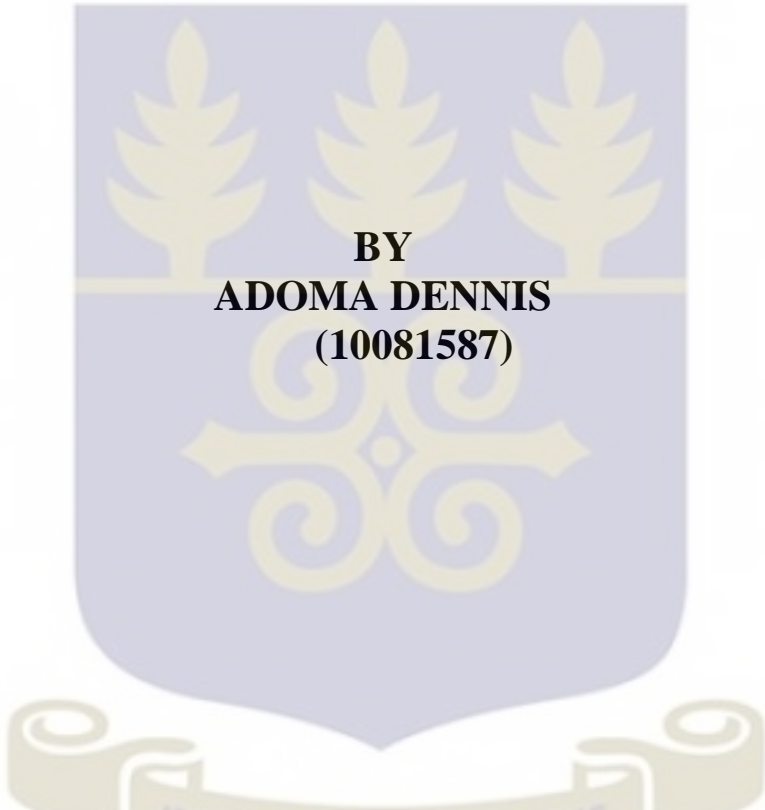


**THE ROLE OF INTELLECTUAL PROPERTY RIGHTS
PROTECTION IN STIMULATING CREATIVITY AND
INNOVATION: THE CASE OF GHANA**

The crest of the University of Ghana is a shield-shaped emblem. The top half is light blue with three golden laurel branches. The bottom half is light purple with a golden ornate design. Below the shield is a golden scroll.

**BY
ADOMA DENNIS
(10081587)**

**THIS DISSERTATION IS SUBMITTED TO THE
UNIVERSITY OF GHANA, LEGON, IN PARTIAL
FULFILMENT OF THE REQUIREMENTS FOR THE
AWARD OF THE MASTER OF ARTS DEGREE IN
INTERNATIONAL AFFAIRS**

LEGON

AUGUST 2016

DECLARATION

This is to certify that, with the exception of identified sources of references, which have been duly acknowledged, this dissertation is entirely a true record of the research I have carried out under the supervision of Dr. Vladimir Antwi-Danso, Senior Research Fellow, Legon Centre for International Affairs and Diplomacy (LECIAD), University of Ghana, and that no part of it has been submitted anywhere else for any other purpose. I am, therefore, responsible for any shortcomings, which may be found in this study.

.....
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(STUDENT)

.....
DATE

.....
DR. VLADIMIR ANTWI-DANSO
(SUPERVISOR)

.....
DATE

INTEGRI PROCEDAMUS

DEDICATION

This work is dedicated to existing and potential Ghanaian creators and innovators, for their relentless efforts to contribute their quota in enriching the quality of human lives.



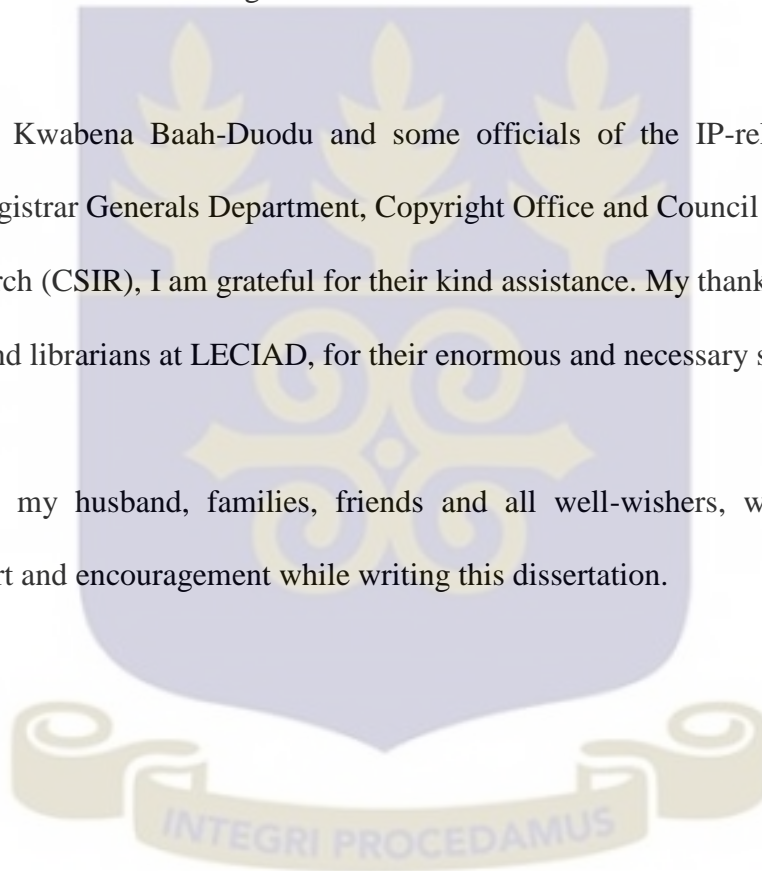
ACKNOWLEDGEMENTS

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Finally, I thank my husband, families, friends and all well-wishers, who gave me the necessary support and encouragement while writing this dissertation.



ACRONYMS AND ABBREVIATIONS

ACP	African Caribbean Pacific
ACTS	African Centre for Technology Studies
ARIPO	African Regional Intellectual Property Organization
CCU	Commercial Crime Unit
CEPS	Customs, Excise and Preventative Service
CID	Criminal Investigation Department
CSIR	Council for Scientific and Industrial Research
EU	European Union
FDA	Food and Drugs Act
FDB	Food and Drugs Board
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GEA	Ghana Employers Association
GI	Geographical Indication
GIA	Ghana International Airlines
GIs	Geographical Indications
GSA	Ghana Standards Authority

H.S.T	Hegemonic Stability Theory
ICT	Information and Communication Telecommunication
IDA	Industrial Designs Act
IIR	Institute of Industrial Research
IOs	International Organizations
IP	Intellectual Property
IPRs	Intellectual Property Rights
KII	Key Informant Interview
MDAs	Ministries, Department and Agencies
MDGs	Millennium Development Goals
NIPPS	National Intellectual Property Policy and Strategy
NIS	National Innovation System
OECD	Organisation for Economic Co-operation and Development
PBR	Plant Breeders' Right
PVR	Plant Variety Right
R& D	Research & Development
RGD	Registrar Generals Department
TK	Traditional Knowledge
TOT	Transfer of Technology

TRIPs	Trade Related Aspect of Intellectual Property Rights
UG	University of Ghana
VALCO	Volta Aluminium Company
WIPO	World Intellectual Property Organization
WTO	World Trade Organization



TABLE OF CONTENTS

DECLARATION	-	-	-	-	-	-	-	-	-	i
DEDICATION	-	-	-	-	-	-	-	-	-	ii
ACKNOWLEDGEMENTS	-	-	-	-	-	-	-	-	-	iii
ACRONYMS AND ABBREVIATIONS	-	-	-	-	-	-	-	-	-	iv
TABLE OF CONTENTS	-	-	-	-	-	-	-	-	-	vii
ABSTRACT	-	-	-	-	-	-	-	-	-	xi

CHAPTER ONE: RESEARCH DESIGN

1.1	Background to the Problem	-	-	-	-	-	-	-	-	1
1.2	Statement of the Problem	-	-	-	-	-	-	-	-	2
1.3	Objectives of the Research	-	-	-	-	-	-	-	-	4
1.4	Rationale of the Research	-	-	-	-	-	-	-	-	4
1.5	Hypothesis	-	-	-	-	-	-	-	-	5
1.6	Theoretical Framework	-	-	-	-	-	-	-	-	5
1.7	Literature Review	-	-	-	-	-	-	-	-	7
1.8	Scope of Research	-	-	-	-	-	-	-	-	14
1.9	Sources of Data/ Research Methodology	-	-	-	-	-	-	-	-	14
1.9.1	Background Information of Respondents	-	-	-	-	-	-	-	-	17
1.10	Arrangement of Chapters	-	-	-	-	-	-	-	-	17
	End Notes	-	-	-	-	-	-	-	-	18

CHAPTER TWO: AN OVERVIEW OF INTELLECTUAL PROPERTY SYSTEM

2.0	Introduction	-	-	-	-	-	-	20
2.1	Definition and Origin of IPRs	-	-	-	-	-	-	20
2.2	Rationale of IPRs Protection	-	-	-	-	-	-	21
2.3	Types of IPRs	-	-	-	-	-	-	22
2.3.1	<i>Copy Rights and Related Rights</i>	-	-	-	-	-	-	23
2.3.2	<i>Patents</i>	-	-	-	-	-	-	26
2.3.3	<i>Trademarks and Service Marks</i>	-	-	-	-	-	-	29
2.3.4	<i>Industrial Designs</i>	-	-	-	-	-	-	31
2.3.5	<i>Geographical Indications</i>	-	-	-	-	-	-	34
2.3.6	<i>Plant Variety Rights</i>	-	-	-	-	-	-	35
2.3.7	<i>Layout Designs (topographies) of Integrated Circuit-</i>	-	-	-	-	-	-	36
2.3.8	<i>Trade Secrets</i>	-	-	-	-	-	-	36
2.3.9	<i>Unfair Competition</i>	-	-	-	-	-	-	37
2.3.10	<i>Traditional Knowledge</i>	-	-	-	-	-	-	38
2.4	Global and Regional Institutional Arrangements	-	-	-	-	-	-	40
2.4.1	<i>World Intellectual Property Organization</i>	-	-	-	-	-	-	40
2.4.2	<i>World Trade Organization</i>	-	-	-	-	-	-	40
2.4.3	<i>African Regional Intellectual Property Organization</i>	-	-	-	-	-	-	41
2.5	Protection and Enforcement of IPRs	-	-	-	-	-	-	41
2.6	Ghana's National IP System, Institutional and Enforcement Arrangements	-	-	-	-	-	-	42
2.7	Ghana's National IP System	-	-	-	-	-	-	42
2.7.1	<i>Copyright Act</i>	-	-	-	-	-	-	42
2.7.2	<i>Copyright Regulations</i>	-	-	-	-	-	-	43
2.7.3	<i>Geographical Indications Act</i>	-	-	-	-	-	-	44

2.7.4	<i>Industrial Designs Act</i>	-	-	-	-	-	-	-	44
2.7.5	<i>Layout Designs (Topographies) of Integrated Circuits Act</i>	-	-	-	-	-	-	-	44
2.7.6	<i>Patent Act</i>	-	-	-	-	-	-	-	45
2.7.7	<i>Trademarks Act</i>	-	-	-	-	-	-	-	45
2.8	Administration and Management Structures of Ghana’s IP System	-	-	-	-	-	-	-	45
2.9	Institutional Structures and Enforcement of IPRs in Ghana	-	-	-	-	-	-	-	46
2.9.1	<i>The Customs Division of the Ghana Revenue Authority</i>	-	-	-	-	-	-	-	46
2.9.2	<i>The Ghana Police Service</i>	-	-	-	-	-	-	-	47
2.9.3	<i>The Ghana Standards Authority</i>	-	-	-	-	-	-	-	47
2.9.4	<i>The Food and Drugs Board</i>	-	-	-	-	-	-	-	47
2.9.5	<i>The Commercial Court</i>	-	-	-	-	-	-	-	48
2.10	National Intellectual Property Policy and Strategy (NIPPS) of Ghana-	-	-	-	-	-	-	-	48
2.11	Conclusion	-	-	-	-	-	-	-	48
	End Notes	-	-	-	-	-	-	-	49

