CHALLENGES OF IMPLEMENTING INTELLECTUAL PROPERTY PROTECTION FOR ENTREPRENEURIAL INNOVATIONS AMONG SELECTED AGENCIES IN KENYA

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION, FACULTY OF BUSINESS AND MANAGEMENT SCIENCES, UNIVERSITY OF NAIROBI

DECLARATION

This research project is my original work and has not been presented for award of a degree in any other university.

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The research project has been submitted for examination with my approval as the university supervisor.

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DEDICATION

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ABBREVIATIONS AND ACRONYMS

ACA	Anti- Counterfeit Agency				
CIPIT	Centre for Intellectual Property & Information Technology				
СМО	Collective Management Organization				
IP	Intellectual Property				
IPPR	Intellectual Protection Protection Rights				
IPR	Intellectual Property Rights				
KARI	Kenya Agricultural Research Institute				
КЕСОВО	Kenya Copyright Board				
KEFRI	Kenya Forest Research Institute				
KEMRI	Kenya Medical Research Institute				
KEPHIS	Kenya Plant Health Inspectorate Service				
KIE	Kenya Industrial Estate				
KIPI	Kenya Industrial Property Institute				
KIRDI	Kenya Integrated Research & Development Institute				
KRA	Kenya Revenue Authority				
MCSK	Music Copyright society of Kenya				
OECD	Organisation for Economic Cooperation and Development				
PRISK	Performers Rights Society of Kenya				
R & D	Research and Development				
WIPO	World Intellectual Property Organization				

ABSTRACT

The world economy is in turmoil with great disruptions from the norm. This requires a drastic change in promoting rule of law reforms that foster entrepreneurship and business development for sustainable social-economic growth and prosperity. It is in this view that the research was undertaken with the key objective to interrogate and establish the challenges and counter measures of implementing Intellectual Property Protection (IPP) for entrepreneurial innovations in Kenya. Studies have been undertaken concentrating on the IPP components and management practices with focus on individual organizations in developed countries and not on the challenges. A multi-case research is undertaken by use of interview guides for primary data collection among the following IPP agencies in Kenya; Kenya Industrial Property Institute (KIPI), Kenya Copyright Board (KECOBO) and Performers Rights Society (PRISK). Content analysis was used to analyse the research findings which identified and categorised the challenges as administrative or institutional, referring to lack of specialized personnel, lack of country-wide accessibility/presence with minimum offices and general infrastructure. Lack of finances to facilitate officers' logistics in knowledge dissemination is a great challenge. Legal challenges also exist prominently due to lack of a specialized judicial system and legal infrastructure to enhance IPP enforcement. Above all is the scanty knowledge by the rights holders as well as users with our education system not promoting a sustainable knowledge dissemination among generations. This has been coupled with changes that have been magnified by internet and world wide web. However, KIPI, KECOBO & PRISK have a proposal to undertake a multi-agency approach with each complementing the other on areas of competencies to cost efficiently and effectively manage IPP. A rigorous digitization process is being undertaken by all the 3 agencies to enable a sustainable accurate and accessibility of IP knowledge fostering generational dissemination. Legal system reforms are underway to create specialized courts and judicial system. Strategic partnerships with different public and private institutions is one of the ways these 3 agencies are using to create a link between business and academics in sharing research findings. Conclusively the IPP agencies in Kenya lack capacity to discharge their mandates. This is evident from the research findings. The agencies cannot match the implementation standards of other World Intellectual Property (WIPO) member states to compete effectively for space in the world economy. The government of Kenya, IPP Practitioners and IPP rights owners will use the the research findings to form pragmatic policies and further refine the IPP framework. This will enhance clear mandates to these agencies. The realisation of extant bottlenecks in the implementation will facilitate review of extant policies on innovation and intellectual property protection. The IP industry is big, the research having been undertaken in three agencies is not a wholesome representation of the industry, thus a call for further all-inclusive longitudinal research to be conducted.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

In today's global economic front, Intellectual Property (IP) is a vital ingredient of commerce/economic growth by transformation of the knowledge-based economy that is stimulating other sectors. Developing economies heavily depend on the rate of innovation, invention and creativity (Reichman, 2009). The intellectual assets have become significant in enhancing brand value and facilitating general growth (Thomson, 2009). Intangible nature of IP make them prone to theft and malpractices hence the need for protection by Governments and Non-Governmental Agencies. Implementing Intellectual Property Protection (IPP) for entrepreneurial innovations faces many obstacles which include illiteracy on the Intellectual Property (IP), relevance in everyday business and the associated acquisition and sustainability costs. Rapid technological/ internet advancement has also magnified the challenges. IP systems are perceived as too complex and time-consuming (Sajilan, 2013; Gee, 2014). Counterfeiting and Piracy are large forms of IP infringements. These affect firms' revenues, leads to increased unemployment and to reduced creativity, innovation and investment (Holyoak & Torremans, 2008). Hence the need to protect IP.

This research is anchored on the Diffusion of Innovation Theory (Roger, 1995), Dynamic Capabilities Theory (Teece *et al.*, 1997) and Institutional Theory (North, 1990). Diffusion of Innovation Theory (Rogers, 1995) stipulates; innovation adoption is the uncertainty reduction process through dissemination and integration of a product/service through a social system. Dynamic capabilities theory explains the internal capacity of a company to be creative and innovative (Helfat, 2007). Companies with internal capabilities can easily

renew their competencies to match the changing business environment hence sustainable competitive advantage. Contemporary institutional theory examines systems starting from micro-interpersonal interactions up to macro-global procedures. It is about the stability and change of institutions (Sahay *et al.*, 2010). The theory has mostly been concerned with stability, and the social pressures that work upon the institutions (Jandhyala, 2015). It postulates that organizations face a lot of pressure both internally and externally from government and other institutions to be legitimized in performance (Zucker, 1990). By using concepts from institutional theory, we can better understand the dynamics of IP implementation and the inherent challenges (Sahay *et al.*, 2010).

Kenya as a country has in place the laws, policies and structured institutions charged with the resposibility of ensuring IPP. The Kenya's constitution has embodied laws/ACTs. We have constituted many institutions to serve different elements of IPP. The agencies involved in IPP include but not limited to Kenya Industrial Property Institute (KIPI), Kenya Plant Health Inspectorate Service (KEPHIS), Kenya Agricultural Research Institute (KARI), Kenya Medical Research Institute (KEMRI), Kenya Forest Research Institute (KEFRI), Anti- Counterfeit Agency (ACA), Kenya Copyright Board (KECOBO), Kenya Industrial Estate (KIE), Kenya Revenue Authority (KRA), Centre for disease control, Centre for Intellectual property & Information Technology (CIPIT), Kenya Integrated Research & Development Institute (KIRDI), Music Copyright society of Kenya (MCSK), Performers Rights Society of Kenya (PRISK), Licensing Boards, Ministry of Education, Ministry of Industrialization, Competition Authority of Kenya, National Council of Science & Technology, Kenya Association of Manufacturers (KAM), Kenya Bureau of Standards (KBS) and Consumer Rights Association. The selected agencies for this study are chosen being the major institutions that deal with the IP instruments that directly impact on the entrepreneurial innovation. These agencies face greater levels of infringements directly linked to entrepreneurial innovations despite their existence. There are many litigation issues relating to pseudo goods or product imitations, piracy and outbursts on non-receipt of royalties by IP owners.

1.1.1 Intellectual Property Protection

World Intellectual Property Organization (2015) defines IP as creation of the mind/intellectual commitment including inventive works, symbols, artistic/literary pieces of work, names and images that are used for marketing. It also includes Traditional Knowledge (TK) that refers to the knowledge, know-how, skills and practises that are developed, perpetuated and passed on from generation to another within a community often forming part of its cultural or spiritual identity. Computer software or programs, animal breeds and plant varieties also fit as IP. (*KECOBO-https://www.copyright.go.ke/8-program/4-cmo.html -retrieved August 7th , 2019*).

Intellectual Property Rights (IPRs) are legal rights; their objective is to cover the owner of an innovative work and to give them absolute rights over the inventions/ developed ideas (Singh, 2004). Governments offer creators the rights to prevent others from using their inventions, designs and creations. The innovators use these rights to negotiate payment in return for others using them. The owners of IP can therefore enjoy monopoly profits providing them financial incentive. IPP instruments differ depending on their subject matter, degree, scope of protection as well as field of application. It reflects the society's objective to balance the interests of inventors and end users of various types of intellectual creations (Henry & Stiglitz, 2010). Intellectual property can either be commercial property that includes trademarks in form of brand names and product logos which help consumers to differentiate products of one enterprise from another. Patents give exclusive rights granted for an invention, while geographical indication is a sign used on goods that have a specific geographical origin or possess qualities, a reputation or characteristics that are essentially attributed to that place of origin. Industrial designs give ornamental or aesthetic aspect of an article. Copyrights include literary pieces like poetry, musical works, films, plays as well as poems. Artistic works that includes artistic-paintings, sculptures, drawings, photographical representations, books, architectural masterpieces and designs fall under copyright form of IP. Copyright also includes the rights of peforming artists, producers of phonograms and broadcasting organisations. Intellectual Property Rights (IPRs) thus absolutely give exclusive rights on creators and inventors of literary work (WIPO, 2015). IPR allocates owners a balance of private interests and ensure that they still maintain the audacity, motivation, and zeal to invent, according to the needs of the society and the required expertise at their disposal for its use (Singh, 2004).

