigation, executing the plan, obtaining findings and at the end it may be published..Okiki (2014) posited that “through research various universities all over the world have added to the knowledge and expansion of countries.”

Research improves teaching and learning in the universities. It expand the creative thinking and encourages innovation. Research, which is one of the objectives of universities is required for the improvement, development and rankings of all universities. It is a major criterion of academic success in universities globally. Azad and Seyyed (2007) maintained that quality research promotes and give positive assessment on the activities of universities around the world. Academic staff must give research and teaching equal attention since active involvement in research is a key to improving the quality of teaching vice- versa. This definition of research is consistent with a broad notion of research and productivity as comprising of creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of humanity, culture and society, and the use of this stock of knowledge to devise new applications.

Research also, gives university staff the rights to be motivated by earning very good salary package and get better award such as promotions and in some cases research grants. Usang, Akuegwu, Udida and Udey (2007) showed the important of research in their study. It is so significant that the research are determinant to enable university staff move to the next cadre.

It can catapult a university workforce position from the flourishing of an assistant lecturer to a professor. Research encourages and complement hard work, filling in the gaps of prior researches and providing ample opportunities for future work to be done in the area. Research in the university are key parameter for assessing and judging the productivity of university staff (Kpolovie and Lale, 2017; Ololube, Ajayi, Kpolovie, and Usoro, 2012). Hanover (2014) on the contribution of research stated the need of the institutions and the various departments to coexist and state out their research goals in order to have quality research. The goals must be clearly defined, spelt out and measurable in relation to research success and changes in compensation.

Productivity has been conceptualized by Business Dictionary (2015) as a parameter for measuring the efficacy of a person or machine to convert input into useful output. It is quintessential indicator of input and output (efficiency) in any production. Productivity is commonly defined according to Krugman (1994) as a ratio between the output volume and the volume of inputs. In other words, it measures how efficiently production inputs, such as labour and capital, are being used in an economy to produce a given level of output. Productivity is considered a key source of economic growth and competitiveness and, as such, is basic statistical information for many international comparisons and country performance assessments. For example, productivity data are used to investigate the impact of product and labour market regulations on economic performance. Productivity growth constitutes an important element for modelling the productive capacity of economies. It also allows analysts to determine capacity utilisation, which in turn allows one to gauge the position of economies in the business cycle and to forecast economic growth. In addition, production capacity is used to assess demand and inflationary pressures

Abramo and D'Angelo (2014) therefore, defined Research productivity as the amount of publications per researcher, and can be distinguished from impact, which is measured by citations. Universities, therefore, use publications and citation counts to evaluate the activities of their researchers for incentives and promotions. However, in ranking universities, the aggregate citations in addition to researches conducted within the system are often taken into consideration (Kpolovie, 2015; Musa, Sanusi, Yusuf, and Shittu, 2015). Research productivity (RP) is the end products of research inquiry in order to solve and make recommendation to a given phenomenon. The physiognomies of RP are in textbooks, chapters in books, co-authored textbooks, articles in journals, ongoing research, number of papers published in conference proceedings, number of

books reviewed, number of bibliography compiled, monographs, occasional papers, technical papers and working papers. These physiognomies serve both as working and assessment tool to the visibility of university. They have great influence on university staff career mobility in terms of advancements, compensation raises and movement to research-oriented schools. Kpolovie, Obilor and Ololube, (2015) made an inquiring into elements that constitute the research productivity of the staff in the universities, they include among others textbooks, chapters in books, co-authored textbooks, articles in journals, ongoing research, number of papers published in conference proceedings and he concluded that it is of immense benefit to the staff and management of universities. It is to create, uphold and sustain conducive learning climate for universities' system to get competitive rapid development especially in the 21<sup>st</sup> century and beyond.

The demands from the university's system in the 21<sup>st</sup> century are quite different and higher than that of the 19th century. Universities are now seen as generators of new knowledge. As such the importance of research productivity (RP) must be given critical attention. RP has become a fundamental and indispensable in modern day university system. Universities are seen as engines through which knowledge is generated and dispersed. The key responsibility of universities is transmitting knowledge to enrich mindsets of individual as well as searching new knowledge in order to promote and add to body of knowledge, which could result in knowledge advancement. Higgins (2016) stated that globally, universities place premium on qualitative and quantitative research productivity, and that there is wide acceptance that through research, new knowledge is generated to promote the wealth of nation and wellbeing of its citizenship in this knowledge-based era.

There are many reasons universities engage in research productivity. Some of the reasons have been captured by Association of African Universities (2000) when it harangues that universities that do not engage in research are not only weak in capacity to provide first-class graduate studies but they find it hard in retaining the best brains and training the new generation of research fellows and scientists. Moreover, research productivity by university staff stimulates community and economic development given that the data collected, analyzed and interpreted to unleash new ideas, insight, knowledge and solution to societal problems usually spillover to increase the health (quality) of individual and wealth of nations (Karukstis, 2015). Osuola (1993) reiterated that research productivities is the heart of increasing and developing knowledge base.

University staff are being mandated to publish research articles in high impact journal to show their relevancy in the field of knowledge and could also be used to take them to the next cadre in office. Popoola (2002) submitted that the quality of research could be measured and known by counting the numbers of books published or journal articles produced over a period of time. He employed survey method to investigate the research output measured by number of publications appearing in publication outlets within the last three years by types of publication among social scientists in Nigerian universities. The top the list of research productivity among publication types is journal articles while others include books, chapters in books, conference proceedings and technical reports. Research productivity is becoming a critical success factor among university staff as it offers them the opportunity to travel wide and collaborate outside their institution. It exposes them to new information, recent knowledge and socio-cultural sharing of ideas. Increase in quality research productivity by university staff is a sign that the development of institutions can be sustained over time. This is because research productivity shows the development of knowledge and fortifies the abilities of university staff required compelling information/knowledge transfer.

In the Nigerian university system, librarians are considered academic staff in the university library. Just like their teaching counterpart they are expected to do research and get it published. While the lecturers who conduct teaching and research are regarded as academics, the librarians in the university library system in Nigeria also form another group of academic staff. The major role of a university library is facilitating of teaching, learning and research and as such librarians with first Degree and above are expected to do research and get it published. Just like their teaching counterpart, their promotion and office elevation is based on the number of research productivity produced by them. According to State of America's Libraries Report (2014), "university libraries may become even more active participants in the knowledge creation cycle in their university through research and librarians are exploring different ways to help campuses build infrastructures and service". These services will preserve university's intellectual assets and make available for use by others.

Librarians play vital and varied roles in the activities of universities, carrying out researches that will help improve the services and the functions in the university libraries. With their academic status, they are meant to manage and work in university libraries (Library Guides, 2017). They could also be responsible for a specific academic subject as well as developing

specialist knowledge (Okoye and Ejikeme, 2011; Ololube, Kpolovie, Amaele, Amanchukwu, and Briggs, 2013). Other functions may include resource selecting, ordering, organizing, specialist collections, ICT systems, library projects and conducting of research for human and career development Agboola and Oduwale (2013) stated that “it is important that librarians in Nigerian universities to publish so as to justify their status as academic staff”. Dahiru and Benson (2006) posited that academics are more effective in performing their job when libraries engage in educating, quality research and spreading discoveries of research along with authoritative obligations. (Kpolovie and Lale, 2017; OECD, 2015).

These responsibilities and functions in the library are open to all graduates but a degree in one of the following subjects may be particularly useful: librarianship, information science/management, language or communication studies, and computing. This route to becoming a librarian starts with an undergraduate degree in Library Science from an accredited four-year college or university, which is required for admission into graduate school. Most universities libraries prefer to employ librarians who have completed a master's degree programme from an accredited university or college. Such degree programmes include the Master of Library and Information Science and Master of Library Science (MLS), which typically takes one to two years to complete. In Nigeria, librarians were accorded academic status in 1993 by the National Universities Commission (NUC). The NUC instructed all universities to accord academic status to librarians in appointment and promotion board. However, in some university libraries, Nigerian librarians are now being required to possess a Ph.D before they can be promoted or even given appointment.

The indices for measuring librarians’ research productivity are not different from the general characteristics of research productivity they are textbooks published, articles in learned journals, chapters-in-books, and papers published in conference as well as ongoing research. Apart from the library and information services that librarians provide, they are also involved in serious research and give library use instructions mostly to undergraduates in the university It is a truism to say that librarians in all sectors of universities, library perform many roles and provide numerous services to patrons (Alsop, 2007). Therefore, research and publications are solid platforms for librarians to exhibit their research productivity and educational institutions such as universities are the gateway to accessing creative knowledge.

Research productivity of librarians could have a great influence on the universities because the success and failure of any university environment will depend on librarians, who are information managers and provide current literature and other support to meeting the needs of the various faculties. Okonedo (2015) opined that research productivity of librarians in Nigeria to a large extent are the quality, quantity of research published as textbooks, or chapters in books, journal articles, conference, workshop proceedings, occasional papers, monographs, edited books, bibliographies, abstracts, and indexes published. Hence, research productivity of librarians is observed to be critical in universities. The originality and quality of their publications are used for assessment in deciding those that will be promoted, received research grants and salary increase. (Ocholla, Ocholla, and Onyancha, 2012; Uluocha and Mabawonku, 2014). However, there are some regulatory laws that do influence and improve scholarly activities of writing, research publishing and use of intellectual materials. One of such is the Intellectual Property and Protection Rights (IPPR). This law stipulates that owner of any intellectual property holds the economic and moral rights on his Intellectual Creation. No any other person has the legal rights to reproduce or use the intellectual creation without fulfilling some legal provisions. In academic research, a violation of the intellectual property protection rights could be regarded as plagiarism. It is seen as serious moral and legal offence in the university system.

Thus, Intellectual Property (IP) is a legal concept which refers to creations of the mind for which exclusive rights are recognised. Bainbridge (2010) defined Intellectual Property law as that area of law which gives legal rights that is associated with scholarly efforts. This is strongly supported by Adewopo (2013) who saw national development to form an integral part of IP and has silently driven it into many phases of evolution, from the national to the international as well as the regional and bilateral activities and regimes. Any property emanating from the creation of human minds with ideas that are translated into a tangible form is known as intellectual property. It is the productivity of one's creativity that is put in reality and used for positive development.

Copyrights, patents, trademarks and trade secrets are generally regarded as the major types of Intellectual Property Protection Rights (IPPR). Under intellectual property rights, authors are usually granted certain exclusive rights to different intangible assets such as musical, scholarly, literary and artistic works; discoveries and inventions; and words. The rights are against duplicating or copying of other people's works or inventions, and solutions are provided

in case it happens. IP is a tool for academic and economic growth in the sense that when peoples work are protected against any form of misuse, it transform the research environment to influence creativity. Therefore, research productivity of university staff can help genuinely for both academic and economic growth. According to Bankole (1992), an effective intellectual property system is today regarded as one of the driving forces in the process of economic growth. If well managed, it could be a means for economic and technological development. To encourage more innovative creativity, human creative efforts are protected. As a fundamental rule of natural justice, a man should be guaranteed the opportunity to exploit, use and enjoy the fruits of his labour. It is common knowledge that it is an offence for somebody to claim the creative work or inventions of other people. It is against this background that the United Nations declaration of human rights (1948) stated that: Everybody has sole right to participate and enjoy the benefit of cultural life of our esteemed community and also the right to protect whatever moral and materials creativity that is produced in other to advance literary, scientific as well as cultural knowledge.

The implication of the above assertion is that only the author or the creator of the intellectual property has the legal and moral rights to benefit its intellectual property economically and academically; and by means of contract, the author allows the publisher to publish intellectual property for the benefit of the society (Blakeney, 2011). It is very important for natural creative efforts of intellectual products be registered legally for intellectual protection rights to be effective (Sitienei, and Ocholla, 2010). Ocheme (2002) opined that intellectual products in the form of books and other research publications constitute the tool for education and enlightenment of the Nation. The success of a nation can also be determined by the depth of intellectual property that she has. This means that the protection of intellect cannot be overemphasised.

IP Protection Rights can be defined as those rights covering copyrights, patents, trademarks and tradeseecret to mention a few (Property Rights Alliance, 2008). Copyright protection, which is a branch of IPPR, deals with the rights of intellectual creators such as lecturers and academic librarians (WIPO, 2004; WIPO, 2012). Spence (2007) posited an argument on the justification of intellectual property rights, stating the assumption that a natural person of an important subject matter will also be the person in whom the right first vests. However, many intellectual property rights are given not on the natural person but the legal



person. Therefore, for intellectual property to have protection rights, it must be legally registered as one's intellectual property. Common types of intellectual property rights include copyrights, trademarks, patents, industrial design rights, trade dress and, in some jurisdictions, trade secrets. The British Statute of Anne (1710) and the Statute of Monopolies (1624) are now seen as the origin of copyrights and patent law respectively. The principle guiding IP rights has evolved over the centuries; it was in 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 majority world (Mark, 2005). It is, therefore, essential for librarians to be conscious of intellectual property protection rights (IPPR) and have good interpretations on IPPR protecting the originality of their research work against any form of misuse by anybody.

Modern intellectual property protection right law has been decided by a cluster of more seasoned lawful rights that have been perceived all through history, counting the ethical rights of the creator who made a work (The Economist, 2012; OECD, 2016). The financial rights of an author who paid to have a duplicate made the property rights of the person proprietor of a duplicate, and a sovereign's right to censor and to control the printing industry (Rubin, 2011; McCormack, Propper, and Smith, 2013). The roots of a few of these rights can be followed back to antiquated Greek culture, old Jewish law and old Roman law (Bettig, 1996; Karukstis, 2015). Intellectual property protection rights have been built up and expanded over hundreds of a long time. Even when right is usually given to publisher, such right has been extended to some authors, painters, picture takers, film makers, program journalists and numerous others, resulting in exhortation of access to information in recent time, which is fundamental in business, education and research, which in turn has reduce the level of illiteracy, increase quality of life and stimulate economic development (Goodall, McDowell, and Singell, 2014).

Information hubs/houses are knowledge acquired through experience centre that provide safe and accurate information, which include archives, libraries and museums and so on play fundamental roles in stimulating democratic society given that it engender access to wide range of knowledge, ideas and opinions about culture, science and education among members of the community (Macqueen, Waelde and Laurie, 2007; Deazley, 2006; Obuh and Bozimo (2012). Intellectual property protection right is becoming an important discuss in the fast growing digital library environment. The discusses involved are: intellectual property protection right of literary works; exceptions to intellectual property protection right; preservation copies; preparing

for negotiation; licensing agreement; and gaining permission to digitise (Oppenheim, 2000; Gimenez, 2011; OECD, 2016). Investigations of the relationship between intellectual property protection rights and research productivity generally find support for the view that intellectual property protection rights enhance productivity. For instance, Hesse (2013) empirically reveals that increase in oceanographers' use of computer networks increase publication counts. In the same vein, in a survey of university academic librarians from four institutions, Cohen (2016) shows that librarians employing computer-mediated communication tools have higher numbers of publications and more professional recognition. Positive impact of IT on research productivity is also supported by Bonzi (1992) and Odesanya and Ajiferuke (2000).

Highly productive organisations have been observed to be ardent users of steady stream of information services through research to sustain a competitive advantage (Davidow and Malone, 2009). It is in this respect that Koenig (2009) concluded that competition among firms accentuates the need for massive investment in information services to gain invaluable insight and information. Unfortunately, some firms underinvest in researches. Olson and Weill (2009) showed that internal and external factors affect librarians' research productivity in academic libraries. Internal factors include commitment among top management, prior experience in research, and satisfaction with research output among Librarians.

Appraising intellectual property protection right for libraries in a digital environment, Ferullo (2003) reveals that intellectual property protection right laws are complex, wide and tend to command more challenges for librarians. Knowledge of the various provisions of the law and constant evaluating of the interpretation of the law by the courts on potential impact to libraries is a key to make informed decisions (Waziri, 2011). Sheat (2004) and Hargreaves (2011) suggested that libraries should have explicit knowledge of international intellectual property protection right standards and domestic case law so they can properly interpret law. Legislations maintain a balance of interests of the public and the right of the owners' intellectual property protection right to received wages for their handworks (Greenhalgh, and Rogers, 2010). This can produce a good source of consciousness and interpretations among librarians in knowing the roles and functions of IPPR.

Kumar (2009) elucidated that the need to create consciousness about IPR is becoming important given that incessant spread and use of technology has accentuate the hardness of proving rights infringement. Smith and Hansen (2010) present the procedures to achieving a

user-friendly law on intellectual property protection right renewal for librarians. The procedures elucidating the complexities of the U.S. law on intellectual property protection right protection and fair use include: anti-circumvention exceptions, pre-emption of non-negotiable contracts, and preservation options for sound recordings (The Economist, 2012; OECD, 2016a). The significance of the intellectual property rights of the authors depends on the awareness and appropriate perception of the law for the professional practices of the librarians which applications could lead to high productivity (Ocholla and Ocholla, 2012).

Awareness is the ability to perceive and be conscious of events, objects, thoughts, emotions or sensory patterns. In academic settings, awareness is a term used to explain how knowledge is created through the interaction of an agent and its environment. It simply knows what is going on around your environment (Gutwin and Greenberg, 2002). It is one of the most essential ingredients of developing mindset. Awareness has been highlighted by many as a key indicators of success in a range of performance environments. Dourish and Belloti (1992) stated that “in the academic setting, awareness is meant to relate how individuals monitor and perceive the information surrounding the environment they are in”. The information is inconceivably valuable and imperative to the execution task and victory in collaborations for maximum productivity (Kretschmer, 2012). The level of awareness about something may be high without fundamental understanding of the something. In this regards, awareness is quality of being mindful of events or objects.

Different categories of awareness have been suggested by Greenberg, Gutwin and Cockburn (1996) on the sort of information stored. This incorporates informal awareness which is sensitive and mindful of those around and what they are up to, for example, information you might know from being collocated with the person. Social awareness is another category of information one maintain around a social or conversational setting and is referred as those unobtrusive mindfulness (awareness) sustain through non-verbal signals, such as eye contact, facial expression and so on. Group-structural awareness is mindfulness of the roles, position and obligations of others in workplace. It is mindfulness of group dynamics and the interactions among group of people. Workspace awareness is centered on mindfulness of the workspace’s impact, interventions, actions and changes of components inside the workspace (Cockburn, 1996). The awareness reflects cultural reflexes that should be crucial in knowing the roles and functions of intellectual property protection rights in academic environment and how it affects

productivity in the workplace. This is affirmed by Okwilagwe (2001) who stated that intellectual products are cultural products. They often bear the essence of the culture in which they originated and published. Whether published for cultural promotion or for commercial purpose, the endeavour itself is a cultural activity. This is why it has become possible to link the stage of the development of intellectual property with levels of national development.

Intellectual Property (IP) means a lot in our lives. This was echoed by Vaver (2000) who opined that “IP has become ever more important in the society, that the subject matter of IPPR has improved greatly and that IPPRs have become more intense”. A basic awareness and understanding of Intellectual Property Protection Rights (IPPR) is, therefore, necessary. It is important that librarians become more used to elementary aspects of IPPR, so that they can fully protect their publications and make them (publications) original, especially as regards their advancement in office (Blakeney, 2011; Waziri, 2011). Librarians have great love for intellectual creativity but little is known about the protection rights and how they affect their research productivity. Librarians should be able to utilise the great wealth of technical and commercial information that is found in IP documentation. They should understand the need for conversion of this research into IP rights, manage their IP portfolios, and engage in technology transfer to industrial partners for value creation and the benefit of society as a whole. Librarians should have a basic knowledge of the consequences of failing to protect IP assets correctly as well as wrong use of other people’s creative works (Saggi, 2013). Librarians should not just be comfortable with having this basic knowledge alone but also form a perception that should interpret intellectual property protection right as a catalyst towards effective research productivity (Borota, 2012).

Perception is how people feel and sense the environment. It includes perceived environmental stimuli and reaction to the stimuli. Schacter (2011) portrayed perception as recognizable and interpretation of sensory information in order to represent and understand the environment. Through the perception, individuals, gather information about elements in the environment. Perception defines the image and experiences and the actions we permit inside our environment (Adams, 2011). Since, perception explains the procedures by which a person chooses, composes and interprets information inputs to make a significant picture of the worlds, unlike awareness, it does not only influence by physical stimuli but also by the stimuli connected to the encompassing field (Correa and Matthews, 2011). It also shapes by individual personality

as how people perceive differ among them when subjected and exposed to the same reality. This suggests that when a person looks at a target and endeavors to decipher what he or she sees, that elucidation is intensely impacted by the individual characteristics of the person perceiver. Individual characteristics that influence recognition incorporate a person's demeanors; identity thought processes intrigued, past encounters, and desires (Beall and Kuhn 2012).

Perception of Intellectual Property Protection Rights (IPPR) will enable librarians to know beyond the importance and need to protect their research publications. It goes beyond mere awareness and produce an in-depth knowledge of roles of intellectual property to research productivity. As IP rights are outlined to function through creating a behavioral reaction, public awareness and discernment of IP rights ought to play a necessarily part in IP framework success. Cardi, Penfield and Yoon (2012) saw perception on intellectual property as a factor to illustrate the capacity of law to shape human perception, recognition and conducts. Perception of intellectual property protection rights (IPPR) therefore, embroils the following -identification of IPPR: Librarians should be able to state how well they know the existence of intellectual property protection right, the interpretation of the roles of IPPR as it relates their research productivity, Horava (2013) stated that librarians have a high level of IP protection right and it has a great impact on the level of creativity that is produced by them. The ease of replicating, empowered by advanced innovative propels, combined with the high costs of implementation, makes broad intentional compliance fundamental for the IP framework to operate as wanted. Secondly librarians should understanding of the IPPR environment very. This has to do with a very good elucidation of the IPPR environment, both the internal and external environments and relates it to research productivity. Mandel (2015) opined that the victory of IP rights depends upon its capacity to impact human conduct through the wide acceptance of incentives on IP. Within the acceptance of incentives, thirdly the interpretation of ethical guidelines of copyright. IPPR was built on the assumption of offering creators right to further motivate them to create, disseminate, and commercialise more mental works of more noteworthy imagination than they something else. The law established the fact that creativity must be protected against any form of misuse and finally the adequacy of IPPR. The competency of IPPR in covering or protecting librarians research productivity can also be seen as a component of perception of IPPR.

Awareness and perception of Intellectual Property Protection Rights can influence the level of research productivity of academic librarians. If librarians are aware and have positive

perception on the roles of intellectual property protection rights to their research productivity, it may improve the originality of their scholarly activities and produce quality publications (EPO-OHIM, 2013). Even though these publications are prerequisite for promotion, librarians' confidence in research will increase (Okoye and Ejikeme, 2011). They will have the awareness that publications are not only used for productivity evaluation, but also fully protected by law with the intellectual property protection rights against any form of misuse.

Intellectual property rights are created based on an incentive theory of IPR. Many persons perceived IPR as natural entitlement of creators to intellectual creations, while legal and political professionals view IPR from one aspect different from the way the public sees (EPO-OHIM, 2013). MacCoun (2009) stated that 'public perception has great implications for IP policy as poor connection between the public and IPR can be a shortcoming to the legitimacy and effectiveness of the law.' In spite of the fact that how the public perceived is a success factor of IP system, there appear a little empirical evidence on knowledge about IPR. Perception will give an insight of librarians' interpretation of what intellectual property protection rights are and their relationship to research productivity (Let's Go Connected, 2013).

This study, therefore, through investigation, analysis and documentation was aimed at contributing to the observed knowledge gap of awareness and perception of Intellectual Property Protection Rights (IPPR) as factors influencing research productivity of librarians in public universities in Southern Nigeria.

## **1.2 Statement of the problem**

The importance of librarians' research productivity cannot be overlooked in university libraries. It is a major indicator that determines the growth, progress and development of any library as well as university environment. In the university environment, the slogan of "publish or perish" is taken seriously and it a fact that must be engaged with by librarians. Research productivity of librarians (RPL) is therefore, characterised mainly by the total number of publications in articles, textbooks, scholarly journals, chapters in books, seminars and conference presentation. But these characteristics of RPL are facing major criticisms among other categories of academics. This has made academia to doubt the librarian's intellectuality referring to themselves as academic because this is associated with the quality of research productivity. RPL is alleged of not being subjected to Intellectual Property Protection Right test. Could it be that librarians are not conscious and are not able interpret the ethical guidelines and the rules

provided to engage in quality creative research productivity thereby protecting it against any form of misuse?

Intellectual Property Protection Rights (IPPR) is one of such institutions that are responsible for promoting the guidelines on creative scholarly writing and protecting it against any form of misuse by other researchers. There have been different misconceptions by librarians on IPPR not optimizing their objectives in line with providing conducive environment for them. Some are totally in the dark on the existence of IPPR which will create a smooth platform for librarians to have real enthusiasm for originality and creativity and need to exhibit and improve their potentials in writing quality research. Librarians' quest for enhanced productivity could be destroyed if not properly investigated and controlled. Research is creativity writing, but there seems not to be enough information on the operations and activities of this body to librarians in university libraries. This information may help in improving the research productivity of librarians in university libraries.

It is against this backdrop that this study was prompted to find out if the level of awareness and perception of IPPR could influence the level of librarians' research productivity in public universities in Nigeria

### **1.3 Objectives of the study**

The main objective of this study was to investigate the awareness and perception of intellectual property protection rights (IPPR) as correlates of research productivity (RP) of librarians in public universities in Southern Nigeria (PUSN)

The specific objectives were to:

1. examine the level of librarians' research productivity in public universities in Southern Nigeria;
2. determine the level of librarians' awareness of intellectual property protection rights in public universities in Southern Nigeria
3. ascertain the level of librarians' perception of intellectual property protection rights in public universities in Southern Nigeria;
4. ascertain the perceived contributions of intellectual property protection rights activities to librarians' research productivity in public universities in Southern Nigeria;

5. examine the challenges militating against librarians' research productivity in public universities in Southern Nigeria;
6. find out the relationship between librarians' awareness of intellectual property protection rights and research productivity in public universities in Southern Nigeria
7. determine the relationship between librarians' perception of intellectual property protection rights and research productivity in public universities in Southern Nigeria;
8. find out the joint influence of awareness and perception of intellectual property protection rights on librarians' research productivity in public universities in Southern Nigeria; and
9. examine the relative influence of awareness and perception of intellectual property protection rights on librarians' research productivity in public universities in Southern Nigeria.

#### **1.4 Research questions**

In order to find answers to the objectives of this study, the following research questions were raised:

1. What is the level of librarians' research productivity in public universities in Southern Nigeria in?
2. What is the level of librarians' awareness of intellectual property protection rights in public universities in Southern Nigeria?
3. What is the level of librarians' perception of intellectual property protection rights in public universities in Southern Nigeria?
4. What are the contributions of intellectual property protection rights activities to librarians' research productivity in public universities in Southern Nigeria?
5. What are the challenges militating against librarians' research productivity in public universities in Southern Nigeria?



## **1.5 Hypotheses**

The following hypotheses were tested in the study at 0.5 level of significance:

**H<sub>01</sub>:** There is no significant relationship between librarians' awareness of intellectual property protection rights and research productivity in public universities in Southern Nigeria.

**H<sub>02</sub>:** There is no significant relationship between librarians' perception of intellectual property protection rights and research productivity in public universities in Southern Nigeria.

**H<sub>03</sub>:** There is no joint influence of librarians' awareness and perception of intellectual property protection rights on

RP in public universities in Southern Nigeria

**H<sub>04</sub>:** There is no relative influence of librarian's awareness and perception of intellectual property protection rights on research productivity in public universities in Southern Nigeria.

## **1.6 Scope of the study**

There are several ways of evaluating research productivity of librarians as seen in literature but the content scope of this study identified research productivity as textbooks published, chapters in books, articles in learned journals, co-authored textbooks, and papers published in conference proceedings. The study explored awareness of IPPR as consciousness, knowledge of copyrights and interactions with IPPR. The study identified perception of IPPR as identification, understanding and interpretation of IPPR and how they influence librarians' RP in public universities in Southern Nigeria (PUSN).