CHAPTER THREE

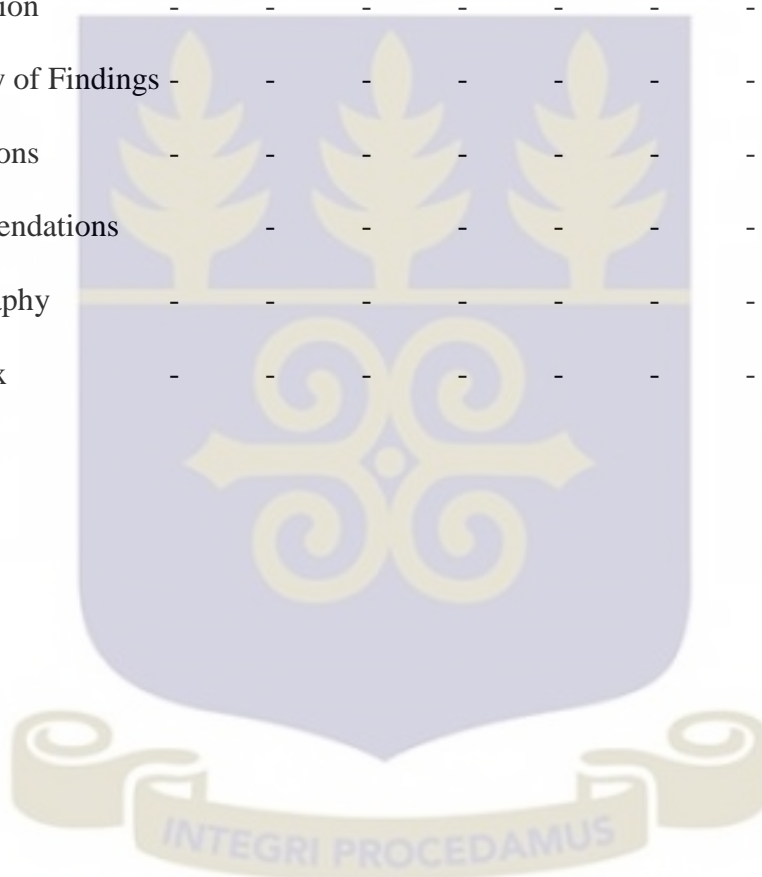
**AN ANALYSIS OF THE CONTRY’S NATIONAL IP SYSTEM TO STIMULATE
CREATIVITY AND INNOVATION IN GHANA**

3.0	Introduction	-	-	-	-	-	-	-	54
3.1	An Assessment of the Effectiveness of the Country’s IP System and Enforcement Mechanism to Tackle IP violations to Harness Creativity and Innovation in Ghana	-	-	-	-	-	-	-	54
3.2	An Assessment of How the Country’s IP System Facilitates Research Activities to Harness Creativity and Innovation in Ghana	-	-	-	-	-	-	-	57
3.3	An Assessment of How the Country’s IP system Facilitates Transfer of Advanced Technology to harness Innovation in Ghana	-	-	-	-	-	-	-	59
3.4	An Examination of the Challenges in Exploring the Country’s IP System to	-	-	-	-	-	-	-	

Harness Creativity and Innovation in Ghana	-	-	-	-	61
3.5 An Examination of the Prospects of Exploring the Country’s IP System to Harness Creativity and Innovation in Ghana	-	-	-	-	63
End Notes	-	-	-	-	65

CHAPTER FOUR: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

4.0 Introduction	-	-	-	-	-	-	-	66
4.1 Summary of Findings	-	-	-	-	-	-	-	66
4.2 Conclusions	-	-	-	-	-	-	-	69
4.3 Recommendations	-	-	-	-	-	-	-	69
Bibliography	-	-	-	-	-	-	-	72
Appendix	-	-	-	-	-	-	-	81



ABSTRACT

Exploring Intellectual Property (IP) system to facilitate research activities and transfer of advanced technology to harness creativity and innovation has become an issue of global debate. Using Ghana as a case study for the period 2003-2013, the study examined the role, prospects and challenges for exploring IP systems to stimulate Ghana's domestic creativity and innovation. The study employed qualitative research approach, utilizing a purposive sampling method to obtain primary data from officials of Registrar Generals Department (RGD), Copyright Office, Council for Scientific and Industrial Research (CSIR) and a Lecturer with the University of Ghana Law Faculty, among others. The study revealed that Ghana's domestic creativity and innovation have been stifled due to weak IP system and enforcement mechanism, resulting in poor research culture and reliant on low level technology. It further emerged that challenges inherent in the country's IP system, such as limited human and institutional capacities have hindered the country's domestic creativity and innovation. Nonetheless, there are still prospects for the nation to explore its existing legal and structural IP frameworks to stimulate its creativity and innovation. The study finally recommended that policy interventions would be required to, among others, generate IP awareness among the general population, review the existing IP legislations to correspond to modern trends and strengthen institutional and human capacities to absorb technological knowledge in order to enhance the country's creativity and innovation.



CHAPTER ONE

RESEARCH DESIGN

1.1 Background to the Problem

There is an ever-increasing demand for products and services borne out of creations and inventions of the human mind. These creative and innovative products are further converted into commercial assets with the help of Intellectual Property Rights (IPRs)¹ - copyright, trademark, trade secret, patent and other Intellectual Property (IP) systems – to compensate and reward their owners. Accordingly, countries that appreciate and invest in intellectual capital may reap the returns of their investment.²

In this regard, developed countries, especially members of the Organisation for Economic Co-operation and Development (OECD), have, over the years, adopted strategic blueprints to make use of IP systems to develop their human capacities.³ Similarly, Asian countries have, in recent times, also made tremendous progress in developing their human creative potential for development in all spheres, ranging from economic, health to technology.⁴ Besides, IP businesses which depend on creativity and innovation, according to American Arts Report of 2010, contributed in creating over 612,000 jobs and employed about three million people in the United States of America.⁵

On the other hand, most African countries are yet to utilize this same opportunity. According to UNCTAD/UNDP Creative Economy Report of 2008, the continent's creative capacity remains highly underutilized and accounts for approximately one percent (1%) of world exports.⁶ In addition, though the trade relation between the European Union (EU) and the African Caribbean Pacific (ACP) countries has been underpinned by Trade Related Aspect of

Intellectual Property Rights (TRIPS), the latter is yet to make use of its creative and innovative potentials.

Africa's inability to harness its creative talents and potentials for developmental gains has been attributed to weaknesses in its domestic policy, as well as, biases of the global system.⁷ Nevertheless, the growing demand for innovative products and services suggests that developing countries, including Ghana would have to make use of their creative and innovative potentials to invent new things and add value to their vast natural resources.⁸ This will eventually enhance the domestic innovation and economies of individual countries for effective sub- regional and regional integration.

Meanwhile, attempts at harmonizing IPRs protection globally have received mixed reactions from IP-related stakeholders - the academia, researchers, governments, international organizations, civil society groups and multinational companies - who have expressed opposing views regarding the role of IPRs protection in stimulating innovation and creativity. This research, therefore, examines the role of IPRs protection in harnessing Ghana's domestic creativity and innovation. It further assesses the prospects and challenges underpinning creativity and innovation in the country in order to make appropriate recommendations for policy consideration.

1.2 Statement of the Problem

Intellectual Property (IP) treaties and agreements are generally premised on the assumption that protection of IPRs facilitates research activities and transfer of advanced technology to harness innovation and creativity, which in turn spur socio- economic growth. As a result, various countries – advanced or developing, rich or poor, large or small – have enacted IP

laws in compliance with the requirements of IP regimes to make use of their untapped creative and innovative potentials for development. Ghana, which is not exempted, has over the last decade enacted new IP laws and revised existing ones aimed at stimulating its domestic creativity and innovation, among others. Despite these changes in the law, it is uncertain whether creativity and innovation have been stimulated or enhanced.

At the national level, very little study has, so far, been conducted to critically assess what the implications for protecting IPRs are for the nation. The call for an in-depth study into the subject matter, gained prominence during the 2013 Innovation Prize Award for Africa, when no Ghanaian inventor was shortlisted for any of the awards.⁹ This study, therefore, intends to fill the knowledge gap by empirically examining to ascertain or otherwise the claim that IPRs protection has stimulated creativity and innovation in Ghana.

The questions that follow from the above problem statement are:

- i. Does Ghana's IP system and enforcement mechanism effectively tackle IP violations to generate innovative and creative activities?
- ii. Does the country's IP system facilitate research activities to stimulate its creativity and innovation?
- iii. Does the country's IP system facilitate transfer of advanced technology to harness creativity and innovation in Ghana?
- iv. What are the challenges in exploring the country's IP system to harness creativity and innovation in Ghana?
- v. What are the prospects of exploring the country's IP system to harness creativity and innovation in Ghana?

1.3 Objectives of the Research

The objectives of this study are:

- i. To assess the effectiveness of the country's IP system and enforcement mechanism in tackling IP violations to encourage creative and innovative activities in Ghana;
- ii. To examine how Ghana's IP system facilitates research activities to harness its creativity and innovation;
- iii. To examine how the country's IP system facilitates the transfer of advanced technology to harness creativity and innovation in Ghana ;
- iv. To examine the challenges in exploring the country's IP system to harness creativity and innovation in Ghana; and
- v. To examine the prospects of exploring the country's IP system to harness creativity and innovation in Ghana and make recommendations for policy consideration.

1.4 Rationale of the Research

The role of IPRs protection in stimulating creativity and innovation, has generally received growing attention in the international community. In Ghana, however, IP matters are usually viewed through the legal lens, rather than other dimensions, especially the role of IPRs protection in encouraging creativity and innovation for socio-economic gains. This study, which specifically scrutinizes the situation of Ghana on the subject matter, is expected to aid policy decisions. It would also create awareness of the country's national IP systems that can be explored to harness ingenuity. Lastly, the study would be useful to IP-related stakeholders, including the academia, researchers, international organizations, civil society groups and multinational companies.

1.5 Hypothesis

Ghana's dysfunctional national IP system and enforcement mechanisms have stifled its domestic creativity and innovation.

1.6 Theoretical Framework

This study adopts the Regime theory as framework. The Regime Theory was first introduced by John Ruggie in the mid-1970s¹⁰ and had its views rooted in neorealist, neoliberal and constructivist schools of thought. Stephen Krasner, in his book, *International Regimes*, defines regimes as “implicit or explicit principles, norms, rules and decision-making procedures around which actors’ expectations converge in a given area of international relations”.¹¹ Principles refer to “beliefs of fact, causation or rectitude”, for example, the notion that IPRs protection stimulates creativity and innovation for socio-economic growth.¹² Norms refer to “standards of behaviour defined in terms of rights and obligations.”¹³ Rules are “specific prescriptions or proscriptions for action.”¹⁴ Decision-making procedures are “prevailing practices for making and implementing collective choice.”¹⁵

According to Dougherty and Pfaltzgraff, regimes may either be formal or informal.¹⁶ Formal regimes may possess bureaucratic structures and governing councils. On the other hand, informal regimes may be based on mutual interest and consensus of objectives among the participating countries. It may also be International Organizations (IOs) or not. The World Intellectual Property Organization (WIPO), for instance, is an International Organization (IO) which administers IP issues, but currently there is no central IO for human rights.

Neo- Liberals, including Robert Keohane argue that international institutions at most, bring about an environment conducive for the convergence of state interests, which facilitate

regime cooperation.¹⁷ Consequently, an institutionalized regime can exert influence in international politics and coordinate behaviour around an issue, which is practically independent of sovereign states. This is crucial, because in the absence of an overall governing authority on the international scene, regimes assume world governance to ensure compliance and cooperation among states.

A key proponent of neo-realism, Joseph M. Grieco, in his book, *Cooperation Among Nations*, states that regimes reflect the distribution of power in the international system.¹⁸ Another proponent, Joshua S. Goldstein, emphasizes the importance of a hegemon in creating a regime and giving it momentum, a concept termed as Hegemonic Stability Theory (H.S.T).¹⁹ He further explains that the hegemon, a dominant actor in international politics, often gains the most from the creation of global standards. The United States of America is arguably considered the hegemon of the contemporary world politics.²⁰

The theory has also been criticized for representing technocratic views of international civil servants, with agreements made behind closed doors, in lieu of being subject to openness and popular democratic representation. It has also been criticized for failing to address issues, such as, non-state actors and political change in the international system.

Notwithstanding the above criticisms, the Regime theory is of relevance to this study. Thus, in the absence of a higher authority to coordinate states behaviour on the international scene, regimes, such as, World Intellectual Property Organization (WIPO) and World Trade Organization (W.T.O) have contributed in ensuring international stability. WIPO, in particular, promotes adherence to IPRs among states, as well as, combats piracy and all forms of IP infringements globally. On its part, W.T.O has also strengthened IP systems by

championing Trade Related Aspects of Intellectual Property Rights (TRIPs), which is at the center of free trade. As a result, by agreeing to TRIPs, countries acknowledge to protect and enforce IP systems.