Although, once it is shared, does not deteriorate, the objective of IPR is thus to protect those who provide knowledge. IPR ensures that they do not cede rights to that knowledge. By making public their innovation, the information could infinitely be consumed by many people concurrently while IP owner gets a return. The philosophy behind IPRs mandate is to ensure that the information is readily accessible with the assumption that when denied such a right it would demoralize knowledge inventors from making it accessible due to fear of loss of such innovations (WIPO, 2015).

1.1.2 Entrepreneurial Innovations

Entrepreneurial innovation is derived from two concepts of innovation and entrepreneurship (Szabo, 2012). It is the process of developing and transferring new/or improved products and services to industry or market for appropriation (Baumol, 2010). Furthermore, it is the core of knowledge creation, intelligent growth, diffusion and absorption of knowledge within the community (Romano, 2014).

Innovation studies have indicated that there is a connection between innovation and entrepreneurial efforts geared towards commercializing the products of Research and Development (Organisaton for Economic Co-operation and Development report, 2012). An entrepreneur is an innovator who introduces innovative commodities and services to the market. Entrepreneurship is therefore a creative activity that can lead to creative destruction. He is an actor in the innovation process through market push and pull, which can lead to creative destruction (Schumpeter, 1934). Incentive to innovate by domestic firms increases with robust IP rights (Chen, 2005). New or improved innovation that meets client expectations frequently offers an innovator new business in a specific market territory devoid of competition (WIPO, 2009).

Intellectual property protection promotes division of labour and specialization amongst different qualified entrepreneurs by sharpening skills on specific technology area (Autio & Acs, 2010). According to Schumpeter (2000), innovations and creativity are the key elements in field an entrepreneur chooses to specialize in and knowledge can be an impetus in helping them to become successful in their fields. Innovation and knowledge are the main catalysts of successful entrepreneurship. Kenya does not recognize IP as a collateral against borrowing (Daniels, 2010). The owners of IP equally do not recognise it as an asset

that can be used against borrowing in financial institutions (Siringi, 2011). IP law does not provide for the creation of charges on IPP or registration of an interest in the register apart from an assignment or license. This is a deficiency in its law. These challenges have remained as an obstacle to the implementation process of IPP for entrepreneurial innovations (Terpstra *et.al.*, 2012).

1.1.3 Intellectual Property Protection Agencies in Kenya

IPP agencies deal with copyrights, trademarks, patents or any other IP law concepts (Sell, Prakash, 2004). In Kenya, there are many institutions involved in IPP. These agencies include KIPI, KEPHIS, KARI, KEMRI, KEFRI, ACA, KECOBO, KIE, KRA, CIPIT, KIRDI, MCSK, PRISK, Licensing Boards, Ministry of Education, Ministry of Industrialization, Competition Authority of Kenya, judiciary, National Council of Science & Technology, KAM, KBS and Consumer Rights Association. (https://www.copyright.go.ke/8-program/4-cmo.html -retrieved August 7th ,2019).

1.2 Research Problem

Intellectual Property Protection (IPP) offers financial and moral incentive to the creators. IP owners benefit fully from their investments. This encourages more R & D investment, production of new products, processes, procedures and services. It promotes revenue streams for firms through sales, commercialization and licensing, further innovation, employment opportunities and general economic and social growth. However, Knowledge/idea indivisibility allows usage of the same by several people without depletion. The fact that knowledge protection can cause monopoly and thus exploitation by some entrepreneurs to earn super profits at equilibrium discourages competition and promotes mediocracy. Over and above these demerits, IPP promotion enhances innovation and creativity.

Kitching & Blackburn (2003) in their study of Innovation, IP and informality for small enterprises, found out that informal IPR system is preferred to a formal legal framework leading to high innovativeness as most firms regard acquisition of formal rights as a waste of resources. This is evident from registration costs incurred before public usage of IP.

It is evident that there exists two opposite camps in the contemporary debate for and against a strong IPR regime in any country. One proposes a strong regime of IPRs for economic development, while the other camp argues that weak IPRs protection, or even the absence of IPRs, is a way that allows rapid diffusion of knowledge and the building up of local capabilities as there will be no limitations to usage of IP.

Supporters of strong IPRs argue that improvements in IPRs protection will not only be beneficial for developed countries, but also for developing ones. (Park, 2012; Ivus, 2010) observed that developed world institutions found sufficient incentives to invest in R&D and innovation. On the other hand, they may be in favor of licensing the knowledge and collaborating with companies in the developing countries on common projects. Developing countries will benefit from greater inflows of technology transfer (Filippetti, Archibugi, 2015; Awokuse, Yin, 2010).

Critics of IPRs protection, on the contrary, have claimed that strengthening IPRs protection can lead to increased prices that distort consumer choice and reduce welfare. They have argued that a strong IPRs regime can reduce technology transfer by limiting the extent of imitation, which makes it difficult to narrow the developed verses the developing countries technological gap (Filippetti et al., 2015; Falvey, Foster, 2006; Chen; Puttitanun, 2005). When developing countries harmonize their IP standards to match those of developed countries, they will assume short-term costs caused by rent transfers and administration and enforcement outlays, taking scarce resources away from other crucial sectors (Dutfield, Suthersanen, 2005).

In Kenya for IPR system to be implemented, policy and legal frameworks are necessary. Establishment of the infrastructure for laws and policies implementation which includes trained personnel and financial resources are necessary (Autio & Acs, 2010). There exists shortage of expertise and lack of credible information on research and policy appraisal in IPRs that deals with commerce. The limited policy analysis levels and off-take, low level of institutional and organizational capacity, non-dissemination of research results findings and established research connections in intellectual property rights form major challenge. This study was motivated by this fact to establish the challenges involved in the IPR system implementation.

A cross-sectional descriptive research by Ngari & Kagiri (2013) on structural capital and business performance of firms in Kenya, found out that IP rights positively and significantly affect the performance of selected firms which concur with Mark & Robert (2014) who used the decriptive research design to undertake a study on patenting and technological change. They concluded that knowledge management practices positively influence performance of firms. A survey study by (Muthiani & Wanjau, 2012) on factors influencing influx of counterfeit medicines in Kenya found out that the increased number of fake products is due to poor legislation and brand popularity.

The studies equally did not address the main concern of IPP and the challenges involved in the implementation process. They focused on one organization and on specific form of IPP. The aforementioned studies therefore confirm the existence of gaps hence the need for this research. In view of the previous studies, conceptual gaps exist in that the cited studies did not dwell on the IPP implementation challenges for entrepreneurial innovations but rather on management and practices. Muthiani & Wanjau (2012) study is on sole IP item relating to influx of counterfeit medicines. Mark & Robert (2014) study focussed on patenting and technological changes while (Ngari & Kagiri, 2013) studied the structural capital and business performance identifying IPR as a major resource for business growth. (Williams, 2015) researched on IPR and innovation in health care market. All the aforementioned studies however did not consider a critical check on the challenges faced while implementing the specific IPR being studied hence the quest for this research to have a multicase scenario in identifying the challenges faced by the IPR enforcement agencies.

Methodological gaps have also to be addressed owing to the fact the previous studies were surveys that used the descriptive, longitudinal and case study research designs which have limitations affecting the data accuracy, costs and data reliability. Ngari & Kagiri (2013) employed a crossectional descriptive research design. (Mark & Robert, 2014) used descriptive research design while (Muthiani & Wanjau, 2012) employed survey as their method of research. This study employed the multi-case cross-sectional design used while other studies dealt with one component on IPP on a specific organization over a time period. This research design will address the issues of data reliability, accuracy and comparability for a particular point in time.

Many studies have been done in most developed countries with recommendations to be replicated in other member countries of World Intellectual Property Organization (WIPO) or African Regional Intellectual Property Organization (ARIPO) confirming a contextual gap. Sichelman (2016) undertaking a research on IP and technology start-ups in the USA found out that IP was used in various ways creating different effects across technology sectors and other companies' specific characteristics. Case study was done by (Wangwe, 2004) on institutional capacity in IP policy, admnistration and enforcement in Uganda. This study focused on selected implementing agencies domiciled in Kenya; a developing country while previous studies refer to other countries. Their research findings cannot be practically applied in the Kenya. This study was geared towards addressing these gaps. What are the challenges faced in implementing IPP for entrepreneurial innovations in Kenya?

1.3 Research Objectives

The objectives of the study were:

- i. To establish the challenges of implementing intellectual property protection for entrepreneurial innovations among selected agencies in Kenya.
- ii. To determine the measures of addressing the challenges of implementing intellectual property protection for entrepreneurial innovations among selected agencies in Kenya.