Geographically, it covered all the federal and state public universities in the southern part of Nigeria. The respondents for the study were limited to librarians in public university libraries in Southern Nigeria. The choice of publicly owned university libraries was informed by the fact that university education started from the public sector and it is considered appropriate to focus this type of study on the area because of the wealth of experience of the staff.

## **1.7 Significance of the study**

The study will benefit librarians who, by virtue of their scholarly status within the university system, are in the vanguard of promoting academic integrity. Therefore, librarians will

gain more enlightenment on IPPR through this study. The study will encourage them to improve on their research skills by adhering strictly to the rules of scholarly writing and enable them produce quality research productivity. It will give them the knowledge that there are laws protecting their intellectual works. Their research productivity should be well protected against any form of misuse by other researchers. Ethical standards should be adhered to during writing or conducting scholarly work.

Higher institutions of learning can also benefit from this study. It will create an open awareness to the management of institutions that, apart from using librarians' research productivity for promotion and elevation to the next position, much can also be done in the area of intellectual protection. Management should start regarding librarians' research productivity as intellectual product that could harness financial resources to the institution, if well protected and managed.

This study through workshops and seminars can create awareness for the government to understand that intellectual property protection rights bring wealth to the society. It also influences or encourages research productivity and makes it possible for innovation to be established. A successfully managed intellectual property can bring about economic, cultural and financial development in the society. This study will be of significance to students, lecturers, researchers and many others who are mostly engaged in publishing activities on the issues of IPPR and the consequences for defaulters. An awareness and perception of IPPR could bring about ethical standards and compliance in scholarly and research work and it will reduce the high level of copyright infringement in Nigeria's academic environment.

There have been concerns on the level of awareness and perception of IPPR in Nigeria because issues of copyright violation have continually been on the rise. Therefore, this research will highlight the level of IPPR awareness and perception of academic librarians for the purpose of making informed decisions that affect the research productivity of academic staff in higher institutions. The research will create an adequate awareness and understanding of all the rights protecting IP and provide a good platform for academic librarians to go the extra mile in research and come out with excellent and quality research that will enhance their productivity. Therefore, librarians will be able to improve their confidence on scholarly writing that will develop the quality and standard of their research productivity. Researchers will find this work beneficial as the findings of this study will serve as valuable literature for further researches in similar area.

## 1.8 Operational definition of terms

The following key terms are defined as used in the context of this study:

**Awareness of Intellectual Property Protection Rights:** This is the ability to be conscious of the rights protecting research or scholarly publications of university librarians.

**Intellectual property:** is the creation of the mind and its being expressed physically such as scholarly works, inventions, literary and artistic works.

**Intellectual Property Protection Rights:** These are laws protecting the scholarly publications, inventions, literary and artistic works of librarians.

**Librarians:** This refers to a person who works professionally in a public university library, providing access to information and sometimes social or technical programming. They are usually required to hold a minimum master's degree in Library Studies or Library and Information Studies.

**Perception of Intellectual Property Protection Rights:** This is the thinking of the librarians about their ability to understand and interpret protection rights of scholarly publications, inventions, literary and artistic works of librarians.

**Research productivity:** This term refers to the research publications of librarians in federal and state university libraries, such as textbooks published, chapters in books, articles in learned journals, co-authored textbooks, and papers published in conferences proceedings.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter reviewed relevant literature by eminent scholars on current knowledge, including substantive findings and new contributions were made to the already existing knowledge. The review of literature was done through the following stages: conceptual and empirical review and concluded with a theoretical framework with a self-conceptual model. The literature reviewed were mainly secondary sources. The following headings were reviewed:

- 2.2 Research productivity of librarians in university system
- 2.3 Intellectual property protection rights in university system
- 2.4 Awareness of intellectual property protection rights in university system
- 2.5 Perception of intellectual property protection rights in university system
- 2.6 Awareness of intellectual property protection rights and research productivity of librarians in university system
- 2.7 Perception of intellectual property protection rights and research productivity of librarians in university system
- 2.8 Awareness and perception of intellectual property protection rights and research productivity of librarians in university system
- 2.9 Utilisation of intellectual property protection rights and its challenges in university system
- 2.10 Theoretical framework
- 2.11 Conceptual model
- 2.12 Appraisal of literature reviewed

#### 2.2 Research productivity(RP) of librarians in university system

Research productivity is a veritable tool in university systems in Nigeria. It is one of the objectives universities were created: teaching, research and community service (Ocholla, Ocholla and Onyancha, 2012). Research productivity is considered to be a core aspect in academics. It helps to determine the visibility and rankings in any university system. Many universities have come up with their own research policies but globally the framework of any research is seen as the back bone of the academics in the university system. According to Reitz (2005),

research productivity is the results of systematic investigation of a problem in a field of study often using different scientific techniques to discover new facts, theories to determine skill and identification of research problems. The importance of research productivity in universities cannot be overemphasized in the pursuit of knowledge. Through research productivity, colleges are anticipated to bolster the improvement of the quality of life and social innovative alter within the society (Okiki, 2013a). University researchers' are anticipated to keep side by side of modern improvement in their different resources and prepare understudies in quality research (Mattmigh, 2015). Research productivity yield may be implied by which the college new knowledge to the existing body of information. This may be within the frame of diary articles, specialized reports, books or chapters of the book expected to keep abreast of new development in their various faculties and train students in quality research, new knowledge is added to the existing body of knowledge through research output (Ololube, Kpolovie, and Makewa, 2015). Research productivity could be measured, according to Popoola (2002) by counting the numbers of books published or journal articles produced over a period of time. He employed survey method to investigate the research output measured by number of publications appearing in publication outlets within the last three years by types of publication among social scientists in Nigerian universities. The top the list of research output among publication types is journal articles while others include books, chapters in books, conference proceedings and technical reports.

In the Nigerian university system, research has shown that the Social scientist produced an average of two per year and approximately seven publications from 1999 to 2001. In another study, Oduwole and Ikhizama (2007) used survey method to ascertain research productivity of librarians in Nigerian agricultural research institutes. The result showed that the rate of research productivity was related to their work experience. This finding is not surprising because many academics in Nigerian university system publish in related to their various disciplines as well as work experience. The zeal for research is tied towards the work performance and office promotion. As a result of this many academics take turn to publish only their area of discipline and in most cases this research is done locally. Ashoor and Chaudhry (1993) found out that Saudi scientist published 1082 papers in 29 countries from 442 journal. Only 37 showed the core scientific journals for Saudi libraries. This result further indicated that Saudi researchers preferred to publish their work in the USA. Research productivity is seen majorly in refereed

journals in universities. Academic staff in various universities have most of their research work in articles (Kennedy and Brancolini, 2012). Cheimeke et al. (2009) also investigated the research productivity of Nigerian tertiary institutions using nine journals selected randomly from African Journals Online (AJOL). The results show that research papers from Nigeria in the journal articles accounted for 39.1% of the total number of publications in the journals during 1999-2005. This is a strong indication that journals form the major aspects in ranking research productivity. Ochai and Nedosa (2008) stated that in universities, recognition and advancement of academic staff rest largely on the quantity and quality of their research that is produced.

Ochai and Nedosa (2008) further indicated that the profit of research (inquiring) about are unused information (knowledge) and facts (truths), which are passed unto the scholarly community through academic distributions and courses. They contended advance that in colleges all over the world, acknowledgment, and progression of person scholastic staff individuals depend incredibly on the amount and quality of their inquire about distributions, which are seen within the frame of diary articles, books, specialized reports and others (Sitienei, and Ocholla, 2010).

One of the reasons for low quality of research yield (output) and viability in Africa, counting Nigeria, is the insufficiency or deficiently of data materials. The comparatively lower research efficiency of analysts in Nigeria and other less developed nations as detailed in extant studies is due to poor access to satisfactory data; and due to economic woes, which have made libraries and data centers in Nigeria decline subscription to current journals (Okonedo, Popoola, Emmanuel, and Bamigboye, 2015). Consequently, colleges/universities could not keep pace with advancements of knowledge and numerous scholastics ceased publishing in legitimate (reputable) journals (Okiki, 2013). Typically because it is exceptionally costly. Alemna (1996) moreover underlined that it is difficult for researchers in less developed nations to publish in foreign journals given that numerous of their papers address neighborhood (local) issues and problems, which are improbable to intrigue people from abroad. This accounts mostly for the high rejection rate of manuscripts sent overseas for publication (Alemna, 2006). Individual figure has been seen as a reoccurring factor that has an extraordinary impact on librarians' research quality and efficiency (Ololube, Umunadi, and Kpolovie, 2014). Babalola (2014) distinguished a few individual characteristics influencing research outputs quality, which are research training, mentors, inspiration, early insightful propensity, socialization to scholarly

polices, and networks of colleagues, resources and time. These factors are of great concern because they directly affect the quality of research products by librarians.

Several researches have been conducted on demographic factors and research productivity but the results produced different and conflicting results (Okonedo, Popoola, Emmanuel, and Bamigboye, 2015). Teodorescu (2000), in a research done in the United States, investigated that age has a significant impact on research productivity (Altbach, 2014). Lertputtarak (2008) also identified age of staff as the heart of demographics influence research quality. Lertputtarak grouped academic librarians' age into two main groups: the very new generation (25-35 years old) and the old generation group (nearly 60 years old). Librarians who are classified to the new generation typically like to carry out research tasks, but because they are inexperienced, they request technology to help them improve their research skills (Altbach, 2015). By comparison, the groups of old generation who are nearly at retiring age rarely participate in research. On the other hand, the results of some research showed that the relationship between research productivity and age is not linear, implying that the rate of publishing generally did not decline with age (Kpolovie, and Obilor, 2013b). For instance, Leahey (2006), in his research using a random sampling of 228 colleges and universities in the United States that offered agricultural education, investigated that there was no significant difference between age and research productivity.

Librarians are meant to carry out quality research to enhance their performance at work. Just like the teaching counterpart, most librarians also publish majorly in reputed journals. Okonedo's (2015) findings on the research productivity of librarians in public universities in South-west Nigeria, revealed that publication productivity of librarians was high within the period of 2009-2014 and that articles in learned journals ranked highest followed by conference proceedings and chapters in books (Nassi-Calo, 2013). The reasons for this according to Musa, Sanusi, Yusuf, and Shittu, (2015) may be as a result of the fact that journal articles publish faster than textbooks, monographs and are less time-consuming and cheaper to publish. Since librarians are in the academic environment, the research activity is not different from the teaching staff. Office growth, incentives, grants awards and academic exposure will determine on how well the academic skills is exhibited. Okonedo's findings were also in agreement with the finding of Ogbomo (2010) who investigated that most times librarians publish in refereed journals in the LIS field. Okonedo's study revealed analysis of where the librarians prefer to publish their

research work. The investigation showed that there is a significant difference in articles published by librarians in both local/national and international journals. Librarians prefer to publish their research work on international journals in order to get more ratings during evaluation.

Furthermore, Riggs' (2013) investigated why librarians conduct researches and publish. The finding is in full agreement with the fact that Librarians basically do research for elevation to the next position in the office. In agreement to this report, Agboola (2008) reported in line with librarians engage in research so as to get promotion. Various scholars such as Ogbomo (2010), Bassey (2007) and Musa, Sanusi, Yusuf, and Shittu, (2015) got similar findings as per the motivation and the reasons librarians engage in research and publish. Librarians as academic staff should endeavour to put more efforts in their research not only for promotion but to be seen as the genuine love for research and development. The process is a lifetime procedure even when promotion stops research can still go on so far the knowledge exist.

The related effect of marital status on research productivity on librarians is seen in the research community. Oloruntoba and Ajayi (2006) centred on the premise that on the average women perform most of the family responsibilities when compare to men, which eat up the time women would invest in research. In Nigeria society, the head of the family is usually man while the women are seen as home makers. Lertputtarak (2008) empirical work in Norway further show married and divorced librarians were more productive than librarians who are yet married. In similar vein, Mcloed (2008) discovered that librarians that are married have higher research productivity than those that are single or yet married and attribute this finding to higher concentration on research activities and less inclination to social life styles among married librarians when compared with single counterparts who are likely to be more inclined to social life style and less desire of settling down to produce high-quality research works. On the contrary, Foekens (2011) unveiled that married and single researchers are equally productive in research. This findings corroborate with the study of Webber (2011) marital status has no influence on research productivity of librarians in the United States of America.

With respect to years of experience, several studies concluded by scholars are that the higher the experience the higher the research productivity of Librarians (Ogbogu, 2009; Ogbogu, 2013). "Experience, they say, is the best teacher." This adage has been confirmed in



several empirical studies. Professional experience connected to years of accumulated experience on the job apparently reflects the fact that art of writing is acquired over time. In this regards, Ogbomo (2010) observed that experience in writing and publishing papers manifested with time. Ogbomo further demonstrated research outputs increase with increase in work experience of librarians. They also allude that the early years of experience could be employed to scout for expertise in the subject matter, which require intense interest and wide search of literature to develop and cultivate the skills and habit of writing papers for publication.

Educational qualification is another key determinant of research productivity among librarians in Nigerian university system (Oyekan, 2014). Librarians need to be get the highest qualification educationally in other to optimize their research potentials. Mcloed (2008) empirically demonstrated that educational qualification significantly influence research productivity among librarians in colleges of education in Nigeria. This finding however deviates from Yahaya (2009) position that no evidence that those with Ph.D. accounts for higher research productivity than others with lower degrees.

### **2.2.1 Research and publications in Nigeria University System**

Research complements publications because it is only through publications the output of research conducted can be effectively communicated (Sitienei, and Ocholla, 2010). Even when most of the research activities in Nigeria occur in the university system, research is indispensable for university success and development and the career movement among librarians in Nigerian Universities. Librarians in public universities need research to improve on their capacity. This is important to them because their promotion and other incentives are tied to quality research productivity (Kennedy and Brancolini, 2012). It is important to mentioned, however, that besides conducting research to widen the knowledge of day to day service rendered to library users, they also involve in research activities for career upliftment wards such as promotion, securing tenure etc (Black & Leysen, 1994). Okenedo (2015) is of a different opinion. In her research, it was discovered that the productivity of librarians between 2009 and 2014 in public universities in South-West was relatively high. She went further to state that librarians publish more in international journals than local journals. Librarians are motivated and encouraged to publish mostly because of promotion. As a result of this, most librarians are lagging behind in development of libraries because many librarians ceased publishing in reputable journals. They rather prefer to publish in a less reputable journal in other to have their research published.

Alemna (1996) also underlined that it is difficult for researchers in less developed nations to publish in foreign journals given that numerous of their papers tackling neighborhood (local) issues/problems, which are improbable to intrigue people from abroad. This is why the high rejection of manuscripts sent overseas for publication (Alemna, 2006). Most librarians will rather research on issues bothering their local community and will also prefer to send their research manuscripts to these local journals who are interested to publish (Sunday, 2012).

Research productivity is the major channel, through which existing knowledge is increased, enriched, stimulated and diffused (Okiki, 2013a). The channel can either take in form of books written and published, articles published in legitimate journals, conference papers, chapter(s) in books, training or supervised thesis conducted by students. These platforms through which knowledge is dish out are also indicators of research productivity of librarians, which are used in assessing librarians in the universities (Liu and Cheng, 2005; Nassi-Calo, 2013). Moreover, because of the academic status accorded to librarians in addition to the premium place on research productivity in universities in Nigeria, librarians have no choice but to conduct research and publish its output in reputable academic outlets (Sitienei, and Ocholla, 2010; Ocholla and Ocholla, 2012). The implication of not engaging papers publications is acceptance to perish in scholastic profound Blue Ocean as advancements in careers rest incredibly on the amount and quality of researched published.

It is very essential to measure the research productivity of librarians. A very good way of measuring research productivity is to connect the improvement of the different departments to the success of the entire University. Dainty (2006) stated that a necessary way of looking for productivity improvements in a university is to link the subsystem improvement to the total system. By this if the goals of the entire university is to do research and come out with creative ideas, the library can be justified meeting these achievements of the parent institution. Altbach (2014) supported this by asserting that “research productivity has become a major criterion of university success in the competitive environment”. Universities are engaged in global competition of research publications and librarians are veritable tools of the struggle. The placement in the global university rankings is at stake, the allocation of budgets from governments or stake holders, national prestige, the ability to attract the best students, teachers and professors.

Neill, Thomson and Gibson (2015) stated in their research findings that different methods proposed to examine research productivity cannot be applied in isolation. They stated that the H-index is the numbers of the researchers' productivity that have received at least the same number of citations. The other one is the collaboration index which considers the value added to published work by the researcher. In measuring research productivity, emphasis should be on the following indices: Number of articles in reputed journal, how many invitations the researchers have received to review and chair editorial; how frequent the researcher appears as first, middle or senior author in collaborations; how many books or book chapters has he done; what is the rate of media coverage of the researcher's work; and how articles published but never cited.

The university library as a subsystem of the entire university is not left out. As an academic subsystem, the librarians are expected to conduct quality research and publish them which eventually affect their promotion. Jam and Ukeli (1995) noted that librarians across the globe are information workers in academic institutions and are accorded academic status. Adelabu (1984) also noted that if librarianship is to become a science, the first requirement is that the practitioners must be able to do quality research.

### **2.2.2 Research quality and standard**

The university library, as it were, is among one of such fragments within the university system that is poised with the challenges of upholding the overall goals of the university. To achieve this, quality and standard are the key words that should be adopted by most libraries, especially in the areas of research and publications. This review will take a look at the concept of quality and standard and relates it to the research.

Quality and standard are two concepts that are usually difficult to define. This is as a result of different views and conceptions among different people. Njega, Bissonauth and Diara (2008) defined quality and standard in the context of ensuring universities' compliance with established guidelines. Ekong (2003) and Neave (1994) noted that in most cases, notions that are associated with quality are vaguely defined, thereby making them ambiguous and prone to more than one interpretations. Martin and Stella (2007) justified this trend by saying that it arises because different stakeholders 'appropriate' the concept of quality to 'legitimise' specific visions and interests. Vidoviach (2007) from his perspective submitted that quality is ever changing as a chameleon. Lack of consensus on the specific goals on higher education research contributes to the difficulty encountered when defining the notion of quality and standard.

Quality and standard acquire different meanings depending on the specific context and stake holders involved. In this research, quality and standard will be defined in connection to the research conducted by a fellow academic or precisely by a librarian in a university environment. It is seen as an agreement among a group of scholars or researchers within the context of higher education. It is conceived as a notion which is multidimensional and captures a wide range of functions and activities. Quality, therefore, may be considered from the perspective of the following; meeting exceptional standard, just conforming to a common standard; sound purpose; effectiveness in achieving university goals; and meeting library users' stated or implied needs (IIEP-UNESCO, [www.iiep.unesco.org](http://www.iiep.unesco.org)). In any university setting, quality is assumed to include every aspect of the university system including teaching, learning, academic programmes, research and scholarship, academic and non-academic staff, students, physical structures, facilities, equipment and community service (Njenga, 2008).

### **2.2.3 The role of research in Academics**

The role of research in the university system is not contestable. Research productivity build up the university structure, it creates visibility and strong empowerment (Ololube, Kpolovie and Makewa, 2015). Mosha (1986) recognized three vital roles of research in higher institutions in Africa, which include the advancement of learning and the pursuit of truth; setting services including cultivating mindset of students to serve, training them to solve problems; and stimulating spirit of inquiry, consulting and counseling. Research is a veritable tool for universities to achieve their set up aims and objectives. Globally, universities are seen as generators of new knowledge and ideas. Through research activities, they are seen as modern entrepreneurial engines of creating knowledge. In this regards, academic staff should not only focus on teaching but also focus on producing quality research. At the juncture of intellectual and scholarly creativity, most academics are hungry in creating, disseminating or preserving knowledge and adding to the existing knowledge. Academics which range from graduate assistant to professorial cadre Nigerian universities systems form the tools by which the university system uses to promote her status in the society (Ani, Ngulube, and Onyanha, 2015). McCabe (2000) noted academicians are channels through which universities conduct research, manage research programme as well as diffuse knowledge gained through the research to students and others.

The academic status conferred on librarians in Nigerian universities has, no doubt, helped in the development and improvement of the profession. Agboola (2000) is of the view that

“Nigerian Libraries have been active in research productivity to the extent that apart from South Africa, Nigerian university librarians enjoy the privilege in the professional literatures”. He went on to say that higher capabilities are imperative to capacity building and knowledge (information) improvement. The higher the capability, the more the skills that one secures. Research will be of immense (great) significant for Liberians to be fruitful in scholastics since Research develops scholarly knowledge and strengthens the aptitudes required for successful information/knowledge exchange (Ololube, Emejuru, Kpolovie, Amaele, and Uzorka, 2012). It is acknowledged that research plays an important role in advancing and developing a country and the well-being of its citizens in this knowledge-based time (Abbott and Doucouliagos, 2004). Creswell (2008) adds that research not only affects solving of viable and practical issues but it also offer great insights on the tools for producing and improving material wellbeing of a nations.

### **2.3 Intellectual Property Protection Rights in universities**

Intellectual property protection rights are rights to your own creativity. This creativity may come in form of research works in the university system which may appear in reputed journals or chapter in books (Waziri, 2011). It is a known fact that copyright and patents laws and concepts have being existing for a very long time. Though the concept of intellectual property (IP) is relatively new but the Intellectual property protection was not always accepted as a single field of law. Historically, the fields of patent, copyright, and trademarks developed on its own (Greenhalgh, and Rogers, 2010). The British Statute of Anne of 1710 and the Statute of Monopolies of 1623 are now seen as the origins of copyright and patent law respectively.

Intellectual Property is the creation of the minds or the creativity by humans and their innovation. Intellectual property rights are intangible in nature and are subject to statutory protection by virtue of which inventors are conferred with some rights of an ownership in nature (EPO-OHIM, 2013). Such rights, commonly are referred to as IPRs, it allows the creator to control the use and exploitation of the creation by other researchers (Adewopo, 2012). Recently, the intellectual property has come into the system to describe property rights in most of the various intangible products, thus expanding the scope of similar term known as industrial property. In the University system, librarians’ intellectual property protection can be view from the aspect of copyright laws (Hargreaves, 2011).

The historical view of copyright laws can be followed back to 1662, when the concept was presented and made to ensure distributors against robbery (piracy) due to the innovative progresses, which made the printing of books cheap and easy (Urs, 2004). Amid the 18th century in Britain, Ruler Anne, around 1710, set a design for formal copyright statutes. Britain was followed by the United States in 1790 when the first U.S. copyright law was enacted by Congress and by France in 1793. Since at that point, the copyright laws have spread around the world and many foreign bodies including Berne convention in 1886, the universal copyright conventions, 1952 and the Berne and Paris conventions in 1971 have been formed to monitor the copyright laws and their enactment. To ensure the conventions remain current and signatory, and nations participate accordingly, a number of world bodies were formed basically to administer the conventions.

The Intellectual Property Organisation (WIPO) established 1967 in addition to the United Nations Instructive Logical and Social Association (UNESCO) and the World Exchange Association (WTO) are presently charged with the administration of the Trade-Related Aspects of Intellectual Property Rights (TRIPS). These organizations, together with national, ensure the conventions and copyright acts are current through revisions (WTO, 2011; WIPO, 2013). As expressed prior, USA, UK and many other nations protect (secure) the bequest of human creation through the provision of copy right. India has the copyright law but offers special cases, by and large alluded to as “fair use” or “fair deal” which incorporates propagation (reproduction) of scholarly works or literary related works for private use and for the purposes of research, review, constructive critics, training and enlightening of people (US Copyright Office, 2012). Beside this, it has been documented that copyright acts of USA and UK also provide “Fair Use”, in spite of the fact that the copyright holders are not happy about it.

Copyright law according to Wagner (1998) is one of the segments of the Intellectual Property Rights connected to research production of librarians. Intellectual property partitioned into two bunches: (i) Intellectual Property which includes inventions, trademarks, industrial designs and geographical signs and (ii) Copyright which incorporates compositions (writings), paintings, musical works, dramatics works, audiovisual works, sound recordings, photographic works etc. (Park, 2008; 2012). The Patents Act 1977, Copyright, Designs and Licenses Act 1988 and Trade Marks Act 1994 are the vital statutes through which intellectual property is protected though the World Trade Organisation (WTO) has introduced a single IPR framework. The WTO

envelops general agreement on tariff and trade (GATT) as nurture during the Uruguay Round of Multilateral Trade Negotiations held on 15th of fifth month in 1994 with final signature of one hundred and twenty three ministers (WTO, 2011)). The outcomes of 8<sup>th</sup> round of trade negotiations by GATT were introduction of international trade rules within the purview of trade across border. However, in Uruguay Circular, GATT amplified to cover investments, intellectual property rights and administrations in addition to horticulture and textile, which are exterior to GATT domain. The IPR comes beneath the domain of GATT. The essence of TRIPS is to decrease obstructions to trade across the border, by ensuing IPRs is protected adequately and such measures embarked upon to protect IPRs do constitute barriers to trades. The World intellectual property Association (WIPO, 2012) is specialized organ in U.N dealing with intellectual Property Rights. The term 'IPR' alludes after categories of intellectual properties under 1 to 7 of sections of II GATT, 1994: The summary of the rights runs through copyrights, trademarks, geographical indications, industrial design, patents and undisclosed information. It gives a robust view on laws protecting creativity. In all the breakdown of the segment of laws we see the author as a prominent figure in each section. It ranges from the rights of reproduction, through the rights of modification, followed by the rights for distribution to public performance.

As per the Section 1 of Part II GATT, copyright law covers the following: Copyright protection automatically included in all the works of authorship from the moment of the creation. The TRIPS Agreement provides a minimum standard for the duration of copyright protection. In the case of a person, the term is the life of the author plus 50 years. In the case of a corporate entity, it is 50 years from the end of the calendar year of authorised publication or, in the absence of publications, from the end of the calendar year of making (TRIPS Article 12). The term of protection for live performances that are recorded is 50 years for the performer and producer, and 20 years for the broadcaster of the work. The United States recently upgraded its protection for copyrighted works as part of the Digital Millennium Copyright Act, or DMCA. If the work is made for hire, the copyright lasts for 120 years from the time of creation or 95 years from the first publication, whichever is shorter. However, there are a few exceptions to the Copyright laws. This include that libraries and archives are given that privileges to produce three copies of unpublished research work for the sake dissemination and preservation and in some cases produce three copies of published works if damaged or lost for use.

Modern IPPR has been impacted by an cluster of more seasoned lawful rights that have been perceived all through history, counting the ethical rights of the creator who made a work, the financial rights of a advocate who paid to have a duplicate made, the property rights of the person proprietor of a duplicate, and a sovereign's right to censor and to control the printing industry. The beginnings of a few of these rights can be followed back to old Greek culture, antiquated Jewish law and old Roman law (Bettig, 1996). Copyright and intellectual property rights (IPR) have been built up and expanded over hundreds of a long time. In spite of the fact that at first created to donate a distributor control over the correct to distribute (duplicate) a work, they were amplified to donate rights to creators, painters, picture takers, film makers, program journalists and numerous others(Nwokocha, 2012). 'Access to information' is fundamental in business, education and research, which in turn has reduced the level of illiteracy, increases quality of life and stimulates economic development (HarisSiân, 2012). Information hub/centers including archives, libraries and exhibition halls among others have had a crucial part to play within the advancement of a law based society by empowering individuals in a given community to access wide range of information, documented thoughts, opinions as well as social, logical and instructive information (Macqueen, Waelde & Laurie, 2007; Deazley, 2006).

IPPR is becoming an issue in this ever-growing computerized library environment. These issues are: copyright of scholarly works; special cases to copyright; conservation copies; authorizing and licensing agreement; garnering of authorization to digitize and so on (Oppenheim, 2000; Morrison, 2012). Ferullo (2003) outlines few of the major IPPR issues for libraries faced in this era of computerized environment. The article investigates how statutory and case law decides the way libraries must take to achieve their mission. Copyright law is complex and equivocal. It postures numerous challenges for librarians, but it is significant that librarians have a essential understanding of the different arrangements of the law in arrange to form educated choices. In any case, the law is just one portion of the condition as translation of the law by the courts should be continually assessed for potential affect to libraries (Waziri, 2011). Sheat (2004) proposed that libraries ought to keep side by side of IPPR and Universal copyright guidelines and residential case law to guarantee their translation and enactment maintains a balance between the " public intrigued" and the rights of copyright proprietors to gain a living from their works. Myers (2005) composed on how the libraries can offer assistance with online learning copyright issues. Online learning could be a result of unused replicating innovations.