Ghana, a member and signatory to IP agreements, has, therefore, put in place National IP systems. In addition to the structural arrangements, the country would have to effectively explore IPRs to stimulate its domestic innovation and creativity for socio-economic gains. This will enable the country to alleviate poverty, and thereby, achieve its Millennium Development Goals (MDGs) for sustainable development.

1.7 Literature Review

The role of IPRs protection in stimulating creativity and innovation has increasingly received global attention. As a result, both the positive and negative effects of protecting IPRs to enhance creativity and innovation have extensively been researched.

With regard to the positive correlation between IPRs protection and stimulation of creativity and innovation, Nagesh Kumar, in his paper, *Intellectual Property Rights, Technology and Economic Development; Experience in Asian Countries*, argues that IPR regimes can be strengthened to trigger Foreign Direct Investment (FDI) inflows and Transfer of Technology (TOT) to affect innovative activity.²¹ Modal and Gupta, share same view that strong IP systems encourage technological transfers, which are essential for economic growth.²²

Similarly, Shaprio and Hasset, in their paper, *What ideas are worth: The Value of Intellectual Capital and Intangible Assets in the American Economy*, assert that FDI inflows come along with technological transfer from advanced countries, including the United States and Europe

to their developing counterparts.²³ The authors further indicate that weak IP protection, on the other hand, attracts less FDI inflows, less advanced technologies and counterfeit goods.

Roger Smeets and Albert de Vaal, in their publication, *Knowledge Diffusion from FDI and Intellectual Property Rights*, explain in detail how knowledge is diffused through FDI and technological inflows to enhance the creativity and innovation of the host-country.²⁴ They explain that, there are three channels along which technological know-how can be diffused between Multinational Enterprises (MNEs) affiliates and host-country firms. First, MNEs products and practices may be copied or imitated by local firms. Second, MNEs might assist their suppliers and customers in various aspects, including quality control. Third, workers employed by MNEs affiliates may later be employed by local firms, subsequently knowledge diffusion can be achieved through labour turnover.

Smeets and Vaal further mention that knowledge diffusion can be intentional or unintentional. The intentional knowledge diffusion termed as “knowledge transfer” is a deliberate transfer of knowledge to local firms to ensure quality in the supply chain. Whilst unintentional knowledge diffusion termed as “knowledge spill-over” constitutes an externality and a market failure. They argue that a well-defined IPR system corrects the knowledge spill-over by providing creators and innovators with sufficient means to appropriate their creations and inventions. Consequently, a reduction in the knowledge spill-overs is expected to induce individuals and businesses to increase their resources invested in creative and innovative activities.

On its part, the International Chamber of Commerce (ICC), in its publication, *Intellectual Property: Powerhouse for Innovation and Economic Growth*, indicates that effective IPR protection provides innovative firms and individuals with the needed incentives to invest in Research and Development (R&D) in order to produce more desirable new innovations.²⁵

Lall and Albaladejo, in their publication, *Indicators of the Relative Importance of IPRs in Developing Countries*, also note that supporters of IPRs argue that a lot of benefits can be derived from exploring IP systems.²⁶ Among others, a strong IP system protects an invention for the exclusive use of it by its inventor; serves as a business leverage; ensures legal recognition to the invention that enables its enforcement in the court of law; provides incentive and good source for further developmental work by third parties; provides huge source of information for public use; encourages fair trade; and contributes to socio-economic development.

In sum, the aforementioned studies reviewed point to positive correlation between IPRs protection and stimulation of creativity and innovation. Among others, the studies indicate that protection of IPRs encourages influx of FDIs, who come along with technological inflows to enhance host country's innovation. Additionally, protection of IPRs serves as incentives for inventors and creators to invest in research to further creative and innovative activities, which in turn, spur socio-economic growth. Besides all these benefits, there are also costs associated with IPRs protection. The above literature reviewed, however, focused mainly on the pluses of IPRs protection, without stating the minuses associated with it.

With respect to adverse effect of IPRs protection in relation to creativity and innovation, Michele Boldrin and David K. Levine, in their book, *Against Intellectual Monopoly*, describe

IPRs, especially patent and copyright, as intellectual monopoly, which do not encourage innovation.²⁷ They argue that more innovations occur simultaneously with others, but IPRs end up giving all the rewards to the one who manages to obtain patent and monopolizes it first.²⁸ Boldrin and Levine also indicate that the introduction of copyrights for classical music in the United Kingdom in the 1700s led to a reduction of the amount of composers compared to other European countries at that time.²⁹

Again, they argue that a steam engine inventor, James Watt, during the sixteenth century, monopolized a patent he obtained for his invention to block other inventors from producing similar engines. Significantly, after the expiration of Watt's patent, production of engines enhanced.³⁰ They also note that lack of copyright protection during the 1800s permitted English works to be pirated by United States publishers and was more profitable for the authors.³¹ They also emphasize that the software industry which began with practically no IPRs protection enhanced innovation. They, therefore, conclude that IPRs protection suppresses competition and hinders innovation.

In the same vein, World Bank, in its publication, *Intellectual Property: Balancing Incentives with Competitive Access in 2001*, asserts that developing countries lack the requisite human capacities needed to acquire domestic innovation.³² As a result, the countries have embraced low-cost imitation in order to build their capacities. It also stresses that the less developed countries face challenges, such as, high administrative costs, high prices of medicines, undeveloped labour force, absence of key technological inputs and lack of political will to adopt appropriate initiatives.

It further states that most developing countries ceded to the terms of Trade Related Aspects of Intellectual Property Rights (TRIPs) in order to obtain certain gains from their advanced counterparts.³³ The gains, according to the World Bank, range from increased access to the agricultural and apparel markets to transfer of technology and innovation in rich nations.³⁴ However, evidence suggests that the anticipated benefits appear uncertain, while the poorest countries are unable to afford the high cost of implementing IP systems.

A growing number of researches including Leger³⁵ and Markus³⁶ have also expressed similar views that IPRs do little to stimulate innovation in developing countries because the Research and Development (R&D) needed for innovation is absent.

Juma and Ojwang, in their book, *Innovation and Sovereignty: The Patent Debate in African Development*, calls for an introduction of a new IP measurement that takes into accounts traditional technologies and other innovative activities.³⁷ Bessen and Meurer, in their book, *Patent Failure: How Judges, Bureaucrats and Lawyers put Innovators at Risk*, explain further that exporting the measurement used in developed countries to developing countries, for instance, the citation of patent registration to influence decision making, does not cater for a specific national need and certain nuances.³⁸

In sum, Boldrin and Levine argue that protection of IPRs suppresses diffusion of knowledge essential for creativity and innovation.³⁹ They, therefore, call for the elimination of IPRs monopoly. Similarly, studies conducted by the World Bank⁴⁰, Leger⁴¹ and Markus⁴² also indicate that protection of IPRs do not necessarily result in stimulating domestic creativity and innovation. They explain that developing countries unlike their developed counterparts are confronted with a myriad of challenges, such as, absence of Research & Development,

lack of key technological inputs, undeveloped labour force, lack of political will to adopt appropriate initiatives and high IP administrative costs that the poor cannot afford, elements which are crucial in stimulating domestic creativity and innovation. The World Bank, in particular, asserts that most developing countries ceded to TRIPs agreement in order to obtain some gains including transfer of technology and innovation from the rich nations, which till date, have not materialized.⁴³

The visible shortfall of the above reviewed literature is that they focused on assessing the subject matter in relation to the developed and developing countries, in general, but fail to scrutinize the situation of Ghana, in particular. Meanwhile, there is evidence about the Ghanaian case which is also worth noting.

In respect of the Ghanaian context, Muchie and Baskaran, in their edited book, *Creating Systems of Innovation in Africa: Country Case studies*, provides a micro assessment of the country's National Innovation System (NIS) in relation to public research.⁴⁴ They indicate that creative and innovative activities are below expectation due to poor management of the country's human resources and underdeveloped institutional arrangements. They add that IP information is also poorly documented⁴⁵, and the country's creative and innovative potentials remain highly underutilized.⁴⁶ They also note that research institutes and universities have no central frameworks in place that regulate IP issues.⁴⁷ They further enumerate a number of challenges, which are associated with R&D in Ghana, including lack of resources and funds.

Boatema Boateng, in her article, *The copyright thing doesn't work here: Adinkra and Kente Cloth and Intellectual Property in Ghana*, argues that the Adinkra and Kente textiles associated with the Asante and the Ghanaian culture are not adequately protected under the

country's current IP laws.⁴⁸ The author explains that designs and music, for instance, fall under different social, cultural and legal capital, and hence, must be treated differently.⁴⁹ Josephine Armah, in her article, *The Historical Threads: Intellectual Property Protection of Traditional Textiles Designs: the Ghanaian Experience and African Perspective* argues that folklore, which encompasses indigenous knowledge should be protected and strengthened in Ghana.⁵⁰

Kevin Smith, in his article, *Can we protect "traditional knowledge?" Should we?* The author describes Ghana's IP laws covering Traditional knowledge as unusual.⁵¹ He argues that traditional knowledge includes range of issues, such as, traditional medicine, which cannot be treated same as the works of authorship, such as, dance.⁵² He also questions the benefit and interest of the varied and ancient people, as folklore in Ghana are vested in the President of the Republic.⁵³

The aforementioned studies make insightful conclusions with respect to certain dimensions of IPRs protection in Ghana. The studies indicate that Ghana's Research and Development (R&D) is not well enhanced to stimulate innovation. They further assert that Traditional Knowledge (TK), which the country can explore to encourage its domestic creativity and innovation, is not adequately covered under the country's IP systems. Also, absence of IP protection for TK legitimizes piracy of traditional knowledge, which eventually undermines the self-reliance of the poor. However, they do not address the subject matter entirely.

In conclusion, the above literatures reviewed indicate that there are both positive and negative effects in protecting IPRs to enhance creativity and innovation. The studies further reveal that differences exist between developed and developing countries in protecting IPRs to

enhance creativity and innovation due to a number of factors, including presence of R&D, technological advancement, availability of developed labour force and political will to adopt appropriate initiatives. The studies also note that TK, which protection is crucial to Ghana is not adequately covered under the country's IP system. Nevertheless, most of the studies focus on developed and developing countries in general, while few studies conducted on the topic with respect to Ghana, in particular, do not entirely address how the country's national IP system and enforcement mechanisms have stimulated its domestic creativity and innovation. This study, therefore, seeks to unravel the reality on the ground.

1.8 Scope of Research

Ghana has over the past decade made a conscious effort to enact new and revise existing IP laws geared towards, among others, harnessing its domestic innovation and creativity, as well as, ensuring compliance of the laws with international treaties. These legislations are: Copyright Act, 2005; Copyright Regulations 2010; Geographical Indications Act, 2003; Industrial Designs Act, 2003; Layout Designs (Topographies) of Integrated Circuits Act, 2004; Patent Act, 2003; and Trademarks Act, 2004. This study, therefore, focuses on how the protection of the above-mentioned laws has encouraged the country's domestic innovation and creativity in a decade (2003-2013).

1.9 Sources of Data/ Research Methodology

The study is reliant on primary and secondary sources of data. The primary data were derived from unstructured interviews with IP- related stakeholders, including officials of the Registrar Generals Department (RGD), Copyright Office, Council for Scientific and Industrial Research (CSIR), a Lecturer with the Law Faculty of the University of Ghana and two other individuals who are of interest to the subject matter. The secondary sources of data consist of

books, documents, journal articles, publications, reports and internet sources. Statutory materials, conventions and treaties on Intellectual Property were also examined.

The study also adopted qualitative research method, which is primarily exploratory in nature. Qualitative research method is a kind of research that provides a detailed description of a research topic rather than generating statistical findings.⁵⁴ This research method uses techniques, such as focus groups, interviews, observation and case studies to uncover trends in thought and opinions, and dive deeper into a research problem.⁵⁵ This research method was considered most appropriate for the study because little is known about this subject area in Ghana, and as a result, it allowed for detailed insights into the research topic under consideration.

Moreover, Case study research technique was employed for this work. Case study refers to an empirical enquiry of a single person or group and its relationship to a contemporary phenomenon, within a real-life context.⁵⁶ Thus, case study enables a researcher to obtain an in-depth appreciation of an issue or phenomenon of interest, in its natural real-life context. This technique is preferred because it allows for in-depth appreciation of subject matter within the Ghanaian context.

Participants relevant to the study were selected through purposive sampling approach. According to Cresswell and Plano, purposive sampling, also called judgment sampling, is one of the several sampling approaches used in qualitative research for the identification and selection of individuals that are knowledgeable about a phenomenon of interest.⁵⁷ The rationale for using purposive sampling technique was based on respondents' knowledge and experience in the field of study.