1.4 Value of the Study

The study offers significant contribution to the existing theory, policy and practice. The concept of IPP will add value to the main arguments on the resource-based theory and hence increase the existing knowledge on the key resources of a company. The study will add insights to the strategic management argument/ create debate regarding the key drivers relating to competitive advantage.

Policy makers will benefit on management findings of this research to formulate universally applicable innovation performance strategies. The government of Kenya will use the findings of the research to form pragmatic policies and further refine the IPP framework enhancing clear mandates to these agencies. The government and relevant agencies will be able to realise the extant bottlenecks in the implementation which will facilitate review of policies on such innovation/intellectual property protection.

The study will also benefit practicing staff and management of the pharmaceutical industry in Kenya and the relevant government institutions. It will shed light on the practice and administration of IP policy by the government as embraced by the business industry in Kenya. This will also in the long run encourage business firms to protect their IPP and therefore yield high innovation performance in Kenya. Organizations will then factor-in IP as a major component of firm asset.

The study findings will be disseminated through workshops and seminars. This will also be done through journal publications and print publications. Classroom teaching in the universities and other middle level colleges will also benefit from information gathered and findings for further research. This will establish the optimal linkage of researchers, industry and other stakeholders.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

This chapter presents the theoretical foundation on theories guiding the study, empirical review of the literature on challenges of implementing intellectual property protection for entrepreneurial innovations, summary of empirical studies and knowledge gaps.

2.2. Theoretical Foundation

The theoretical foundations give the basis and the fabric that holds/support a theory of a research in a study. It introduces and gives the descriptive orientations of the theory that explains why, where and how the research problem exists (Boston, 2013). The theories formulated attempts to explain, predict and connect the relationships between phenomena in order to understand it. In most cases, if theories remain unchallenged by existing or new knowledge then they remain to stand as long as the challenge does not exist. The study is be guided by diffusion of innovation (Rogers, 1995) theory, dynamic capabilities theory (Augier & Teece, 1997) and institutional theory of organizations (North, 1990) discussed in the subsequent sections.

2.2.1. Diffusion of Innovation Theory

Diffusion of Innovation theory (DIT) propagated by (Rogers, 1995) is defined as the process by which an innovation is passed by use of channels of communication among members of a social system. The theory postulates that there will be an increased rate of diffusion and the choice to adopt an innovation if it is perceived to have a competitive advantage. The compatibility with needs, values, and experiences in existence of users is also considered. The innovations hould not be unnecessarily complicated. It has to be testable, and offer visibly and positive results (Rogers, 2003). Reduction of uncertainty about the new technology, prompts individuals to gather and break down information about the technology before accepting it.

According to Rogers (1995) the key components that affect the uptake of any innovation are; comparative advantage, triability, complexity, compatibility with others and observability. The process is heavily dependent on man power. The innovation must be progressively and popularly adopted in order to be self- sustainable. The hierarchy of adopters are: innovators, early majority, early adopters, late majority, and the laggards.

According to (Boston, 2013) the stages by which an individual assimilates an innovation, and whereby assimilation is accomplished are; awareness of the need that requires for an innovation, decision made based on the outcome to adopt or reject the innovation, initial use of the innovation to test its viability, and continued use of the innovation.

2.2.2. Dynamic Capabilities Theory

Theory of Dynamic Capabilities (Augier & Teece, 1997) which is grounded in the Resource Based Theory (Wernelfelt, 1984) argues that capabilities are a firm's capacity as well as abilities to re-allocate resources, usually in combination using firm's operations, procedures and demand. Utilization of internal capabilities enables a company to compete effectively despite the turbulence in the business environment (Barney, 2001).

It is an Innovative-based competition. The competitive advantage is anchored on the creative utilization of the available resources and their processing to create viable operational outcomes (Schumpeter, 1934 ; Mwangi & Gathungu, 2012). Continuous development of expertise and innovativeness in organizations requires managers to have entrepreneurial rather than managerial

skills to actualize ideas relevant to the dynamic capability perspective (Lockett 2005; Augier & Teece, 2007). DCT lays emphasis on the role of strategic management in integrating, adapting, and re-structuring internal firm's expertise, resources and functional based competences to keep up with the ever dynamic economic environment.

2.2.3. Institutional Theory

Institutional theory developed by (North, 1990) examined commitment and role of institutions in the change process. He examines law as an hindrance in the transformation in institutions. He discovered that for an economy to grow, a reliable system of property rights for individuals to have their efforts channeled in activities that would offer returns closer to the social rate of return is necessary. He further explains that to move forward institutions use adaptive efficiency where rules shape change overtime with players seeking to gain knowledge and innovative expertise to develop solutions to problems.

According to (DiMaggio & Powell, 1988), institutional theory approach provides an insightful guideline for the analysis of organization to environment relationships. Emphasis are put on the societal rules, anticipations, norms, beliefs, and values as the sources that exert pressure on organizations. Legitimacy rather than efficiency or effectiveness is considered the major organizational goal (Doug & Scott, 2004). Agencies that operate in various countries with diverse institutional capacity arrangements encounter varied pressures. Such pressures in host and parent country institutional environments sometimes are proved to provide absolute influences on competitive strategy (Porter, 1990). This theory anchors on three main theoretical dispositions; historical, sociological and the political institutions. Hence, it will be used for this study to determine how different vectors will affect the operational reliability and efficiency of the implementation of IP.

2.3. Challenges of Implementing Intellectual Property Protection for Entrepreneurial Innovations

A number of relevant studies both global and local have been done though they have not addressed the specific area of IPP and entrepreneurial innovation. Sichelman (2016) undertaking a research on IP and technology start-ups in the USA found out that IP was used in various ways creating different effects across technology sectors and other companies' specific characteristics. Williams (2015) research on IPR and innovation in health care market also found out that IPP had a quantitively corresponding impact on scientific research and commercial development. Shanker & Davies (2018) on their article- support intellectual property rights argue that IPP promotes monopoly distorting economic incentives and damaging free market functioning. They alluded that there is no clear evidence that IPP will lead to higher creativity and innovation- as in some cases it reduces innovation.

Gee (2013) & Sajilan (2014) stated that low literacy levels on the importance of IP in business operations, exorbitant associated prices of acquisition and enforcement of IP rights, the notion that the IP system is complex and is both resource and time consuming include some of the challenges facing various agencies that deal with IPP (WIPO Magazine, 2015). Inadequate knowledge on the inputs and outputs of the IP system, low information availability about its relevance to strategic commercial outcomes and its market competitiveness constitute great challenge on IPP implementation. Idris (2013) stated that the costs of getting IPP may be perceived by many firms as exceeding the potential benefits to be obtained from protection; particularly considering the fact that major the costs which are incurred even before the product reaches its consumers with many credit-offering institutions, investors or government programs not having a provision for financial support for IPP.

Time consuming is another challenge for both application and legal redress if any. According to WIPO Magazine (2015), its confirmed existence of backlog due to increased number of applications that led to an increased delay for obtaining a patent thus creating uncertainty resulting to a possibility of revenue loss from not get potential contacts with partners and consumers for an invention.

Wangwe (2004) did a case study on institutional capacity in IP policy, admnistration and enforcement in Uganda and established that lack of coordination between key partners as well as dependency on donor legal framework affected IPP. Ombija (2011) in a case study on Kenya's specialised IPRs regime observed that if IPP was not adequately enforced as it depreciates in value thus the need for a good legal framework. Macharia (2013) undertook a comparative research on challenges of copyright enforcement in the digital era recommeding the amendments on Kenya's Copyright Act and international need to avoid copyright infringement via internet.

Low awareness of the system is a challenge while limited exposure organizations have to the IP system remains their inability to use the complete package offered by the IP system efficiently and completely. Saleh (2014) found out that lack of IP management expertise within organization reduces their capacity to fully optimize the benefits of IP system. This negates its future use. Complications on system usage and operationalization are due to inefficient IP management due to lack of skills. Thirdly, high costs relating to acquisition, maintenance, monitoring and enforcement are an increased impediment, especially for the firms that are operate in a wider market regions spatially.

2.4. Measures to Mitigate the Challenges

Intellectual property protection could provide more international economic activities and spur innovation. However, such benefits depend on the conditions present. (Maskus & Penubarti, 2015) states that the most crucial factor that determines the success of IPP is the competitive level of the economy or industry. The benefits from IPP are greater while costs of misappropriation are lower in economies that are competitive. Therefore, it is necessary that emanating economies liberalize their markets to the highest level possible to increase their protective abilities. These economies can open their markets for international trade and investment, by lowering barriers against enterprises.

It is also necessary for domestic deregulations to make businesses more competitive. There is a need to remove barriers for new market entrants. Research shows that economies that have liberalized their markets and allow foreign direct investment easily have higher growth from strong IPP. This can be realized through a sound well structured IPP sytem with infrastucture, skilled personnel, specialized legal system and above all IP knowledge dissemination.