Computerized media can presently be replicated and dispersed rapidly, cheaply, broadly and with no debasement of quality (Nwokocha, 2012). Bhatt (2006) followed the issues related to copyright laws and their application to libraries. Kumar (2009) explained that awareness about IPR among those who create data and share knowledge is fundamental since computerized environment as made it uneasy to prove rights infringement. Librarians as information (knowledge) guardians ought to be mindful and aware of these rights to their publications. The creativity in librarians is seen as in their articles or chapter in books launched. Smith and Hansen (2010) gave the steps to urge law on copyright renewal which tend to be user-friendly law for libraries. These steps, which moreover include the law on copyright security (protection) and reasonable (fair) utilize (use), and conservation alternatives for sound recordings (Let's Go Connected, 2013).

### **2.3.1 Development of Intellectual Property Rights**

Over the years, the development of the concept intellectual property rights has been enormous. Universities have champion this course by making intellectual property play a prominent role in the research activities Webber, (2013). Recent rapid growth in the global world economy has intensified the acceptance of IP protection in all levels of law and policy making, and within academia (Let's Go Connected, 2013). Though total wealth has been associated with the combination of material and intangible assets in the history of human endeavor, it recent time, valuable information (knowledge) tend to be core to new wealth (Greenhalgh, and Rogers, 2010). Hence, an intellectual property right is crucial in stimulating the wealth of universities and countries alike (Adams, 2011; Let's Go Connected, 2013).

University communities are not left out of these dialogues. Intellectual property concept are taking the major aspects in discussions on development of the university systems. According to Richard (1980), the acceptance of proprietary rights in intangible creations in most African countries is not entirely new. This is because in Nigeria by tradition, proprietary rights in intangibles rest exclusively in groups such as families, clans, age or sex groups, institutions or individuals such as elders, chiefs or kings (Nwokocha, 2012). Before the advent of modern IP, the implementation of these rights was because of the religious/magical beliefs and devout convictions administered by the groups. Nwokocha (2009) is of the view that this task has been largely transferred to laid-down statutory frameworks of different configurations encompassing protection for the various intellectual properties in our present day. Nigeria, as it were, has a

fairly robust IP legal regime. The substantive parts of Nigeria's IP laws, including those governing trademarks, patents and designs, are rooted in Nigeria's British colonial legal framework (Hegazy and Gadallah, 2013).

Among these various forms of IP, the first to gain relevance in Nigeria was trademark. The first trademark law was the Trade Mark Proclamation of 1900. Through this, the United Kingdom Trade Mark Act was developed and applied to Protectorate of Southern Nigeria. This was followed by the Trade Marks Ordinance of 1926 and finally, by the extant Trade Marks Act of 1965. The relatively earlier relevance of trademark law may not be unconnected with the fact that it serves as an instrument of consumer protection and also protects the goodwill of businesses.

### **2.3.2 Intellectual Property and Economic Growth in developing countries**

It is believed that IP protection may help the poorest of countries accelerate wealth. According to Lybecker (2014) IP regime trickle down to benefits the economies. In agreement, the United States of America US State Department (2008), the former Secretary General of the World Intellectual Property Organisation (Idris, 2003; WIPO, 2013), the European Commission (2014), the US Trade Representative (2015), and the World Bank (1998) are all in support that IPPR bring about great economy growth.

In spite of the common conviction that expanded levels of IP security lead to development, there are reasons to address it. Economic scholars by and large perceive that IP has both a motivating force (Chu, Leung and Tang, 2012) and inhibitory impact (Maskus, 2000) which predominantly mediated by situational settings (context) which require empirically validation and insight (Hudson and Minea, 2013). Moreover, the conflicting evidences that increased in IP protection is associated with economic growth is more dominated in theories and public policy. More accurately, Hudson and Minea (2013) suggested that even when IP protection increases wealth, it is not enough reasons that it does stimulate to economic growth even when the target country does not directly relies on IP rights.

Mostly foreign investors, in this situation, respond to a country's expanded levels of IP are not to really get IP rights there, but increments in IP protections stimulate their confidence of these investors that such economy is likely to develop, with resultant effects on their business. Concurring to this hypothesis, Briggs (2010) opined IP's has economic implications leading to growth. This assertion validated by Morin and Gold (2014) was also confirmed by IP framework

that invention activities increase, which in turn result in increase in the growth of the economy when a country has IP rights protection. This impact is; in any case, mediate to a very large extent.

Given that intellectual property rights do not have economic impact directly as suggested by extant studies, there is a need to examine number of variables complementing (or substituting) or mediating the impact of IP on growth. To get superior understanding, there is a need to examine and fully appreciate extant studies on the subject that are mainly theoretical and self-fulfilling (Kim, Lee, Park and Choo, 2012). Moreover, there are critical appraisal of how IP influences innovation and growth, with results showing that higher IP protection only result in the higher the GDP growth of the economy of underdeveloped and developing country (Akin and Vlad, 2011). The reasons for the positive association between IP and growth were attributed to the use of formal IP indexes collected annually since 1995, which were adjusted to changing environment to incorporate subtleties in data which other indices have neglected over the years (Asongu, 2012).

However, it has been suggested that increase in IP protection can either decrease or increase innovation (Andersen and Konzelmann, 2008) economic growth (Chu et al., 2016). Adding to this, study of Hall and Harhoff (2012) clarified that, whereas rights to patent increase R&D and dissemination incentives, they hinder not only flesh ideas creations, innovations but also increase transactional costs (Akinwale, Dada, Oluwadare, Jesuleye and Siyanbola, 2012). These conflicting evidence also made some commentators to have suggested that the impact of IP on growth in developing economies is intervened by a number of components including research and development capacity, per capita income, quality, stages of institutional development and economic and financial instability among others (Chu, Cozzi and Galli, 2014; Chu, Leung and Tang, 2012). Similarly, the mixed effects of IP on growth is that is absence of consensus IP protection globally as countries vary in IP protections, which often depends on the level innovation ecosystem. This was confirmed in Hudson and Minea (2013) when they concluded, that “we are not confronted with a constant single ideal level of IP for each nation, but one which evolves”.

Recognizing that IP protections differ on the basis of the environmental settings does not capture them as significant ecosystems explaining IP protection in domestic economy. Maskus (2000a) proposed that emerging economies benefits more from expanded levels of IP

protection only on the condition of having “appropriate complementary endowments” such as more prominent ventures in human capital, more open economies, and solid anti-trust laws (Asongu, 2012). Hudson and Minea (2013) found that IP protection and GDP together impact a country’s highest IP levels, and this level of IP is in turn facilitated by advancement in economics of a nation according to Sweet and Eterovic Magio in 2015. Kim et al. (2012) however pointed out that what is most pertinent isn't the level of IP protection but the shape and direction of the protection. Several scholars have also proposed that IP stimulate growth in the economy through the incentives it provide to innovative and import technologies to local economy (Fink and Maskus, 2005; Maskus, 2000a; Maskus and Penubarti, 1995; López, 2009; Ivus, Park and Saggi, 2014).

### **2.3.3 Objectives of Intellectual Property Rights and copyright**

Apart from introducing great effect in the university environment, the concept of IPRs has some objectives. The objective of most IPRs is to improve, protect and promote innovations. By interacting, exchanging and patenting rights to disclose works created or invented, incentives are directly provided for innovators and creators (Akinwale, Dada, Oluwadare, Jesuleye and Siyanbola, 2012). This is the important reason for granting IPRs. It is based on the reasoning that creators will have little or no motivation to invent if they lose the economic and social values of what they have invented because of illegal copy right. In this regard, developed economies advocate and treat IP in their law and rhetoric as form of ‘real’ property (Hargreaves, 2011.).

The grounds upon which legal protection of IPRs are justified can be categorised into three broad theories namely: natural law/rights theory, incentive theory and personality theory. Copyright law, on the other hand, was launched in Nigeria in 1912 after the extension of the United Kingdom (UK) Copyright Act 1911 application to Nigeria by Order-in-Council No. 912. This 1911 UKA provided the legal regime for copyright deliberations in Nigeria until 1970s before its replacement with another Copyright Act in 1988. Apart from the growing national interest in IP protection among African countries, interests in regional frameworks of protection have also gained ascendancy especially in modern Africa, in which African Union under the New Partnership for Africa’s Development has adopted development policies to establish and strengthen a common market for Africa including removal of trade barriers (WIPO, 2013). The

initiative of removing trade restrictive is effective if there are strong IP laws and their enforcement.

Copyright in an intellectual work is the exclusive right of the author of original work to control or enable the doing of certain specifically stated acts in respect of the whole or a substantial part of the work; either in its original form or in any other form recognisably derived from the original from but subject to certain statutory exceptions (Adams, 2011). The law of copyright can, therefore, be defined as the bundle of laws which seek to protect the rights of the authors of such works which have been expressed in specific form, from further transmission or reproduction by persons who are neither authorised nor licensed by the copyright owner. The law of intellectual property, as it relates to copyright, contemplates the production of the rights of authors in the area of literary works; musical works; artistic works; cinematograph films; sound recordings and broadcasts (Laws of Federation, 2004).

In Nigeria, copyright is protected by the Copyright Acts as contained in Chapter C28 of the Federation of Nigeria 2004 and it is administered by the Nigerian Copyright Commission (NCC). The Acts play a major role in protecting creative works of authors. They protect literary, musical and artist works as well as the cinematography, sound recordings and broadcasting. However, the acts do not operate a centralised system of copyright registration like in other countries but require authors or creators of work to register produced works showing the following: name of the author, title, year of publication and quantity of the work produced.

Ekpo (2002) noted that copyrights allow authors to reap the full benefits of their creativities over time frame. For research production to be at its peak in Nigeria, copyright should be taken very serious. Section 5 of the Nigerian Copyright Act provides the kinds of rights that are exclusively reserved for the owners of copyrights. The owners of copyrights have the exclusive rights to control the activities of any of the following act: Reestablishing the work in its physical form for public consumption or commercial purposes (Okwilagwe, 2001). This will ensure the total protection of such creativity against any form of misuse by anybody. It will also serve as a motivational factor in introducing younger creators to the academic environment and giving them the basic to stand up to their creativity.

In our global environment, Eisenschitz (1993) observed that one of the biggest barriersto IPR protection is the proliferation of internet facilitates, which has made it easy for large number of people to access and retrieve information online unlawfully. The intellectual property rights

should be able to protect information online from any form misuse. In the recent times in university system, most librarians and researchers at large get most of the research materials online. Online usually are faster and more recent materials are retrieved compare to using hard copies of books. The copyright laws have extended protection over online materials. Copyright is another form of property right. It falls under the broad spectrum of intellectual property law. It is the branch of law that gives protection to the finest manifestation of human achievement. Copyright consists of the exclusive right to the production, printing and multiplication of copies of literary works. The protection of such rights is aimed at preventing others from the unauthorized reproduction of an existing work. It extends to the original literary work which includes dramatic, musical and artistic works. Lately, the frontiers of copyright protection has been extended beyond the traditional protection of literary works, sound recordings, films, broadcast and artistic works to now cover online resources such as download of ringing tones, Internet-based access to material and movies, among others. The philosophy behind copyright work is the reward of industrial diligence and talent; coupled with the discouragement of laziness manifested in copying and reproduction of existing works unlawfully. However, like all other known rights, copyright is transmissible by assignment and testamentary deposition. This is very possible, provided that the right procedure is adopted in transferring the right.

Shyllon (2003) opined that the intellectual creation in both the physical and nonphysical form should be protected by the copyright laws. The implication of this is the apart from recordings or films, material published in the internet should also be protected against piracy, not only are artistic works expressed in the form of books, drawings and paintings protected, but such non-physical forms as choreography, sound recordings and such related intellectual creations are also protected. However, copyright protects only the author's expression of ideas, not the ideas themselves. Shyllon see copyright as the main act which, in respect of literary and artistic creations, may be made only by the author or with his permission. The bottom line of this review is expressed in concluding that the owner of copyright will have almost unlimited control over the copying or reproduction of the work whose right is, however, subject to the exceptions of fair use and statutory provision.

Odion and Ogba (2010) defined copyright as the right to prepare and distribute copies of an intellectual work without let or hindrance from other. Copyright is best appreciated when one ponders the confusion that would have been the order the day if the law in this field did not

introduce orderliness by seeking to protect the fruit of people's intellectual sweat from undue exploitation by other people. What then is literary work within this context?

In a nutshell, copyright is the proprietary interest an originator or creator or owner has in the product of his intellectual endeavour. Thus, the proprietor of copyright in any intellectual property work is entitled to the exclusive enjoyment of his work; both in terms of pecuniary benefits and sole right to grant consent to copy or reproduce. Of course, this exclusive enjoyment includes the exclusive right to copy the work; the exclusive right to reproduce the work; and the exclusive right to the full enjoyment of the economic benefits of the work. The exclusiveness of the enjoyment of the work by the owner of the copyright is what creates the uniqueness of copyright.

The highest educational institution where the best of knowledge and skills are acquired is usually within the university system. Their vision is to make research, learning and service to humanity their major priority. The system, therefore, designs programs of academic research and learning that will facilitate attainment of their aims and objectives. These programmes include the award of undergraduate, postgraduate and other professional qualifications. In order to have a successful completion of these aims and objectives, different organs, institutions and departments are established within the university system.

Given a careful analysis, it can be seen that there are four objectives of intellectual property system: to promote technology transfer, to advance technological innovation, to propel social development and to balance interests of right holders and public interests; and it is obvious that the promotion of technology transfer and dissemination is the kernel of the "objectives" and "principles" of TRIPS Agreement. It is beyond doubt that the main and immediate purpose of intellectual property legal system is to promote technology transfer and dissemination, and the others may be derived from it, for the later three objectives can be seen as the expansion of "the promotion of technological innovation and to the transfer and dissemination of technology". In other words, the later objectives would not be achieved without the first one. "To the mutual advantage of producers and users of technological knowledge" is the direct impact and concrete manifestation of technology transfer and dissemination; the latter two objectives further clarify the meaning of the purpose of the system from the perspective of the protection and the way of implementation.

#### **2.3.4 Intellectual property rights in the 21<sup>st</sup> century**

The World in the 21st century is driven by the knowledge economy. Knowledge is used for social, economic and cultural development. This has become increasingly important, especially with the ever-changing technological landscape. The new technologies make the reproduction and dissemination of information easier and at the same time create barriers to access through the existing legal framework as well as the technological protection measures. Developing countries have in the recent past been viewed as net consumers of knowledge, especially as it relates to scientific and economic development. Most of their institutions rely on databases, technology, research and documentation from the developed countries and there is a need to ensuring that intellectual property rights are access and their owners compensated.

Access to knowledge is one of the perquisites to social, economic, political and cultural development. In the context of copyright and related rights, the main issue to be discussed is access to information. There are many factors that would affect the access to information, including the existing intellectual property environment, government policies and availability of funds; policies and strategies of research institutions, educational institutions, libraries and archives; as well as the existing infrastructure. These, in turn, will have an impact on development, especially in developing countries having set strategies and goals for development.

Libraries are playing key role in university education in several aspects of ensuring copyright/intellectual property protection rights. Library collections help in making sure works are accessible to students and staff in bolster of instructing, learning, inquire and supporting community service. Libraries create chronicled and statutory adjustment in copyright law (Iwhiwhu, 2009). They borrow materials to users based on the sale tenet which is the primary. Libraries moreover ensure sharing and keeping/preserving of materials within libraries act. They appear to be the only organizations providing access to tremendous amount of copyrighted works that even lose advertise long before copyrights expired. They also ensure public materials are kept and facilitate access to copy right and public materials among users as well as display their rights within the special cases and restrictions to inventors' rights within the law.

The introduction of new IP is fortified because of the presence of libraries, the places where public and the proprietary converge. The numerous roles of libraries as social institution assist in balancing and promoting users' rights as well as inventors' rights. Libraries are sometime small in size but noteworthy help in showcasing published works. The endless lion's share of copyright works in library collections was obtained through license. Frequently, libraries



pay more for copyrighted works than works of a person. Typically especially true of memberships to periodicals, to progressing inquire about works, and to electronic data. Thus, there's the required for library staff and clients to know almost copyright, their impediments and benefits, when making utilize of any of the materials on the library racks, either in open or closed get to in arrange to defend anti-piracy enactment. Libraries have vital part to play in caring for and giving get to other people's copyrighted works. Curators ought to perceive that most clients of copyrighted materials are not mindful of their reliance on adjusted law and approach in accessing and gaining information/knowledge. Most individuals often make use of common sense; take their rights for granted even when not actively engage in policy deliberations.

Librarians ought to intensify effort in advocating for copyrighted materials users. They should guarantee that the rights and benefits of their clients are defended, that's, they must guarantee those using librarythe unhindered accessto materials avail for inquiring. Any client uncertain that to be duplicated is secured by copyright ought to look for counsel from the library staff. Onatola and Dina (2005/2006) are of the view that patrons in the libraryneed to transform their mindset towards "fair use legislation". This means that the patrons can copy a meager amount of a work for research purposes but not for commercial. It may be conceivable to induce authorization to duplicate or utilize copyright fabric by reaching the copyright proprietor. Any replicating presently carried out for a commercial reason requires earlier consent from the copyright proprietor or installment of a copyright expense. Schechter (2005) is of the conclusion that a really vital exemption to the run the show of copyright encroachment is the concept known as reasonable utilize. Beneath this rule, the law granting the utilization of parcels of copyrighted works for such purposes as feedback, comment, instructing, and inquire about, indeed without permission of the copyright proprietor. In choosing whether such use is reasonable, courts consider such components as the reason of the utilizing, the nature of the work, the sum of the work taken, and the impact it'll have on the esteem of the initial work. Some examples of reasonable utilization incorporate citing passages from a book in a survey, academic article or term paper; replicating and dispersing a daily paper article to demonstrate an instructive lesson; and utilizing parcels of a work in a proofof that work, such as a parody version of a song. The highest Court of the USA has held that it is also reasonable (fair) to utilize a home videocassette recorder to create duplicates of television programmes and motion pictures for afterward seeing.

There could be a require for all the Liberians in Nigeria to have copyright instruction and the nation's Copyright (amendment) Decree of 1999, in arrange to acclimate with the essential standards and concept of copyright laws in Nigeria. This will empower them to render their administrations without damaging copyright laws. With satisfactory instruction in copyright, Liberians will be able to know the hazard included in replicating from copyright-protected materials and work inside the laws. Above all, they will be able to create utilize of the 'fair use' principle which implies that one can duplicate a really little sum of a work, subsequently catering for the interface of the owner of the work and that of the user. Copyright notices (warnings) ought to be shown by Liberians in obvious areas within the libraries so as to pass the message across to the clients. There's no question that libraries and Liberians in Nigeria have many functions, very crucial ones without a doubt, to play within the assurance of authors' rights. Firstly, they must provide the correct direction to their library clients on how to create utilize of the library stock without encroaching on the copyright of the creators of such works.

To a certain extent, intellectual property rights are viewed as an impediment to the acquisition and dissemination of information either through the copyright or patent system. On the other hand, it may be argued that these are simply instruments to not only protect the right holders but also to facilitate access.

#### **2.4 Awareness of Intellectual Property Protection Rights in universities**

In all scholarly endeavours, awareness of IP protection rights plays a pivotal role when protection rights in their research. The awareness of these rights has been considered by various one embarks on academic activities. Various librarians have paid attention to the issue of IP researchers in Nigeria. However, it is pertinent to state that intellectual property protection rights are valued in all intellectual activities as well as industrial, scientific, literary and artistic fieldworks. Nwabachili, Nwabachili and Agu (2015) asserted that IPRs are those rights that protect the result of creativity, inventiveness and the result of the human intellect. He went further submitting that, by and large talking, IP is broadly isolated into copyrights and industrial property. Agreeing to him, it primary incorporate such intangible but critical properties such as licenses, trademarks, mechanical plans (industrial design), trade names as well as goodwill. The second is isolated and particular to law (proprietorship right) known as copyright. There are challenges of implementing IPR in West African States, which tend to have obliterating impact on the economy within the locale. Generally speaking, intellectual property is broadly divided

into industrial property and copyrights. According to him, the first include such intangible but significant properties such as patents, trademarks, industrial designs, trade names as well as goodwill, which are often, referred to as incorporeal hereditaments. The second is a separate and distinct head of law (ownership right) known as copyright. There are challenges of enforcing intellectual property rights in West African States and these have its attendant devastating effect on the economy in the region. Therefore, awareness of intellectual property protection rights by librarians in universities cannot be overemphasized.

Bemoaning the parlous state of IP protection rights in Nigeria, Oghenerukevwe (2017) concurred that man has been in perpetual struggle to assert his rights, and that despite this, the reverse is the case with respect to the assertion of IPRs by Nigerians. He submitted that what we have in Nigeria is a regime that is dormant, not because the laws are not there but due to the dire level of awareness of these rights by members of the public. Oghenerukevwe's (2017) position on the unacceptable treatment being given intellectual property rights in Nigeria is a cogent one.

On the importance of intellectual property protection rights, Nwabachili, Nwabachili and Agu (2015) submitted that the primary function of intellectual property rights under the law is to protect from exploitation the rights of a person's work. They asserted that this protection is of relevance to actors, playwrights, performers and other artists, to musicians, authors, publishers, to broadcasters, to makers of cinematograph films, photographers, producers of computer systems, manufacturers of goods and products, those who trade in goods and products, those who trade in goods and products using specified trademarks and trade names, technicians and technologies, pharmacists, engineers, lecturers, artists, lace designers, designers of other types of products and so on. Discussing the relevance of these rights in the African setting, Nwabachili, Nwabachili and Agu (2015) went further saying that, in West Africa, the importance of intellectual property right can hardly be over-emphasised. They opined that book piracy, film piracy and music piracy still reign supreme in Africa. We now see so many fake products with marks imitating the trademarks and names of the genuine manufacturers being smuggled into the region from foreign countries. Apart from these fake products which are imported, many other fake products also carry marks which imitate often times the trademarks and names of the genuine manufacturers (Nwabachili et al., 2015:67).

Since it is common knowledge that every research embarked upon by researchers in universities will directly or indirectly affect what goes on in the society, the suggestions of

Nwabachili et al. (2015) on the concept of intellectual property protection rights can be considered. This will raise the level of awareness of intellectual property protection rights among citizens, especially everyone in various universities. According to Nwabachili et al. (2015), using the instrument of legislation, economically disadvantaged persons and economically disenfranchised persons who own intellectual property rights or whose intellectual property rights are recognised in law should be empowered to gain access to the due process of law in order to realise their intellectual property right by its enforcement.

Going further, they posited that the ECOWAS court should be conferred with the jurisdiction to entertain and determine all civil claims against IP-Rights violators who operate cross border violation syndicates within the sub-region. It should also be conferred with the criminal jurisdiction to entertain all cases of IP-Rights offenders who are charged for criminal violations on a cross-border basis. They equally stated that ECOWAS member states should simultaneously adopt the Berne Convention Treaty and consequently enact within a set time frame, national legislations as to give effect to the intendment of the treaty within their national boundaries.

They concluded by asserting that the Patents, Design, Copyright and Trademark law of ECOWAS member states must as of urgency be reviewed and thereby harmonised, especially in respect of the registration procedure and the applicable fees. This will set the tone for the ongoing monetary union process in the sub-region. The ECOWAS secretarial should commission a legal research group to review the extant legal regimes and thereupon produce a draft bill for consideration before the ECOWAS parliament.

In the same vein, Wanzala (2016) reported that Kenya also takes vital steps to enhance intellectual awareness. The government of Kenya did this by inaugurating a board to direct the Kenya National Innovation Agency (KNIA). The agency is aim is to increase awareness of intellectual property rights among business actors, institutions, and general public in the country. The decision to inaugurate this board was occasioned by the gloomy views expressed by experts on the IP circumstance in Kenya as in the case of other countries in Africa.

Bol in Wanzala (2016) suggest that aggressive campaign and enlightenments of public about the criteria for protecting patents, utility models and industrial designs rights is required. In order to give impetus to the awareness of intellectual property protection rights in Kenya, Bol added that the government should provide incentives such as institutional and financial support

to stimulate creators to apply for IPR. Moreover, Bol observed that many Kenyan universities are ripe to put IP policy in place in order to follow the only one Kenyan institution of higher learning with IP policy. He posited that application of patents, as in the case of publications, should be used as criteria for promoting and remunerating lecturers.

Aligning with Bol's submission on the awareness of intellectual property is the assertion made by Zulfaqar Dhudia on IP in not only universities but also in research institutions. Zulfaqar Dhudia, an IP specialist at Thomson Reuters, stressed that Kenya is not progressing well without IP. He asserted that Kenya has low intellectual property awareness and that there is no sustainability in the way it is produced. Dhudia argued the need for research institutions as well as universities to have innovation envoys that will help them facilitate assessment of suitability of research products for patent protection. It is the key position of awareness of intellectual property protection rights in universities that made Dhudia restate that 60 percent of information required for academic research is found in patent literature. Therefore, the awareness of IP protection rights will help researchers to operate within the ambit of laws regarding these rights so as not to infringe on the rights of the rights' owners.

However, to increase the awareness of IP protection rights, Joyce Banya from the World Intellectual Property Organisation Regional Bureau's Development Sector asserted that science, technology and innovation cannot be divorced from intellectual property. Intellectual property is indispensable for transforming knowledge into assets. Banya point out the need to develop institutional frameworks supporting the protection of IP since most IP institutions in Africa are not strong and supportive. According to her, efficacy intellectual property exploitation in most African countries requires designing national laws to support it. "Intellectual property laws in place date back to 1950s. They have not been revised to suit modern times, especially patent laws," asserted Banya. lined they require for creating of an organization system to back the assurance of mental property, including that most IP educate in Africa are frail and in this way require back

In order to increase the awareness of IP protection rights, Chrispine Odhiambo, noted that IP is weakly appreciated in Kenya because IP related cases have often been treated with low hands. In order to draw attention to the awareness of property protection, at the Kenya Commission for University Education Symposium in Nairobi, Odhiambo in Wanzala (2016) submitted that, "We need to build awareness as well as increase funding to ensure local IP

protection.” He added that intellectual protection issues are not given adequate attention when considered the costs and stringent processes people undergo to apply for patents, which ordinary ought to be very easy and affordable. Moreover, “Innovations funds should be available to young researchers to enable them register their innovations,” This is however not the case in Kenya. The country has poor state of IP situations, which are not significantly different from many other African countries. He pointed out that many individuals in African countries are blessed with potential unfortunately knowledge harnessing is being done by outsiders probably because of near absence of intellectual property offices in many research centres, innovation hubs and higher learning institutions in the countries.

Furthermore, the issue of awareness of IP protection rights cannot be wished away by any academic, irrespective of the discipline. This is clearly demonstrated by Kaplan and Kaplan (2003), cited by Soetendorp, who included IP in their university engineering classes. Kaplan and Kaplan (2003) gave the following reasons for the emphasis they place on intellectual property when teaching students in engineering classes: “The engineering student should acquaint themselves with copyrights, trademarks and patent laws. The student should know the basic of IP in order to protect their inventions and promote the growth of the Engineering profession”

Ayoola, Ayoola and Chikwendu (2014) assessed IPRs in Nigeria, with specific objectives of verifying the knowledge, attitude and practice about intellectual property rights in National Agricultural Research Institutes of Nigeria. They revealed that like in other developing nations, IPRs is yet to be fully harnessed for the good of Nigeria though over 75 percent of respondents agreed to have adequate knowledge about intellectual property rights and their forms (trademarks, patents, and industrial design rights). However, only 52 percent of the respondents reported to have knowledge about the procedure for filing an application for IPR while none of the respondents know the procedure for filing an application for trademarks. Moreover, only 6.7 percent perceived to have knowledge of the procedure for filing for copyrights, 13 percent for farmers’ rights, and 20 percent for patents and breeders’ rights. Their study further revealed that 67 percent of the respondents have a negative attitude toward the procedure for applying for IPR while 6.6 percent indicated that the procedure was cumbersome, 33 percent reported that the procedures are not clearly understood by them while 20 percent indicated that the procedures are too lengthy and time consuming. According to the research undertaken by Ayoola, Ayoola and Chikwendu (2014) none of the respondents reported to have applied for any of the IPR forms, in this regard,

there is a clear knowledge on agricultural IPR. This may have weakened intellectual property rights system in Nigeria. On the basis of these findings, the study suggested the need to develop efficient intellectual property rights system in Nigeria agriculture through enriching the knowledge of agricultural researchers about procedure for harnessing (applying) intellectual property rights as well as strengthen the capacity of agencies to deliver intellectual property rights and review of the legal framework for protecting intellectual property rights.