In this connection, six respondents were selected from IP-related population. Four of them, comprising a respondent each, were drawn from the Registrar Generals Department (RGD), Copyright Office, Council for Scientific and Industrial Research (CSIR), and University of Ghana Law Faculty. The remaining two were Ghana's former Ambassador to Switzerland who was accredited to WIPO and a Senior Official of Horseman Shoes, whose company uses trademark to brand and market its products.

Moreover, a qualitative in-depth interview technique, known as Key Informant Interview (KII), was used to collect information from the respondents. KII involves interviewing selected people who have first-hand knowledge about a topic of interest.⁵⁸ Accordingly, face to face and telephone interviews were conducted to solicit information from participants, using unstructured interview guide. The unstructured interview guide allowed for flexibility in soliciting views, experiences, beliefs and suggestions of respondents about the subject matter.⁵⁹

Consequently, Key Informant Interview and Document analysis approaches were employed to ascertain accurate responses to the problem and the objectives of the study. Document or Documentary analysis is a social research method which involves analyzing and interpreting data generated from examination of documents and records relevant to a particular study.⁶⁰ Major sources of documents include public records, the media, newspapers, biography, reports and visual documents⁶¹

For ethical reasons, the names of the respondents are not disclosed to ensure anonymity.

1.9.1 Background Information of Respondents

Four senior officials were interviewed from Copyright Office, CSIR, Registrar Generals Department and University of Ghana Law Faculty. In line with the position held, the interviewees hold the following positions in their respective organizations: (i) Research Officer, (ii) Head of legal Section in charge of IP, (iii) the Chief Executive Officer of IP and (iv) a Senior Lecturer. Two of the interviewees have worked with their respective organizations for six (6) years, whereas the remaining two have worked between twenty-six (26) and thirty (30) years. The four officials were in the age range of thirty-five (35) to Sixty (60) years.

The other two interviewees were Ghana's former Ambassador to Switzerland who was accredited to WIPO and the Chief Executive Officer of Horseman Shoes, whose company uses trademark to market its products. One was over sixty (60) years of age, whereas the other was approximately 30years.

1.10 Arrangement of Chapters

This study is divided into four chapters. Chapter One provides a background to the problem and covers the research design. Chapter Two gives an overview of the Intellectual Property system. Chapter Three examines Ghana's National IP system and enforcement mechanism to determine its effectiveness in tackling IP violations and how it facilitates research activities and transfer of advanced technology to harness creativity and innovation. It further assesses the challenges and prospects of exploring the IP system to enhance creativity and innovation in the country. Chapter Four concludes the study with Summary of Findings, Conclusions and Recommendations.

End Notes

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CHAPTER TWO

AN OVERVIEW OF INTELLECTUAL PROPERTY SYSTEM

2.0 Introduction

This chapter defines Intellectual Property Rights (IPRs) and discusses the origin and the rationale for instituting such rights. It further describes the various forms of Intellectual Property Rights, while the focus is on exploring IPRs protection to enhance creativity and innovation, rather than their legal dimensions, it is useful to introduce certain legal terms that run through the study. The chapter also examines how these rights are enforced, as well as addresses Ghana's National IP system, institutional and enforcement arrangements.

2.1 Definition and Origin of IPRs

Intellectual Property (IP) refers to the creation of the human intellect that has a commercial value.¹ It might be the name a beverage producing firm takes up in selling its produce, a poem that one writes, an invention of a new type of washing machine or a discovery of a new method of preserving organic foods. The legal rights that a country like Ghana may use to protect and compensate IP owners are termed as Intellectual Property Rights (IPRs).² Intellectual Property Right, therefore, defines the legal boundaries that allow their owners to prevent an unauthorized use of their work and control copying.

The notion of protecting one's intellectual asset dates back to the ancient Greece colony. For instance, during a literary contest held in Alexandra between the years 257-180 BC, Vitruvius, who was serving as a judge noticed intellectual property theft.³ The pirates were reportedly tried, convicted and disgraced for stealing the words and phrases of others.⁴ Similarly, the chefs of the Greek colony of Sybaris were granted a year monopoly for

creating a particular culinary delight during the 500 BC.⁵ The Roman jurists are also on record to have discussed different ownership interests, which were associated with intellectual works.⁶

The above-mentioned practices of the Ancient Greece and the Romans during the first century have been described as atypical for restricting access to intellectual works; however, the current intellectual property rights prescribed by international regimes, especially patents require full disclosure for the benefit of the public.⁷

Meanwhile, IP protection gained global prominence in the late eighteenth century, when foreign exhibitors failed to attend an international exhibition of inventions in Vienna, Austria, in 1873 over fears that their ideas could be stolen.⁸ Subsequently, the Paris Convention was established in 1883, as the first major international agreement to help protect the intellectual works of creators.⁹

2.2 Rationale for the protection of IPRs

According to the World Intellectual Property Organization (WIPO), the underlying principle of an IPR protection is to stimulate and promote creativity and innovation in order to spur socio-economic growth.¹⁰ The argument is that individuals and businesses invest in time, resource, material, training and technology acquisition, among others, for their inventions and creative works to be materialized, and as a result, effective IPRs protection allows these individuals and businesses to recoup their investments and encourages them to enhance their works.¹¹ IPRs protection also assures individuals and organizations that their innovation will not be stolen by their competitors.¹² Above all, individuals and enterprises, who are

adequately rewarded for their inventions and creative works, tend to invest more in Research and Development.¹³

Furthermore, IPRs protection is beneficial to low, middle and high income countries.¹⁴ With respect to low income countries, IPR protection stimulates growth by attracting technology transfers into these countries. In high income countries, IPR protection stimulates growth by providing incentives for more innovation. Likewise, in middle income countries, IPRs protection reduces the ability of countries to acquire technology by imitating but allows the countries to attract technological inflows.

The International Chamber of Commerce (ICC) also notes that IPRs protection benefits consumers and society as a whole.¹⁵ It provides consumers with innovative products and services, ranging from the production of high quality life-saving drugs and modernized mercury-free thermometers to enhanced irrigation method for farming. It also helps in protecting consumers from acquiring low quality counterfeit products¹⁶ and benefits society as a whole, especially when the period of protection expires and the inventions enter the public domain.¹⁷ In sum, IPR gives recognition, rewards, protects and promotes ingenuity, which in turn, encourages further creativity and innovation to spur socio-economic growth.¹⁸

2.3 Types of IPRs

IPR broadly consists of two (2) main branches, namely Copyright and Industrial Property. Industrial Property also consists of a patent, trademark, industrial design and geographical indication.¹⁹ In addition to the traditional branches, new variations of IP rights, such as, Plant Varieties, Layout Designs (topographies) of integrated circuits, Trade Secrets, Undisclosed information, utility model and folklore or traditional cultural expressions have also emerged.

Below are detailed explanations of the various forms of IPR that countries can explore to enhance creativity and innovation.

2.3.1 Copy Rights and Related Rights

Copyright protects original literary and artistic works in order to ensure fair competition.²⁰ The protection extends only to original expressions but not ideas, procedures, methods, styles and techniques that constitute the subject matter of the works.²¹ It may be granted for the entire life of the author plus 50 years for individual works.²²

Copyright owners also enjoy economic and moral rights.²³ The economic rights allow the owners to receive financial rewards for the use of their works by others. On the other hand, the moral rights allow them to claim authorship or oppose changes in their work that can harm their reputation.²⁴ In other words, the law allows authors, artists, poets, singers, software developers and musicians to receive recognition and remuneration for their works. It also allows right-holders to retain, license, authorize or prohibit the use of their works by others. The right can be obtained automatically without registration or certain formalities,²⁵ however, countries provide for copyright registration to facilitate their enforcement.

Related rights are akin to copyrights and may be enjoyed by category of individuals or legal entities, including performers, producers of phonograms and broadcasters.²⁶ International treaties governing copyright include: the Berne Convention; WIPO Copyright Treaty; and Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS).²⁷

Copyright Infringement or piracy means using the original piece of a creative work without the permission of the right -holder.²⁸ These include printing and selling copies of a book

without the right owner's permission, distributing copyrighted music on the Internet and making unlicensed DVDs for sale to the public.²⁹ Copyright infringement suit can be filed by any copyright owner of a work.³⁰ Copyright is primarily a civil law rather than a criminal law, and as such, the right -holder can decide the extent to enforce his or her right.³¹

One example of copyright infringement cases is *Bright Tunes Music Corp. v. Harrison*. *Bright Tunes Music Corp.* is a music publisher and the right- holder of the song *He's So Fine*, which was composed by Ronald Mack in 1962 and recorded by the Chiffons. In 1971, *Bright Tunes Music Corp* filed a copyright infringement lawsuit against an English musician and former Beatle George Harrison in connection with his hit song *My Sweet Lord*.³² Harrison admitted hearing the song, *He's so Fine*, but insisted he did not copy it.³³ Consequently, the judge, who believed that Harrison had not intended to copy the song, based on the access and similarities between the songs, ruled in 1976 that Harrison subconsciously infringed.³⁴

Another copyright infringement case is *Fairey v. Associated Press*. In this case, Associated Press sued the famous street artist , Mr. Shepard Fairey, for appropriating a photograph of Barrack Obama to create the iconic “HOPE” poster that came to symbolize Obama’s 2008 presidential campaign.³⁵ Fairey admitted using an image based on a photograph of Mr. Obama taken in 2006 by a freelance photographer, Mannie Garcia.³⁶ In 2010, a federal judge of the United States District Court for the Southern District of New York urged the parties to resolve the issue, suggesting that Associated Press was likely to prevail in court. Consequently, as part of out of court settlement deal reached in January 2011, the infringer, Fairey, agreed not to use another Associated Press photograph in his work without obtaining license and reached at an undisclosed financial settlement.³⁷

Similarly, Jeff Koons, an influential post war artist appropriated a photograph taken by Arts Rogers of a male and a female holding a bunch of puppies.³⁸ In the course of transition of the image from cards onto sculptures, Koons made few changes to the copied image.³⁹ Koons copied work became a success and he sold three editions to the tune of 367,000 dollars.⁴⁰ After discovering that his work had been reproduced, Arts Rogers filed a suit against Koons in the United States District Court for the Southern District of New York, alleging copyright infringement.⁴¹ He further sought for compensatory and punitive damages. Koons, on the other hand, claimed that it was fair use by parody, a humorous form of a social and a literary criticism that allows one to imitate the work of another. Consequently, in 1990, a federal judge rejected Koons' parody defense and was ordered to pay damages to the plaintiff.⁴²

The above notwithstanding, countries, including Canada and United States of America make provision for fair use doctrine. The doctrine permits for some copying and distribution without permission from the right-holder.⁴³ Fair dealing may include quoting few lines of copyrighted works in research, study, review, news reportage and for giving professional advice.⁴⁴ It is usually meant to criticize or parody a copyrighted work.⁴⁵ Fair use is, therefore, a defense against copyright infringement claim.⁴⁶ A decided case supporting this concept is *Alberta (Education) v. Canadian Copyright Licensing Agency (Access Copyright)*, 2012 SCC 37. The Supreme Court of Canada, deciding on a case that involved the practice of teachers in photocopying passages from textbooks and distributing these passages to students, concluded that limited copying for educational purposes could be justified under the fair dealing exemption.⁴⁷

Another landmark fair use case is *Authors Guild v. Hathi Trust*. The Authors Guild initially sued Google in 2005 over its Books Search. Following a failed proposed settlement between

Authors Guild and Google in March 2011, the Authors Guild went ahead to sue Google's partner, Hathi Trust, in September 2011.⁴⁸ HathiTrust is in partnership with major academic research libraries and relies on Google Books Search to create digital archive of library materials.⁴⁹ The issue in contention was whether or not digitization of books constitutes a legal fair use of copyrighted material. In October 2012, a district court granted summary judgement for Hathi Trust, arguing that Hathi Trust actually served the purposes of copyright to promote science and useful arts.⁵⁰

Unsatisfied with the ruling, Authors Guild made an appeal at the Second Circuit Court of Appeals. On 30th October, 2013, the appeals court heard oral argument and subsequently ruled in favour of Hathi Trust on most issues. The Court upheld Hathi Trust's right to maintain a full-text database to search for books and make text available in formats accessible to print-disabled people.⁵¹

2.3.2 Patents

Patent is an exclusive right a sovereign state grants to an inventor to monopolize an invention for a limited period of time, in exchange for detailed disclosure of an invention or a discovery of new process of doing things to the public.⁵² An invention deemed patentable, must be useful, new, and non-obvious.