Gound & Gruben (2016) examined the relationship between economic growth and the level of IPP. They found that there was no strong direct relationship of patents and economic growth, but there was significant positive impact when there was a market that was open to trade. Thet found out that in economies with openness to trade, patents increased growth by 0.66 percent. This implied that market liberalization and strong IPP raise economic growth. The effect is because open economies have more competition, higher competitive foreign direct investment, and the requirement to obtain superior knowledge to improve product quality. Companies in open economies are highly likely to undergo the costs of effective innovation transfer and use to domestic situations.

(Liu, W.-H. & Y.-C. Lin, 2015) states that IPP may result in increased/decreased market power. Therefore, it is important for emerging economies to regulate their use from anticompetitive misuse. IPP is limited to allow the transfer, dissemination, and competition in the market. Right holders may negatively utilize their IPRs to forestall competition. Countries have to determine the ways in which enterprises can abuse such rights. For instance, monopoly pricing may be abused if the market is not competitive. Abuses may also involve strategic enterprise decisions such as selling activities and licensing limitations.

Multi agency approach to implementation and enforcement would be prefferred with different agencies complementing each other with their respective areas of competence. This will drive a well established simplified, cost effective, efficient automated IPR system which conforms to international agreements in all sectors of the economy with both human, technical and financial resources.

Sustainable literacy levels can be increased through introduction of effective IP trainings and awareness campaigns in educational institutions and all informal meetings with accessible information to all. A well stated legal/judicial structure and working redress institutions should be available to enhance enforcement. Kenya requires an effective judicial framework to deal with infringemments, specialized courts and well funded national and international IP administrative offices and digital IP management system.

2.5. Summary of Literature Review and Knowledge Gaps

Various studies have been done but did not address the main concern of IPP and the challenges involved in the implementation process. The studies also focused on one organization and on a specific form of IPP. The aforementioned studies in this chapter therefore confirm the existence of gaps hence the need to undertake this research. These gaps include the following; First, conceptual gap in that the cited studies do not dwell on the IPP implementation challenges for entrepreneurial innovations but rather on management and practices. Muthiani & Wanjau (2012) study is on sole IP item relating to influx of counterfeit medicines. Mark & Robert (2014) study focussed on patenting and technological changes while Ngari & Kagiri (2013) studied the structural capital and business performance identifying IPR as a major resource for business growth. Williams (2015) did a research on IPR and innovation in health care market. The studies have limited themselves to intellectual property and the challenges involved in the implementation process ignoring the aspect of innovation.

Methodological gaps exist as this study is a multi-case cross-sectional design used while other studies dealt with one component on IPP on a specific organization over a time period. Ngari & Kagiri (2013) employed a crossectional descriptive research design. Mark & Robert (2014) used descriptive research design while Muthiani & Wanjau (2012) employed survey as their method of research. The previous studies did not take a comparitive approach for the different IPP institutions to enable them get convergence or divergency of IPP issues which will be offered by this study.

Thirdly, the contextual gaps exist as my study will focus on selected implementing agencies domiciled in Kenya. Sichelman (2016) undertaking a research on intellectual property and technology start-ups in the USA found out that IP was used in various ways creating different effects across technology sectors and other companies' specific characteristics. Wangwe (2004) did a case study on institutional capacity in IP policy, admnistration and enforcement of Uganda. The studies refer to other countries and thus their findings cannot be applied in the Kenyan state. The current study aimed at filling this gap.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

This chapter presents the research design to be applied to conduct the study on challenges of implementing intellectual property protection for entrepreneurial innovations among selected agencies in Kenya. It also presents the data collection procedure and methods of data analysis. Research adds in to the existing body of knowledge by making original contributions in advancing theories or concepts.

3.2. Research Design

The research adopted multi-case design on a limited but representative number of units that possess the required information. Data was collected at one-time period. (Yin, 2003) described multiple-case design as the process of conducting several case studies or experiments. The aim is to access, at one point, a representation of the population of interest. According to (Miles & Huberman, 1994 ; Gay, Mills *et al.*, 2009), multi-case study which is employed by researcher is a critical strategy employed within an industry to engage variety, comparativeness and several parties inclusion in a research.

This design helps the researcher to develop a more comprehensive understanding of the challenges of IPP implementation compared to a single case, generalizability. This design was selected because data was collected from a cross section of organizations at one point in time. The philosophical stance upon which this study is founded is the qualitative methodology.

The study aimed at constructing the reality on the ground as gathered from the respondents. The was objective based so as to minimize errors due to biasness or error that may come as a result the researchers's subjectivity. The design provides an in-depth understanding of the challenges of implementing IPP in Kenya. It was also strengthend by the findings by comparing and contrasting the findings from diverse organizations. Convergence and divergence of the different case findings of the study promoted theoretical reflection on the findings. The information gathered from multiple-case research is more powerful and compelling, (Muteithia, 2017). This proposition is a very useful tool to obtain deep understanding of how organizations come to terms with complex strategic decision making and implementation (Ulaga & Sharma, 2001).

3.3. Data Collection

According to (Creswell, 2004) data collection refers to the acquisition of both primary and secondary information required for the study. The primary data was collected by the use of interview guide administered by the researcher during the interview with departmental heads of the selected agencies. These was by use of open ended questions which elicitated elaborate responses and gave the researcher an opportunity for a two way communication.

It made the respondents give further explanations for their answers which helped the researcher to get more sensitive information from the respondents. Responses were recorded for further analysis. Audio and video recording instruments were also used with the approval of the respondents to reinforce data collection and to minimize errors due to mis resporting and biasness. Though time consuming and expensive, the researcher was able to capture correct data and get insightful content in to answering the research questions. The secondary data comprised of data from national government, instutional reports and indices.

The researcher selected KECOBO, PRISK and KIPI for the purpose of this study as they directly advance entrepreneurial innovations in Kenya. These agencies have been chosen because they have been created under the Kenya's Constitution, Acts of parliament or Gazette Notices. These agencies impact on entrepreneurial innovations that face implementation challenges.

Kenya Industrial Property Institute (KIPI), which is a Government parastatal under the Ministry of Trade and Industrialization was established on 2nd May 2002 upon the promulgation of the Industrial Property Act 2001 (Njengo, 2014). The Institute was formerly known as Kenya Industrial Property Office (KIPO), which was created in the month of February 1990 after enactment of the Industrial Property Act, CAP 509 of the Laws of Kenya. KIPI implements two Acts of Parliament which gives the framework for the protection of IPRs, namely; the Industrial Property Act, 2001 and the Trade Marks Act, Cap 506 of the Laws of Kenya. KIPI's main function include: administration of IPRs; promoting inventiveness and innovativeness in Kenya, provision of technological expertise to the public and trainings on IP (Wekundah, 2012).

The Kenya Copyright Board (KECOBO) is a State Corporation under the Attorney General's office and the Department of Justice draws membership from both private & public sectors. It was established by Section 3 of the Copyright Act 200. It is mandated to administer and enforce copyright and other related laws of rights. The board maintains an effective computerized data on authors and their works. Organization of legislation, training programmes, public awareness on copyright and related rights, licensing and supervision of collective management organizations(CMO) are the responsibility of KECOBO.

Performers Rights Society of Kenya (PRISK) is a CMO licensced by KECOBO under Gazette notice 12322 to represent/licence works of performers in musical and dramatic works. It is a non-profit institution mandated to collect on behalf and distribute royalties due to performers from public performance, broadcasting and public communication (Ndambuki, 2009). Many artists face non-receipt of these royalties due to misappropriation/non-collection.

3.4. Data Analysis

Data collected was analysed by use of content analysis procedure. Content analysis conforms to three basic principles which are; objectivity, systematic and generalizable in that the findings by the researcher can be applied to other similar situations with confidence (Franzosi, 2004, ; Cooper & Schindler 2003). Content analysis provides a replicable methodology to access deep individual or collective structures such as values, intentions, attitudes, and cognitions (Carley, 1997; Huff, 1990; Kabanoff, 1996). As such, content analysis is applicable to a wider range of institutional phenomena.

Data validity and reliability is fostered on proper use of content analysis thus the data becomes replicable (database (Lissack, 1998; Woodrum, 1984). Content analysis provides a replicable methodology to access deep individual or collective structures such as values, intentions, attitudes, and cognitions (Carley, 1997; Huff, 1990; Kabanoff, 1996).

The researcher is also able do interrogate deeper meaning of the texts from data collected to make a deduction. The data collected was edited for completeness and organized along key themes and sub themes of the study and then presented in prose form. Secondary data obtained from the various documents were also analyzed in a similar manner and the findings presented along the study themes.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the research findings of the study on the challenges of implementing Intellectual Property protection for entrepreneurial innovations in Kenya among selected agencies which are KIPI, KECOBO & PRISK. The findings for each case are analyzed independently among the two main objectives of the study; to establish the challenges of implementing Intellectual Property protection for entrepreneurial innovations and determinationation of the measures of addressing the challenges by the selected agencies in Kenya. Thereafter, a comparative analysis of the cases and discussion of the findings in relation to theoretical and emprical studies will be done.