The National Agricultural Research System (NARS) of Nigeria is made up of fifteen (15) research institutes under the Agricultural Research Council of Nigeria (ARCN) in the Federal Ministry of Agriculture and Rural Development (FMARD), three (3) other research institutes located in other ministries, three (3) Universities of Agriculture (UAs), Faculties of Agriculture (FAs) in all conventional universities, and Colleges of Agriculture (CAs) located at different parts of the country. Nevertheless, while the quantum of scientific and innovative activities in coming out of these research institutes and universities can be arranged into tangible technologies to aim the registration of intellectual property rights, these practices seldom done or at very low ebbs. Consequently, institutions and scientists in the country are not properly appropriated for their efforts rather are deprived from reaping the benefits of their creative works. This tends to have discouraged agricultural scientists as well as creative farmers to discover or produce new varieties of crops or breeds of livestock (Ayoola, Ayoola and Chikwendu, 2014).

One thing that is striking in the study by Ayoola, Ayoola and Chikwendu (2014) is the revelation that there is a wide knowledge gap among researchers about the legal and procedural framework of Intellectual Property Rights (IPR). Ayoola, Ayoola and Chikwendu (2014) examination of IPR regime in the Nigeria agriculture based on the proposition that failures to implement IPR in Nigeria agribusiness may have been triggered by a gap in knowledge among researchers and institutions that have the mandate to request further indicated that legal framework for delivering agricultural IPR in Nigeria was inadequate, thus require a review. The review should not be focused on crop variety rights but the rights of breeders to patent on process itself and the amount for money they should pay in the event of violating such rights.

The findings that most agriculturists are not demanding for IPR in order to commercialize their creative works was occasioned by their poor knowledge about IPR procedures, delivery and principles corroborate with the position of ARCN (2010) that knowledge-capacity gap impedes commercialization of creative works including technology.

Moreover, most researchers relent after seeing works go into the public through publication and conferences given that the incentives attached to the work are only based on promotion and peer recognition without using and implementing the scientific knowledge (works).

Therefore, shifting from the institutional culture of non-proprietary technology and educating creating awareness about procedural principles, policies and delivery systems of IPR may arouse the interest of individual researcher's to demand for IPR. Karlsson (2004), cited in Ayoola, Ayoola and Chikwendu (2014), reported that about 50 percent technologies created in the United States are often in disclosure given that many of them need further robust testing and development that may exceed original researcher's intention and expectations. The high probability of receiving part of licensing revenues, as well as engage in well-paid consulting work have been suggested as incentives among researchers to demand IPR. This is what is obtainable in some foreign universities such as Stanford and California universities among others where researchers are paid one third and 35 percent of the net royalties from the licensing of their inventions respectively (Karlsson, 2004).

Moreover, understanding the level of awareness of intellectual property rights in universities requires sufficient information to establish the fact that students in universities and other tertiary institutions know what IPPR is all about. It could be said that this was the focus of National Union of Students (2012) that sampled the awareness level of students on the understanding of intellectual property. The results of the study showed that only 15 percent respondents did not understand any aspects of IP though most students who claim to have knowledge of the concept tend to copied the definitions from internet sources.

According to the research by NUC (2012), 25 percent respondents understand the concept as ownership, 8.8 percent as rights, 4.9 percent as originality, which tend to be broad. Those respondents who understand it in specific terms such as copyright, patents and trademarks were 18.4 percent, 7.5 percent and 5.3 percent respectively while 1 percent respondents see it as design rights, 0.31 percent as trade secrets and 1 percent as brands. Furthermore, the respondents defining IP as ownership of ideas also mentioned that the ownership may take in form of "a non-material 'property', something that you own but doesn't exist in a material form, ideas"; and "I believe intellectual property to be the right a person has to ownership to his/her unique ideas". The NUS's (2012) research showed various students' levels of awareness of IPPRs. The survey by NUC (2012) further elucidates that students have low awareness and usage



of Knowledge Transfer Offices (or similar institutional departments), thus suggesting the need to create awareness and use of such departments in IP context.

In the same vein, in Czech Republic, Jakl (2012) also championed the cause of raising awareness of IPPRs in Czech universities. He emphasised that there are some steps needed to ensure that there is adequate awareness of IPPRs in universities. He stated that, to achieve a great level of awareness of IPPPR, universities must: expand their current teaching capacity; increase capacity for doctoral studies focused on IPPR issues; organise conferences on the methods and possibilities for further development of IPPRs; utilise cooperation with WIPO and EPO Academies, OHIM and national offices; creating a wider approach to literature on intellectual property; stage annual conferences and seminars on IP teaching which will be in line with the activities mapped out by various universities; and prepare sound curricula for teaching IP rights in their universities. Related to the preparation of sound curricula for teaching IP rights in universities is the submission made by Susmann (2004) cited in Raman (2004). He said that the idea time to furnish students with knowledge on IP property rights issues and computing policies is the moment they are arriving on campus. This assertion supports the fact that there must be strong teaching of IPPRs in universities in order to create a high level of awareness of IPPRs in universities.

When the issue of IPPR is being considered, it is pertinent to know that awareness of IPPRs plays a major role in national development. This was echoed by Kameri-Mbote (2005) who stated that, while many countries in Africa are making efforts to ensure people comply with international IPR norms, they do not have adequate capacity to do execute policies toward harnessing the norms for development of the countries. She opined further that most African countries have low knowledge of IPRs as well as consequences of having efficacious systems of IP protection. According to her, there are limited institutions, including universities, in African countries with vast exposure and manpower to manage IPRs. This is particularly in the area of trade and investment. She asserted that the inadequate of expertise in trade related IPRs; capacity building; research findings and policy communications (communication of IPR practices); research networks in IPRs posed a challenge to African countries that are aspiring domesticating the provisions of TRIPS.

Ogada (2006) stated that even when people are aware of IP and its policies, the core objectives of the policies on IP will not change. The issue of awareness of IPPRs also surfaced

when Ogada was asked to discuss why patenting in the area of research and engineering in higher institutions in Africa is low. Ogada (2006) argued that while the amount offered patents in African countries is low when compared to other countries, there is lot of innovation done by scientists and engineers in R&D institutions and universities in Africa. According to him, the innovations are not noticed given the low IP awareness. Ogada (2006) therefore listed the hindrances to patenting in Africa as: little or no budget and funding for research and development; poor financing of patent applications let alone its maintenance; inadequate IP expertise (patent agents); weak institutional governance including technology management offices in universities and research and development institutions; and failure to create awareness about IP. Awareness as one of the barriers to patenting shows the prominent position IP holds in all invention activities being carried out in various institutions and universities. Not only that, European Union (2012) also emphasised that adequate knowledge about protection and exploitation of IP are key business skills that will be needed by creative graduates of universities and other tertiary institutions. Also, European Union (2012, p. 4) asserted that transfer of knowledge and IP are crucial for those who engage in art and design practice and those who engage in works that are less scientific. This includes students and graduates given that awareness of IP do not only facilitate the transfer of knowledge but also aid the avoidance of losing commercial opportunities among them.

Furthermore, a high level of awareness in universities will make lecturers aware of what is expected of them whenever they consult work done by other scholars. Every lecturer will guard against any act of plagiarism once he/she knows its consequences. The issue of plagiarism as it relates to intellectual property now takes centre stage in most universities now. This is one of the major thrusts of Philips and Chinda (2017). Philips and Chinda (2017) opined that some researchers find it convenient in plagiarizing the books and articles published by other industrious lecturers “Again since there is a quest for internationalisation and globalisation of university education, there is a global concern of repeated cases of lecturers pirating or plagiarising the works of authors from other foreign universities. This concern has perhaps resulted in the efforts towards subjecting publications to several forms of plagiarism and piracy tests before they are allowed to be published in foreign journals or websites. Given the high rate of plagiarism, there are arguments over the certainty of adequate effort towards increasing the awareness of IPR and the result of such rights violation” (Philips and Chinda, 2017, p. 100).

## **2.5 Perception of Intellectual Property Protection Rights in Universities**

Perception of IP protection rights is of highly importance for librarians and other academic staff in universities. It rates the preparedness for the academic adventure. Perceived issues bothering around IPPR and RP should not be jettisoned and as such priorities is to be given to creativity and publications. The assertion made by Sikoyo, Nyukuri and Wakhungu (2006) is the true reflection of intellectual property in every nation. According to Sikoyo et al. (2006, p. 12), “Intellectual property has increasingly become a strong feature of international, regional trade arrangements and national legal instruments. This can be attributed to fact the world is already a global village. Socioeconomic, political as well as environmental partnership is the order of the day. From multilateral to regional and bilateral trade relations, IP issues almost inevitably come to the fore as a critical issue to be considered in any deals that are struck. An example of these regimes is the free trade agreements that have become a feature in international trade relations.

The United States has concluded such agreements with Latin and Central American and Caribbean countries individually, in groups and collectively. It also has an agreement with Australia, Morocco, the South African Customs Union (SACU) countries, Singapore and Thailand. It is against this backdrop that that IP continues to be the subject of widespread legal and political debate especially regarding the role of IP law and IP generally in the progress of societies in terms of its contribution to economic, social and cultural progress.”

For the perception of IPPRs in universities to be determined, there is need for staff and students in universities to be armed with every detail of intellectual property for adequate protection of the rights. These rights are not only limited industrial designs, scientific discoveries and inventions, literary or artistic but also include trade-service marks, phonogram and broadcast among others. To achieve this, academics must impart necessary information regarding IPPRs to students in universities and other tertiary institutions.

Researching to know the perception of students on IPPRs, National Union of Students (2012) investigated the perception of the UK students towards intellectual property. In doing this, NUS (2012) adopted a quantitative survey of over 2,000 in higher education (universities inclusive) in the country to unveil insights into awareness and attitudes towards intellectual property. From the investigation, while 83 percent of the respondents saw knowledge about intellectual property is good for their education and 79 percent indicated that it is good for their

future careers, the knowledge about IP does not influence commercial success (NUS, 2012). Moreover, the study reported that while IP is not taught adequately to students but those students who are aware of IP show expression of desire to have adequate knowledge about it. The study also revealed that 40 percent and 27 percent of those who had been taught about IP want topic related to IP to be details and extended respectively. Also, most of the sampled respondents suggest IP should be added to their course at early stages. This practice arouses interest of the students at FE/HE level (NUS, 2012).

NUS (2012) went further to opine that lecturers are main sources of information about intellectual property related issues to students. It shows that 59 percent sample surveyed had approached and solicited information about IP from one or more lecturers even when some of the respondents had not confident on the information received. The study maintains that sampled respondents suggest that IP should be well defined and incorporated into their course moreover only few sampled respondents indicated to have received information about IP.

The level of IPPR perception of the sampled respondents in the investigation NUS (2012) equally revealed unrealistic knowledge intellectual property among sample respondents is an indication of contradicting in intellectual property teaching. In respective of the fact that awareness about IP protection rights is a key to performance of IP tasks, only few students reported to have good insight into issues related to IP.

Based on the results of the research done, NUS (2012) made some recommendations on the areas requiring modification in IP delivery in further education and higher education institutions. NUS (2012) asserted that the focus on plagiarism inside education systems is sufficiently illustrated by students' reactions to current and previous IP taught. This narrow center has clearly made a difference to raise the profile of IP, but to date has not been focused on to advance other angles of IP practical teaching. Consequently, IP has no significant influence on commercial success among students. Where suitable, IP and its practical applications might be connected more closely to commercial perspectives of courses. In spite of the fact that students are most likely to solicit information about IP issues from their lecturers, only half of the sample students accepted that scholastics (lecturers) are well-informed around this subject. This suggests a need stimulate awareness among lecturers of all perspectives of IP and its centrality for students' careers prospect and adequate conveying IP related issues.

Similarly, on the status of IPRs in sub-Saharan Africa, the study by Sikoyo, Nyukuri and Wakhungu (2006) shows the status of IPR in Ghana, Kenya, Nigeria, South Africa and Uganda. The study was embarked upon as a result of the fact that IPRs may help to ensure constant and unparalleled involvement of African countries in effective negotiation in WTO, which contribute to national development at appropriate phases of development. Moreover, the capacities and specialized ability required for IPRs investigation are too vital for feasible advancement approach usage at national and territorial level in Africa. Their think about gives a combination of the five nation reports with the point of distinguishing and investigating issues influencing the organization and authorization of IP in these nations. In doing this, they incorporated the suggestion suppositions of the members to the territorial workshop held in Nairobi, Kenya in 2004.

Philips and Chinda (2017) examined lecturers' perceived IPRs in tertiary institution Rivers State. They sampled 346 lecturers in three tertiary institutions in the state from the population of 2,551 using the Taro Yamen formula. The results of their study show that perception of intellectual property and its right is high among lecturers in tertiary institution. On this basis of their findings, they also recommend the need to create intellectual property unit that aid the screening of all intellectual write-ups before are published as well as procure ICT facilities that are relevant to promote lecturers rights to IP.

Academic staff perception of IP plays a pivotal role in the protection of IP in universities. This will create an avenue for the IPR owners to rest assured that they will reap the fruit of their labour. This is adequately captured by Philips and Chinda (2017) in their investigation of the lecturers' perceived IPRs in tertiary institution in Rivers State. They asserted how lecturers perceived IP is key success factors in quest for managing IP right in tertiary institution. Mendis, Sechi and Reevis (2015) cited in Philips and Chinda (2017) contended that in case the innovations of researchers, analysts, journalists and specialists are not secured against piracy, the first innovators would kick the bucket in penury whereas those who privateer their works will get rich. The administration of the proper of IP includes the method of making mindfulness of IP right and the measures for its administration additionally guaranteeing lecturers' compliance.

As stated earlier, intellectual property plays significant roles in national development. The roles intellectual property plays in national development informed the assertion made by Philips and Chinda (2017) that intellectual property can subsequently be utilized as channels for

instruction and transmission of values including handling developing social issues through-orientation. This assertion is supported by the evidence that Rome and Greek used Music and drama for education and building of values. It is no wonder that music and drama are also protected by copyright laws. IP helps in fostering and cultivating improvement in the economy given that aesthetic have no inborn and outward economic values but it serves source of income for the originators or creators including brokers who may be authorised to commercialise the inventions of the artists.

According to them, given that tertiary institutions are responsible for instructing, researching and commercialisation of inquire about discoveries, and there is good reason to indicate that IP plays critical parts within the accomplishment of the objectives of tertiary institutions. Thus, cultivating awareness of IP will help upgrade the delivery and performance of works, diaries, books, articles and so on related to IP in academic environment. Besides improving benefit conveyance and performance among academic staff in tertiary institutions, advancement of IP moreover gives openings for financial survival for both the tertiary institutions and the originators/authors. Given the wide spread acknowledgment of the commitments of IP to societal development and improvement of benefit conveyance in tertiary institutions, there's a developing tumult for partners and the government to make an enabling environment that will empower tall rate of creation of IP. One of such empowering environment according to Africa-Europe Faith & Equity Arrange in 2002 that is profoundly looked for in both locally and worldwide is the enactment of IP rights. Even when tertiary institutions have many faculties and departments, it can also decipher that what constitutes IP in tertiary institutions vary from one faculty to another. It is common to watch that academic staff in science related faculties may consider IP to incorporate scientific innovations like machines; logical hypotheses, laws, images and equations; etc. Those in humanities might consider it to incorporate: music, depictions, drawings, pictures, mold styles, colourings, carved pictures while those in social sciences may consider IP to incorporate: theories, laws, print and articles published online and so on (Philips and Chinda, 2017, p. 98).

Philips and Chinda (2017) held that tertiary institutions in Nigeria have over time supported IPR protection of their staff. They stated further that the reason for IP in tertiary institutions is to ensure career prospects among academic staff. Hence, lecturers are expected to engage in the publication of articles, presentation of papers, publishing of books among others.

Philips and Chinda's (2017) study sheds light on the positive impact IP has on academic activities, arguing that, besides enhancing career growth, IP also offers a diverse opportunities for academic staff to generate income especially through the commercialisation of their efforts (articles/books). Moreover, Philips and Chinda (2017) said that, because some academic staff and fraudsters lay claim on the handwork (IP) of other teachers or indeed commercialise them to make money, there is a need to ensure the protection of IP against piracy, plagiarism or patent. In this regards, proper awareness IPR in high colleges has gain scholarly attention. Since ignorance of the laws tend to be portrayed as no excuse when confronting justice, it is vital to specify that ignorance of IP law would make the infringement of the law unavoidable, thus suggesting that mindfulness of IPR among teachers/academic staff cannot be overemphasised.

Philips and Chinda (2017) also gave prominence to the sanctity of intellectual property by drawing the attention to the fact that the members of the public must be enlighten on the implication and costs of IP infringement. Also, they equally recommend that people should be oriented not to buy pirated and plagiarised materials; this will result in adequate protection of the return on investment of IP inventors. They emphasised that authorities in tertiary institutions and parastatals need to constantly sensitise academic staff on the implications rights infringement. According to these scholars, new intake and experienced academic staff should, on a periodically basis, involve in workshops on IPR since they mandatory to author, or co-author IP such as articles.

Philips and Chinda (2017) are of the view that the reality that laws ordinarily stimulate tension it is of immense benefits to examine how academic staff see IPRs. They expressed that people's recognition of IPRs will influence their state of mind and degree of compliance. On the off chance that teachers see IPR as beneficial and one that must be regarded and secured by all and sundry, they will appear positive demeanor and compliance towards it. Resounding Peremotode (2009), Philips and Chinda (2017) assertions that the qualities of laws are the sanctions connected to IPRs. This suggests that people's state of mind and compliance to any law will be decided by how they see the sanctions. One other key factor, as observed by Philips and Chinda (2017), which may influence how academic staff perceives IPRs is mediated by IPR arrangements in tertiary institutions. Therefore, there is need for the university managements must make IPPRs a priority in all their activities so as to protect the interest of scholars, and this will rub off positively on the society.

Based on the findings of their study, Philips and Chinda (2017) conclusion was that lecturers' discernment of IP and IPRsrights in tertiary institution in River State is positive. They expressed that IP and IPRsrights are imperative for success and productiveof tertiary institution since they impact on developmentof the economy and inventors.

## **2.6 Awareness of Intellectual Property Protection Rights and research productivity of librarians in universities**

The IP of librarians is shaped by copyright laws. Adequate awareness of these laws is essential for quality and successful research publications (Robert, 2015) the development of knowledge-societies, particularly in the developed countries, has made universities to be crucial national assets where many governments are looking to them to generate and share knowledge through research.

Consequently, thecopyright laws in their origins and the way they have evolved have always beendirected to balance the interest of people (Adams, 2011; Handke, 2012). Those who creates and invents are often granted right to make satisfactory return from their mental works. In this way, creators are allowed rights (WHO, 2016). However, through impediments and exceptions such as reasonable utilization of their rights in order to balance interests of certain groups, some users have complete access to the information (Sulo, 2012). Librarians need to equip themselves with copyright laws that grant creators numerous rights in their works additionally constrain these rights in numerous vital ways (Musiige, 2014). Most of these confinementsare quite specific, but some are wide. A few of these laws empower scholastic custodians to utilize or spread copyrighted materials more openly. In case none of these exceptions or restrictions applies, it may still be conceivable to form utilize of a copyrighted work (Jacques, 2012). In doing so, Herderson (1998) is of the view that “the user must obtain a licence from the copyright holder that gives the user permission to use the content in a particular way. The copyright holder may demand a fee for such use, or may allow the use for free.” The licence should be specific and in writing in order to avoid confusion. But Fisher (2008) is of the view that “it is not always necessary to contact the copyright holder directly to obtain a licence to use their works. Many countries have collecting societies (also known as collective administration organisations) that act as agents for large numbers of copyright holders.” Such organisations now administer licences pertaining to a wide variety of uses of copyrighted materials. Examples include broadcasts of musical composition and the use of various modern



technologies to reproduce graphics works or literary works. Fisher (2008) stated that “most academic librarians are certainly not aware of such policies”. Even though they are meant to do quality research, the rules governing research and publications are not before them.

The consciousness of intellectual property strategies and best practices should always be at the doorsteps of librarians. This is so because the importance of research and publications in library and information science profession cannot be overlooked and it has a strong link with intellectual property protection rights. Librarians are expected to do research and get them published. Aina in 2004 observed that addition to the fact that researches and publications broadening the frontiers of knowledge as well as proffering solutions to issues, they are also beneficial to the librarians. Adding to this, study of Montanelli and Stenstrom (1986) posited that publications by academic librarians tend to enhance their career development. Moreover, those academic librarians conducting research have better interpersonal relations. Powell, Barker and Mika (2002) asserted because research helps in proffering solutions to problem and making better decision, those academic librarians consume research literature, which allow them to offer information services to other researchers in different fields.

Research productivity in Nigeria University system can also be seen in librarians’ commitment in advancing knowledge in various institutions across the world. Mcloed (2008) posited that different factors such librarians’ awareness of copyright laws, perception of intellectual property and gender is some factors influencing their research productivity. In the aspect of gender, some studies showed that female librarians tend to publish papers in small numbers (Mcloed, 2008; Holliday, Jagsi, Wilson, Choi, Thomas, and Fuller, 2014). This finding was also confirmed Oloruntoba and Ajayi (2006). It has also been reported that most male scholastics have higher published articles than their female counterpart. The empirical work done by Ogbogu (2009) also showed that research productivity by female is low as 59.5% of female scholastics published one paper yearly; 23.6 % two papers; 1.1 % three papers, and 15.8 % did not published on a yearly premise. The study therefore concludes that female scholastics add significant value to teaching when compare to researching, with less specialised in researching being the key reason cited by Leahey (2006) female lost out in achieving higher productivity as compare to male. On a comparable note, Foekens’ (2011) demonstrated male and female differ in publication productivity because female librarians experience conflict household chores and work, which make them have less time to play with in academic matters than male librarians. In

confirmation Jung (2014) stated that family demands of often conflict with time to carry out research among female, resulting in lower research productive as compared with males, which is contrary to some studies done in other countries that gender does not influence research productivity (Mercer, 2011; Holliday, Jagsi, Wilson, Choi, Thomas, and Fuller, 2014).

Despite its importance, librarians' knowledge and awareness of intellectual property protection rights has only been tackled by scanty studies. Drawing from different studies with different methodologies to date, Wogu, (2012) concluded that librarian's awareness and knowledge of intellectual property protection rights is insufficient. One of the foremost empirical evidence was Masango (2006) when he reveals wrong perception of IPPR in the area electronic information among librarians, educators, clients and management of corporate bodies. Cross and Edwards (2008) also pointed out the poor knowledge about IPPR among academic librarians. Olaka and Adkins (2012) also showed that inadequate knowledge and the need for more training on IPPR among academic librarians.

While Olaka and Adkin empirical researched also focused on the how knowledge about IPPR varies in academic librarians on the basis of their cadre, Eiye (2012) provides intriguing findings even when the questions raised by Eiye (2012) were elementary as most of respondents (librarians studied) apparently were aware of IPPR. Scanty studies focusing on other members of the university community: professors and students have also demonstrated poor results. But Omolara and Utulu (2014) have a different view on librarians' awareness of intellectual property protection rights, where their study showed existence of a high level of awareness of intellectual property protection rights among librarians in university libraries in Nigeria. They noted that the current level of librarians' awareness of IP protection rights can be attributed to the high rate of intellectual honesty among authors in this era of information explosion.

The pioneer study by Smith (2001) among librarians in health science workforce of two U.S. colleges (College of Alabama at Birmingham and the College of Texas Wellbeing Science Middle at San Antonio) utilized a web study to decide the librarians' level of knowledge with respect to copyright law and fair use. The outcomes of their study were poor familiarity with these matters on the part of the professors, along with a noteworthy degree of agreement among the respondents from both universities to majority of the questions. A similarly low level of knowledge was also revealed by academic librarians in universities in Nigeria. The study by

Fayemi (2013) at five federal universities using combination of qualitative and quantitative methods to examined the knowledge of lecturers and librarians about copyright in relation to academic environment also showed the respondents have misconceptions about copyright though librarians tend to have a better knowledge about it.

Librarians are authors of their own intellectual property; just like their teaching counterparts in faculties, they are expected to publish or perish and, as such, their intellectual property should be protected and a good knowledge of intellectual property asset tracking. Hart (1999) in his research findings opined that “the increased demand in recent years for librarians to publish have resulted in an increased in the quality and quantity of their publications and a shift to more publications in a refereed journal and core library publications”. If librarians are required to publish, their intellectual property should also be protected. Other studies also supported Hart’s (1999) view; Stephen, Julia and Ann (2006) focused on the peer-reviewed literature of library and information science. Hart’s study asked questions about the proportion of articles by academic librarians in the peer-reviewed literature; frequency of sole authorship and the co-authorship; types of libraries with the most productive librarians; and productivity benchmark for academic librarians. The researchers concluded as follows:

To be among the top 10 percent in productivity, three referred articles in a three year period are necessary. Forty-one percent of articles by academic librarians are co-authored. The most productive libraries are those in research “extensive” universities and in the area of intellectual property rights, our literature review included copyright (Hart’s 1999: p. 64)

Academic librarians create historical and statutory balance in copyright law. In order to be rated high in their research publications, they should be able to publish at least one publication consecutively for a period of three years. They should have a fundamental knowledge of mode of interactions between IPPR and the protection of their creativity. Julia and Ann (2006) in their literature state: “There is also the transfer agreements with a special focus on self-archiving. Self-archiving simply implies holding on the copyright of your intellectual property.” They also went further to state in the review of extant materials that in recent years, many publishers altered copyright transfer policies to permit creators to hold more rights nowadays than within the past, including right to self-archive articles(Stephen, Julia & Ann, 2006).

This is the case for most authors in Nigerian universities including academic librarians; they no longer sign publisher's copyright transfer agreements at the time their works are accepted for publication. Copyright transfer agreements require that authors transfer to the publisher some or all of the exclusive rights granted by copyright law. The simple reason for this is that most of them want to take the protection of their intellectual properties into their own hands. So, there are three groups:

Creators or librarians who are granted legal rights under the Constitution and the Act, Publishers who have legal rights by transfer, Users (or institutions such as libraries and schools) who have legal rights through exceptions and limitations to creators' rights(Hart's 1999: p. 79)

In reality, publishers can have access to copyright of creators to commercial their works to users. But the relationship among publisher, the users and creators of the work is directed by contractual agreement which, in turn, helpful for librarians.

In the present environment that is digitalized, the results of intellectual policy deliberation tends to influence several businesses, trend-setters and inventors, consumers, corporate bodies. Key to this is Copyright Act, which aimed at balancing the interest among the three key actors, which include publisher, the users and creators of the work. In the event that copyright owners' (most frequently the publishers) rights are not weak and limited, the creators may get meager remuneration for their efforts and there many inhibition of public users accessibility through the through imposition of monopoly pricing. Suber (2005) advocated that copyright owners of an article through their publishers should allow open access to their works regardless of the fact that current copyright laws cannot be changed. In this respect, the academic librarians ought to have insight into this policy and manoeuvre the barriers. The policies among others allowing open accessible, which are advantageous to academic librarians include: the creative commons law, open access right, fair dealing, public domain and so on (Covey, 2005).