Owners of patented invention can provide access to third parties, either by requiring payment of license fees or royalties or other forms of payments dependent on the agreement reached. The right also prohibits others from buying, selling or importing the patented invention for the term of the patent, which is usually 20 years.⁵³ A patent that has been granted or yet to be

granted may be challenged, and as a result, countries stipulate limited period for third parties to challenge the grant of patents.

Even though patents are generally granted for 20 years, countries may extend the term of a patent under certain circumstances. For instance, patents which claim pharmaceutical products may be extended to allow for marketing a new medicinal product. The main international treaties governing this type of IPR include: Patent Cooperation Treaty (PCT); Paris Convention for the protection of Industrial Property; TRIPs Agreement under the World Trade Organization; and Budapest Treaty.

An example of patent infringement case is *Nintendo v. Tomita*. In 2011, Tomita Technologies International Inc. filed a lawsuit against Nintendo Co. Ltd, claiming that the latter had infringed its patented 3DS handheld video game system. The patent relates to a technology for providing 3-D images without the need for 3-D glasses. A federal jury in New York, deciding on the case sided with Tomita and ordered Nintendo Co. Ltd to pay compensatory damage to the tune of \$30.2 million to Tomita.⁵⁴

A defense for patent infringement claim is “patent exhaustion” or “first sale” doctrine practiced in the United States of America.⁵⁵ This doctrine limits the extent to which a patent owner can control a patented article after its first sale. The doctrine stipulates that once an unrestricted authorized sale of a patented product occurs, the exclusive right of the patent holder to control the sale and use of the patented article are exhausted.⁵⁶ This enables the purchaser, or any subsequent owner to use or resell that article. However, such sale does not permit the purchaser to make new copies of the patented invention.

The patent exhaustion doctrine was the subject of United States Supreme Court's decision in *Bowman v. Monsanto*, 133 S.Ct. 1761 (2012). The plaintiff, Monsanto invented and patented Roundup Ready soybean seeds that contained a genetic alteration that allowed the seeds to survive exposure to the herbicide glyphosate.⁵⁷ Monsanto licensing agreement also permitted farmers to plant the purchased seed in only one growing season. Growers could consume or sell the resulting crops, but may not save any of the harvested soybeans for replanting.⁵⁸ Bowman, who purchased some of the Roundup Ready soybean seed for his first crop of each growing season, in a bid to reduce cost, saved some of the harvested seed for replanting in the next season.

After discovering this practice, Monsanto sued Bowman for infringing its patent. Bowman raised the defense of patent exhaustion, which gives the purchaser of a patented article, or any subsequent owner, the right to use or resell that article. The District Court rejected Bowman's defense and awarded Monsanto damages to the tune of \$84,456.⁵⁹ The Federal Circuit also affirmed the decision⁶⁰, stating that Patent exhaustion does not permit a farmer to reproduce patented seeds through planting and harvesting without the right-holder's permission.

Again, in the case of *Quanta Computer, Inc. v. LG Electronics, Inc.*, 170 L. Ed. 2d 996 (2008), the plaintiff, LG Electronics, owned patents covering computer systems, including microprocessor chips used in personal computers.⁶¹ LG licensed its patents to Intel. The terms of the license permitted Intel to produce and sell microprocessors and chipsets covered by the LG patents⁶². The license, however, contained the limitation that no license was to be granted to any third party to combine the licensed products with components from another

source. In addition, the license also stated that it did not alter the doctrine of patent exhaustion.⁶³

The agreement also excluded from the license any Intel customer that integrated the chip with non-Intel components. Quanta was a computer manufacturer who purchased microprocessors and chipsets from Intel. Despite receiving Intel's notice, Quanta used LG's patented chips in computers made for non-Intel components, including Dell, Hewlett-Packard and Gateway. LG sued Quanta for patent infringement.⁶⁴ LG Electronics sued those who passed the chips down the line of commerce to companies that had not purchased licenses.

In deciding the case, the court concluded unanimously that patent exhaustion applied because the only reasonable and intended use of the Intel products sold to Quanta was to include them in computers that practice the LG patents.⁶⁵ The theory of "patent exhaustion," which states that a patented item's initial authorized sale terminates all patent rights to that item, was invoked to deny LG of all its royalties from companies down the line of commerce.

2.3.3 Trademarks and Service marks

Trademarks and Service marks are rights granted to distinctive brand name, word, phrase, logo, symbol, design, packaging, image, colour, or a combination of these elements affixed to products or services, which distinguish that of one from those of another.⁶⁶ In other words, trademarks allow businesses to produce or sell same products or services under an entirely different mark. For Instance, "Voltic", "Special Ice" and "Bel Aqua" are all producing bottled-mineral water for the Ghanaian market but under entirely different marks.

Trademark is the same as service-mark, except that, the latter identifies and distinguishes the source of a service instead of a product.⁶⁷ As a result, the terms “trademark” and “mark” are commonly used to mean both trademarks and service-marks. Trademarks such as “Nike”, “KFC”, “Unilever”, “Volvo” and “Microsoft” are valuable IP assets for their owners. Likewise, service marks such as, “Ghana International Airlines (GIA)”, “University of Ghana (UG)”, “ Emirates”, “DHL” and “FedEx express.” Trademarks, therefore, enable customers to know the source of what they are purchasing, as well as provide an incentive for manufacturers or suppliers to constantly supply high-quality innovative goods or services.

Trademark infringement constitutes an unauthorized use of a mark in connection with goods or services that is likely to cause confusion, deception, or mistake the source of particular goods or services. The right owner, whose mark is being infringed, may file a civil action in a court.⁶⁸ The available remedies, in case of trademark infringement, may include: a court injunction that stops the defendant from using the accused mark; an order requiring the destruction of infringing article; and monetary relief, including payment of any sustained damages incurred by the plaintiff.⁶⁹ To make a strong case in support of a trademark infringement claim in court, a plaintiff must prove that he owns a valid mark, that the mark is senior to that of the defendant, and that the defendant's mark is likely to cause confusion in the minds of consumers about the source of goods or services offered under the parties' marks.⁷⁰

One famous trademark infringement case is Glaxo Smith Kline Pharmaceuticals Ltd (plaintiff) – vs. – Unitech Pharmaceuticals Pvt. Ltd (defendant). The plaintiff claimed that the defendant was promoting and selling its anti-biotic tablets under the mark FEXIM, which is

deceptively similar to the plaintiff's trademark PHEXIN used for its pharmaceutical preparations. A decree was subsequently passed in favour of the plaintiff and against the defendant for permanent injunction restraining the usage of the latter's deceptive trademark.⁷¹

Similarly, a French wine company, Castel, which was established in 1949, had been using the words "*Ka Si Te*" for its marketing in China but failed to get the mark registered.⁷² Li, the proprietor of Shanghai-based Banti Wine, who had spotted the popularity of the words *Ka Si Te*, registered it.⁷³ Castel, upon discovering that the mark was being used for Li's secondary company Shanghai Ka Si Te Wine Co, attempted to get it revoked.

Li, as a result, sued Castel for unlawful use of the mark. Subsequently, in April 2013, Wenzhou Intermediate Court after deeming Li the rightful owner of the mark, ordered Castel to pay Li, and his company Shanghai Banti Wine, \$5 million damages for the use of the mark. Unsatisfied with the ruling, Castel appealed but the Zhejiang Provincial High Court upheld the fine in July 2013.⁷⁴ Still not convinced, Castel pursued an appeal at the Supreme People's Court Beijing, which was accepted.

2.3.4 Industrial designs

Industrial designs grant exclusive rights to the shape, texture, pattern or ornamentation applied to a useful article or object⁷⁵. Industrial design, which primarily consists of features intended for visual appeal may range from industrial to hand-made products. Industrial Design protection is valid for at least 10 years.⁷⁶

It may include the shape of a bag, the pattern of a designed-cloth or the ornamentation on the handle of a knife. The shape of the "Coca-Cola" contour bottle has been described as a

distinctive masterpiece industrial design.⁷⁷ Also, distinctive apparel designs associated with Ghana may include the fitted top -“kaba”, fitted long skirt -“slit”, “boubou”, “batik” and “tie & dye”. An artifact design of the “Akuaba” doll, carved from bamboo tree, is also associated with Ghana.

The right, therefore, assures the owner against unauthorized copying or imitation, thereby encouraging further creative and innovative activity in the industrial and manufacturing sectors. The creative and attractive designs also compel customers to prefer using one product over others, and contribute to the expansion of commercial activities and export of national products.⁷⁸ For instance, industrial design may attract a customer to choose “Mark and Spencer” products over that of “Giorgio Armani” and the vice-versa.

In most countries, registration of industrial design is required for it to be protected.⁷⁹ The design, seeking to be registered, must be "new" or "original".⁸⁰ Once a design is registered, the term of protection is generally five years, with the possibility of further periods of renewal, usually up to 15 years.⁸¹ Industrial design protection, in general, is limited to the nation that grants the protection. Meanwhile, the Hague Agreement Concerning the International Registration of Industrial Designs allows for an applicant to file a single international application with WIPO.⁸² Some national laws allow for industrial design to be protected as artisan work under copyright law, while in other countries, industrial design may be protected under unfair competition law.⁸³

A registered industrial design is infringed, if a person or a company without a license or consent of the right holder, does any of the following while registration is still in force: fraudulently imitates the design; or uses the design for commercial purposes.⁸⁴ In case of

industrial design infringement, the right-holder can, first and foremost, decide to send a “desist letter” to the alleged infringer, alerting him of a possible IP conflict, and should the infringement persists, the owner could decide to take all appropriate legal measures against the infringer, as provided for by the applicable law.⁸⁵

The recent case of *Apple v. Samsung* illustrates an industrial design infringement. Apple filed a lawsuit against Samsung’s Galaxy-line of smart phones and tablets for infringing its industrial designs protecting the features of Apple’s iPhone and iPad, as well as an interface of iPhone. In the end, the jury upheld Apple’s registered designs and Samsung was found to have infringed a number of iPhone and iPad designs, including the D’305 design for the graphical interface.⁸⁶

Another case illustrating what constitutes an Industrial Design infringement is *Bodum USA, Inc. and Pi Design AG v. Trudeau Corporation Inc.* In this case, Bodum filed a lawsuit against Trudeau for infringement of two Industrial Designs (IDs) relating to double wall glasses.⁸⁷ Trudeau denied the allegations and counterclaimed for invalidity of the Bodum’s Industrial Designs. By comparing the two designs, the Court held that industrial designs and prior art must be compared by ignoring functional matters.⁸⁸ The Court explained that what matters in deciding industrial design infringement cases are the ornamentation, pattern, design, shape and configuration of the article in question. The Court thus ignored the construction, colour, as well as material processes and analyzed the alleged infringement from the point of view of an informed consumer.⁸⁹

Consequently, deciding whether the alleged infringement has the same shape or pattern, and eliminating the question of functional identity, the Court held that there was no infringement,

explaining that the defendant's glasses had none of the features of the Industrial Designs in question.⁹⁰ The Court also held that an industrial design must substantially vary from the prior art and that a simple variation is not sufficient to be considered an infringement to paralyze the market. The court, therefore, concluded that Bodum's industrial designs do not satisfy the requirement of substantial originality and must be expunged from the register.⁹¹

2.3.5 Geographical indications

Geographical Indication (GI) or Appellation of Origin refers to a distinctive name or sign used on certain product to identify the origin and quality, reputation or other inherent characteristics accorded the place of origin.⁹² Examples of GI may include: Columbian coffee; India Basmati rice; Ghanaian cocoa and Indian Darjeeling tea.

The right prevents unauthorized parties from using a protected Geographical Indication (GI) for products not associated with particular geographical location or avoid misleading the public of a product's true origin. The right, however, does not prevent others from making a product using the same techniques.⁹³ It is usually obtained by the acquisition of a right over the sign that constitutes the indication and is typically used for agricultural products, foodstuffs, handicrafts, industrial products, and wine and spirit drinks.⁹⁴

Additionally, different countries and various regional groupings protect Geographical Indication through a wide variety of approaches. Meanwhile, the TRIPs Agreement does not in any way oblige countries to extend protection to a particular geographical indication unless that GI is protected in the country of its origin.⁹⁵ Even though registration of the geographical indication in most countries is not mandatory as an unregistered GI can also be enforced by

initiating an action against an infringer. However, a certificate indicating the registration of geographical indication serves as prima facie evidence of its validity.