The researcher interviewed staff who have been with the organization for a period exceeding three years majorly the heads of department in Legal, enforcement and admnistration departments. The secondary data was obtained by reviewing government documents, organizational reports and indices relating to the study.

4.2 Challenges Of Implementing Intellectual Property Protection

The study desired to establish the challenges of implementing IPP. This was done through the review of responses from the interviewees and secondary data of organizational reports.According to secondary data analysed from different documentary sources, it was found out that; Kenya has been improving for the last three years on the global innovation index- although it is minimal as presented in Table 4.1

Year	GII	Innovation	Innovation
		Inputs	Outputs
2019	77	89	64
2018	78	91	64
2017	80	91	70

 Table 4.1 Kenya Ranking on Global Innovation Index

Source; Global innovation index ranking 2019

Table 4.1 shows that although there is a slight improvement on innovative global index ranking, the input-output variance still remains high. This thus confirms the challenges that our institution are facing and therefore cannot compete effectively with other countries of the world. On World intellectual rights indicators Asian Countries like China and India have maintained their primacy on patent application and USA is equally up there with European Countries such as Germany, Rusia and UK, showing growth. This canot compare with African countires that are lagging behind. On Trademarks and Industrial design the trade is almost similar with the aforementioned countries maintaining the top spot. This therfore confirms the challenges facing our institutions as well as their capacity to implemnt IP laws.

4.2.1 Kenya Industrial Property Institute

The research findings indicate the KIPI's organizational challenges in their quest of IPP implementation inlcude; lack of awareness.

'Many right owners do not know of our existence! People do not know what can be protected, how and why. Right owners cannot distinguish the different rights hence they do not know where to raise complaints incase of infringement and legal process thereof. This is a great challenge for us!. Most who come to KIPI do not have an understanding of the whole process of IPR and what can be protected and why some ideas cannot be registered as innovations!'.

Legal officer, KIPI

'Most people lack sufficient knowledge and as such do not attempt to register or protect their IP'.

Legal officer, KIPI

'You notice that this subject has been ignored so much in the school curriculum, its only heard at university level as a sub-topic but a full degree on the same is not offered in many universities'.

Legal officer, KIPI

'For traditional knowledge, other than having the traditional fests of different communities you may not know much! This has resulted to over exploitation commercially by some rogue people who end up registering the same as their IP without the knowledge of the community members;.

Legal officer, KIPI

It is perceived as a costly venture to undertake registration process. KIPI offices are only situated in Nairobi. This implies that all cases have to be referred to Nairobi. This makes the right holders think that the process is long and expensive. This has resulted to difficulties in admnistration owing to the fact that they have few staff as well.

'KIPI offices are situated only in Nairobi therefore serving the whole country, this poses a great challenge as for any legal disputes, all parties must travel to Nairobi. There is a need for more staff in comparison with the demand for the services. Our partners at the Anti-Counterfeit Agency have established regional offices even in some counties and we hope to leverage on the expected strategic partnership bodies that enable the common mwanaichi get services at these offices'.

Legal officer, KIPI.

Digital transformation has shaken the IP sector. Internet has made information accessible anytime and anywhere accross the globe. KIPI does not have laws in place to handle online transactions and IP infringement with no territorial boundaries for IP implementation and enforcement.

'Internet is here with us! Everything seems easy to get. Right holders have a great challenge especially when they find their goods or services being sold online from unlicensed sources not within the territorial jurisdiction. This is an ongoing discussion among members of WIPO to get the best IPP mode'.

Legal officer, KIPI.

Inadequate financing has made it hard for KIPI to undertake their major mandate in training and creating awareness of IPP.

'Our resources are limited to the filing fees! We keep on trying to get different institutions to include us during their functions to get an audience and create awareness on IP related issues from time to time'.

'Having a resource filled office would have made a great difference! We would move region by region accross the country but this is not enough! IP issues are evolving and we have to keep up to speed in informing thhe public but we do not get enough support in terms of finances and even human capital to get most people informed!'.

Legal officer, KIPI.

The challenge of lack of awarenes as KIPI has a very low capacity to discharge it's capacity throughout the republic of Kenya and therefore the right owners do not become aware when there rights are breached and even where to turn to in case of such breached rights. Lack of capacity is indeed a big challenge because were it possible, KIPI should have established atleast an office in each of the 47 County Headquaters for effective and effecient service delivery. They have limited finacial resources and staff are few this is seriously affecting activies of KIPI.

4.2.2 Kenya Copyright Board

From the research findings its evident that KECOBO decry the fact that lack of knowledge by right owners is a major challenge. Ignorance has made the right owners fail to report infringement cases thus lose as they can not recoup return on investment.

'There is a widespread ignorance and lack of regard to IP unlike the physical or tangible property.

Lack of knowledge of even the legal recourse that a right holder has incases of copyright infringement is a great challenge! Many people do not know that IP lawyers exist and that they could approach us to get assistance!'

Legal officer, KECOBO.

'Many organisations do not recognise IP as an asset! This is majorly because the country does not have an established valuation system that accountants can use in reporting this intangible asset! They may rely on a trademark or service mark for marketing but ask them how they quantify this on their books of account, you will be shocked! Different firms do it differently and thus even financial institutions have resoyreted not to use it as collateral for credit facilities'.

Their offices are centralized in Nairobi with some regional offices with minimal staff and thus right holders all over the country are expected to get services after enduring long journeys to Nairobi.

'We have recently tried to establish country wide presence-we used to have our offices in Nairobi only. To boost our presence- we developed an online portal for registration process but this has not been embraced fully and most right holders still prefer travelling all the way to Nairobi -ou headquarter offices to get our services'.

Legal officer KECOBO.

'We have very few inspectors who are required to serve accross the country with very minimal facilitation in terms of fincances or even transport means to travel all over!'.

Enforcement officer, KECOBO

KECOBO also confirms that they have inadequate resources both financially and human capital to help in enforcement of IPP having no enforcers/police assistance. Staff also sited the fact that their efforts are not realized fast owing to the fact that ther are no specialized courts to deal with IP related disputes.

'Operationally, Kenya does not have specialised courts to handle IP related disputes. This results to delayed justice for right holders as their disputes have to go through the normal courts and their proceedings! It would be quite good to have timely resolution of disputes for entreprenuers to remain relevant during those times!'. Legal officer-KECOBO. KECOBO manages all the CMOs. It has however been realized through right holders public outcry that there is a great management crisis of collection and distribution of royalties.

'This has resulted to the suspension of renewal of PRISK, MCSK and KAMP for the year 2020 until the CMOs comply with the amendment of the copyright act recommendations'.

Enforcement officer, KECOBO.

4.2.3 PRISK/KAMP

PRISK handles the rights of musicians and actors while KAMP represent the rights of producers of sound recordings. The major challenges they jointly face include non-compliance by rights users thus not paying fees for royalties. The IP holders are ignorant of the rights that accrue to them and do not understand the benefits they are entitled to as highlited by this respondents;

'Collection of royalties and their management is areal challenge! Institutions and individuals alike do not pay and thus by end of year we are unable to pay royalties are even accrued utility bills and allowances to our officers!'

Admnistration Manager-PRISK

'Repealing Section 30 'A' which was fundamental in protecting Audio-Visual Performers. The process of re-enacting it has been rather slow. There is also no Compliant by the user of interlectual Property Rights and also ignorance from our Member especially on their rights'.

Administration Manager-KAMP

This is an example of a litigations that hinder implementation of laws that timely licencing of IP users with audio-visual rights. They have cited little or no government goodwill in their strive of ensuring IPP implementation as the re-enacted as indicated above is not being fastracked by the relevant government authorities and therefore is adversely affecting users.

'Recently police officers attached to our enforcement operations have been withdrawn!' Administration Manager-KAMP

These agencies however have to collect and distribute royalties on behalf and to the right owners. However, they fail to optimize this function as they do not have a well established and structured computerised way of collecting and further distribution of the royalties.

A respondent had these to say about the challenges affecting PRISK/KAMP;

'Lack of proper monitoring framework for exploitation of copyright works, ignorance on interlectual property rights among artists and users of copyright materials, little or no Government goodwill in supporting or operations and lack of co-operation from the users of IP'.

Administration Manager/PRISK

There are no records for different events held by musicians, poets, traditional dancers, exhibitions or conferences that have been held or are planned to take place to help quantify proceeds for IP holder. People keep using different authored materials or even songs in different events without fear of being found accessing or using the same without proper authorization. The public seem to be unaware of any consequences of infringement. We do not have much support and personnel to move all over the country to catch up with these people and take them to court. Some right

holders do not even know they can follow the judicial process and be paid for use of their IP'.

Administration Manager, KAMP.

The verbatim highlights the challenges faced by PRISK/KAMP while discharging their mandates where there is no government goodwill in supporting implementation of their projects and opereations. This leaves them with very limited powers to transct their businesses and to enact/enforce their laws. Of importance again, is widespread ignorance about the property rights among the artists and other copyright material users as you cannot resport, promote and protect waht you are not aware of.