Intellectual property rights can protect speaking, listening, hearing and publishing rights. These rights by some individuals are embedded in the copyright clause given its objective of promoting inventions and knowledge. The copyright has over times accelerates the balancing return of rights to exploit new inventions that will eventually gain entrance into the market thereby enhancing a nations' storage of intellectual materials. Libraries in the higher institutions are often known to providing access to endless lion's share of copyrighted works that lose

advertise essentialness prior the copyrights expired. They are usually the ones preserving public materials.

Libraries in the higher institutions empower clients in accessing copyrighted and public works. This is done by exercising the rights of exceptions and limitation of authors' rights as prescribed within the law. Fabumi (2013) concurs that there's a require for all the scholastic librarians in Nigeria to have copyright education and the nation's Copyright (Revision) Proclaim of 1999 as to understand or acclimate with the fundamental standards and conceptualization of copyright laws in Nigeria. This will empower them to render their administrations without infringing copyright laws. With full knowledge of copyright, it is expected that librarians will have a better understanding of the implications of plagiarism from copyright-protected material as well as perform their duties under the ambience of the laws. Over all, they will be able to maximize 'fair use' rule which implies copying small portion of authors' work without disregarding the owner and users interests. Copyright warning should be places in strategic locations in the libraries in order to get the users inform (Fabumi, 2013).

Libraries stimulate new IP and buildings on existing IP created. They are seen as places where the public and proprietary converge. The roles of libraries are not only influence by the law by also influence the balancing of laws. In light of their institutional roles, academic librarians and their affiliations direct their attentions in balancing the laws to advance users and creators' rights. They recognize that most clients of copyrighted works are often unaware of their dependence on balanced laws and policies for accessing and gaining information/knowledge. The rights of individuals in the society are taken for granted because most of these individuals do not participate in policies deliberation; hence tend to rely on common sense. In this regards, librarians advocate for users of copyrighted material.

Libraries though occupy small space; they are substantial in showcasing published works. The endless larger part of copyrighted works in library collections was obtained through license agreement. Regularly, libraries pay higher amount for copyrighted works when compared to what individual person usually pay. This is typically when they subscribed for periodicals, electronic data/information, and continuous reference works. These higher rates are apparently to account for numerous utilizations in libraries. Libraries usually purchase in bulks to have more leverage. Thus consortium of libraries tends to negotiate on the part of the libraries they

represent especially when it comes to digital environment, which is shaping how Librarians perceived copyright law and related rules.

Libraries anticipate the law to continue to equalize the bargaining leverage among the three groups: creators, publishers and users, and this law tend be more important as licensing is gradually replacing purchasing. Libraries moreover perceive that a key societal responsibility of libraries (the archival roles) is risky because electronic data is so rarely really accessible in order to buy and permanently preserve and retain information. Libraries play these archival roles since history has appeared that it isn't financially reasonable for profit-based businesses to do so. The vanishing of much electronic information after a really brief period of time, the delicacy of advanced bits, and the brief life of equipment and computer program recommend that this part of libraries will be more required than ever before, but harder and harder for libraries to achieve. Librarians seek motivating forces beneath the law to be able, at sensible costs, to preserve and protect electronic data, most of which cannot hold financial viability.

With a great balanced copyright law and IP arrangement, there's no reason the digital data environment will not create more opportunities for authors, publishers and users (clients). Librarians seldom see wrangle over IP policy arrangement issues in terms of victors and washouts rather saw it as healthy. Moreover, adjusting policy arrangement to quick innovative alter is never easy. It makes all parties apprehensive since they know they cannot precisely prognosticate long-term. The trouble and the complexity emphasize the significance of a cautious and mindful approach to copyright law modification and rulemakings

## **2.7 Perception of Intellectual Property Protection Rights and research productivity of librarians in universities**

Perception on intellectual property rights is an important issue for librarians and researchers. This is because research and publishing are two important factors in disseminating information in the society, so managing author understands and interpretation of intellectual property laws through copyrights is meant to reshape scholarly communication. Academic librarians are required to have good perception on intellectual property laws, in order to have improved research publications which turn out to be their intellectual property.

The rule of any kind of IP is that the proprietor may utilize it as he wishes, which no one else can legally utilize it without his authorization. This does imply that he can utilize it notwithstanding of the legitimately recognized rights and interface of other individuals of

society. Essentially, the proprietor of copyright in protected inventions may utilize the inventions as he wishes, and may anticipate others from utilizing it without his authorization. The rights is granted beneath national laws to the proprietor of copyright in a protected works/inventions are often exclusive rights to approve a third party to utilize the work, subject to the legitimately recognized rights and interface of others(Ololube, Umunadi, and Kpolovie, 2014).

The tension owners and users of information are relatively high. Neal (2002) contended that “academic librarians must be at the cutting edge of the IP wars,” but he did not indicate what part they ought to play in this war. Scholastic Librarians can take dynamic part by joining creators/owners or clients and engaging in the use of IPPR to enhance their research productivity. Park (2015) stated the benefits of IPPR reforms as the stimulation of R&D, innovation and ultimately productivity growth.

Academic librarians can also serve as moderators who promote the use of IPPR among researchers; play more detached roles by watching and handling the defaulters to appropriate authority. Whatever the responsibilities of librarians are, it is evident that they ought to take after their moral rules and comply with copyright laws towards upgrading and enhancing quality research process. In spite of the fact that the investigate prepare may have numerous results, the NBEET considers (1993, 1994) demonstrate that that publications within education, journal articles, books, conference presentations and chapters of books are highly valued indicators of research performance. Publications have been acknowledged to be the most valid, fair and direct measure of research performance among academics (Grigg & Sheehan, 1989). Articles written are only recognized in academic environment when they published or presented in a conferences (Fox, 1983'). In this case, research outputs mend to be gauged in tangible formats using the numb of papers presented in conferences, published in journals as well as seminars/workshops and books published.

Interpretation of IPPR is more complex than ever before because electronic has made IPR easily accessible. Wagner (1998) stated that “one of the new challenges was the circulation and copying of software”. For example, this confusion was highlighted by Walch in 1984 empirical revelation that there are differences in the practices of protecting against inappropriate copying of software among libraries. Of 293 academic institutions studied by Walch, 13% were circulating software and several more were planning to do so (Walch, 1984). This divergent was

addressed in 1990 when the Copyright Act was amended to allow libraries to circulate software as long as a copyright notice was attached (Wagner, 1998).

Librarians are now facing a new major challenge of addressing copyright issues, especially when providing e-reserves services. Ferrullo (2004) stated that, in terms of e-reserves, there remains “no clear cut copyright policy and so many librarians are reluctant to undertake the risk of liability of having their university sued for copyright infringement.” Along these lines, a 2005 report of a survey of the member institutions of the American Research Library Association found variations in reproduction limits, ranging from 10 percent of a work to only one chapter. Also, they found that only 13 universities had specific committees addressing copyright issues, and 44.4 percent of the existing committees did not include library representation (Gould, Lipinski & Buchanan, 2005).

Most of few empirical studies that have attempted to examine the library’s role in upgrading the efficiency of research focused on measuring the subset of research productivity include library use and outcomes of learning. The foremost empirical search of Barkey (1965) revealed a direct association between books borrowed from the library by fresh students and their grades point average. Hiscock (1986) examined the impact of library use on the performance of academic, but was incapable to set up a solid relationship between library utilization and the performance of academic staff. Qun and Onwuegbuzie (1997) work on the reasons for college library utilization, found out that scholarly accomplishment, semester course stack, number of earned credit hours and soon have no notable impact on how often undergraduates utilize the library. Watson (2001) also revealed that undergraduates positively perceived library as a place for access and using technology but this perception does not influences their performance in school. Whitmire (2002) moreover ascertained and found that the resources possessed and services render by library not influence students’ academic results frequent use of library and analytical skills. Among the few empirical searches that have directly examined research productivities, Majid, Eisenschitz and Anwar (1999) considered library utilization pattern among Malaysian agrarian researchers. Their result uncovered that larger part of the respondents, constituting 88.4 percent, utilized the library broadly when composing documenting reports and 87.5 percent also admitted utilizing the library when writing research proposals. These findings imply that there's a relationship between library utilization and productivity in research. Liu and Allmang (2008) evaluated client satisfaction with the services of National Established of Guidelines and



Innovation Inquire about Library (NIST) and they uncovered that library services affect research outputs as 71 percent of sampled customers (clients) who certified the services of library are good in relation to the works they published in refereed journals while 69 percent certified that it helped them in the works they presented at conferences. Singh (2007) research work on utilization of library resources among postgraduate students also shows that the sampled students experienced satisfaction with the resources (books, journals, databases, indexes, etc.) offered by the library along with the services such as informationskills class, inter-library loans/advances, etc.). The study concluded that the sampled students see library to be valuable in research works.

A lack of knowledge and wrongful perceptions surrounding, particularly in the field of library and information science, has been cause for concern. Change is ahead, however, as the value of intellectual property is being communicated more clearly, in a way that not only IP lawyers, but also everyday citizens, can understand the world has now moved from Industrial Age to the 'Information Age'. The whole world presently gloats of knowledge-based and an information-driven economy. Current improvements point to the prevailing part of information and Communications Innovation (ICT) in scholastic libraries. Concurring to (Anyokoha, 2005), ICT has become the order of the day among numerous callings (professions). In this light, libraries and information services have not been left behind rather have followed the trend. Academic librarians play critical roles in unleashing learning, in research materials and in interpreting and transforming technologies. Accessing relevant information by all is seen as challenges among stakeholders especially those in information sectors since its advancement within the 19th century. Scholarly librarians in tertiary institutions are in the business of trading information to the community. In carrying out this commerce, a parcel of exercises are included –accessibility and spreading of information. Their knowledge and understanding of IPPR will improve their service and create an open access to all sorts of print that are distributed and can be gotten to through the Web free of charge. Since information is required for day today affairs of men, accessing information/published materials should be a worldwide concern.

Globally, given that today's environment is information driven, it is expected that those who not literates will be at a perpetual disadvantages, uncertain of their rights, and incapable to satisfy their potential and fully participates in activities in the society. They are disempowered because of inability to access information, which is his fundamental right for everybody and fighting and overcoming destitutions (Mchombu, 2003). Moreover, the UNDP in 2006 expressed

that information for all stimulates the knowledge of people. This in turn facilitates the capability of people to generate income, interact with others in the community and utilize preventive techniques that will help in improving their health.

Scholarly publishing community incorporates all the persons, agencies, organizations and associations that are committed to IP and copyright. These nonstop increments in scholarly publishing have challenged a number of researchers to center their works on the obligations of diverse stakeholders within the publishing community (Omolara and Utulu, 2011). Interpretation and understanding of IPPR will, no question, improve availability of accessible to articles published by scholars thus improving research productivity. The values attach to libraries decreased definitely with decreased in the inability of libraries to meet and fulfill users expected scholarly publications. Additionally, increase in the cost of subscribing tend have negatively impact on library acquisition of valuable materials and publications (Morris, 2004). A lot of individuals such as Willinsky, 2009; Conley and Wooders, 2009 as cited in Omolara and Utulu, (2011) have conducted empirical works on business models as well as economics of scholarly publishing with specific objectives of comparing the models of employed by professional and commercial publishers and open access publishers. International Federation of Library Association (IFLA) also suggested that information should be made available for all people in line with the principles expressed in the copyrights laws.

## **2.8 Awareness and perception of Intellectual Property Protection Rights and research productivity of librarians in universities**

Academic librarians are linked to the world of intellectual property rights. Researcher sought to be cognizant of IP law in order to understand the procedures in utilizing other people materials and when other people use their own materials as well. The "rules" of "fair use" can only be decided in court and the penalties involved. Most librarians may not want to involve in the lawful fight given the understanding of the fear and risk associated with laws avoidance. Whereas there have been numerous thoughts direct toward reforming the copyright scene, such include creative common licenses, Mazzone (2011) pointed out that the key issues associated with IP law is overemphasizing on the parts of copyright proprietors to the degree that it blocks inventiveness and social-cultural expressions. His work which titled: Duplicate Extortion and Other Manhandle of IP Law, clarifies the how and why of this issue, and offers possible solutions.

Awareness and perceived IPPR are the two key concepts any researcher can utilize to gauge the values of IPPR. In more simplicity, what numbers of people have adequate knowledge about IPPR? Often, awareness is measured through surveying that centered on asking sample people questions about knowledge about IPPR whereas perception is the values attached to IPPR and its importance to research. Literature has showed that how people are aware and perceived a product play enormous roles in the market share of the product. What is imperative is that the level to which people are aware may be a key factor influencing the growth or usage of IPPR. Hence, awareness of IPPR brings about perception of IPPR. In research, it explains fundamental part in advancing the wealth and well-being of citizens. This is also applicable in tertiary institutions given that research stimulates the development and improvement of businesses and government businesses, in this manner advancing national and worldwide prosperities. Most of the research works in Nigeria are conducted in tertiary institutions. Without a doubt, research outputs according to Aniedi and Effiom (2011) are becoming success factors in tertiary institutions and career prospects academic

It can be considered that any functional entrance into any form of activity or any form of phenomenon which has to do with different forms of awareness is transmitted into perception the moment it is enacted or activated into the systems. From this insight, when people are not aware of something, the perception of that something becomes questionable without a doubt (Swann, 1999; Oyekan, 2014). Hence, it can be conclude, on the one hand, that the degree to which people are aware and perceive intellectual property protection rights make it possible to acquire recognise and realise information about intellectual property protection rights. On the other hand, absence of awareness intellectual property protection rights makes perception of it impossible and, therefore, any information pertinent to the unperceived concept cannot be recognised as such.

The relationship between public awareness and perception of intellectual property protection and international trade has been one of the most controversial issues in global negotiations in recent years. The debate has largely been about the implications of the agreement on the Trade-related Aspects of Intellectual Property Rights (TRIPS) under the World Trade Organisation (WTO) for international trade in general, and for developing countries in particular (Juma, 1999: p.96).

Juma (1999) stated that “many of the views expressed by developing countries form their perception that the TRIPS agreement affects their ability to use technological knowledge to promote public interest goals such as health, nutrition and environmental conservation”.

Academic librarians should allow themselves opportunity of understanding the Intellectual agreement for the protection of property at the world levels. This is to create opportunity for the protection of their international research and publications which is a great index for accessing research productivity. The principal worldwide agreements are the Paris Convention of 1883 covering patent and trademarks and the Berne Convention of 1886 on copyrights (Wolfgang, 1990)

Concerns over the awareness and perception of intellectual property rights are not limited to copyrights in developing countries. For instance, the Parliamentary Assembly of the Council of Europe has recommended adoption of guidelines on patents legislation which “should help to develop criteria for granting patents continuously according to technological progress in favour of both the interests of the claiming party, as well as the interests of the public in regard to public order, morality and general aspects of state economy” (Maskus, 1999). Beside the reservations licensing living organisms, the authority also shows interest in less developed nations by prescribing that “the numerous extraordinary questions with respect to the patentability and the scope of security of licenses on living organisms, within the agro-food segment must be solved quickly taking under consideration all interface concerned, not slightest those of agriculturists and less developed nations (Maskus, 1999).

It is, therefore, a known fact that intellectual property protection rights are established for development of creative efforts of researchers. Academic librarians, therefore, should stand on this existing premise by having a full knowledge and understanding of all aspects of intellectual property protection rights in order to have effective research productivity in academic institutions in Nigeria.

## **2.9 Utilisation of Intellectual Property Protection Rights and its challenges in higher institutions**

Intellectual is involving a person’s ability to think and to understand ideas and information. An intellectual spends a lot of time studying and thinking about ideas while property is something that belongs to someone and it is physically represented. Intellectual property, therefore, is one’s idea that is given as a tangible substance or object. It is a legal right

which comes as a result of the intellectual activity in industries, institutions and so on. It is an idea that is actionable. Mouritsen and Moerman (2006) saw intellectual property as an abstract object but WIPO defined intellectual property in this form:

“Intellectual property protects products of the human mind, such as invention, literary and artistic work, symbols, names, images and designs used in commerce. Intellectual property comprises the areas of patent, trademarks, industrial designs, and geographical indications of source and copyright, which include literary and artistic works. Rights related to copyrights include those of performing artist in their performance, producers of phonograms in their recordings and those broadcasters in their radio and television programmes (WIPO, 1996: p.21).”

There are two main reasons why intellectual property is protected. The first is to give statutory expression to the moral and economic rights of creators in their creations and the right of the public to access these creations. The second is to promote, deliberately the act of Government policy, creativity, dissemination and application of its results and to encourage fair trading which would contribute to economic and social development. Intellectual property law aims at safeguarding creators and other producers of intellectual goods and services by granting them certain time limit rights to control the use of these productions.

In July 1967 in Stockholm, the convention establishing the World Intellectual Property Organisation (WIPO) concluded that intellectual property shall include the following rights relating to:

“Literary, artistic and scientific works, Performances of performing artists, phonograms and broadcasts, Inventions in all fields of human endeavour, Scientific discovering, Industrial designs, Trademarks, service marks and commercial names and designations, Protection against unfair competition and all other rights resulting from intellectual activity in the industrial scientific, literary or artistic field (WIPO, 2004:p.21).”

IP Rare customarily divided into two main areas: copyright and its related rights as well as rights to industrial property. The copyright is the rights of authors of article/books as well as right of artistic works that may take in form of music composed, video, and computer software/programs developed among others. These rights are protected by copyright, for a minimum period of 50 years after the death of the author(s). The related rights to copyright which include rights of actors, singers and musicians as well as producers of phonograms-sound recordings and broadcasting organizations are also protected by copyright. One of the primary

social objectives of protecting the copyright and its related rights is to encourage and reward creative works.

Industrial property can conveniently be separated into two parts: one of it can be characterised as the protection of particular signs, in specific trademarks (which recognize the merchandise or administrations of one undertaking from those of other endeavors) and topographical signs (which recognize merchandise as starting in a put where a given characteristic of the products is basically inferable to its geological origin). The protection of such particular signs points to invigorate and guarantee fair (reasonable) competition and to protect customers, by empowering them to create educated choices between different products and administrations. The protection can be forever as long as the sign is distinctive. Other sorts of industrial property are protected mainly to foster the designing, innovating, developing and modifying of technology.

In this category are inventions protected by patents as well as industrial designs (plans) and trade secrets. The social reason is protection of investments returns within technology advancement in order to stimulate incentives and source to fund R&D. A working IP regime ought to encourage the technology spillover in form of licenses, joint venture and direct investments by foreigners. The protection is often offer a finite term, like twenty years case of licenses/patent. Irrespective of the essential social goals of IPP as pointed out earlier, the exclusive right offered ought to be subjected to number of restrictions and exceptions in order to fine-tune the balance between the interest of legal right owners and users.

Wolfgang (1990) outlined IPPR into five major divisions: patents, plants breeders' rights, copyrights, trade and trade secrets. Patents prevent others from unauthorised production, manufacturing, use and sale of products claimed or registered by the product owner called the patentee. It protects the tangible commodity of an inventive activity rather than imaginative or abstract thought. It also protects its holder against subsequent discovery of another way to produce or use the patented product. Thus, it provides what may be called negative rights, the rights to exclude others from using the invention. Jaffe and Trajtenberg (2002) stated that "patents play a role in diffusing information to new users and across borders. In fact, this role is heavily studied by technology specialists, who look at, for example, international citations of patented materials to see how rapidly and how far such information moves across space and time". A patent is granted 17 – 20 years, although for some products in a few countries the

period is as short as five years. Once issued, it can be traded or licensed like other forms of property.

Plants breeders' rights (PBRs): PBRs are similar in complexity to patent, but the major difference being the scope of protection and limitation on the rights of the holder. The process involved in obtaining protection is an evidence that the submitted plant variety is stable, homogenous and most importantly clearly distinguished from existing varieties but not necessary in an economic or agronomic sense. Protection is granted for a minimum of 15years. A longer period applies to trees and vines. PBRs are subject to what is known as the farmers' exemption and the research exemption.

Copyrights protect original material, including original compilations of previously published materials from unlicensed copying. The originality of copyrighted material is not determined prior to issuance of the copyright. Berne Convention requires that copyrights be issued without examination. The duration of copyrights varies but it typically extends for lifetime of the author plus 50years. The holder of copyright cannot prohibit others from using the work but can demand compensation in the form of royalty (Wolfgang, 1990).

Trademarks are intended to protect a product's image as vested in a name or brand or logo. Customers are offered the assurance of purchasing what they intend to purchase. Trademark can endure virtually indefinitely provided they remain in use. Trade secrets are protected by physical measures of secrecy and by restrictive contracts entered into with employers, users and others to whom the secrets may be revealed. Trade secrets are anything that is secret and that confers upon its owners a competitive advantage. Examples of trade secrets are inventions and writings. Once a secret is lost, no protection applies unless it can be shown that the secret was improperly acquired. Copyrights, Patents, Trade Marks and Industrial Designs are the four major aspects of intellectual property. These areas are so connected that they may often be confusing. Their similarities involve the following: they are all intangible rights which are capable of protection and the rights protect the owner against infringement acts.

However, their differences are more outstanding. Former (2010) proposed that the difference between copyrights and all other major aspects of Intellectual property lies in the psychological finding on creativity. He went on to state that if the goal of copyrights and patent laws is to provide incentives to produce creative works, then it is worth looking to the

psychological literature that illustrate the process by which scientists and artists actually create and by which individuals appreciate creative works.

### **2.9.1 The challenges and future of intellectual protection for academics in Nigerian universities**

Intellectual property law has gain impressive global interest. While intellectual property (IP) has gained increased protection with advances in technology and international trade in institutions in developed countries, the developing countries' institutions are still at the throes of uncertainty regarding the attainment of the elusive template of IP protection being flaunted for development (Hegazy and Gadallah, 2013).

The level of participation of Nigerian universities in the new global knowledge order is, in part, a function of their resourcefulness in innovation and, by extension, their strategic engagement with IPRs. Equally, the ability of universities to optimise the benefits of these technologies is largely dependent on their IP laws and overall knowledge governance strategy. Consequently, Nigerian universities have been put under pressure by developed nations to carry out a holistic enforcement of IP laws. This, they claim, will protect innovations in the research and publications that are produced by these institutions from illegal imitation and copying. However, the concern for the Nigerian universities is the social-economic implications of the implementation of such IP regimes in their respective universities and their impact on development. Such 'lucrative' offers in exchange for IPRs in the Nigerian universities, according to some developing countries, are in view of the benefits to developed nations and their interests (Harris, 1996). In reality, the IPRs that the universities insist on may not be able to produce favourable conditions in the developing countries from their present states. In other words, the benefits reaped from certain IP systems implemented in the developed countries may not affect developing countries the same way. There is a need to first of all have an understanding of the fundamental justification of IPRs in general given that it is the justification that proper IPRs advancement. IPRs is seen as incentives for innovations and, since the academic community want to have more innovation, we should therefore encourage it to strive (Harris, 1996).

We can make the contention precise here, noting that argument (contention) can be applied to distinctive adaptations of consequentialism.



According to Trerise (2010),

“the Incentives Argument (IA): “The justification of a law depends in part on how good its consequences are, it is a good thing to have artistic and technological innovations, having IPRs is effective at promoting such innovations (because of their incentive effects). Therefore, IPRs are morally justified, all else equal (Trerise, 2010: p.57).”

Premise 1 is simply part of the theory of those concerned with incentives.

Premise 2, we assume, is time (while economists do not agree entirely on IPRs, they do agree that innovation benefits social welfare).

Premise 3 states that if IPRs are in place, people will try harder and more often to create new innovations—which is good for everyone—since they stand to make more (or lose less) from doing so. So, IPRs provide these incentives. Hence, to have them is better than not, given the effects of incentives upon stimulating people to create new innovations (Trerise, 2010). It is not wholly because of the IA, since if the strength of IP systems was related solely to the justification of IPRs in general, it is clear that no differences would be justified in those systems.

Copyrights are thought to provide incentives. So, the IA applies to both patents and copyrights: with the promise of either, it is thought that artists and inventors will have more incentive to innovate. Hence, we should have patents and copyrights. Thus, the IA is relevant for both the patent and copyright systems, and if this were all that was relevant to the strength of IP systems, the systems would have the same strength. But there are, of course, practical differences between the objects of copyright and the objects of patent, and these too are relevant for the strength of IP systems. Harris (1996) gave a clue of an invented item—the cotton gin, for example— which may be easier to copy and claimed that it was independently invented than a particular article or publication. This may be due to the straightforward reality that most inventions developed are the kind fulfilling a specific functions, and the creator essentially goes almost attempting to figure out a proficient way of satisfying the work given the devices of her trade.

The publisher on the contrary gives a specific nuanced expression to a research thought as well as utilizing the apparatuses of the exchange, but the ingenuity of which is within the points of interest. Considering our illustrations, we would can be surprised in the event that somebody came up with the same article, and not so surprised in the event that somebody came up with the same cotton gin. There numerous ways – given current technology innovation, or

given current logical understanding – to choose cottonseeds out of cotton productively. The extend of aesthetic expressions conceivable is, on the other hand, numerous, indeed when what is question may be a limited aesthetic thought; there are, various ways to compose songs about oppressed Georgian Gypsies.

Vermont (2006) is of the view that subsequently, it appears likely that some of the reasons for the further strength of the patent framework – are the reason that patent owners can legitimately block autonomous inventions – is that there is a worry that the stipend of autonomous innovation will increment copying behavior, since it is less demanding to copy patent objects without facing the music or escape. If there is no increase in the protection that patenting is offering (against autonomous inventions), investors may not have enough incentives to engage in innovation. Consequently, to guarantee innovators have adequate incentives, autonomous inventions are disallowed. This, at that point, is how the IA works in tandem, that patents are strong where copyrights are weak.

Majority of the librarians are faced with time constraints and this corroborates the study of (Ogbomo, 2010; Moahi, 2007). Poor scheduling of time to carry out research has been reported to be the most prominent challenge faced by librarians (Ogbomo, 2010). Poor data interpretation skill is another problem faced by librarians in the process of making publication, especially journal articles. This challenge was also noted in the study conducted by Moahi (2007) and Suwanwala (2011). Exorbitant fees for publishing (page charges) by journal outfits is another big challenge facing librarians in this study and this perhaps explains why some librarians spend months searching for journals to publish their articles without success. In spite of these constraints, publication productivity of librarians was reported high in terms of articles in learned journals. It is, of course, likely that untrue claims of autonomous inventions will increment in the event that autonomous inventions is permitted within patent laws. But this assertion does not imply the increment will cause a threat. Consider Vermont (2006) observations that worrying about ease of copying patent objects – or, as he puts it, with antecedent fraud effects is the reason independent (autonomous) inventions is not allowed.

Indeed, three brief points will be added to Vermont's claims. First, having competitors does not fundamentally kill incentives, as, even if one cannot solely market a product, one can still be in the market. There are universities that flourish inspect of rampart copying in the market place. Second, though inventors have higher development costs than copiers (who don't

invest time and effort into research and development), copiers have costs that first innovators don't. These cost include those cost associated with copying (or maybe re-engineering) to make their products look original as if they were not copied. This executing of fraud can be costly in covering one's tracks, guaranteeing that one's mischief will not be taken note. Finally,innovators (trend-setters) can make copying difficult by taken appropriate steps. They can erect "technology fences" that will make it harder to copy their inventions or make their innovations difficult copy by others without leaving a sign. Working these details out would, of course, be important to ensure that any loss of incentives will be minimal (if indeed they are not minimal to begin with).

## **2.10 Theoretical framework**

This study was based on the following theoretical models,John Campbell theory of job performance (1990) and John Locke's property theory (1960).John Campbell theory summarises Job performance as to evaluate on the basis of the degree to which individual productively engage in work execution. It has been extensively researched in industrial and organizational psychology. Performance at individual's level has been adjudged as key parameter for assessing organisational success. Campbell (2016) sees performance of job as an individual-level variable, or something a single person does. This separates it from performance at organizational and national level, which tends to be at higher levels. But this definition of Job performance did not conflict with argument on either side of the debate about research productivity. Austin, Humhreys and Hulin (1989)and Beret, Caldwell and Alexandra (1985) are of the view that an individual value of Job performance could change idiosyncratically and systematically from one performance period to another. But the extent to which it occurs is an empirical issue not a conceptual one.