2.3.6 Plant Variety Rights

Plant Variety Right (PVR) or Plant Breeders' Right (PBR) is granted to breeders of new, distinct, uniform and stable plant varieties. The distinctiveness of a plant variety may be based on the comparative DNA or the uniqueness of morphological characteristics. Its uniformity may be based on limited production of "off-types".⁹⁶ Its stability may also be demonstrated if progeny plants retain key characteristics across generations. Plant variety protection is usually valid for at least 20 years. Most countries also give exemptions for farmers to save and replant seeds, and for the use of protected materials for further breeding. Examples of varieties protected under PVR are "Zee Sweet" fruit tree and "Pink Iceberg" variety.⁹⁷

A landmark case of Plant Variety Infringement is Rijk Zwaan lawsuit against Agriseeds. A Dutch seed company, Rijk Zwaan, following confirmatory DNA test that its patented lettuce variety Ballerina RZ had been reproduced by Italian company Agriseeds without permission, filed a lawsuit against the latter on 23rd June, 2006. Consequently, in January 2011, the Court of Milan decided that Agriseeds had infringed Rijk Zwaan's right and the company was entitled to damages. The Court, therefore, ordered Agriseeds to pay Rijk Zwaan EUR 205,701 plus re-evaluation, interests and legal costs incurred.⁹⁸

Likewise, José Domingo Godoy Huidobro (the breeder of the popular plum variety "Constansa"), filed a civil lawsuit against two agricultural export companies and two farmers, for infringing its registered variety.⁹⁹ The defendants were cultivating and exporting the plant

variety in their agricultural land without the owner's permission, an act which constituted a breach of Chile's Plant Variety Rights Law No 19.342.¹⁰⁰

A civil court in Chile, deciding the case, ordered the two agricultural companies to pay about US\$4.4 million for infringing the plant variety rights of José Domingo Godoy Huidobro.¹⁰¹ The court also ordered the defendants to restore 27,000 trees and plants to the plaintiff, replacing those which the defendants' had illegally grown and harvested.¹⁰² In addition to the ruling, the U.S. Patent and Trademarks Office also confirmed Mr. Godoy's patent over the fruit variety, and for that reason, considers import of the Constansa Plum into the United States of America by third parties an infringement of the patent.¹⁰³

2.3.7 Layout Designs (topographies) of integrated circuits

It is a specific sui generis form of protection for design of integrated computer circuits. As the inventive step is often minimal and originality is the only requirement, the minimum period of protection under TRIPS is 10 years.¹⁰⁴

2.3.8 Trade Secrets

Trade secret or Undisclosed Information consists of commercially valuable information about production methods, clientele, and pattern, among others, that a business maintains as a secret in order to have an edge over other competitors.¹⁰⁵ Unlike other forms of IP, trade secret is protected without registration or any procedural formalities.¹⁰⁶ Consequently, Trade secret is protected, as long as, it remains a secret by law to prevent unfair acquisition and unauthorized disclosure.

However, the protection of a trade secret requires that the information must be secret, have commercial value and must have been subjected to reasonable steps by the rightful owner of the information.¹⁰⁷ For example, the formula for the production of “Coca Cola” soft drink has been a long kept secret. Pooley notes that all patented inventions begin as trade secrets.¹⁰⁸ Thus, trade secret serves as an incentive for investing in risky research to develop an innovative product or service.

An example of trade secret infringement case is *Eli Lilly and Company, Lilly (China) R& D Co. Ltd. v. Huang Mengwei*. The applicant Eli Lilly and Company made a case against the behaviour of its departing employee, Huang Mengwei , for misappropriating the company’s trade secret documents.¹⁰⁹ Consequently, the applicant succeeded in requesting the Court’s permission to preserve the defendant, Huang Mengwei’s behavior, a decision which proved an infringement of the plaintiff’s trade secret.

2.3.9 Unfair competition

Unfair competition refers to any act or practice carried out in the course of industrial or commercial activities contrary to honest practices. It is usually carried out in order to gain unfair competitive advantage.¹¹⁰ These practices may include dumping, misleading advertising or counterfeiting. Even though unfair competition is not an IPR, it forms part of IP protection, as a general principle of law that prohibits acts contrary to honest practices.

An example of an unfair competition case is *BMW AG v. Guangzhou Shiji Boachi Clothing Co. Ltd.* Bayerische Motoren Werke Aktiengesellschaft (BMW), filed a lawsuit against Guangzhou Shiji Baochi Clothing Industries Co., Ltd (Guangzhou Baochi Company) , arguing that it registered BMW trade mark in China in relation to automobiles, clothes and

shoes had been infringed by the defendant.¹¹¹ Beijing Supreme People's court, in deciding the case, established that Guangzhou Baochi Company had indeed exploited the plaintiff's trademark on its products and in its ads, in a manner that confuses and misleads the populace.¹¹² The court further asserted that the defendant's action was intended to benefit from BMW's goodwill, and thus, constituted an act of unfair competition.¹¹³

However, BMW could neither prove its actual economic loss nor the profit gained by the defendant, Guangzhou Baochi Company. As a result, the Court initially ordered the defendant to pay BMW compensation of 530,000 Yuan (about US\$85,000).¹¹⁴ Subsequently, the Court, after establishing sufficient evidence of the defendant's subjective malicious act, as well as the fame garnered by the plaintiff's registered mark, awarded BMW additional damages of 2 million Yuan (about US\$320,500).¹¹⁵ The Court also imposed a civil sanction to the tune of 100,000 Yuan fine on Guangzhou Baochi Company.¹¹⁶

2.3.10 Traditional knowledge

Traditional knowledge (TK) may include knowledge, know-how, skills and practices that are kept confidential and passed on from one generation to another within indigenous communities or groups of individuals often forming part of its cultural or spiritual identity.¹¹⁷ TK may also be expressed through stories, legends, folklore, rituals and songs or be found in the agricultural, ecological, scientific, medicinal and technical knowledge as well as biodiversity-related knowledge context. Ownership of TK can be claimed by traditional communities, casts, countries, families, ethnic groups and sub regions. For instance, in West Africa, ownership of traditional knowledge can be claimed for products, such as, yam, palm fruits and gari¹¹⁸ that are widely used in the sub region.

Currently, Traditional Knowledge is not considered a conventional Intellectual Property Right. Innovations based on Traditional Knowledge may be protected by other forms of Intellectual Property. Some countries have, therefore, enacted specific laws establishing minimum standards for the recognition and protection of traditional knowledge.¹¹⁹ Meanwhile, traditional communities of such countries continue to employ existing legal tools, such as, contracts, licensing and other forms of Intellectual property rights to protect their traditional knowledge.¹²⁰

In line with the above, the World Intellectual Property Organization has, since June 2002, been examining the usefulness of Traditional Knowledge databases aimed at defeating claims to patent traditional knowledge by parties, other than the rightful owners.¹²¹ The collation of the database is generally commended, however, there is considerable concern regarding the cost, access and the use of data.¹²² Concerns are that unless these databases are kept confidential repositories, they will do little to prevent the piracy of that knowledge.

The difficulty of IPR regime in protecting Traditional Knowledge has been attributed to a number of reasons. First and foremost, the emphasis of the existing western intellectual property rights regime on individual property ownership does not augur well for the collective nature of traditional knowledge.¹²³ Thus, while western intellectual property right focuses on promoting individual economic gain, most of these traditional communities, consider intellectual property as a means of maintaining group identity and survival.¹²⁴

Another key concern is that the present intellectual property right regime is seen as favouring multinationals and other non-indigenous interests at the detriment of the indigenous people.¹²⁵ In other words, the vast majority of indigenous communities, mainly in developing countries are unable to register and defend their intellectual property under the current IP

regime. Consequently, the present IP regime helps corporate organizations and entrepreneurs, to lay claim to indigenous knowledge without appropriate compensation for the communities, who developed the knowledge.¹²⁶

Lastly, the indigenous people inability to protect their traditional knowledge under the current intellectual property regime stems mainly from the challenge of satisfying the existing IP requirements.¹²⁷ For instance, intellectual property must be new, original, or distinctive to qualify for protection, while traditional knowledge may be transmitted verbally from one generation to another.

2.4 Global and Regional Institutional Arrangements

2.4.1 World Intellectual Property Organization

Formed in 1967, World Intellectual Property Organization (WIPO) is a global institution which administers IP issues.¹²⁸ The Convention establishing the World Intellectual Property Organization was signed at Stockholm in 1967 and entered into force in 1970. However, the origin of WIPO dates back to the adoption of the Paris Convention and the Berne Convention in 1883 and 1886 respectively.¹²⁹ WIPO promotes adherence to IPR among member states through a number of agreements, conventions and treaties, including the Paris and Berne conventions.

2.4.2 World Trade Organization

The World Trade Organization (WTO) administers Trade-Related Aspects of Intellectual Property Rights (TRIPS). The TRIPS agreement emerged from the negotiated 1986-94 Uruguay Round and entered into force on 1st January, 1995. Since its adoption, it has remained the most comprehensive IP multilateral agreement and the first agreement to have

been introduced into the multilateral trading system. It makes reference to other IP conventions and treaties.

It also covers a number of Intellectual Property Rights, including copyrights, geographical indications, industrial designs, layout-designs of integrated circuits, patents, trademarks, trade secrets and control of anti-competitive practices in contractual licenses.¹³⁰ Unlike other IP agreements, the TRIPs agreement sets out dispute settlements, enforcements and standards.¹³¹

In line with the above, any member country of WTO including Ghana that sought to obtain easy access to the international market under the auspices of the organization had to enact and enforce strict laws mandated by TRIPS within a stipulated period. The transition period for developing countries to ensure compliance of their national laws with TRIPs expired in 2005. For the least developed countries, implementation was slated for 2013, and until 1st January, 2016 for pharmaceutical patents, which is likely to be extended.¹³²

2.4.3 African Regional Intellectual Property Organization

The regional body, African Regional Intellectual Property Organization (ARIPO), is an intergovernmental body that ensures cooperation among African States on Intellectual Property matters.¹³³ Headquartered in Harare, ARIPO covers all aspects of Intellectual Property, including copyright, geographical indications, industrial design, patents and trademarks. ARIPO consists of nineteen countries, including Ghana.¹³⁴

2.5 Protection and Enforcement of IPRs

The various Intellectual Property agreements, multinational treaties, protocols and organizations provide some form of harmonization in the protection of intellectual property under which member states are required to establish relatively detailed norms within their

national legal systems, as well as to establish enforcement measures and procedures meeting minimum standards. For instance, the Berne, Rome and Phonograms Conventions require member states to take appropriate measures necessary to ensure the application of the conventions under their domestic laws.¹³⁵ The TRIPs agreement, in particular, as stated above, requires all WTO member states to establish minimum standards of legal protection and enforcement for a number of different forms of Intellectual Property Rights (IPRs).¹³⁶

2.6 Ghana's National IP System, Institutional and Enforcement Arrangements

2.7 Ghana's National IP System

Ghana, a member and signatory to a number of IP organizations, treaties and agreements, including ARIPO, WIPO, TRIPs, Patent Cooperation Treaty, the Paris Convention and the Berne Convention, in compliance with standards set by these regimes, especially TRIPs, has, within a decade from 2003 to 2013, enacted new IP laws and revised existing ones.

These laws are: Copyright Act, 2005 (Act 690); Copyright Regulations 2010; Geographical Indications Act, 2003(Act 659); Industrial Designs Act, 2003 (Act 660); Layout Designs (Topographies) of Integrated Circuits Act, 2004(Act 667); Patent Act, 2003 (Act 657); and Trademarks Act, 2004 (Act 664).

2.7.1 Copyright Act

The Copyright Act, 2005 (Act 690), passed by the Parliament of Ghana on 17th May, 2005, replaced the previous Copyright law of 1985, P.N.D.C law 110.¹³⁷ The act affords protection for eligible artistic and literary work.¹³⁸ It also grants holders the right to their creative works and spells out the duration for copyright protection. Significantly, the Act expanded the term of protection for 70 years plus the entire life of the author.¹³⁹

It also permits authors to transfer ownership of their economic rights to third parties.¹⁴⁰ This may be done by assignment, licensing, testamentary disposition or application of the law. Licenses can be granted either in writing, verbally or inferred by conduct. Copyright registration is not required for protection; the country has, however, constituted voluntary registration in order to facilitate enforcement and settlement of disputes. Copyright and related rights are enforceable in Ghana by civil and criminal means.