'It is therefore important that stakeholders come together to create awareness among the and educate the masses on IPR'.

Administration Managers-PRISK

'It is not arguably our responsibility to come out strongly with the collaboration with other IPP agencies and stakeholders to create massive awareness scheme or programs to sensitize the citizenry on the value of IP as a great asset for the right holders which will foster economic empowerment and growth'.

Administration Manager-KAMP

4.3 The Measures to Mitigate the Challenges

The study also sought to determine the measures undertaken by these selected agencies in mitigating the challenges of implementing IPP. This was done through the review of responses from the interviewees and secondary data of organizational reports.

4.3.1 Kenya Industrial Property Institute

KIPI deals with protection of patents, industrial designs, utility models and trademarks but do not engage in enforcement/litigations. They however may appear in court as expert witnesses. KIPI helps in registration arbitration and disputes during the registration process or removal/expungment from the register.

'We do not engage in enforcement, the burden of enforcement lies with the right holder'.

Legal officer-KIPI

KIPI engages in awareness campaigns and gets involved in many activites with different organizations & Institutions to gain a platform in which they offer training and incentive to innovations.

'In collobaoration with WIPO during the world intellectual property day we reward innovators who have executed the thematic advancement exceptionally well with KIPI merchandise. We also participate in universities, colleges, schools and institutional competitions and symposiums educating them and registering their IP'.

Legal officer-KIPI

KIPI is in the process of opening new offices accross the country with a proposal to share resources with the Anti-Counterfeit Agency which has already created a nation wide presence.

'We are establishing a digital platform for IP registration and database.

This will go along way in reduction of cost even for the right holders in terms of travels to Nairobi or for any legal involvement'.

Legal officer-KIPI.

They have engaged the exchequer for funding as well mobilizing resources from the private sector through alliances with various institutions to create awareness.

'We keep on sharing platforms with so many institutions to create awareness even as we seek to encourage the eduction curriculum developers to incoperate IP in the education system'.

Legal officer-KIPI.

'We have also engaged many firms and institutions to consider IP a very vital component of their asset book and always report it in their books of accounts as well ad develop IP policies for their institutions'.

Legal officer-KIPI.

KIPI has through collaboration with the government engaged in strategic planning as well as with other institutions to promote development of policies that foster IPP. In its partnership with the government has established the Kenya National Innovation Agency and the National Research Fund to strengthen the innovation ecosystem in Kenya (Sange,2016). Working under the Ministry of industry, investment and trade. KIPI has given support and guidance to micro and small enterprises agency to establish technology and innovation centre helping businesses to access and use patent information.

4.3.2 Kenya Copyright Board

KECOBO deals with copyright and related rights to literary works, audio visual, musical, dramatic works, sound recordings and broadcast. There has been an overly loud outcry on piracy and counterfeit goods making both the right holders and the government loose on revenues.

'Resource deficiency is our major impediment to enforcement and implementation of IPP. We have therefore resolved to ensure we lobby for resources e.g. employing more staff to cater for the growing needs of IP owners & users. We have also sought for a higher consideration of funding from the government and other stakeholders.

Enforcement officer, KECOBO

They have engaged in strategic partnerships with other organizations and schools to create awareness. They have career talks and offer branded give aways during public forums and on the global IP day to participants.

They have also had a proposal to have regional offices to decentralize their services as they embark on digitization of all their functions and use of inexpensive mode e.g. social media to create awareness and let IP holders seek redress incase of infringement. However, IP being a private property it calls for individual right owners to initiate a legal proceeding incase of infringement. In collaboration with the Anti-Counterfeit Agency the infringements may be considered criminal thus resulting to litigaton.

4.3.3 PRISK/KAMP

The study has established that both agencies has resolved to create awareness through training and hold sensitization for right holders and users of IP.

'Ignorance of IP has resulted to most IP user being non-compliant! We have therefore embbarked on creating awarenea to artistes as well other users of IP on the importance of IP with great hope that this will help more people to know about IP and appreciate it'.

Admnistration Manager, KAMP

'We have also made some recommendations for the Copyright Act ammendment. This will make it easy for both the right holders, users and enforcement agencies to collaborate effectively'.

Admnistration Manager-PRISK

'We do periodic enforcement trainings to our membership and share material through print and other media e.g. social media accounts to encourage dissemination of information regarding the performers rights and sounds recorders'.

Admnistration Manager-PRISK

'We have decided to put online access through social media platforms like twitter, facebook and even email for any citizen to post as well as receive information about us and our partners like PRISK, KIPI & KECOBO. This has helped ingiving information to many rights holders with their queries being attended to. we also have our office lines shared to the public incase they would wish to talk to us. We share fliers and bronchures of the services at any opportunity to the public during different forums'.

Admnistration Manager, KAMP.

They have filed recommendations and proposals for the Copyright Act to be ammended to create solid laws that will help in IPP enforcement. The study has also found out that the agencies have engaged in digitization project that will enable them monitor, collect and distribute royalties timely to the right holders.

'Litigation process is costly! Owing to the fact that we do not get adequate to exercise our mandate of even collecting and distribution of royalties, we resolved to digitization of the collection and distribution of royalties which will reduce our operating costs and thus rightholders will get value for their IP'.

Administration Manager-KAMP

'Court process for most of the rights holders is quite unbearable as it requires one to seek the services of an intellectual property lawyer who can argue out their cases well. However, the IP Lawyers are very few in the country hence the effect of demand and supply affecting prices come in to play. This then means high hiring costs thus most IP holders loose'.

Administration ManagerPRISK

They have also sought joint enforcement activities with other enforcement agencies due to lack of funding and personnel/police.

4.4 Comparative Analysis

Research findings have notably been able to establish that the selected agencies have some common challenges that cut accross all of them. With common or diverse challenges the respective agencies will have to converge efforts to resolve or manage the challenges or atleast strive to ensure they obtain the necessary resources and have the capacity to manage the single specific challenge in their respective docket.

4.4.1 Challenges Of Implementing Intellectual Property Protection

The challenges are lack of awareness/ knowledge gap by both the right owners and users of IP. The resource inadequacy in terms of human capital and financial restraints are faced by all the agencies siting lack government good will. These has challenged their physical presence accross the country hindering them from excersing their constitutional mandates. This calls for the agencies to further urge the government through its different departments to adapt a frontier that promotes knowledge dissemination and protection in collaboration with the respective agencies.

The research findings have also indicated that KECOBO and PRISK can ben involved in legal proceedings while KIPI only has a tribunal to help in registration/removal of rights or only appearing in court to offer expert witness services. KECOBO and PRISK therefore have to have capacity to be engaged in criminal cases while KIPI handles civil cases. It has been noted however that there are no specialized courts to handle IPP related disputes as well as few trained personnel as judges and lawyers in the field of IP. All appeal cases are dealt with at high court. The legal or judicial system have therefore an opportunity to help in fostering and enforcing the IPP.However, the have to strengthen the systemic challenges and the structural inefficiences to offer the knowledge owners reprieve incases of infringement and develop a sytem that indeed protects IP.

The era of infomation technology has been another great challenge that all the three agencies face. They do not have a computerised system to help in registration and monitoring of IP. They all have centralized their services in Nairobi thus making it expensive for right holders to get access. For equity inservice as well as offering service to all, proximity and accessibility is very vital. Technology and internet have assisted in giving and enabling access of information. However online connectivity is not widespread in Kenya. This then calls for physical presence in various locations to give service to all citizens. It is then very important that a qualified and

highly skilled human capital as well as facilitation is provided for these agencies to reach out to so many people spread across the country.

4.4.2 Measures to Mitigate the Challenges

All the agencies are currently engaging strategic partnerships and forming alliances to optimize their resources in awareness creation. It follows that when the public has a greater understanding of IP, the public will appreciate it and thus further IPP gain all the benefits that come with it. It is also very important that the general public is made aware of the negative impact of enganging in illicit trade through purchase or selling of counterfeit products to their health and general economic growth. The agencies have thus engaged in individualized or partnership trainings, exhibitions, conferences, symposiums, science congress and even social media, electronic print, radio and televised public awareness shows.

They are lobbing to get more staffing and financial support from both the public and private sectors. The research findings also confirmed the knowledge gap on the personnel as well as IP holders who could not draft and present their works for verification and consideration for IPP.Technical expertise and financial support are very crucial in the process of determining an item for IPP. Thus a call for various institutions both public and private to enhance their support in terms of training and financial assistance for this great endeavor.They have resolved to open regional offices for the purposes of getting services closer to the people at a lower cost. The agencies have also made legislative proposals to have laws ammended to suit the Kenyan IP holder.

(Sange, 2016) confirmed that Kenya made great milestones in formulation and adoption of laws in line with TRIPS. He furtherr stated that the parliament was preparing sui generis laws for protection of traditional knowledge, genetic resources and traditional cultural expressions which had not been factored in IPP.IPP enforcement while in consideration of the terrotorial boundaries.