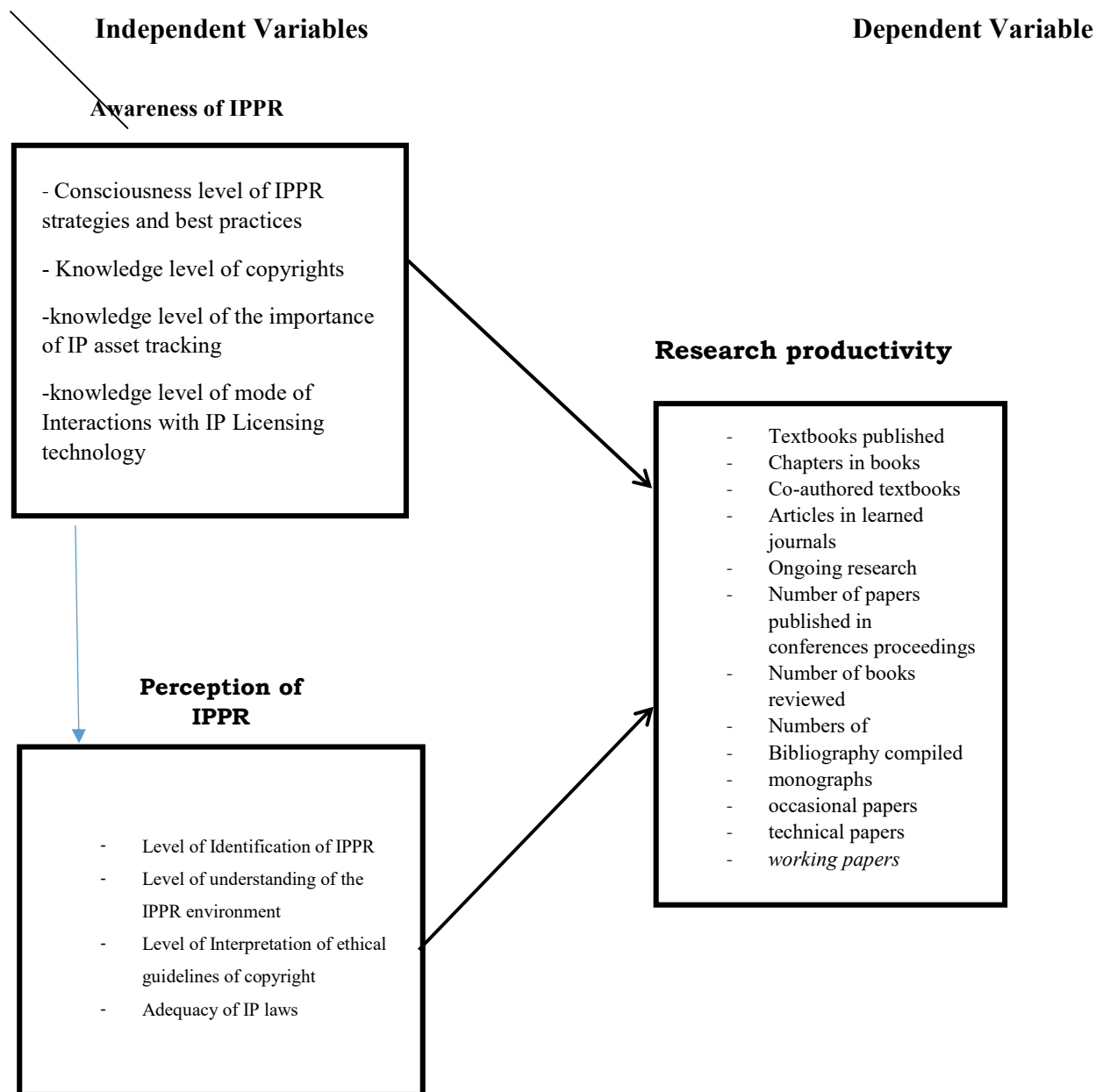
Campbell's conceptualisation of job performance can be summarised with three key features:- Outcome, Organisational goal relevance and Multidimensionality. Lance, Teachout, and Donnelly (1992) also improved on these three key features developing measures of hypothesized dimensions, collected data on these measures, and factor analyzed the data. This is the most direct (and empirical way) of assessing the dimensionality of the performance domain. Unfortunately, this empirical approach is limited by the number and type of measure included in the data collection phase. Recently Viswesvaran (1993) invoked the lexical hypothesis from personality literature (Goldberg1995) to address this limitation. The lexical hypothesis states that practically significant individual differences in personality are encoded in the language used, and

therefore, a comprehensive description of personality can be obtained by collating all the adjectives found in the dictionary. Campbell's theory sees an individual getting rewarded for his or her research productivity through way of incentives, promotion or grants.

John Locke's property theory (1660) states the insights of unilateral appropriation: the idea that there's something people can do on their own to setup rights over natural resources that others are morally obligated to respect. Locke utilizes unilateral appropriation to contend that property rights involve ethically/morally binding restriction on others to superior authority in social standing. His argument has had colossal impact ever since, and thus becoming a starting point in many discussions associated with appropriation-based reasons for property rights. Locke unilateral appropriation model has been tested to explain not only IP rights at individual person level but regional, universal, bioengineering, among others. The summary of Lockean theory is that one has the right to the fruits of its intellectual labour.

The theories have direct reference and focus with a nexus on common derivable benefits through job performance, protection and prompt of actions for measureable creative productivity either by individuals or formal organisations. The implication is that academic librarians, by their research functions, produce creative research productivity (textbooks, chapters in books, articles in learned journals, papers presented in conferences, monographs, etc.) that constitutes intellectual property. The intellectual property should be protected against any form of misuse and also used for work evaluation.

## 2.11 Conceptual model



**Figure 1:** Self-developed conceptual model showing the interactions among the variables

**Abbr.:** IP – Intellectual Property

IPPR – Intellectual Property Protection Rights

The conceptual model shows the relationship between awareness and perception of IPPR as the determinants of academic librarians' research productivity. The independent variables such as awareness and perception of IPPR have an influence on the research productivity of academic librarians which is the dependent variable. Awareness of IPPR has indicators as consciousness level of IPPR strategies and best practices, knowledge level of copyrights, knowledge level of the importance of IP asset tracking and knowledge level of mode of Interactions with IP Licensing technology could predict the level of research output on the part of academic librarians. The awareness level of the mentioned indicators could possibly determine the level of academic librarians' research productivity.

Perception of IPPR is another independent variable which could influence the level of research productivity as indicated in the conceptual model. Perception indicators such as level of identification of IPPR, level of understanding of IPPR environment, level of interpretation of ethical guidelines of copyright and adequacy of IP laws could predict the dependent measures of research productivity which include: number of articles in learned journals, ongoing research, number of papers published in conference proceedings and number of books reviewed. However, both independent variables such as awareness and perception of IPPR have a relationship because awareness mostly leads to perception which is an understanding of a particular environment or phenomenon.

## **2.12 Appraisal of literature reviewed**

It is evident from the literature reviewed that there is paucity of both conceptual and empirical studies on the subject matter under investigation. However available literature succeeded in giving an insight into the subject of investigation. It showed that apart from measuring research productivity (RP) in universities is through teaching, generally quantified as courses taught and class size. However, RP is also accessed as scholarly publications and presentations, that is, the peer-reviewed articles in recognised journals which usually serve as the main production measure in granting upward career mobility such as promotion and tenure. The quality of the research is gauged by the quantum of books and journal articles published over a period. Literature confirmed that RP is a major criterion of academic success in the competitive environment of learning. Articles, citation, funds received, teaching feedback (examination and marking) and promotion are some of the ways by which success of productivity is measured. RP is, therefore, output multiplied by input.

The review was able to establish that Intellectual Property Protection Rights (IPPRs) protect inventions, literary, artistic work and other related products emanating from human minds. IPPR comprised of patents, trademarks, industrial designs and copyrights. Statutory expressions to the moral and economic rights of creation and the rights of the public to access these creations are the major reasons for protecting intellectual property. Literature showed that copyrights, as a major aspect of IPPR, protect original materials including original compilations of previously published materials and unlicensed copying. The originality of the copyrighted material varies though it typically extends for a lifetime of the author plus 50years. The intellectual property of librarians is shaped by copyright laws. The copyright Act provides that authors may transfer their rights to publishers in order to bring their works to the market. Librarians are expected to do research and get them published and it promotes their advancement and recognition in office. Librarians should have adequate awareness and positive perception of IPPR so that they do not fall victims of plagiarism.

The literature reviewed on librarians awareness of intellectual property protection (IPR) showed that even though some librarians are aware, there is still inadequate knowledge and training concerning intellectual property protection. Copyright and access to information includes human knowledge, information and knowledge embedded goods where inputs to production involve significant amount of scientific and technical knowledge. The literature revealed that librarians' perception on intellectual property protection is influenced with the challenge of new technology in the library and information science fields.

The literature concluded with a theoretical model and a self-constructed conceptual framework. Many studies have not been carried out on librarians' awareness and perception of IPPR as correlate to research productivities in Nigerian universities. This gap is what the study intends to fill.

## CHAPTER THREE

### METHODOLOGY

#### 3.1 Introduction

The following sub-headings were discussed under this chapter: Introduction, Research design, Population of the study, Sampling technique and sample size, Data collection instrument, Validity and reliability of the instrument, Data collection procedure, and Method of data analysis. This is in agreement with Osuala (2003) conception of research methodology when he noted that anything that has to do with procedure or techniques used in a piece of research is the ultimate idea of research methodology. Probing further Osuala (2005) also observed that research is the process of arriving at dependable solutions to problems through the planned and systematic collection, analysis and interpretation of data.

#### 3.2 Research design

The descriptive survey of the correlational type was adopted. This design was considered appropriate because it shows the relationship between the independent variables and the dependent variables and none of the variables was manipulated. The qualitative and quantitative research techniques were used for data collection. So with the use of qualitative data, researchers can better explain an outcome emanating from a quantitative research, likewise quantitative data can be used to complement some shortcomings of qualitative data such as the issue of generalization (Onwuegbuzie & Johnson, 2004).

This research technique also helps to gain insight, and explore the depth and complexity inherent in a phenomenon. This form of research takes place in natural settings employing different types or combinations of research instruments such as focus group discussion, observations, in-depth interviews, and document reviews.

On the other hand, the quantitative research technique is a formal, objective, systematic process for obtaining information, the test of relationships, and examination of cause and effects on issues, factors, and relationships. However, this research utilized in-depth interviews and questionnaires to generate data for the study in order to provide insight into the issues of focus which centers on the investigate the awareness and perception of intellectual property protection rights (IPPR) as factors influencing librarians' research productivity in public universities in Southern Nigeria.



For the purpose of this study, a qualitative research method involved the use of interview research instrument for collection of primary data, as well as secondary materials. The primary data collection was derived from structured and unstructured interviews with in-depth interview who allowed for probing and thus enabled the researcher to gain better insight on the issues of focus to the study. Also, questionnaires were administered to the respondents for the study.

### **3.3 Population of the study**

The population of study is 555 librarians from 18 federal and 18state universities in Southern Nigeria, which comprises South-East (SE), South-South (SS) and South-West (SW). According to the Universities Administration's Office (2015) there are 18 federal universities with 326 librarians and 18 state universities with 229 librarians making a total of 36 universities with 555 academic librarians. Table 3.1(a&b) are presentation of the population distribution.

**Table 3.1a: Population of federal universities**

<b>Name of University</b>	<b>Acronym</b>	<b>Year founded</b>	<b>Location</b>	<b>No of librarians</b>
University of Ibadan	UI	1948	Ibadan	31
University of Nigeria	UNN	1960	Nsukka	27
Obafemi Awolowo University	OAU	1962	Ile-Ife	24
University of Lagos	UNILAG	1962	Lagos	20
University of Benin	UNIBEN	1970	Benin	26
University of Port Harcourt	UNIPORT	1975	Porthacourt	23
University of Calabar	UNICAL	1975	Cross River	14
Federal University of Technology, Owerri	FUTO	1980	Owerri	16
Federal University of Technology, Akure	FUTA	1981	Akure	16
University of Agriculture	FUNAB	1988	Abeokuta	32
University of Uyo	UNIUYO	1991	Akwa Ibom	22
Michael Okpara University of Agriculture	MOUA	1992	Umudike	15
Nnamdi Azikiwe University	NAU	1992	Awka	18
Federal University of Petroleum Resources, Effurun	FUPRE	2007	Warri	3
National Open University of Nigeria	NOUN	2002	Victoria Island	13
Federal University Otuoke	FUO		Otuoke	5
Federal University of Ndufu-Alike	FUNA	2011	Ebonyi	12
Federal University, Oye-Ekiti	FUOE	2011	Oye – Ekiti	9
Total				326

**Table 3.1b: Population of State universities**

Name of University	Acronym	Year founded	Location	No of librarians
Ambrose Alli University	AAU	1980	Edo	12
Abia State University	ABSU	1980	Uturu	14
Rivers State University of Science and Technology	RSUST	1979	Rivers	11
Delta State University	DELSU	1992	Abraka	23
Cross Rivers State University of science and Technology	CRUTECH	2004	Cross Rivers	9
Akwa Ibom State University of Technology	AKSUT	2004	Akwa Ibom	7
Niger Delta University	NDU	2000	Bayelsa	28
Tai Solarin University of Education	TSUE	2005	Ijebu-Ode	11
Adekunle Ajasin University, Akungba	AAUA	1999	Akungba	13
Anambra State University of Science and Technology	ASUSTECH	2000	Uli	12
Ebonyi State University	EBSU	2000	Abakaliki	9
Imo State University	IMSU	1992	Owerri	17
University of Technology	UNITECH	1990	Ogbomosho	12
University of Science and Technology	USTECH	2004	Calabar	13
Lagos State University	LASU	1983	Lagos	14
Olabisi Onabanjo University	OOU	1982	Ago-Iwoye	9
Ondo State University of Science and Technology	OSUTECH	2008	Okitipupa	6
Osun State University	OSSU	2006	Oshogbo	9
Total				<b>229</b>

**Sources:** 1. National University Commission, 2016. 2. Personal contacts

### **3.4 Sampling technique and sample size**

The total enumeration was adopted for this study. The purpose of using this technique is to achieve a good representation of the population size whose fraction may not be too significant for the study. This is supported by Morris, (2015) who stated that total enumeration may be preferred when dealing with a small size of the population, for a given accuracy, one needs almost the entire population in order to achieve accuracy. All the 36 university libraries and 555 academic librarians from both state and federal universities were used.

For qualitative data gathering purposive sampling techniques was used to select participants for the study. These sampling techniques were more applicable because the target population is located in uniquely defined place. Nine university librarians from federal universities and 9 university librarians from state universities were purposively selected for the in-depth interview with 9 males and 9 females for in-depth. The sample size for this study was proportionally distributed among the federal universities and state universities. A total of 18 in-depth interviews were conducted in this study.

### **3.5 Data collection instrument**

The questionnaire was used as the instrument for collecting the data to answer the research questions or testing of the hypotheses. The questionnaire was adapted from IP Awareness Assessment tool developed by the United States Patent and Trademark Office (USPTO) and National Institute of Standards and Technology/Manufacturing Extension Partnership NIST/MEP (2012).

The variables measured in the data collection tool (questionnaire) include the following: Librarian's Awareness of IPPR, Librarian's Perception of IPPR and Research Productivity. The questionnaire method was used to elicit factual information from the librarians.

The study also employed an in-depth interview to generate data: 18 participants were interviewed. This type of instrument enables the researchers to meet face to face with the respondent to interact and obtain information in a discourse on the issue under investigation in which oral questions are generated by the interviewer to elicit oral responses from the interviewees. Invariably, it is a data gathering instrument that allows a researcher to have a face to face interaction in order to obtain relevant information from participants.

### 3.5.1 Questionnaire

A four-section questionnaire titled “Librarians’ Awareness of IPPR, Librarians’ Perception of IPPR and Research Productivity (LAPRPQ)” was used to collect data from academic librarians.

**Section A: Demographic Information.** This section was designed to collect demographic information of the respondents including name of institution, age, years of experience and rank/position.

**Section B: Librarians’ Awareness of Intellectual Property Protection Rights (QLA).** Items related to librarians’ awareness of intellectual property protection rights were asked, such as consciousness of IPPR strategies and best practices, knowledge of copyrights, the importance of IP asset tracking, and knowledge of mode of interactions with IP Licensing technology. A total of 13 items were designed on a Likert type, 4-point scale of strongly agree-(4), agree-(3), disagree-(2) and strongly disagree-(1).

**Section C: Librarians’ Perception of Intellectual Property Protection Rights (QLPIPPR).** This section was made up of 8 items to elicit information on librarians’ perception of intellectual property protection rights. The responses were based on a Likert-type 4-point scale of strongly most likely-(4), likely-(3), not likely-(2) and never-(1).

**Section D: Librarians’ Research Productivity (QLRP).** This section consisted of questions on research publications and factors affecting academic librarians’ research publications within the last five years. A total of 22 items were used to elicit information on the level of research productivity. The numbers were grouped accordingly: 11 above (4), 6-10(3), 1-5(2) and none (1). Other factors were based on a 4-point scale of strongly agree (4), agree (3), disagree (2) and strongly disagree (1).

### 3.5.2 In-depth Interview (IDIs)

The in-depth interview was well established as an effective instrument for providing a clear understanding or detailed personal account of a particular phenomenon within the socio-cultural context in which human interactions occur. To help bridge the inadequacies which could have stemmed from the use of a single data collection technique, in-depth interviews was also conducted among academics librarians of both federal and state universities. In this session, in-depth interview guild was used to collected information from the participants during the field exercise to enable the researcher to study their opinions. This study considered the use of in-

depth interviews for generating data through 18 respondents based on one-to-one interviews, (representing 9 respondents from federal universities and state universities respectively). It elicited individual experiential accounts of respondents on “ Librarians’ Awareness of IPPR, Librarians’ Perception of IPPR and Research Productivity”.

Moreover, the use of in-depth interviews was considered suitable for this study, as interviews were generally oriented toward the interviewee’s knowledge, feelings, recollections and experiences. They also enabled the interviewer to reveal participants meanings and interpretations, rather than impose the researcher’s understandings (Charmaz, 2006). The participants for IDI were purposively selected in such a way that there was an equal distribution to all the universities. Similarly, the in-depth interview was conducted on one on one basis. Equal numbers of females and males both federal and state universities were selected.

### **3.6 Validity and reliability of the instrument**

The questionnaire was given to my supervisor, two librarians in the Igbinedion University and two intellectual property lecturers in Faculty of Law, Benson Idahosa University in order to ascertain its face validity and resulting in useful criticism and corrections. The questionnaire was pretested at two private university libraries in Edo State. The two universities are: Igbinedion University and Benson Idahosa University. Thirty (30) copies of the questionnaire were administered and returned. The Cronbach Alpha method was used to analyse the data collected and the reliability coefficient scale of the each of the instrument was determined; Librarians’ Awareness of IPPR reliability coefficient of 0.88, Librarians’ Perception of IPPR reliability coefficient of 0.78, Librarians’ Research Productivity reliability coefficient of 0.74.

### **3.7 Data collection procedure**

The researcher obtained a letter of introduction from the Head of the Department of Library, Archival and Information Studies (LARIS), University of Ibadan as well as the university librarians of libraries understudy to facilitate the procedure. Also, the research assistants and researcher visited these libraries for proper guidance and introduction to librarians. The purpose of the study was explained to the respondents verbally. Participants were assured of confidentiality of information to be provided, and that it will be used for research purposes. The researcher engaged the services of five (5) research assistants who were trained to assist in the administration and collection of the copies of the questionnaire.

### 3.8 Method of data analysis

Descriptive and inferential statistics were employed for the analysis of data collected. Correlation and multiple regression analyses were used because the study is a multivariate one that seeks to determine the composite and relative impact of the two independent variables on the dependent variable. Descriptive statistics such as frequency counts, percentages, mean and standard deviation were used to analyse all the research questions in the study. Pearson product moment correlation method was used to test for relationships in hypotheses as well as multiple regression analysis. All these were tested at 0.05 level of significance.

Qualitative data collected from the in-depth interview analyzed by using content analysis. The qualitative data was recorded, transcribed and the responses were sub-themed to triangulate the qualitative findings. Verbatim quotations were also used to describe the qualitative responses.

### 3.9 Ethical Consideration

Ethical consideration was done to deal with the integrity of the investigator and the protection of the target population where the study was conducted. Importantly, the participants will give their informed consent. Generally, the following ethical issues were addressed in the protocol:

- **Informed consent:** This is to make participants knowingly, voluntarily and intelligently, and in a clear and manifest way, give their consents. This seeks to incorporate the rights of autonomous individuals through self-determination. Of course individuals in this sense can make informed decisions in order to participate in research voluntarily; they are informed by the researcher on the possible risks and benefits of the research.
- **Plagiarism:** The study was subjected to turnitin software to check the percentage of originality of the study. The report of plagiarism is 16%. The report can be found at Appendix. All works used in the study were referenced in line with University of Ibadan manual style.
- **Voluntariness:** Participation in the study was completely voluntary. Nothing was done by the researcher to force people to participate in the study. Their right to discontinue from the study was guaranteed with the assurance of no punishment for refusal or withdrawal. The importance of their participation in the study was made clear, including the purpose of the research, methods, and benefits of participating. The ultimate decision to participate was left entirely to the potential participant without pressure of any kind.

- **Confidentiality of Data:** efforts were made to make the instruments anonymous. The survey instrument did not require the participant to write their names, addresses nor telephone numbers on it except for their signatures or thumb print for respondents who could not write. This process was embarked on to maintain the confidentiality of the respondents. Report from the research will present aggregate data, not in personalized and recognizable form. Publication from the research presented de-personalized data.
- **Beneficence to participants:** Respondents were informed that there were no direct and immediate benefits for participation in this study, although participation in the study would improve their understanding of intellectual property protection rights (IPPR).
- **Non-maleficence to participants:** There were no physical risks associated with participation in this study.



## **CHAPTER FOUR**

### **RESULTS AND DISCUSSION OF FINDINGS**

#### **4.1 Introduction**

This chapter presents the results from the analysis of awareness and perception of IPPR, research productivity of the respondents, the answers to research questions and test of hypotheses. The results are presented in tables and figures, and inferences were made. The statistical techniques used methods of data analysis and results obtained were described. For each hypothesis, the statistical test of significance selected and applied to the data was described, followed by a statement indicating whether the hypothesis was accepted or rejected.

#### **4.2 Distribution of respondents by university libraries**

Public universities are made up of federal and state universities. The demographic variable of the respondents showed that the respondents were divided into Federal and State university libraries.

**Table 4.1: Distribution of respondents by university libraries**

<b>Institution</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
UI	11	3.4	3.4
UNN	12	3.7	7.0
OAU	23	7.0	14.1
UNILAG	22	6.7	20.8
UNIBEN	24	7.3	28.1
UNICAL	16	4.9	33.0
FUTO	19	5.8	38.8
FUTA	4	1.2	40.1
FUNAB	24	7.3	47.4
UNIUYO	17	5.2	52.6
MOUA	12	3.7	56.3
NAU	10	3.1	59.3
NOUN	6	1.8	61.2
FUPRE	4	1.2	62.4
FUOE	6	1.8	64.2
RSUST	5	1.5	65.7
AAU	5	1.5	67.3
ABSU	8	2.4	69.7
OOU	4	1.2	70.9
LASU	7	2.1	73.1
LAUTECH	6	1.8	74.9
DELSU	8	2.4	77.4
AAUA	5	1.5	78.9
COOU	9	2.8	81.7
EBSU	4	1.2	82.9
NDU	15	4.6	87.5
AKSUT	2	.6	88.1
CRUTECH	5	1.5	89.6
USTECH	8	2.4	92.0
TASUED	4	1.2	93.3
OSSU	5	1.5	94.8
OSUTECH	4	1.2	96.0
UNIPORT	8	2.4	98.5
FUO	5	1.5	100.0
<b>Total</b>	<b>327</b>	<b>100.0</b>	

Table 4.1 shows that out of the 555 librarians in universities in Southern Nigeria, only 327(59%) completed and returned the copies of the questionnaire sent to them. The analysis of this study was based on the 327 copies of the questionnaire that were returned.

**Table 4.2: Distribution of respondents by qualifications and official status**

<b>Qualification</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative percent</b>
MLS/ M.Sc.	215	65.7	65.7
PhD	76	23.2	89.9
Any other	36	11.0	100.0
	327	100.0	
<b>Official Status</b>			
Graduate Assistant	34	10.4	10.4
Assistant Librarian	53	16.2	26.6
Librarian II	62	19.0	45.6
Librarian I	66	20.2	65.7
Senior Librarian	58	17.7	83.5
Principal Librarian	39	11.9	95.4
Deputy University Librarian	02	0.6	96.0
University Librarian	13	4.0	100.0
	327		

Table 4.2 reveals that out of the 327 respondents used for the study, 215(66.7%) have qualifications of M.Sc./ MLS, 76(23%) have PhD while 36(11%) have any other degree. It is also seen in table 4.2 that out of the 327 respondents, 34(10%) claimed to be graduate assistants, 53(16.2%) were assistant librarians, 62(19%) were librarian 11 and 66(20.2%) were librarian 1. The table also reveals that 58(17.7%) were also made up of senior librarians, while 39(11.9%) were principal librarians, and only 2(.6%) were deputy university librarians and 13(4%) were university librarians.

### **4.3 Answers to Research questions**

**Research Question 1:** What is the level of librarians' research productivity in public universities in Southern Nigeria (PUSN)?

Research productivity in the study is based on the number of librarians' publications published in PUSN.

**Table 4.5a: Level of librarians' research productivity**

S/N	Statements	None (1)	1-5 (2)	6-10 (3)	11 above (4)	$\bar{x}$	SD
1	My annual research publications	18 (5.5%)	231 (70.6%)	63 (19%)	15 (4.6%)	2.23	0.67
2	Total number of textbooks published	100 (30.60%)	162 (49.5%)	64 (19.6%)	1 (0.3%)	1.90	0.71
3	Chapters in books	69 (21.1%)	169 (51.7%)	82 (25.1%)	7 (2.1%)	2.08	0.74
4	Authored books and journal articles	37 (11.3%)	185 (56.6%)	77 (23.5%)	28 (8.6%)	2.29	0.79
5	Number of articles in learned journals	12 (3.7%)	177 (54.1)	84 (25.7%)	54 (16.5%)	2.55	0.81
6	Papers published in conference proceedings	85 (26.0%)	149 (45.6%)	82 (25.1%)	11 (3.4%)	2.06	0.80
7	Books reviewed	155 (47.4%)	130 (39.8%)	41 (12.5%)	1 (0.3%)	1.66	0.70
8	Bibliographies compiled	161 (49.2%)	126 (38.5%)	34 (10.4%)	6 (1.8%)	1.65	0.74
9	Monographs	188 (57.5%)	91 (27.8%)	47 (14.4%)	1 (0.3%)	1.57	0.74
10	Occasional papers	169 (51.7%)	117 (35.8%)	39 (11.9%)	2 (0.6%)	1.61	0.72
11	Technical papers	166 (50.8%)	138 (42.2%)	21 (6.4%)	2 (0.6%)	1.57	0.64
12	Working papers	163 (49.8%)	127 (38.8%)	37 (11.3%)	-	1.61	0.68
N=327 Grand mean = 22.8							

**Table 4.5b Test of Norm**

Scale	1-16.0 (Low)	16.1 – 32.0 (High)	32.1 – 48.0 (Very High)
Grand mean		<b>22.8</b>	

The data from Table 4.5a show the level of librarian's research productivity from public universities in Southern Nigeria with a grand mean ( $\bar{x}$  =22.8). The data also show that most librarians published in articles in learned journals with a mean value( $\bar{x}$  = 2.55; SD=0.81), which was followed by authored books and journal articles ( $\bar{x}$  =2.29; SD = 0.79), annual research publication is ( $\bar{x}$  =2.23; SD =0.67), chapters in books is ( $\bar{x}$  = 2.08; SD = 0.74), papers published in conference proceedings ( $\bar{x}$  = 2.06; SD = 0.80), Total number of textbooks ( $\bar{x}$  = 1.90; SD= 0.71). However, some of the librarians in public universities in Southern Nigeria have few publications in monographs and technical papers ( $\bar{x}$  = 1.57; SD = 0.64) as well as occasional papers ( $\bar{x}$  = 1.61; SD = 0.72) and working papers ( $\bar{x}$  =1.61; SD = 0.68) and bibliographies compiled ( $\bar{x}$  = 1.65; SD = 0.74).