The Act also protects the artistic, literary and scientific aspects of Traditional Cultural expressions, such as, dances, poems, “Adinkra” and “Kente”¹⁴¹ designs, but key aspects of folklore including the modes and methods for preparing traditional foods or medicines are not covered. Folklore is vested in the President of the Republic.¹⁴² The Act also mentions the establishment of National Folklore Board.¹⁴³

2.7.2 Copyright Regulations

Enacted in March 2010, the Copyright Regulations established procedures relating to security devices for sound recordings and audio visual works.¹⁴⁴ It also established a levy on devices used for reproduction of copyrighted materials, outlined procedures for collective administration societies, and specified the powers and jurisdiction of the Copyright Tribunal.¹⁴⁵ Under the Regulation, security devices are required to be affixed to all sound or audio-visual recordings, which are available for among others, reproduction, importation, lending or distribution to the public.¹⁴⁶

2.7.3 Geographical Indications Act

The Geographical Indications Act, 2003 (Act 659) (GIA) was adopted on 31st December, 2003 to provide protection for goods such as Ghanaian cocoa beans originating from a defined area, with certain characteristics clearly linked to their geographical origin. Under the Act, the usage of a certain designation likely to mislead the public of the actual origin of a product constitutes an offense.¹⁴⁷ In this regard, the High Court of Ghana may place an injunction or award damages on such goods.¹⁴⁸ GIA registration is not required for protection, but it gives an indication that a Geographical Indication (GI) has been registered under the Act.¹⁴⁹

2.7.4 Industrial Designs Act

The Industrial Designs Act, 2003 (Act 660) (IDA) passed on 31st December, 2003 provides protection for textiles and designs. Industrial Design registration is valid for a period of five years and may be renewed for two further consecutive terms of five years at a renewal fee.¹⁵⁰ An infringing party is liable to civil and criminal penalties.¹⁵¹

2.7.5 Layout Designs (Topographies) of Integrated Circuits Act

The Parliament of Ghana on 25th March, 2004, enacted Layout-Designs (Topographies) of Integrated Circuits Act, 2004 (Act 667) to provide protection for layout-designs (topographies) of integrated circuits and related matters.¹⁵² The protection for any layout-design is valid for ten years after the date of commencement.¹⁵³ The layout-design must be original¹⁵⁴ and must not have been commercially exploited for more than two years anywhere in the world.¹⁵⁵

2.7.6 Patent Act

The Patents Act, 2003 (Act 657) adopted on 31st December, 2003, replaced the Patent Law 1992 (P.N.D.C.L. 305A) (Patent Law). Meanwhile, the country had, since 1934, prior to independence from the United Kingdom, had patent protection mechanisms in place. The Patents Act redefined the scope of protection and sought to bring Ghana into compliance with the Trade Related Aspects of Intellectual Property (TRIPS).¹⁵⁶

The Act offers protection for patent and utility model.¹⁵⁷ It also grants patent a term of 20 years and a term of 7 years to utility model, effective from the date of filing of the application.¹⁵⁸ Certificates for patent and utility model protections can be curtailed for failure to pay annual fees. Infringing parties are treated same as offenders of Industrial Design.

2.7.7 Trademarks Act

Trademarks Act, 2004 (Act 664) (Trademarks Act) enacted in 2004 was aimed at bringing Ghana into compliance with the TRIPs agreement. The Act grants exclusive rights to its holders and allows for those who violate trademarks to be subjected to both civil and criminal penalties.¹⁵⁹ Trademark registration is valid for a period of ten years and can be renewed for consecutive periods of ten years at a fee.¹⁶⁰ So far as right owners continue to renew their registration, the marks can exist in perpetual use in Ghana. Infringing parties are liable to the same penalties as those that would be incurred for offenders of Industrial Design.

2.8 Administration and Management Structures of Ghana's IP System

In Ghana, the Registrar-General's Department (RGD) and the Copyright Office administer IP matters. The RGD of the Ministry of Justice deals with trademarks, patents, industrial designs, layout-designs and geographical indications prior to entering the Ghanaian

market.¹⁶¹ The IP outfit within the RGD currently does not have any enforcement powers; it is, however, instrumental in the initial stage of protection.¹⁶²

The Copyright Office, operating within the Ministry of Justice and under the Attorney General, is responsible for registering copyrights. Unlike the RGD, the body is also charged with the implementation of relevant laws and regulations, investigating and redressing cases of violations.¹⁶³ The Copyright Regulations adopted in 2010, established the fees, jurisdiction and powers of the Copyright Tribunal. The Copyright Tribunal, once constituted, will have the power to hear disputes concerning licensing schemes and bodies.

2.9 Institutional Structures and Enforcement of IPRs in Ghana

Apart from the Copyright Office, the following key agencies and offices are also charged with the responsibility of enforcing IPR in Ghana:

2.9.1 The Customs Division of the Ghana Revenue Authority

The Customs Division of the Ghana Revenue Authority, previously known as Customs Excise and Preventative Service (CEPS), operates under the Ghana Revenue Authority within the Ministry of Finance. As part of their mandate, the officials of Customs operate at the country's entry posts and are charged with the responsibility of policing Ghana's imports to prevent infringement and illicit products from entering the country.¹⁶⁴ As a result, Customs agents can confiscate pirated goods, conduct raids when necessary, arrest infringers and stop shipments at the country's entry border posts.¹⁶⁵ The Customs Division is, therefore, crucial in the fight against IP infringement and piracy in Ghana.

2.9.2 The Ghana Police Service

The Commercial Crime Unit (CCU) of the Criminal Investigation Department (CID) of the Ghana Police Service is designated to investigate commercial crimes, including IPR infringement.¹⁶⁶ Thus, the CCU, after ascertaining that certain goods have been infringed, in collaboration with other relevant government agencies conducts raids.¹⁶⁷ It also has the power of arrest and detains charged offenders.¹⁶⁸

2.9.3 The Ghana Standards Authority

The Ghana Standards Authority (GSA) operates within the Ministry of Trade and Industry, under the Standards Authority Act, 1973¹⁶⁹ and the Labeling Rules Amendment of 1992. The GSA sets and promotes standards that are applicable to all manufactured and imported products.¹⁷⁰ It also collaborates with other regulatory bodies to inspect, test and monitor activities.¹⁷¹ The GSA's Destination Inspection Department (DID) together with the GSA's Market Surveillance Group monitors and enforces the institution's mandate of protecting the Ghanaian population.¹⁷²

2.9.4 The Food and Drugs Board

The Food and Drugs Board (FDB) operates within the Ministry of Health under the Food and Drugs Act 1992 (FDA).¹⁷³ It is responsible for ensuring the safety of food and drugs sold on the Ghanaian market.¹⁷⁴ Hence, all foods and drugs manufactured locally or imported into Ghana must register with the FDB. It also has a Post-Market Surveillance Unit that acts as the enforcement and investigative component of the FDB.¹⁷⁵ Together with the Pharmacy Council, the FDB investigates claims of counterfeit or expired health related goods being sold on the market.¹⁷⁶

2.9.5 The Commercial Court

The Commercial Court in Ghana was inaugurated on 4th March, 2005 to deliver efficient, expeditious and effective resolution of commercial disputes which are defined in Order 58.¹⁷⁷ Order 58 introduced a new and unique process of Civil Procedure Rules C.I 47, which allows for a pre-trial settlement conference for expeditious resolution of disputes. As a result, the court thus plays a key role in the protection of IP rights in Ghana, such as, placing interim injunctions, seizure orders and the awarding of damages. It also plays a role in administrative procedures and measures such as fast tracking and case management which impinge on the efficient adjudication and enforcement of IP rights.¹⁷⁸

2.10 National Intellectual Property Policy and Strategy (NIPPS)

The Government of Ghana has introduced a regulatory framework document, termed National Intellectual Property Policy and Strategy (NIPPS), which aims at strengthening the management of IP system in Ghana.¹⁷⁹ The new policy also aims at ensuring that the country's IP system is in full compliance with the Trade Related Aspects of Intellectual Property Rights (TRIPs) and also serves as a tool of adding value to people's creative and innovative potentials.¹⁸⁰

2.11 Conclusion

Chapter Two has presented an overview of Intellectual Property Rights protection. It has assessed the origin of intellectual property, the rationale for instituting IPRs and the international regimes administering IP matters. It further examined the various Intellectual Property Rights and how they can be protected and enforced. The chapter finally addressed Ghana's National IP system, institutional and enforcement mechanisms.

EndNotes

¹See World Intellectual Property Organization. What is Intellectual Property? Available at WIPO website: <http://www.wipo.int/about-ip/en/>. Also, WIPO Intellectual Property Handbook (2004). WIPO Intellectual Property Handbook: Policy, Law & Use. WIPO Pub. No. 489(E). See also Article 27 of the Universal Declaration of Human Rights.

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³Bugbee, B., (1967), *Genesis of American Patent and Copyright Law*, Washington, DC: Public Affairs Press. Cited by Moore, A.(2014). Available at <http://plato.stanford.edu/entries/intellectual-property> [Accessed 4 September 2014]

⁴ Ibid

⁵ Ibid

⁶ Ibid

⁷ Ibid

⁸World Intellectual Property Organization. WIPO — A Brief History. Available at <http://www.wipo.int/about-wipo/en/history.html> [Accessed 4 September 2014]

⁹ Ibid

¹⁰See World Intellectual Property Organization. What is Intellectual Property? WIPO Publication No.450(E) .

¹¹ Ibid

¹²Intellectual Property Rights. Available at <http://www.businessdictionary.com/definition/intellectual-property-rights.html>. [Accessed 5 September 2014]

¹³International Chamber of Commerce. (2011). “Intellectual Property: Powerhouse for Innovation and Economic Growth”. ICC. pp12

¹⁴ Ibid

¹⁵Ibid., p 24-25

¹⁶Ibid

¹⁷ See http://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm [Accessed 7 September 2014]

¹⁸See Alikhan S.,(2000) Socio- Economic Benefits of Intellectual Property Protection in Developing Countries.

¹⁹See World Intellectual Property Organization. What is Intellectual Property? Available at WIPO website: <http://www.wipo.int/about-ip/en/>

²⁰ See Articles 1 through 21 of the Berne Convention (1971) . See also Section 1 of TRIPs agreement.

²¹ See Article 2 of TRIPs Agreement

²²See Berne Convention and referred in Article 12 of TRIPs agreement. Although Berne sets a minimum duration of a copyright in a literary work equal to the life of the author plus 50 years, in recent times, countries usually opt for the entire life of the author plus 70.

²³ See Article 6bis of the Berne Convention

²⁴Copyright Guide. Retrieved from http://www.tmweb.com/copyright.asp#Section_A11 [Accessed 5 September 2014]

²⁵See Summary of the Berne Convention for the Protection of Literary and Artistic Works (1886). Under the TRIPs Agreement, the principles of national treatment, automatic protection and independence of protection also bind those World Trade Organization (WTO) Members not party to the Berne Convention. Available at WIPO website: http://www.wipo.int/treaties/en/ip/berne/summary_berne.html. [Accessed 10 September 2014]

²⁶See Article 14 of TRIPs Agreement

²⁷Berne Convention, first signed in 1886 and revised many times, establishes minimum standards of protection as well as the principles of “national treatment”. Likewise, WIPO Copyright Treaty, first signed in 1996, ensures that computer programmes and databases are protected within the scope of copyright. The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs) administered by the World Trade Organization, entered into force in 1996, and includes provisions relating to the enforcement of IP rights. Further information may be obtained from Rights Direct website:http://www.rightsdirect.com/content/rd/en/toolbar/copyright_education/International_Copyright_Basics.html

²⁸Copyright Infringement. Retrieved from http://www.copyrightguru.com/belmont_classes/IntellectualProperties/LectureNotes/topic7_infringement/topic7_infringement.htm [Accessed 12 September 2014]

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¹¹⁷ Article 27.3b, Traditional Knowledge, Biodiversity. The TRIPS Agreement requires a review of Article 27.3(b) which deals with patentability or non-patentability of plant and animal inventions, and the protection of plant varieties. Paragraph 19 of the 2001 Doha Declaration has broadened the discussion. It also entails that the TRIPS Council looks at the relationship between the TRIPS Agreement and the UN Convention on Biological Diversity, the protection of traditional knowledge and folklore. TRIPS Council's work on these topics is expected to be guided by the TRIPS Agreement's objectives (Article 7) and principles (Article 8), and must take development issues fully into account.http://www.wto.org/English/tratop_e/trips_e/art27_3b_e.htm

¹¹⁸ Gari also known as garri, garry, or tapioca is a popular West African food made from cassava tubers. It can be found in countries including Cameroon, Sierra Leone, Benin, Togo, Ghana and Nigeria.

¹¹⁹ Tonina Simeone (17 March 2004). Indigenous Traditional Knowledge and Intellectual Property Rights. Political and Social Affairs Division. Available at <http://www.parl.gc.ca/content/lop/researchpublications/prb0338-e.htm>[Accessed 8 October 2014]

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¹³³ See. Agreement Revising the Bangui Agreement of March 2, 1977, on the Creation of an African Intellectual Property Organization (Bangui (Central African Republic), February 24, 1999).ARIPO, formerly called African Regional Industrial Property Organization, was established by the Lusaka Agreement of 1976.