Digitization process is in progress for all the agencies to have their databases up to date. They are trying to get records to create and maintain a databank on the authors and their works as well other IP holders. The online access of information and general connectivity of the citizenry will enhance knowledge dissemination and protection. Distortion for instance of traditional knowlegdge will be minimal or none save for further modifications that may result to new process or product but the original form can still be traced and show case the developmental features to future generations.

4.5 Discussion of Findings

The study found out that indeed institutions that are charged with the responsibilities of implementing various laws on IPR are not efficient in their operations due to lack of government goodwill to support them and limited finances that curtail their capacity to implement their activities across the country.

The study further found out that KIPI, KECOBO and PRISK/KAMP have got very limited presence across the coutry as most their offices are just located in Nairobi with none- being at the county headquaters in the devolution Units. It would therefore be very expensive for users across the country to travel to Nairobi each time their have to file a complaint especially if they are based in far flank areas from the country's capital.

The laws must be enacted and the offenders for violation can only be arrested using police officers. But as it was found out, there are limited or no police officers that are permanently attached to these bodies to help in the enforcement of laws and therefore this leaves them almost toothless as offenders are almost sure they will go scot-free or with limited fines that are way less below the damage caused to the property right holders.

The study was based on three theories namely; Diffusion of Innovation Theory (Rogers, 1995), Dynamic Capabilities Theory (Teece *et al.*, 1997) and Institutional Theory (North, 1990). The institutional Theory (North, 1990) that states that uptake of an innovation will depend on the institutional capacity and the government goodwill which if lacking the uptake will be low and this is exactly the scenario here. From the research findings, the researcher notes that the agencies themselves are an impediment to actioning their mandate as is noted with KECOBO which has differed licences for the CMOs owing to the fact that they have to undergo extensive systematic changes to meet the requirements of the ammended Copyright Act before licensing. The global village arena created by internet calls for a global consesionary effort to ensure that online infringement is dealt with-this is still a pending issue globally.

The other theory used here is Diffusion of Innovation Theory (Rogers, 1995) which states that innovation of techonolgy is likely to diffuse faster among the consumers when it creates a competitive advantage. In this study it was found out that techonologies were prone to immitation with criminals using every available means to by-pass the law. The right holders have a limited time within which they have absolute power over the usage of their IPRs. However, upon expiry, the invention is put in public domain for furher developments. It has been noted that atimes the right holders do not execute this priviledge due to lack of funds to commercialize their rights in production of goods/services or offer licences at small fees. The last Theory that the study employed is Dynamic Capabilities (Teece *et al.*, 1997) which state a firm's performance is determined by the firm's capacity as well as abilities to re-allocate resources. This theory again corroborates the findings of this study as with limited resources the institution cannot have the capacity to effectively carry out their roles. Its also noted from the study that IP needs to be realized as a vital element in firms balance sheet e.g. trademarks, trade secrets ,branding which gives businesses opportunity to thrive even during turbulent economic times. The researcher notices the influx of ounterfeit goods and pirated producing showing the lack of enforcement of IPP which may have resulted due to lack of finacial as well as human resources.

Maskus & Penubarti (2015) states that the most crucial factor that determines the success of intellectual property protection is the competitive level of the economy or industry. This has been corroborated in the findings of this study as Kenya economy is currently not doing well as evidenced by massive uneployment rate in the country and also mass closure of companies in the rescent past. This limits budgetary allocation to Copyright protection insttutions in Kenya.

Gound & Gruben (2016) examined the relationship between economic growth and the level of intellectual property protection. They found that there was no strong direct relationship of patents and economic growth, but there was significant positive impact when there was a market that was open to trade. This according the findings of the study confirms the lack of regional office presence of the copyright protection bodies.

Gee & Sajilan (2014) stated that low literacy levels on the importance of IP in business operations and exorbitant associated prices of acquisition and enforcement of IP rights. This is

also confirmed by the findings of this study as there is widespread ignorance on IPP and therefore most consumers are not even aware that the laws exists and therefore are either unknowingly violeted without being made to pay for the violations or there being no law enforment agencies to enforce the laws on behalf of the right holders.

Idriss (2013) in his study found out that the cost of getting IPP outweighs the benefits while (Wagwe, 2004) found out that in Uganda there is lack of institutional capacity in IP administration and enforcement and therefore there is need for cordination between key partnerships and non-dependancy to move away from donor/colonizer frameworks. This applies to Kenya too. Macharia (2013) found out that IPP implementation to move to digital era platfrom remains a challenge that requires an amendment in law to accommodate the techno-advancements. All the three findings as presented above have been corroborated by this study as there in IP implementation bodies lack capacity and goodwill.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS 5.1 Introduction

This chapter presents research findings in accordance with the set objectives and summarizes the results of the study. It also highlights the recommendations made based on the research findings, the limitations of the study, and makes suggestions for further research on the challenges of implementing IPP for entreneurial innovations among the selected agencies in Kenya.

5.2 Summary of Findings

The study sought to establish the challenges of implementing IPP for entrepreneurial innovations in Kenya and the measures undertaken by the selected agencies to mitigate the challenges. There's a call for various actors who can help build synergies between policy and practice in regards to economic policies, industry, trade, fiscal, monetary and education to team up.The research study has found out that the actors have to align and optimize their different competencies to support science, technology and innovation/knowledge which are key drivers in industrialization and general growth and development of a country.

In regard to the first objective to establish the challenges of implenting IPP for entrepreneurial innovations in Kenya, the study found out the selected agencies-KIPI, KECOBO & PRISK face the following challenges. Knowledge gap/lack of awareness on both the right holders and users of IP even of the existence of these agencies. The right holders could not differentiate on the different IP and where to get assistance incase of infringement.

The perception that IPP process is complex and expensive is another major factor. These institutions have inadequate capacity in terms of human resource and funding thus having all their admnistrative and operational services centralised in Nairobi while right owners are found all over the country. They faced a challenge during litigation process as all the cases IP can only be filled at the high court while they have a tribunal to cater for some cases. They lack of specialized courts and judges to deal with IP matters result to delayed justice and worse off the sentence or fines are not punitive enough to the infringers (Appendix IV).

Technological advancement/internet has put all the agencies off- guard as new developments are coming up with the institutions lacking laws to enforce them. They are left to make recommendations/ammendnent proposals for legislation of laws that quite take long or bear no fruit at all resulting to loss of revenues due to none-timeliness. They lack a digital platform where registrations, complaints and information can be shared (Appendix IV).

In relation to the second objectives, these agencies have put up a spirited fight to ensure implementation of IPP. The have undertaken strategic partnerships with many stakeholders to raise awareness through trainings and regional participation in activities that promote IP. They are all lobbying for more funding from the exchequer and other stakeholders. They are pushing for ammendments of the acts of parliament to enable them enforce IP while opening regional offices to create a country wide presence. They are engaging to have a multi-agency kind/joint approach to enforcement of IPP while digitizing their processes for ease and cost effective registration, monitoring, collection and distribution of royalties.

5.3 Conclusions

From the findings of this study, it is concluded that the IPP institutions lack the capacity to effectively discharge their mandates. This is evidenced by the said institutions lacking regional presence in most parts of the country and also limited staff including withdrawal of police officers attached to the institutions. The study also concluded that the institutions are underfinanced by the treasury thus limiting their capacities to discharge their duties.

The study also concluded that there is widespread ignorance among the stakeholders as most people are not cognizant of the existence of laws as offices are only located in Nairobi that is very far from those located in counties in the etremes regions of the country. It further concluded that Kenya cannot match other coutries in the implementation of IPP laws as they have very established institutions than what we have in Kenya. (Appendix 111-G8 ranking report)

5.4 Recommendation for Policy and Practice

It is quite evident that there exist greater challenges across the industry for organizations/agencies trying to enforce or implement IPP. These include but are not limited to knowledge gaps among IP holders, administrative (legal & infrastructural) challenges, lack of funding for enforcement agencies, changing/technological advancements as well as international-legal boundaries.

The institutions have put in place measures to help in creating opportunities /resolve the stated challenge. Nevertheless, further recommendations in the resolution approach include the following measures; Awareness campaigns should be rigorous with much emphasis on learning institutions to teach about IP and also have informal setting approach where they would engage clan elders, village elders, local administration as well as at county levels to have IP awareness

campaigns. Raising awareness to the young people in schools, colleges and through the local administrative meetings/youth activities like sports, cultural festivals, incubation hub challenges, science symposiums, contests and archival centres, theatres and conservancies. For all academic works, scholars should acknowledge original authors in referencing to stop plagiarism. This can be done through face to face forums, virtual forums, social media as well as having lessons/courses related to IP. IPP should be made a state priority.

Capacity Building is paramount with collaborative training for the police and custom officials thus greatly contribute in legislative & administrative measures. This can enable the establishment of a multi-agency approach thus making coordination of activities easier while reducing the bureaucratic barriers to enhance IPR implementation. Implementation agencies need to have well trained personnel who understand the whole process of IP creation to issues related to the prosecution of IP infringement as there exist very few IP lawyers and courts. This should be coupled by a country-wide presence by establishing offices/courts closer to the people decentralizing their operations. This will in turn reduce costs in registration and litigations process will be cheaper.Timeliness in terms of registration and legal redress will give impetus to right holders to invest more in R& D.