To calculate the overall level of librarians' research productivity in public university in Southern Nigeria, a test of norm was conducted. This is represented in table 4.5b. A scale between 1- 16.0 = Low; 16.1- 32.0 = High and 32.1- 48.0 = Very High. The grand mean is 22.8 and this falls between the scales of 16.1 – 32.0. Therefore, it can be inferred that the level of librarians' research productivity is high.

Research productivity, is expressed by the entirety of researches conducted by librarians in universities in his or her career over a specified time frame. With reference to higher education, research productivity means impactful research output, publications as papers in professional journals, and books or presentation at conferences and consequent appearance in conference proceedings. Similar to the findings of the quantitative data are the observations from the qualitative data. It was revealed that the sole emphasis of respondents' level of librarians' research productivity in public universities in Southern Nigeria within 2014-2017 is high. Below are excerpts from the qualitative data:

As at now I have 27 publications in foreign and local articles, I have published four books and Co-published 8. I also have more than 14 papers in published in conference proceedings(**IDI /Male/Principal Librarian / UNIBEN/ 44 years, January, 2017**).

Majority of respondents have published articles more than required numbers for their status in public universities in Southern Nigeria. Another IDI respondent further stated that:

I have 16 publications in books, articles and Co-authored materials. My position as a senior required less than that, but it is zeal and interest that has taken me far.(**IDI/Male/Senior Librarian / AAU/ 40 years, January, 2017**).

This implies that academic librarians in public universities have actually published more than what they need to get promoted to the next level.

**Research Question 2:** What is the level of librarians' awareness of IPPR in universities in Southern Nigeria?

Librarians' awareness of IPPR in this study consisted of consciousness of IP and best practices, knowledge of copyright laws, knowledge of IP asset tracking and knowledge of mode of interaction between licensing office and creators. Table 4.6 presents the responses of librarians on awareness of IPPR.



**Table 4.6a: Librarians' Awareness of IPPR**

S/N	Statements	SD (1)	D (2)	A (3)	SA (4)	X	SD
1	I create original work in printed materials.	27 (8.3%)	6 (1.8%)	188 (57.5%)	108 (32.4%)	3.14	0.81
2	My publications are very unique in Librarianship profession.	-	3 (.9%)	202 (61.8%)	122 (37.3%)	3.36	0.50
3	I have procedures in place to protect my work before publishing.	17 (5.2%)	30 (9.2%)	216 (66.1%)	64 (19.6%)	3.00	0.70
4	Formalised and active licensing strategy is necessary.	31 (9.5%)	75 (22.9%)	121 (37.0%)	100 (30.6%)	2.89	0.95
5	I fully understand the benefits of a licensing strategy and structures of licence agreements.	26 (8.0%)	52 (15.9%)	158 (48.3%)	91 (27.8%)	2.96	0.87
6	Copyrights protection is established towards genuine creativity on printed materials.	-	7 (2.1%)	198 (60.6%)	122 (37.3%)	3.35	0.52
7	My publications are protected with copyright laws.	15 (4.6%)	30 (9.2%)	167 (51.1%)	115 (35%)	3.17	0.77
8	My publications are critical to fostering innovation.	-	22 (6.7%)	212 (64.8%)	93 (28.4%)	3.22	0.55
9	Referencing other literature when using them is necessary.	27 (8.3%)	27 (8.3%)	164 (50.2%)	109 (33.3%)	3.08	0.87
10	Keeping records of a calendar management system for maintaining my intellectual property against deadlines for submission or renewal is necessary.	3 (.9%)	47 (14.4%)	182 (55.7%)	95 (29.15)	3.13	0.68
11	Constant evaluation of my intellectual property assets periodically to align my associated expenses with the strategic value to my productivity is adequate.	1 (.3%)	39 (11.9%)	194 (59.3%)	93 (28.4%)	3.16	0.63
12	I maintain my copyright registration with the issuing	33 (10.1%)	49 (15.0%)	167 (51.1%)	78 (23.9%)	2.89	0.88

	intellectual property office within their required deadlines.						
13	I get updated information from IPPR through their websites, telephone calls, and colleagues.	22 (6.7%)	64 (19.6%)	149 (45.6%)	92 (28.1%)	2.95	0.86
<b>N=327</b>						<b>Grand mean 40.3</b>	

Table 4.6c Test of Norm

Scale	1- 17.3 (Low)	17.4 – 34.7 (Average)	34.8 – 52.0 (High)
Grand mean			<b>40.3</b>

The data in Table 4.6a show that most of the librarians agreed that their publications are very unique in librarianship with the highest mean ( $\bar{x} = 3.36$ ;  $SD=0.50$ ), which was followed by copyright protection is established towards genuine creativity on printed materials ( $\bar{x} = 3.35$ ;  $SD=0.52$ ). Others include, publications are critical to fostering innovation ( $\bar{x} = 3.22$ ;  $SD=0.55$ ), my publications are protected with copyright laws. ( $\bar{x}=3.17$ ;  $SD= 0.77$ ), Constant evaluation of my intellectual property assets periodically to align my associated expenses with the strategic value to my productivity is adequate. ( $\bar{x} = 3.16$ ;  $SD = 0.63$ ), Referencing other literature when using them is necessary ( $\bar{x} = 3.08$ ;  $SD = 0.87$ ), Keeping records of a calendar management system for maintaining my intellectual property against deadlines for submission or renewal is necessary ( $\bar{x} = 3.13$ ;  $SD = 0.68$ ), procedures in place to protect my work before publishing ( $\bar{x} =3.00$ ;  $SD = 0.70$ ). However, the issue of formalising and active licence strategy ( $\bar{x} = 2.89$ ;  $SD= 0.95$ ) and librarians maintaining copyrights registration with intellectual property protection rights got the lowest mean ( $\bar{x}= 2.89$ ;  $SD= 0.88$ ). This was closely followed by getting updated information from IPPR through their websites, telephone calls, and colleagues. ( $\bar{x}=2.95$ ;  $SD=0.86$ ) and understanding the benefits of a licensing strategy and structures of licence agreements ( $\bar{x} 2.96$ .  $SD = 0.87$ ). The grand mean is 40.3.

However to calculate the overall level of awareness of IPPR among librarians from public university in Southern Nigeria, a test of norm was conducted. The scale 1 – 17.3 = low, 17.4 – 34.7 = average and 34.8 – 52.0 = high. The overall grand mean is 40.3 and this falls between the scales of 34. 8 - 52.0. Therefore it can be inferred that the level of perception of IPPR is high.

The in-depth interview conducted reveals that the level of perception of IPPR among academic librarians is high. More so, academic librarians are linked to the world of intellectual property rights. Many respondents believed that IP law helps to understand the procedures in utilizing other people materials and when other people use their own materials as well. The "rules" of “fair use” can only be decided in court and the penalties involved. However, many participants may not want to involve in the lawful fight given the understanding of the fear and risk associated with laws avoidance. Whereas there have been numerous thoughts direct toward reforming the copyright scene, such include creative common licenses. According to the IDI interviewee from university of Benin who submitted thus:

My perception about IPPR is that is a body that regulates the academic productivity among within academic systems. More so, in all way, to ensure compliance, to the rules of publications. But the systems does not have good trading policies or still have long way to go in achieving this in Nigeria economy. The corruption is affecting them so well that the agencies look more on putting food on their table than doing the needful. But I strongly believe that things may change in the future and make them as what they should do, the rate of plagiarism in Nigeria is so high that most of academic librarian are scared when it comes to publishing. It is a two ways thing, you are careful to use somebody work and somebody careful to use once work. Consequently, IPPR should step up their game to ensure a publications free environment(**IDI /Male/Principal Librarian / UNIBEN/ 48 years, January, 2017**).

Contrary to previous responses from the IDI conducted, some interviewees perceived IPPR as agencies to protect academic work but they are nowhere to be found. This is confirmed by another respondent from Ambrose Ali University who stated that;

My perception about IPPR is that is very effective than their names should be even, where but I hardly hear of them unless I read about it in literature, their activities is not well known to me. I deal mostly with Copyright agencies and these agencies have a responsibility to play on making sure that my work is protected(**IDI /female/Principal Librarian / AAU/ 46 years, January, 2017**).

Another IDI respondent further stated that:

IPPR, to me the agency is trying is best, and working hard to improve the research productivity in Nigeria even among the academic librarian in public university(**IDI /Female/ Librarian I / Delta State University/ 44 years, January, 2017**).

The responses from participants showed that there was high level of awareness of IPPR among librarians in public university in the study area. This is in contrast to the general sense misgiving that librarian could stay away from publications of original work. Participants also seemed to have high level of awareness of IPPR. It was clear from the finding that there is linkage between awareness of IP protection rights and a pivotal role when one embarks on academic activities. Librarians have paid attention to the issue of IP protection rights in their research. The awareness of these rights has been considered by librarian in public universities in Nigeria. More so, it is pertinent to state that intellectual property protection rights are valued in all intellectual activities

as well as industrial, scientific, literary and artistic fieldworks. In conclusion, these responses revealed that awareness of intellectual property protection rights by librarians in universities cannot be overemphasized. And of course, adequate awareness of these laws is essential for quality and successful research publications among academic librarians. More so, IPPR brings out originality in their creative work.

Another IDI respondent further stated that:

I think IPPR is a body setup to protect the rights of publishers, they work closing with copyright agencies to ensure that author's rights are not abused or plagiarized **(IDI/ Male/DUL/ AAU/ 56 years, February, 2017)**

It was found that level of awareness of IPPR in public universities is high. The finding showed that high level of education attainment leads to high level of awareness of IPPR among librarians in public universities. In the same manner another respondent said this;

I think I am conversant with copyrights as a body meant to monitor the wrong use of publications or other printed materials. In my 22years of services I have never seen or hear anybody being caught by this agency or even the IPPR **(IDI /Male/Principal Librarian / UNIBEN/ 48 years, January, 2017)**

It was observed that some of the participants with different level of awareness of IPPR. The implication of this is that many of the librarians' level of awareness of IPPR is very high, since they are into publications for academic productivity.

This is further supported by another respondent who stressed that;

IPPR is an agency set up to monitor intellectual properties of inventors or creative people. It plays an important role in the academic system by ensuring that no one is marginalised in their creative work. In my own area, is a librarian I know that copyright is the body set up to handle issues on publications. So I can say copyright is an aspect of IPPR **(IDI/Male/Librarian I/ UNIBEN/ 34 years, January, 2017).**

Though majority of respondents, perceived that IPPR should embarked on creating more awareness on the important of copyright laws and their aims and objectives. Although the effects of IPPR are most acutely felt by the academic librarian and this also has a significant impact on the nation's economy. This indicates the impact of IPPR on economy of a nation. It is, therefore, a known fact that intellectual property protection rights are established for development of creative efforts of researchers. Academic librarians, therefore, should stand on

this existing premise by having a full knowledge and understanding of all aspects of intellectual property protection rights in order to have effective research productivity in academic institutions in Nigeria.

**Research Question 3:** What is the level of librarians' perception of IPPR in universities in Southern Nigeria?

Librarians' perception in this study also consisted of identification of IPPR within the environment, understanding of IPPR, interpretation of IPPR in the environment and adequacy of IP laws with respect to ownership of work. All these were used to measure the perception level of librarians.

**Table 4.7a: Level of librarians' perception of IPPR**

S/N	Statements	Never (1)	Not likely (2)	likely (3)	Most likely (4)	X	SD
1	I have heard announcement concerning the operations of IPPR.	8 (2.4%)	37 (11.3%)	249 (76.1%)	33 (10.1%)	2.93	0.56
2	IPPR has done sensitisation programmes in my institution.	13 (4%)	57 (17.4%)	200 (61.2%)	57 (17.4%)	2.92	0.71
3	Nigerian Copyrights Commission is the regulatory body empowered to oversee copyrights issues in Nigeria.	-	19 (5.8%)	200 (61.2%)	108 (33%)	3.27	0.56
4	Copyrights laws and practice are governed in Nigeria by the copyrights Acts 1970 and 1988.	-	14 (4.3%)	137 (41.9%)	176 (53.8%)	3.50	0.58
5	IPPR will positively affect the standard of my publications.	1 (0.3%)	17 (5.2%)	217 (66.4%)	92 (28.1%)	3.22	0.54
6	IPPR will bring about institutional development.	2 (0.6%)	21 (6.4%)	199 (60.9%)	105 (32.1%)	3.24	0.59
7	IPPR will bring about discipline and ethical standard in the research and publication industries.	2 (0.6%)	11 (3.4%)	183 (56%)	131 (40.1%)	3.35	0.57
8	Appropriate laws have been put in place to protect my intellectual property.	2 (0.6%)	33 (10.1)	246 (75.2)	46 (14.1)	3.03	0.52
<b>N=327</b>						<b>Grand mean = 25.5</b>	

**Table 4.7b: Test of Norm**

Scale	1- - 10.6(Low)	10.7 – 21.3 (Average)	21.4 – 32.0 (High)
Grand mean			<b>25.5</b>

The data in Table 4.7 show that most of the librarians stated that it is most likely that copyright laws and practice are governed in Nigeria by the Copyrights Acts 1970 and 1988 with a mean ( $\bar{x} = 3.50$ ;  $SD = 0.58$ ), which was followed by IPPR will bring about discipline and ethical standard in the research and publication industries ( $\bar{x} = 3.35$ ;  $SD = 0.59$ ). Nigerian Copyrights Commission is the regulatory body empowered to oversee copyright issues in Nigeria ( $\bar{x} = 3.27$ ;  $SD = 0.56$ ), IPPR will bring about institutional development ( $\bar{x} = 3.24$ ;  $SD = 0.59$ ), IPPR will positively affect the standard of my publications ( $\bar{x} = 3.22$ ;  $SD = 0.54$ ), Appropriate laws have been put in place to protect my intellectual property ( $\bar{x} = 3.03$ ;  $SD = 0.52$ ). However, the statement on if IPPR has done sensitisation programmes in their institutions scored the lowest mean ( $\bar{x} = 2.92$ ;  $SD = 0.71$ ), followed by librarians hearing announcement concerning the operations of IPPR ( $\bar{x} = 2.93$ ;  $SD = 0.56$ ).

Table 4.7b shows the test of norm conducted to calculate the overall level of perception of IPPR among librarians from public university in Southern Nigeria. The scale of 1 – 10.6 = low, 10.7 – 21.3 = average and 21.4 – 32.0 = high. The overall grand mean is 25.5 and this falls between the scales of 21.4 – 32.0. Therefore it can be inferred that the level of librarians' perception of IPPR is high.

Discussing the level of perception of IPPR in public universities is high. According to the respondents from University of Lagos IDI respondent, he said this:

On my own opinion, my perception of IPPR is very high and positive, because IPPR is very strong in University of Lagos, in fact, there is an IPPR center in the university community. So my opinion that IPPR is helping research productivity in public universities in Nigeria (**IDI /Female/ Principal Librarian / University of Lagos / 49 years, February, 2017**).

Another IDI respondent from University of Nigeria, Nsukka corroborates this view and said that;

My perception of IPPR is positive and above average. In fact, it has improved the quality of research productivity from my university. IPPR is also trying to protect the work of authors (**IDI /Female/ Senior Librarian / University of Nigeria, Nsukka/ 50 years, February, 2017**).

The finding revealed that the extent to which the levels of librarians' perceived IPPR in universities in Southern Nigeria. It was observed that many of academic librarians have a positive perception about the IPPR in Nigerian Universities. Academic Librarians are properly



informed and this has improved their research productivity over the time in many ways for instance, originality, protection of copyright and improved the economy. The implications of this is that academic librarian perceived IPPR is very high, also have a positive perception toward IPPR. Of course, they were also worried about the way IPPR carry out their duties at times. In conclusion, academic librarians were fear of plagiarism and stolen of their creative works.

**Research Question 4:** What is the perceived usefulness of IPPR regimes to librarians' research productivity?

To answer this research question, the data in Table 4.8 were used.

**Table 4.8: Perceived usefulness of IPPR regimes to librarians' research productivity**

S/N	Statements	SD (1)	D (2)	A (3)	SA (4)	X	SD
1	IPPR regimes will positively affect the standard of my publications.	1 (.3%)	13 (4.0%)	221 (67.6%)	92 (28.1%)	3.24	0.53
2	IPPR regimes will bring about institutional development.	2 (.6%)	13 (4.0%)	194 (59.3%)	118 (36.1%)	3.18	0.64
3	IPPR will bring incentive and means to finance projects	2 (.6%)	35 (10.7%)	193 (59.0%)	97 (29.7%)	3.28	0.57
4	IPPR regime will appropriately respect balance between the interest of stakeholders, individuals and libraries	2 (.6%)	8 (2.4%)	225 (68.8%)	92 (28.1%)	3.22	0.51
5	IPPR will bring about discipline and ethical standard in the research and publication industries	2 (.6%)	8 (2.4%)	186 (56.9%)	131 (40.1%)	3.37	0.57
<b>N=327 criterion mean (x = 2.50)</b>		<b>weighted average ( x = 3.26 )</b>					

The data in Table 4.8 show that all the items used to measure the perceived usefulness of IPPR regimes went above the criterion mean ( $\bar{x}=2.50$ ) with a weighted average mean of ( $\bar{x}=3.26$ ). Librarians are of the opinion that IPPR will bring about discipline and ethical standard in the research and publication industries with the highest mean value ( $\bar{x}=3.37$ ;  $SD=0.57$ ). This was followed by IPPR will bring incentive and means to finance projects ( $\bar{x}=3.28$ ;  $SD=0.57$ ), IPPR regimes will positively affect the standard of my publications ( $\bar{x}=3.24$ ;  $SD=0.53$ ). IPPR regime will appropriately respect balance between the interest of stakeholders, individuals and libraries ( $\bar{x}=3.22$ ;  $SD=0.51$ ), and IPPR regimes will positively influence their research productivity ( $\bar{x}=3.18$ ;  $SD=0.64$ ). All the statements were above the criterion mean of ( $\bar{x} = 2.50$ ). This implies that librarians perceived usefulness of IPPR regimes to research productivity in universities in Southern Nigeria.

Perception on intellectual property rights is an important issue for librarians and researchers. This is because research and publishing are two important factors in disseminating information in the society, so managing author understands and interpretation of intellectual property laws through copyrights is meant to reshape scholarly communication and protect original materials. Academic librarians are required to have good perception on intellectual property laws, in order to have improved research publications which turn out to be their intellectual property. Many of the participants interviewed in the in-depth said that copyrights protect original material, including original compilations of previously published materials from unlicensed copying. This was clearly reflected in the following statement by one of the academic librarian participant in in-depth interview (IDI) conducted said that:

The perceived usefulness of IPPR regimes to research productivity is to handle the protection right of authors. To me copyright it is an aspect of IPPR, while IPPR deals with patent or trademark, copyright deals with publication, record, videos etc. I think Writers should have free relationship with copyright agencies. As a researcher, I think the implications of plagiarizingsomebody work other researcher will not want their work to be plagiarizing(**IDI /Male/ Principal Librarian / University of Benin / 53 years, February, 2017**).

Another interviewee explained that:

IPPR have improved the quality of research productivity in public universities in Nigeria. Also IPPR positively affects the standard of research publication in my university (**IDI /Male/ Librarian I / LASU / 52 years, February, 2017**).

It was observed that majority of the participants perceived the usefulness of IPPR with different perception. The implication of this is that IPPR bring about institution development, bring incentives and means to finance research and development activities.

A senior librarian shed more light on this during the course of investigation. Below is a transcript of these findings:

IPPR bring sanity, discipline and ethical standard in the research and publication institutions. And also appropriate respect to the individual and libraries (**IDI /Male/ Senior Librarian / Nnamdi Azikwe University / 43 years, February, 2017**).

**Research Question 5:** What are the challenges of librarians' research productivity in universities in Southern Nigeria within the last three years (2014 – 2017)?

To answer this research question, the data in Table 4.9 were used.

**Table 4.9: Challenges of research productivity**

<b>s/n</b>	<b>Statements</b>	<b>SD</b>	<b>D</b>	<b>A</b>	<b>SA</b>	<b>X</b>	<b>Σ</b>
1	High cost of publication	2 (6%)	24 (73%)	207 (66.4%)	84 (25.7%)	3.18	0.59
2	Lack of time	11 (3.4%)	37 (11.3%)	186 (56.8%)	93 (28.4%)	3.11	0.75
3	Ignorance of copyrights laws	19 (5.8%)	95 (29.1%)	139 (42.5%)	74 (22.6%)	2.80	0.89
4	Poor administration of IPPR	19 (5.8%)	75 (22.9)	135 (41.2)	98 (30%)	2.95	0.91
5	High rate of piracy and plagiarism	20 (6.1%)	68 (20.8%)	161 (49.2%)	78 (23.9%)	2.90	0.85
<b>N=327</b>		<b>critierion mean ( x = 2.50)</b>		<b>weighted average ( x = 2.99 )</b>			

The information in Table 4.9 show that all the items used to measure the challenges of research productivity in public universities in Southern Nigeria had a weighted average mean ( $\bar{x} = 2.99$ ) which is above the criterion mean ( $\bar{x} = 2.99 > 2.50$ ). High cost of publication scored the highest ( $\bar{x} = 3.18$ ; SD = 0.59) followed by lack of time ( $\bar{x} = 3.11$ ; SD = 0.75). Librarians' ignorance of copyrights laws scored the lowest ( $\bar{x} = 2.80$ ; SD = 0.89), followed by High rate of piracy and plagiarism ( $\bar{x} = 2.90$ ; SD = 0.85) and Poor administration of IPPR ( $\bar{x} = 2.95$ ; SD = 0.91) Observations from the data in the table show that all the items in the instrument used for the study to measure the challenges are influential.

Intellectual property law has gain impressive global interest. While intellectual property (IP) has gained increased protection with advances in technology and international trade in institutions in developed countries, the developing countries' institutions are still at the throes of uncertainty regarding the attainment of the elusive template of IP protection being flaunted for development.

It, therefore, presents the challenges of librarians' research productivity in universities in Southern Nigeria. Findings from the study showed that the Majority of the librarians are faced with time constraints had a strong bearing on their research productivity. Findings from public universities in Nigeria indicated that participants, who lacked Poor data interpretation skill is another problem faced by librarians in the process of making publication, especially journal articles also explicated negative impact on them.

Majority of the participants also claimed to have poor scheduling of time to carry out research has been reported to be the most prominent challenge faced by librarians. The IDI respondent from University of Lagos confirmed the position as thus:

The Nigeria economy is affecting most of the publications that is the issue of finance. Most of foreign journals are expensive because the exchange rate is high. I pay more to publish on foreign journal and I also think the high rate of corruption in the country is not helping. Most local journals are interested in money you pay instead of the contents (**IDI /Female/ Principal Librarian / University of Lagos / 49 years, February, 2017**).

According to the findings from the qualitative data on challenges of librarians' research productivity in universities in Southern Nigeria: A principal librarian said that:

One the major challenges is lack of time, ignorance of copyright laws among academic librarian and poor administration of IPPR in university systems.(**IDI /Male/ Librarian I / AAU/ 45 years, February, 2017**).

From the above finding, it can be further stressed that majority of the respondents suggest that high cost of publication, lack of time, ignorance of copyright laws and high rate of piracy and plagiarism are factor affecting the research productivity in Nigeria public universities.

#### **4.13 Testing of Hypotheses**

The following hypotheses were tested at 0.05 alpha level of significance as presented in the subsequent tables.

##### **Hypothesis One**

There is no significant relationship between awareness of IPPR and librarians' research productivity in southern universities in Nigeria.

To test hypothesis one, Pearson product moment was used as shown in Table 4.10.

**Table 4.10: Relationship between librarians' awareness of IPPR and their research productivity in public universities in Southern Nigeria**

Variables	Mean	Std. dev.	N	r	Sig. p	Remarks
Awareness	85.52	9.38	327	0.111	0.03	Not Significant
Research productivity	37.51	6.88				

Note: \* significant at 0.05



It is observed from table 4.10 that one of the independent variables (awareness of IPPR) has a mean value of ( $\bar{x} = 85.52$ ;  $SD = 9.38$ ), while the dependent variable (RPL) has mean value ( $\bar{x} = 37.51$ ;  $SD = 6.88$ ). The relationship between librarians' awareness of IPPR and research productivity ( $r = 0.11$ ;  $Sig\ p = 0.03$ ) is not significant. Since  $p = 0.03 < 0.05$ , it is indicated that there is no relationship between librarian awareness of IPPR and their research productivity. The null hypothesis which says there is no significant relationship between librarians' awareness of IPPR and their research productivity in public universities in Southern Nigeria is accepted.

### **Hypothesis Two**

There is no significant relationship between librarians' perception of IPPR and their research productivity in private universities in Southern Nigeria.

To test hypothesis two, Pearson correlation statistics was used as shown in Table 4.11.

**Table 4.11: Relationship between librarians' perception of IPPR and their research productivity in public universities in Southern Nigeria**

Variables	Mean	Std dev	N	r	Sig. p	Remarks
Perception	86.21	6.61	327	0.161	0.00	Not Significant
Research Productivity	37.51	6.88				

Note: \* significant at 0.05

The data in Table 4.11 show that the relationship between librarians' perception of IPPR ( $\bar{x} = 86.21$ ;  $SD = 6.61$ ) and research productivity is ( $\bar{x} = 37.51$ ;  $SD = 6.88$ ) is ( $r = 0.16$ ;  $Sig p. = 0.00$ ). The data show that since  $Sig p = 0.00 < 0.05$ , it therefore means, there is no relationship between librarians' awareness of IPPR and their research productivity. The null hypothesis which says there is no significant relationship between librarians' perception of IPPR and their research productivity in public universities in Southern Nigeria is accepted.

### **Hypothesis Three**

There is no joint influence of librarians' awareness and perception of IPPR on research productivity in public universities in Nigeria.

**Table 4.12: Joint influence of awareness and perception of IPPR on research productivity**

R	R Square	Adjusted R Square		Std. Error of the Estimate		
0.121	0.015	.005		6.18780		
ANOVA						
Model	Sum of Squares	DF	Mean square	F	Sig p	Remarks
Regression	112.958	2	56.479	1.475	.023	Not Significant
Residual	7657.766	324	38.289			
Total	7770.724	326				

Note: significant at 0.05

Table 4.12 shows that the joint influence of the multiple regression analysis used to test the hypothesis 3, which is the joint effect of librarians' awareness and perception of IPPR on their research productivity was not significant in public universities in Southern Nigeria. The joint influence of awareness and perception of IPPR was not significant with  $F_{(2,324)} = 1.475$ ;  $R = 0.121$ ;  $R^2 = 0.015$  while the adjusted  $R^2 = 0.005$ . This implies that the two independent variables (awareness and perception of IPPR) contributed only 1.5 percent to the variation of librarians' research productivity. The remaining unexplained 98.5 percent could be due to other factors that were not considered in this study. These factors may include librarians' promotion, increased incentives and computer skills. Further verification using Regression ANOVA produced  $F_{(2,324)}$  ratio equals 1.475;  $P < 0.05$ , the null hypothesis is, therefore, accepted. Hence there is no joint influence of awareness and perception of IPPR on research productivity of librarians' research productivity in public universities in Southern Nigeria. The hypothesis which says there are no joint influence of librarians' awareness and perception of IPPR on research productivity in public universities in Southern Nigeria is accepted.