Raising awareness of the consequences and risks of buying counterfeit/pirated products done jointly by all stakeholders i.e. right holders, manufacturers, retailers, KRA, KEPSA & Consumer authority. In collaboration with the constituted government agencies like Anti-Counterfeit Agency, a digital/computerised certification or online protection system in collaboration with the Kenya Bureau of Standard with a digital mode accessible for consumers/ users and right holders to check and report any distributed products or pirated/counterfeited goods enhancing revenue earnings for the right holders as well as consumer safety. Online registration and issuance of ecertificates should be adopted by these agencies. This will also benefit right owners and users in terms of monitoring.

Kenya is a member of WIPO and has managed to implement a lot of recommendations regarding world IP. In this regard, legislative awareness of infringement should be done to IP holders whose products/services are being used in different countries without their consent or permission. A collaborative approach of exercising IPP across the world as a global village should take in to consideration the IPRs. Internet has made it easier for anyone anywhere in the world to access information anytime. Encrypting of data is a minimum recourse which IP holders can use giving access with pass codes upon payment of a fee online as well as holding internet service providers responsible.

The government is called upon to establish a deliberate IPP strategy & policy to support the specific institutions dealing with IPP in budgetary allocations, adopt their recommendations to have IP a mandatory course in all educational institutions and create a database with valuation of IP through a thorough audit that will make it considered a stand alone asset even by credit offering institutions as security.

The ubiquitous nature of internet and its ability to swiftly and effortlessly transcend national boundaries and sovereign territories has presented a unique challenge of regulators and those expected to obey the law. International jurisdiction in cyberspace is a great challenge. Regulatory framework for online business needs to be developed and embedded in international IPP.

5.5 Limitations of the Study

Time constraint is a major limitation which is as a resultant of having few staff to handle so many IP owners and thus the study could not get views from all the staff in various departments. The researcher had a challenge too in terms for having time to visit the agencies.

The IP industry is big, the research having been undertaken on only three agencies is not a representation of the industry. The organizations under study could only give expert information regarding matters IP but not enforcement, hence the need to undertake an industry wide research of all organizations involved in IPP to have an overall view of the registration, enforcement and litigation process of IPP implentation challenges. The researcher was only able to interview few respondents in Nairobi offices and not getting any information from different right holders to get the true position of how these agencies get them involved in the whole process of IP to IPP. This therefore poses a contextual limitation of the study.

A conceptual limitation exists owing to the fact that IP is a multi-facet item that affects individuals alike as institutions cutting accross all economic and social set ups. Thus the study lacks authority in conclusion of various aspects that relate to practise and policy in IPP. A further research is therefore paramount in establishing a conclusive recommendation to policy and practise as well advancing theories related to IP.

A multicase research design has been used with data collected one point in time. This creates a methodological gap requiring a further research over a period of time owing to the fact that the agencies under study though operating in Kenya, their mandates differ, their age since establishment differ and the global advancement in different IP areas require different matching actions to tackle emerging issues.

5.6 Suggestions for Further Study

The IP industry is big, the research having been undertaken on only three agencies is not a representation of the industry. IP affects almost all sectors and thus ther is a need to get issues on IP socially and economically not on the enforcement agencies only.

The emergence of global villagemakes it a great challenge for the enforcement agencies with internet creating boundary-less operations of IPP. A more global view therefore is required to recommend and inform the agencies on operations. A further study is therefore recommended on a wider scale engaging internationally recognized IPP institutions to address and advise policy and practise.

The organizations under study could only give expert information regarding matters IP but not on enforcement. Hence the need to undertake an industry wide research of all organizations to have an overall view of the registration, enforcement and litigation processes of IPP implentation challenges.

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APPENDICES

Appendix I: Letter of Introduction



Telegrams: "Varsity" Nairobi Fax: 4181650 Kisumu, Kenya Telex: 22095Varsity Mobile: 0720348080 Email: <u>nixono@uonbi.ac.ke</u> P.O Box 19134-40123 Kisumu, Kenya

Date: 9th October, 2019

TO WHOM IT MAY CONCERN

The bearer of this Letter Betty Mudinyu of Registration Number D61/80813/2012 is a bona fide student undertaking a master of business administration Programme at The University of Nairobi, Kisumu Campus

As part of requirements for the course, she is expected to carry out a study on

"Challenges of Implementing Intellectual Property Protection for

Entrepreneurial Innovations among Selected Agencies in Kenya"-

She has identified your organization for that purpose. This is to kindly request your assistance to enable her complete the study. The exercise is strictly for academic purposes and a copy of the final paper will be availed to your organization on request.

Thanking you in advance.

Sincerely, CO-ORDINATOR F ALEX JALEHA CO ORDINATOR, SoB, KISUMU CAMPUS

Cc File Copy

Appendix II

INTERVIEW GUIDE

Your voluntary participation in this interview is greatly appreciated! All participants will receive an assigned pseudonym for identification that will capture demographic information for each participant. Confidentiality, no negative consequence if you choose to be dismissed or withdraw from the interview.

SECTION A: BACKGROUND INFORMATION

	A) Name:				
	B) Name of your Organization				
	C) Department				
	D) Gender				
	E) Age				
1. 2.	What year was your firm established? Kindly indicate your highest level of educational qualification				
3.	Please indicate period you have been with this firm				
	SECTION B: CHALLENGES IMPLEMENTING INTELLECTUAL PROPERTY PROTECTION FOR ENTREPRENEURIAL INNOVATIONS				
4.	Does your organization encounter any challenge in the implementation of intellectual property				
	protection for entrepreneurial innovations? Explain				
5.	What are some of the industry challenges that you encounter while implementing the intellectual				
J.	property protection for entrepreneurial innovations?				
	r · · · · · · · · · · · · · · · · · · ·				
6.	What are the operational challenges that you face while implementing the intellectual property				
	protection for entrepreneurial innovations?				

.....

.....

7. In your own view what are the mitigating measures can this agency use to counter challenges that you face while implementing the intellectual property protection for entrepreneurial innovations?.....

.....

SECTION B: INTELLECTUAL PROPERTY PROTECTION MEASURES FOR ENTREPRENEURIAL INNOVATIONS

8. Which types of IP rights does your organisation help in enforcement?

.....

.....

.....

- 9. Does your firm carry out enforcement of intellectual property protection for entrepreneurial
- innovations? Explain
- -----
-
- 10. Does your organisation have capacity to carry out enforcement activities on IP? Explain

.....

-
- 11. Discusses how important the various types of intellectual assets are to organisational success?.....

.....

THANK YOU FOR YOUR TIME AND SUPPORT

APPENDIX III

	VEAD	TODIC
SOURCE OF	YEAR	TOPIC
DATA		
Kenya gazette	2019	Amended copyright
aunaliment		$A_{at}(2010)$
suppliment		Act (2019)
Service charter-	2019	All services/Service
	_017	
KECOBO		Level Agreements
		and tarrif
KIPPRA	2019	Policy brief, special
DEDODT		
REPORT		reports & market
		analysis reports
KIPI ON	Jan-Nov,	newsletters
INTERNET	2019	
	2017	

SECONDARY DATA CAPTURE FORM

Enforcement Activities Undertaken Between January – March 2018

Copyright Court Cases Summary

Number of Cases	Total Number
Number of cases reported	18
Cases Investigated	10
Cases pending under investigation	8
Cases withdrawn	4
Cases Pending before court	8
Finalized cases	NIL
Referred to arbitration	NIL



COMPLAINTS PROCEDURE



The Kenya Copyright Board (KECOBO) views complaints as being key to the continuous improvement of its services. If you have a complaint about KECOBO, its staff or the standard of our services please submit it via either of the listed complaints channels;

#	COMPLAINT CHANNEL:	CONTACTS:
1.	KECOBO Postal Address:	The Executive Director, Kenya Copyright Board, P. O. Box 34670 – 00100, Nairobi.
2.	KECOBO Email:	complaints@copyight.go.ke, corruption@copyright.go.ke, info@copyright.go.ke
3.	KECOBO Hotline:	+254 703885033
4.	KECOBO Office Telephone Lines:	+254 20 253 3859/69 +254 713 761 758/739 062 643
5.	Website:	www.copyright.go.ke
6.	Twitter:	@KenyaCopyright
7.	Facebook:	Kenya Copyright Board
8.	CAJ's Postal Address:	The Chairperson, Commission on Administrative Justice (CAJ) P.O. Box 20414 00200, Nairobi
9.	CAJ's Email:	complain@ombudsman.go.ke
10.	CAJ's Office Telephone Lines:	+254 20 227 0000

The management promises to respond promptly and appropriately.

The Kenya Copyright Board also guarantees confidentiality and privacy of all communications.

"Protecting Copyright, Encouraging Creativity"

ISO: 9001:2008