#### **Hypothesis Four**

There is no relative influence of librarian's awareness and perception of IPPR on research productivity in public universities in Nigeria

**Table 4.13: Relative influence of awareness and perception of IPPR on research productivity?**

Model	Unstandardised co-efficient		Standardised co-efficient	T	Sig
	B	Std. Error	B		
(Constant)	21.897	8.569		2.555	0.11
Awareness	-.009	.029	-.021	-.300	.764
Perception	.177	.103	.123	1.717	.087

The result in Table 4.13 ascertains the contribution of awareness and perception of IPPR in influencing librarians' research productivity. The independent variables investigated in the study were inputted in regression analysis. From the table, the Beta of awareness of IPPR to the prediction of research productivity was  $\beta = 0.021$ ;  $P < 0.05$ . This implies that awareness of IPPR contributed 2.1 percent to the prediction of research productivity. There is no significant influence.

The second independent variable which was perception shows that the Beta of perception of IPPR to predict research productivity was  $\beta = 0.123$   $P < 0.05$ . This also implies that perception of IPPR contributed 12.3 percent to the prediction of research productivity. There is significant influence. The hypothesis which state there is no relative influence of librarian's awareness and perception of IPPR on research productivity in public universities in Southern Nigeria is accepted.

#### **4.4 Discussion of findings**

##### **4.4.1 The level of librarians' research productivity in public universities in Southern Nigeria**

The study focused on awareness and perception of intellectual property protection rights as correlates of research productivity of librarians in public universities in Southern Nigeria. The study revealed that librarians from public universities in Southern Nigeria have average level of research productivity between the years 2014 and 2017. From the data it was discovered that librarians published most in learned journals. They have few publications in books, monographs, technical papers and working materials. This finding corresponded slightly with the study of Oduwole and Ikhizama (2007) who used survey method to ascertain research output of librarians in Nigerian agricultural research institutes. They found out that the librarians' research output, although generally low, was related to their work experience. This could be the reason why most librarians publish in referred journals in order to get promoted to the next level. Publishing in journals is quicker and sometimes easier to achieve than textbooks or other channels of publications. The finding is also in agreement with that of Ogbomo (2010) who reported that librarians most often publish in refereed and non-refereed journals in the Library and Information Science (LIS) field.

However, this finding is contrast to Babalola and Nwalo (2013) who in their study on influence of job motivation on the productivity of librarians in colleges, discovered that research has shown that the level of job satisfaction and productivity of library personnel. It is also in contrast with Okenedo's (2015) findings, where it was indicated that the publication output of librarians between 2009 and 2014 in public universities in South-West was relatively high. Librarians as information professionals are equipped to publish in all channels of publications. Research publications are channels through which librarians publish to contribute their quota to existing knowledge. These channels could be in the form of articles in referred journals, technical reports, and chapter in books, proceedings and papers in conferences and so on. Librarians should endeavour to publish in all of these channels. However, the impact factor to be considered here in respect number of publications is the citations or referencing by other researchers or knowledge seekers in their attempts to make a contribution to already existing knowledge in the field (Fullick, 2014).

#### **4.4.2: Level of librarians' awareness of IPPR in public universities in Southern Nigeria**

The findings revealed that in public universities in Southern Nigeria, librarians have high level of awareness on IPPR regimes. It was discovered from the data that librarians are conscious of IP and best practices and they also have good knowledge of copyright laws, IP asset tracking, mode of interaction between licensing office and creator. This finding agrees entirely with the studies of Omolara and Utulu (2014) on librarians' awareness of intellectual property protection rights in Nigeria, where their study revealed that there exists a high level of awareness of intellectual property protection rights among librarians in university libraries in Nigeria.

Librarians in public universities in Southern Nigeria seem to be good in the awareness of IPPR. This is not surprising because, as information professionals, they are meant to be knowledgeable of activities around them, especially when such activities are connected to their profession. Omolara and Utulu (2014) noted that the current level of librarians' awareness of intellectual property protection rights can attributed to the high rate of intellectual honesty among authors in this era of information explosion. But the finding stands in contrast to Olaka and Adkins' (2012) assertion that the level of academic librarians' awareness of intellectual property rights is insufficient. The result obtained in this study is however at variance with the findings of Nwokedi (2011) who evaluated University of Jos lecturers' knowledge of the existence of awareness of intellectual property rights and willingness to submit research works,



and found that majority (79%) of the respondents did not have any idea of awareness of intellectual property rights and only 21% of the respondents claimed to be aware of the existence of awareness of intellectual property rights their institution. This research finding agreed with those conducted by Dinev, Hu, and Goo, (2005), Dulle (2010), and Bozimo (2012) who found out some level of awareness of intellectual property protection rights and familiarity by the respondents is high.

#### **4.4.3: Level of librarians' perception of IPPR in public universities in Southern Nigeria?**

The study revealed that librarians in public universities in Southern Nigeria also possess a high level of perception of Intellectual Property Protection Rights (IPPR) activities. This finding corroborates the view of Horava (2013) who opined that librarians have a high level of perception of IPPR in university libraries in Nigeria. The results presented in this section are consistent with that of Forero-Pineda (2006) that discovered that a belief in the positive effects of increases in levels of IP protection on growth drives both formal IP and investments made in universities. Public universities would be particularly subject to the effects of this belief since they would be sufficiently developed to attract the attention of grants from international bodies but not have the resources internally, unlike the more financed universities that can resist pressures and construct alternative narratives and policies surrounding IP. This point to a direct effect of IP on domestic innovation in public universities' income. Explanation for this effect may be that while lower income universities simply do not generally have the human, financial and physical resources to support invention, upper income and richer universities likely have better means to encourage invention such as through direct financial support, investments in infrastructure, availability of public research institutes, and better resourced universities to carry on inventive activity. That is, IP may play a role in between those universities with few resources and those with a more substantial innovation ecosystem.

Interpretation of IPPR is more complex as information in electronic formats became more available. Many universities now depend entirely on electronic materials and have created a very high level of knowledge on issues on IPPR. This has created a major challenge of addressing copyright issues, especially when providing e-reserves services. Ferrullo (2004), in his study, discovered that in terms of e-reserves, there remains "no clear cut copyright policy and so many librarians are reluctant to undertake the risk of liability of having their university sued for copyright infringement". Okonedo and Popoola, (2012) discovered that the quality of research

productivity among librarians in any university setting depends largely on quality and quantity of information resources at the university disposals as well as their self-concept.

#### **4.4.4: Perceived usefulness of IPPR activities to librarians' research productivity in public universities in Southern Nigeria**

The study showed that librarians have perceived usefulness of IPPR regime to their research productivity in public universities in Southern Nigeria. It was also indicated that IPPR will bring about discipline and ethical standard in the research and publication industries. This result affirms Maskus' (1999) study, where he found out that "the Parliamentary Assembly of the Council of Europe has recommended adoption of guidelines on patents legislation which should help to develop criteria for granting patents continuously according to technological progress in favour of both the interests of the claiming party, as well as the interests of the public in regard to public order, morality and general aspects of state economy". The finding corroborates an earlier one by Famola (2013) whose finding on the impact of intellectual property protection rights (IPPR) on librarians revealed that academic librarians are encouraged to improve their research productivity when they know that they are entitled to intellectual property right.

Also, the finding agrees with that of Ogbomo (2010) who noted that intellectual property right leads to increase research productivity among librarians. According to Onyeka (2014) who opines that technological advancement in turn promotes export of new technologies and also satisfies local demand thereby resulting in overall economic development. More so, during this period there was steady improvement in the education system as there was steady rise in the level of protection of IPRs. Consequently, the level of change in the degree of IPRs protection goes together with the improvement in education. So one may suggest that there is a possibility that as the level of education improved individuals learn to accept, appreciate and respect intellectual property rights. And furthermore the increase in the investment made in education and favorable changes in government policies could all contribute to not only to understanding the value of IPRs but also aid innovation. Ogunkule, (2013) whose found that intellectual property protection rights (IPPR) on librarians enhanced research productivity in universities and is an essential step in striving to attain national goals via higher education. The development of skilled manpower and advancement in science, technology and engineering that are associated with improvement in scholarly or research productivity would not only advance the national economy but also capable of putting the country in a strategic position to compete favorably and benefit

significantly in the competitive globalized economy of the radically changing Information Communication and Technology Age (Kpolovie and Lale, 2017).

#### **4.4.5: Challenges militating against librarians' research productivity within the last three years in public universities in Southern Nigeria**

High cost of publication, lack of time to publish, ignorance of copyrights law, poor administration of IPPR and high rate of piracy and plagiarism are some of the challenges encountered by librarians in the course of publishing their research work. This finding is in agreement with Moahi (2007) who noted that the reasons why librarians always publish in learned journals is as a result of the fact that journal articles are easy, less time-consuming and cheaper to publish compared to textbooks and monographs. The finding also agrees with Okenedo's (2015) findings that challenges to librarians' publications efforts, among others, are time constraints, poor interpretation skills, exorbitant publication fees by journal outfits and indiscriminate rejection of manuscripts by journals.

It was also revealed in the study that majority of the librarians have master's degree in Library Science as against PhD holders. The implication of this finding is that master's degree holders still continue to dominate the practice of librarianship in the southern universities for some time to come. This confirms Umar's (2016) study that revealed "academic librarians with PhD and M.Phil were ostensibly few" and also Salam and Onifade's (2009) postulation that most librarians are still MLS holders and incentives such as study leave, financial assistance and so on should be granted to librarians to enable them facilitate the acquisition of PhD. The assertion of Salam and Onifade on encouraging librarians to attain PhD may be right, because if librarians have academic status, just like their teaching counterparts, they need also to be encouraged to attain PhD degrees. This will boost their academic performance and improve their research productivity.

Agboola (2000) also agreed to the attainment of higher degrees by librarians. He observed in his study that "higher qualifications are vital to capacity building and skills development". The higher the qualification, the more the skills and exposure that one requires and when this is combined with interest, intellect and experience of the individual, the success could be high research productivity. It is also noteworthy that majority of the librarians are Librarian 1 cadre 66(20.2%) followed by Librarian 11 cadre 62(19%). This may be as a result of the fact that PhD is now made compulsory for the promotion of librarians to the senior positions.

The research is also in agreement with that of Suber (2003) and Goodman (2005) who connected open access with intellectual freedom issues such as privacy, copyright, censorship. Goodman (2005) further stressed that managing intellectual property rights through alternative publishing agreements is another issue that developing countries are confronted with. For instance, in 2008, the International Institute of Tropical Agriculture (IITA) in Nigeria developed an institutional repository, but the repository could not go public due to some copyright issues. Copyright in research works conducted by the researchers at the Institute was signed away to the commercial journal publishers for the publication. Curiously, the Institute lost the right to make public research works it has funded and now had to negotiate the right from the journal publishers (Christian, 2011).

#### **4.5 Discussion of the hypotheses and the implications**

##### **4.5.1: Significant relationship between librarians' awareness of IPPR and their research productivity in public universities in Southern Nigeria**

The result from the first hypothesis tested revealed that there is no significant relationship between librarians' awareness of IPPR and their research productivity in public universities in Southern Nigeria. The finding further revealed that no significant relationship exists between librarians' awareness of IPPR and their research productivity in university libraries in southern Nigeria. This finding agrees the findings of Naylor (2010) whose study of the research output of librarians in South East Nigeria revealed that librarians' knowledge/awareness of copyright laws/intellectual property protection rights does not affect their research productivity as many librarians engage in research either to gain promotion in their institutions or to help solve a problem in the library. Obuh and Bozimo (2012) the result from the analysis to responses from the respondents showed that most of the respondents, who were LIS lecturer in southern Nigerian indicated a high degree of awareness of open access publications. Even though the result shows fairly high level of awareness on open access publications by lecturers of LIS in southern Nigeria, it is clear that, their awareness hinged mainly on the nature and types of open access and not on open access initiatives. The finding of this work is in agreement with that of Madu and Dike (2012) which stated that research output of academic staff in the North Geopolitical Zone has relationship which they said was positive and fairly strong. In the same vein, the result of this finding also supported the study carried out by Okiki and Mabawonku

(2013) which stated that there is a relationship between the librarians' awareness of IPPR and research productivity of academic staff of Federal Universities in Nigeria.

#### **4.5.2: Significant relationship between librarians' perception of IPPR and their research productivity in public universities in Southern Nigeria**

From the research second hypothesis tested, it was revealed that there is no significant relationship between librarians' perception of IPPR and their research productivity in university libraries in southern Nigeria. This shows that librarians' views, opinion and understanding of IPPR have no significant influence on their research productivity. This finding contradicts with the findings of Mbagwu and Nwachukwu (2010) who examined the relationship between librarians' perception of IPPR and their research productivity. Their study also revealed that librarians' perception of IPPR has a significant influence on their research productivity.

Ogbomo and Ivwighreghweta (2010) observed that there are several ways through which researchers who claimed to know about open access publication got the information. Okiki, (2011) discovered that research productivity has become essential for public university success and academic's employment and promotion prospects for academic staff including librarians. his finding is in agreement with Okonedo and Popoola, (2012) reported that research productivity of librarians in public universities in Nigeria, research productivity of librarians in Nigeria rest largely upon the quality, and often the quantity of research in form of books, journal articles, technical reports, etc. indeed this is true for librarians in the academic libraries because their promotion is tied to publishing and research. According to Kennedy and Brancolini (2012) librarians in an academic setting are integrally involved with providing research services to faculty, students, and staff of higher education institutions (Okonedo and Popoola, 2012).

#### **4.5.3: Joint influence of librarians' awareness and perception of IPPR on research productivity in public universities in Southern Nigeria**

The study revealed in the third hypothesis that the joint influence of the independent variables to the dependent variable was not significant. The analysis of the responses from the respondents revealed that librarians' research productivity was not influenced by their awareness and perception. The finding is in agreement with the findings from the study that was conducted by Odinga (2011) which revealed that librarians' awareness of intellectual property rights and their perception of IPPR do not have a joint influence on their research productivity. The finding from this study does not conform to the findings from the study conducted by Chaudhary (2012)

which revealed that librarians who are aware and have a good understanding of IPPR tend to be more research productive than those who do not have a good knowledge and perception of IPPR.

#### **4.5.4: Relative influence of librarians' awareness and perception of IPPR on research productivity in public universities in Southern Nigeria**

The findings from the fourth hypothesis also revealed that, awareness and perception of IPPR had no relative influence on research productivity in universities in Southern Nigeria. This finding agrees with the findings of Naylor (2010) whose study of research output of librarians in South East Nigeria revealed that librarians' knowledge/awareness of copyright laws and intellectual property protection right does not affect their research productivity as many librarians engage in research either to gain promotion in their institutions or to help solve a library problem. This finding is in contrast with the findings from the study that was carried out by Mbagwu and Nwachukwu (2010) which examined the relationship between librarians' awareness, perception of IPPR and their research output. Their study also found out that librarians' views, beliefs and understanding of IPPR influence their research productivity/output.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Summary

Research Productivity of Librarians (RPL), which is a major criterion for assessment of librarians in public universities in Nigeria, is facing serious criticism among other categories of academics. There are doubts on the actual intellectuality of the librarians owing to the quality of their research outputs which is alleged of not being subjected to intellectual property protection right (IPPR) test. Previous studies focused largely on trademarks and patent rights, with little attention on awareness and perception of IPPR among Librarians. The main objective of this study was to investigate the awareness and perception of intellectual property protection rights (IPPR) as correlates of research productivity (RP) of librarians in public universities in Southern Nigeria.

The specific objectives were to:

- examine the level of librarians' RP in public universities in Southern Nigeria within 2014-2017;
- determine the level of librarians' awareness of IPPR in public universities in Southern Nigeria;
- ascertain the level of librarians' perception of IPPR in public universities in Southern Nigeria;
- ascertain the perceived contributions of IPPR activities to librarians' research productivity in public universities in Southern Nigeria;
- examine the challenges militating against librarians' RP within 2014-2017 in public universities in Southern Nigeria;
- find out the relationship between librarians' awareness of IPPR and RP in public universities in Southern Nigeria;
- determine the relationship between librarians' perception of IPPR and RP in public universities in Southern Nigeria;
- find out the joint influence of awareness and perception of IPPR on librarians' RP in public universities in Southern Nigeria; and

- examine the relative influence of awareness and perception of IPPR on librarians' RP in public universities in Southern Nigeria.

The mixed method of research techniques was adopted for data collection by this study. This design was considered appropriate because it shows the relationship between the independent variables and the dependent variables and none of the variables was manipulated. By this, it means that the qualitative and quantitative research techniques were used for data collection. The major findings of this study are summarily presented below:

The level of research productivity of librarians in public universities in Southern Nigeria within the year 2014 and 2017 is moderate. Librarians in public universities in Southern Nigeria have high level of awareness of Intellectual Property Protection Rights. Librarians possess a high level of perception of Intellectual Property Protection Rights in public universities in Southern Nigeria. High cost of publication, lack of time to publish, Ignorance of copyrights laws, Poor administration of IPPR and high rate of piracy and plagiarism are some of the challenges of research productivity of librarians in the public university in Southern Nigeria.

There is no positive relationship between librarians' awareness of Intellectual Property Protection Rights and research productivity in public universities in Southern Nigeria. There is no joint influence of librarians' awareness and perception of IPPR on research productivity in public universities in Southern Nigeria. There is no relative effect of librarians' awareness and perception of IPPR on research productivity in public universities in Southern Nigeria.

## **5.2 Conclusion**

The study established that librarians' awareness and perception of intellectual property protection rights affected research productivity in public universities in Southern Nigeria. Librarians publish mainly for their promotion and other positive incentives. Their research productivity will improve and develop positively if adequate time and information on Intellectual Property Protection Rights are provided and properly utilised.

Finally, the study concluded that, in order to increase research productivity in public universities, proper administration of IPPR, reduced rate of piracy and plagiarism towards research activities, allocated time for research productivity in the public universities, sensitization of copyright laws, cooperation of the research teams, sustainability support and provision of research information and authorization for external research play a greater role in enhancing research productivity of librarians in public universities in Southern Nigeria. Once these factors are properly taken care



of, the awareness and perception levels will change positively towards improving research productivity of librarians Nigeria.

### **5.3 Recommendations**

Based on the findings of the study, the following recommendations are hereby made to improve the research productivity of librarians in libraries in Nigeria.

- Efforts should be geared towards organising campaigns and advocacy on intellectual property protection rights initiatives by inculcating understanding and awareness of the initiatives, techniques, technologies and benefits both at national and institutional levels among librarians. Universities should make provision for workshops, seminars and conferences on matters concerning intellectual property protection rights for librarians. This will improve and develop the awareness and perception level of intellectual property protection rights among librarians
- Librarians should not only attend these workshops but also be encouraged to write and present papers. This will broaden their understanding and perception of intellectual property.
- The Nigerian Copyrights Commission (NCC) and Nigerian Library Association (Academic library section) should work together in developing a policy on curbing and eradicating piracy in universities in Nigeria.
- Nigerian Library Association (NLA) and Librarians' Registration Council of Nigeria (LRCN), as the major professional bodies for librarians in Nigeria, should be involved in any further national debates on copyrights and should be consulted when the laws on copyrights are being discussed or revised.
- There should be an Intellectual Property Protection Rights office in all Institutions with a functional copyright commission section that can check against plagiarism to improve the quality of research productivity in Nigerian universities.

### **5.4 Implications of the study**

The study revealed that there is a high level of research productivity among librarians in university libraries in Southern Nigeria. The level of awareness and perception of intellectual property protection rights is high with significant relationship between their research productivity. This implies that most librarians publish without taking into consideration IPPR. Concerted efforts should be made in addressing the issues of moderate research productivity by

Institutions and librarians in Nigerian universities. The universities management should provide an enabling environment to improve and develop research productivity. Librarians should take advantage of staff development programmes in their various institutions in order to attain PhD degrees.

Since awareness and perception of intellectual property protection rights was not significantly related to research productivity in academic libraries in Southern Nigeria, the implication is that librarians must deliberately liaise with the office of the intellectual property protection rights before publishing to improve the quality of their research work. Librarians must understand that their publications are their intellectual property and, as such, they must be protected against any form of misuse. They must take full advantage of the activities of intellectual property protection rights.

The study also revealed that lack of time influences research productivity of librarians. The implication is that, adequate time should be given to librarians to conduct research and get it published. Unlike their teaching counterparts who are strictly into teaching and research, librarians are meant to perform some administrative or professional duties alongside with research. This sometimes slows them down in producing quality research within a given period.

### **5.5 Contributions of the study to knowledge**

The review of literature showed that there is paucity of empirical study on librarians' awareness and perception of intellectual property protection rights as factors influencing research productivity in Nigeria. As a result, this study has added the following to knowledge:

- Awareness and perception of intellectual Property Protection Rights does not jointly predict the level of research productivity of librarians in university libraries in Southern Nigeria.
- Librarians will gain more enlightenment on IPPR, thereby improving their research productivity knowing that there are laws protecting their intellectual work, which should be well protected against any form of misuse by other researchers.
- Librarians' high level of awareness and perception on IPPR as factors influencing research productivity will bring about institutional knowledge to management of universities and research institutions that, apart from using librarians' research productivity for promotion and elevation to the next position, much can also be done in the area of intellectual protection. Management will start regarding librarians'

research productivity as intellectual products that could harness financial resources to the institution if well protected and managed.

- Stake holders in education such as policy makers, lecturers, researchers, publishers will understand that awareness and perception of IPPR could bring about ethical standards and compliance in scholarly and research work. It will reduce the high level of copyright infringement in Nigeria's academic environment. A successfully managed intellectual property can bring about economic, cultural and financial development in the society.

### **5.6 Suggestions for further study**

The following have been suggested for further studies:

- Librarians' awareness and perception of intellectual property protection rights as factors affecting research productivity in universities in Northern Nigeria.
- Comparative study of awareness and perception of copyrights laws as factors affecting research productivity of librarians in private universities in Nigeria.
- Librarians' awareness and perception of intellectual property protection rights as factors affecting research productivity in polytechnics in Nigeria.
- Librarians' awareness and perception of intellectual property protection rights as factors affecting research productivity in private universities in Nigeria.

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**APPENDIX 1**  
**QUESTIONNAIRE SURVEY**

Dear Respondent,

This questionnaire is designed to elicit information for a Ph.D. research on intellectual property protection rights and research productivity of librarians.

All information provided will be treated with utmost confidentiality and the anonymity of the respondent will be guaranteed.

Thank you.

Charles E. Eruanga  
Department of Library, Archival and Information Studies  
University of Ibadan

**Section A: Demographic Variables (QDL)**

- Name of Institution:  
.....
- Type of Institution: Federal(  ) State(  )
- Sex: male(  ) female(  )
- Age: 18-25(  ) 26-35(  ) 36-45(  ) 46-55(  ) 56 and above(  )
- Marital status: married(  ) single(  ) divorced(  )
- Qualification: M.Sc./MLIS (  ) PhD (  ) any other.....
- Official status: Graduate Assistant (  ), Assistant Librarian(  ), Librarian 11(  ), Senior Librarian(  ), Principal Librarian(  ) Deputy University Librarian (  ) University Librarian(  )
- Years of experience: 1-5yrs(  ) 6-10yrs(  ) 11-15yrs(  ) 16-20yrs(  ) 21-25yrs(  ) 26yrs and above(  )
- Date and grade of 1<sup>st</sup> appointment.....
- Date and grade of last promotion.....
- Date of confirmation of appointment.....

## Section B: Librarian Awareness of IPPR (QLA)

Statements presented below are to assess the level of awareness of IPPR by librarians. The statements of awareness are graded as Strongly Agree (SA)-4, Agree (A) - 3, Disagree (D)-2, Strongly Disagree (SD) - 1. Please complete all items

s/n	Awareness of IPPR Statements (Consciousness of IP strategies and best practices)	SA (4)	A (3)	D (2)	SD (1)
1	IPPR is established towards genuine creativity on printed materials				
2	IPPR protects publications against any form of misuse by researchers				
3	I have procedures in place to access my publications against plagiarism before publishing				
4	IPPR organises frequent workshops and seminars for librarians				
5	Formalised and active licensing strategy is necessary.				
6	I fully understand the roles of licensing strategy and structures of license agreement between writers and publishers				
	<b>Knowledge of copyrights laws</b>				
7	I create original work in printed materials.				
8	Copyright protection arises upon the creation of an original work or authorship.				
9	Licensing my intellectual property has been successfully done.				
10	I consult and reference other literatures when writing my publication.				
	<b>Knowledge of IP asset tracking.</b>				
11	Keeping records of a calendar management system for maintaining my intellectual property against deadlines for submission or renewal is necessary.				
12	Constant evaluation of my intellectual property assets periodically to align my associated expenses with the strategic value to my productivity is adequate.				
	<b>Knowledge of mode of interaction between licensing office and creators.</b>				
13	I get updated information from IPPR through their websites, telephone calls, colleagues				

### Section C: Librarian's Perception of IPPR (QLP)

Rate the following items on 4 points based on your opinion of the following Most Likely (ML)- 4, Likely (L) - 3, Not Likely (NL)-2, Never (N) - 1

	<b>Perception of IPPR statements (Identification of IPPR within the environment)</b>	<b>ML (4)</b>	<b>L (3)</b>	<b>NL (2)</b>	<b>N (1)</b>
1	IPPR is well known to me				
2	IPPR has a branch in my institution.				
3	IPPR is well equipped to handle copyright issues within my organization				
	<b>Understanding of IPPR</b>				
4.	I fully understand the importance of a licensing strategy and structures of license agreement				
5	The Nigerian Copyrights Commission is an arm of IPPR				
	Interpretation				
6	Appropriate laws of IPPR has been put in place to protect my IP				
7	IPPR offices are meant to monitor and prevent IP theft in academics				
8	IPPR will about discipline in Scholarly writing				
9	<b>Adequacy of IP laws with respect to ownership of work.</b>				
10	Enforcement of IP laws will bring about institutional developments				
11	More enlightenment and sensitisation need to be done to improve the status of IPPR offices in institutions.				

### Section D: Research productivity

Below are questions set out to determine your number of publications and academic activities on the job within the last three years (2013 - 2015). This ratio is on a 4-point scale. Please tick on the space provided that best express your answer 11 and above (4), 6 to 10 (3), 1 to 5 (2), none (1).

s/n	Research productivity	11 and above	6 to 10	1 to 5	None
1.	My annual research publications are				
2	Total number of textbooks published				
3	Chapters in books				
4	Authored books and journal articles				
5	Number of articles in learned journals				
6	Papers published in conferences proceedings				
7	Books reviewed				
8	Bibliographies compiled				
9	Monographs				
10	Occasional paper				
11	Technical paper				
12	Working paper				

Perceived usefulness of IPPR activities in the environment

S/N	Statements	SA (4)	A (3)	D (2)	SD (1)
13	IPPR regimes will positively affect the standard of my publications.				
14	IPPR regimes will bring about institutional development				
15	IPPR will bring incentive and means to finance projects				
16	IPPR regime will appropriately respect balance between the interest of stake holders, individuals and libraries				
17	IPPR will bring about discipline and ethical standard in the research and publication industries				

The following have affected my research productivity in the last three years

		<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
		<b>(4)</b>	<b>(3)</b>	<b>(2)</b>	<b>(1)</b>
18	High cost of publication				
19	Lack of time				
20	Ignorance of copyrights laws				
21	Poor administration of IPPR				
22	High rate of piracy and plagiarism				



**APPENDIX II**  
**IN-DEPTH INTERVIEW GUIDE**

**Socio economic demographic characteristics**

**S/NO characteristics**

- Age
- Sex
- Educational Qualification
- Position/ Rank
- Year of experience

**Questions**

- What is the level of librarians' research productivity in public universities in Southern Nigeria within the last three years? Numbers of your publication 2014-2017.
- What is the level of librarians' awareness of IPPR in public universities in Southern Nigeria?
- What is the level of librarians' perception of IPPR in public universities in Southern Nigeria?
- What are the contributions of IPPR activities to librarians' research productivity in public universities in Southern Nigeria?
- What are the challenges militating against librarians' research productivity within the last three years in public universities in Southern Nigeria?