¹³⁴ ARIPO website: <http://www.aripo.org/index.php/about-aripo/membership-memberstate>

¹³⁵ Article 36(1) of the Berne Convention, Article 26(1) and (2) of the Rome Convention and Article 2 of the Phonograms Convention.

¹³⁶ See Articles 42 to 49 of the TRIPS Agreement

¹³⁷ See Copyright Act 690 of 2005

¹³⁸ Ibid; Section 1. Protection does not include ideas, concepts, procedure and methods.

¹³⁹ Ibid; Section 12(1) of the Copyright Act. The protection for an author is the entire life of the author plus 70 years. For jointly authored work, protection extends to the last surviving author plus 70 after the death of that

author, while duration of protection for public corporation or other corporate bodies shall be 70 years from the date of publication.

¹⁴⁰ Ibid. Section 5 of the Copyright Act. It excludes the Moral rights stated in Section 6.

¹⁴¹ Kente is handmade multi-coloured clothing designs associated with the Akan and the Ewe ethnic groups in Ghana. Adinkra is composed of traditional symbols associated with the Asanti ethnic group in Ghana.

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CHAPTER THREE

AN ANALYSIS OF HOW THE COUNTRY'S NATIONAL IP SYSTEM AND ENFORCEMENT MECHANISMS STIMULATE CREATIVITY AND INNOVATION IN GHANA

3.0 Introduction

This chapter examines how Ghana's national IP framework and enforcement mechanisms tackle IP violations, as well as facilitate research activities and transfer of advanced technology to harness its domestic creativity and innovation. It also assesses the challenges and prospects of exploring the country's IP system to harness creativity and innovation in Ghana. Finally, data gathered from both primary and secondary sources are analyzed and organized into various headings, with the purpose of responding to the research problem and objectives stated in Chapter one.

3.1 An Assessment of the Effectiveness of the Country's IP System and Enforcement Mechanisms to Tackle IP violations to Harness Creativity and Innovation in Ghana

According to the World Intellectual Property Organization (WIPO), individuals and businesses invest in time, resources, material, training and technology acquisition for their inventions and creative works to materialize.¹ As a result, effective IP system and enforcement mechanisms used in tackling IP violations and counterfeits allow these individuals and businesses to recoup their investments and undertake more creative and innovative works.²

On the contrary, data gathered from respondents indicate that Ghana's National IP System and enforcement mechanisms have not been effective in tackling IP violations to enhance its creativity and innovation. The respondents admitted as follows:

“The widespread IP infringements, such as pirating of songs at funeral grounds, expose the inadequacies in the country's IP enforcement mechanisms, which do not provide incentives for people to take IP matters seriously.”

(Respondent from CSIR)

“Compared with other countries, our IP enforcement mechanisms have not been able to tackle IP violations, resulting in loss of goodwill and prestige held by a brand”

(Respondent from RGD)

“Looking at the continuous infringement of goods, such as DVD players and textile designs, which are openly sold on the streets, I will say that the country's IP enforcement mechanisms have not done enough to tackle the IP menace so as to reward their owners to undertake more creative works”

(Respondent from University of Ghana)

“In general, there have been violations of IP belonging to Ghanaians, although the Copyright Office has been able to redress few cases of IP violation disputes”

(Respondent from Copyright Office)

“The country's IP enforcement mechanism has not been effective in tackling counterfeits to encourage creators and innovators. Ghana's textile industries particularly have suffered from the imports of cheap counterfeited goods”

(Response by Ghana's Former Ambassador)

“I don't think our IP enforcement mechanisms have been effective in tackling IP violations to motivate people to undertake more innovative works” (**Respondent from Horseman Shoes**)

In addition to the above primary data gathered, a publication by Dominick Andoh entitled “Harmonize intellectual property laws”, revealed that registered designs of manufacturers in

Ghana are easily copied in some Asian countries, including China and smuggled as cheap products via Ghana's borders and ports onto the country's local market.³ It is estimated that the country loses about Two Hundred million USD (\$200 million) a year due to incessant piracy and counterfeiting of the country's IP products, including traditional textiles, herbal medicines and music production.⁴ Approximately, between Thirty percent (30%) and Fifty percent (50%) of pharmaceutical goods on the Ghanaian market are considered either substandard or pirated.⁵ These percentages of infringing goods sometimes reach as high as ninety percent (90%) for compact discs.⁶

According to the Ghana Employers Association (GEA), such infringed products on the local market, distort competition in the marketplace as legitimate IP businesses and industries struggle to compete with pirates, who do not contribute to development or social cost for their workers.⁷ The association further asserts that IP violations undermine the livelihood of creators and innovators and discourage them from being more creative.⁸

At the judicial front, many of the IPR cases filed at the Commercial Court have ended at the pre-trial settlement conference because parties, who are usually faced with difficulties, have opted to settle disputes amicably in order to avoid delays associated with full trials.⁹ As a result, there is dearth of reported IPR cases.¹⁰

It is indicative from the above data gathered from both primary and secondary sources that, Ghana's IP protection and enforcement mechanisms have not been effective in tackling IP violations and infringements during the period under consideration, thereby failing to adequately reward IP owners to undertake more creative works.

3.2 An Assessment of How the Country's IP System Facilitates Research Activities to Harness Creativity and Innovation in Ghana

Studies, including one conducted by the International Chamber of Commerce (ICC), indicate that IPR regimes encourage innovative firms and individuals with the needed incentives to invest in research in order to produce new innovations.¹¹ Additionally, strong IPR regimes are expected to encourage closer interactions among enterprises, universities and public research institutes in undertaking joint research and co-patenting new inventions.¹²

The under-mentioned responses gathered from interviewees, however, reveal that the country's dysfunctional IP system has rather stifled research activities, which are crucial in making discoveries and new inventions to enhance creativity and innovation in Ghana.

“There is no motivation inherent in the country's IPR regime that encourages universities, research institutes and enterprises to jointly undertake research in making discoveries and new inventions. This is because the country's IP regime does not make provision for a well-defined central framework to regulate IP inventions and discoveries borne out of public funded research among universities and public research Institutes” (Respondent from CSIR)

“Our IP regime, unfortunately, unlike that of other countries, does not make provisions such as IP tax relief to encourage companies and private sector enterprises operating in the country to invest in research and engage in activities that support Research and Development. Also, in countries like Malaysia and Singapore, when someone comes up with an innovative idea, that individual is given all the necessary financial assistance by the Government to enable him or her undertake further research to develop the idea.” (Respondent from RGD)

“There is no IP policy creating an enabling environment for inventions borne out of research conducted by researchers, lecturers and students to be transferred to local industries to generate more innovative works” (Respondent from Copyright Office)

“The country’s IP system does not create an incentive for lecturers and researchers to undertake research which aims at enhancing academic inventions.”

(Respondent from University of Ghana)

“Most companies in Ghana are not adequately investing in R&D programmes that support innovation despite the establishment of the country’s IP system”

(Response by Ghana’s Former Ambassador)

“The IP system in place does not motivate companies to invest in innovative research”

(Respondent from Horseman Shoes)

Likewise, a study conducted by United Nations Conference on Trade and Development (UNCTAD) in 2011 revealed that Ghana’s IPR system, which is dysfunctional and hesitant to being reviewed, lacks central frameworks that regulate how inventions borne out of research conducted by the universities or research institutes are to be handled, transferred or assigned.¹³ As a result, inventions and discoveries borne out of research undertaken by universities and research institutes, which could have been converted into IP assets, remain idle on the shelves and in in-house journals respectively.¹⁴

Another study conducted by *Muchie and Baskaran in 2013* enumerated a number of inventions borne out of R&D conducted by Ghana’s public research institutes, which are yet to be registered as IP assets, to boost the country’s innovative capacity.¹⁵ Among others, these include:

- a) A cassava processing plant developed by Scientists of the Institute of Industrial Research (IIR) remains unutilized.¹⁶
- b) An initiative of the World Bank and a private firm co-sponsored oil palm kernel separator project, which was developed by IIR to be an improvement of the traditional clay-slurry method remains idle.¹⁷ Meanwhile, using the traditional

method, four women require two days to produce a 50 kg bag of palm kernel, while the mechanized separator completes same job in 15 minutes.¹⁸

- c) A number of improved varieties of maize, cassava, and vegetables produced by the Crop Research Institute (CRI), which yield more than conventional varieties and are more resistance to disease, have not been put to use.¹⁹ For instance, the maize, can yield between 1.5t/ha and 7t/ha, and the cassava can yield between 4t/ha and 35t/ha.²⁰
- d) A ten-year rice production project, which was spearheaded by the food scientists of the CSIR and aimed at improving the purity and appearance of the local rice production that could have substituted the imported rice from Asia and other countries had to be halted.²¹

It may be deduced from the aforementioned that, the inadequacies in the country's IP regime do not encourage universities, enterprises, and public research institutes to undertake serious research aimed at making discoveries and new inventions to boost the country's domestic creative and innovative capacities. The persistent poor research culture resulting from the country's dysfunctional IP system has therefore stifled creativity and innovation in Ghana.

3.3 An Assessment of How the Country's IP System Facilitates Transfer of Advanced Technology to Enhance Creativity and Innovation in Ghana

Studies, including one conducted by Shaprio and Hasset ²², confirm that a strong IP system boosts investor confidence in the economies of developing countries like Ghana and attracts FDIs from the advanced countries, who come along with advanced technologies. Consequently, the creativity and innovation of the host country is enhanced with the acquisition and diffusion of the advanced technological knowledge from the multinational

enterprises into its local firms. They equally assert that a weak IP system attracts less advanced technologies.

Accordingly, data gathered from respondents, however, indicate that the establishment of Ghana's IP framework has not facilitated inflows of advanced technology to harness the country's domestic creativity and innovation. As a result, local firms and companies operating in the country continue to depend on low technology. The respondents recounted as follows:

"I can't confidently say that the country's domestic technological innovation has been enhanced, to be able to apply technological solutions to the myriad of issues that confront the country's agricultural sector. For instance, there has been low technological application in agro-processing, crop and fishery production" **(Respondent from CSIR)**

"The country's IP system has not facilitated its domestic technological innovation, as multinational companies continue to import equipment and technical personnel from abroad" **(Respondent from RGD)**

"There has not been an increase in transfer of advanced technology to boost innovation in the country, resulting in local SMEs continuous dependence on second-hand and old technology for their operations" **(Response by Ghana's Former Ambassador)**

"I am not sure that the country's protection of IP has enhanced its technological innovation" **(Respondent from University of Ghana)**

"There has not been much patenting of technological innovations in Ghana. Even though there has been considerable increase in FDI inflows into the country, particularly in the oil and gas, communication and banking sectors" **(Respondent from Copyright Office)**

"The Country's technological innovation is still lacking behind despite instituting an IP system" **(Respondent from Horseman Shoes)**

Additionally, the World Economic Forum's Global Competitiveness Index of 2013 revealed that out of 133 countries, Ghana ranked 112th on technological readiness, 115th on innovation and 98th on business sophistication putting the country at bottom tier along with other sub-Saharan countries with "factor-driven" economies.²³ It attributed the country's poor performance to, among others, its limited capacity to harness technology and innovation in order to create competitive innovative industries in the international market.²⁴

In sum, the study has revealed that individuals and companies operating in Ghana have resorted to low level technology despite the institution of the IP system, which was expected to ensure the inflows of advanced technology to enhance the country's technological innovation.

3.4 An Examination of the Challenges in Exploring the Country's IP System to Harness Creativity and Innovation in Ghana

The under-mentioned responses were gathered as the challenges in exploring the country's IP system to stimulate creativity and innovation in Ghana.

*"People are not aware about the establishment of the country's IP system and how it can be explored to harness creativity and innovation. Some do not even know where to register their IP assets. Also, the absence of a Coordinating Council that oversees IP institutions and units within the MDAs adversely affects IP operations in Ghana."***(Respondent from RGD)**

*"Generally, Ghanaians do not see the need or are unaware that in addition to registering their companies, they are supposed to register their marks, logos or designs. The situation accounts for the continuous piracy of creative assets belonging to Ghanaians. "***(Respondent from Horseman Shoes)**

“I am of the view that the absence of a government-sponsored venture fund programs to assist local IP firms in acquiring new technology to support local entrepreneurship and innovation is a challenge. Also, public funding of research is inadequate and there is no central framework that regulates joint research and co-patenting of inventions among research institutes, universities and enterprises” (Respondent from CSIR)

“The Ghanaian populace is rarely familiar with IP matters and makes no sense to protect one’s IP. Additionally, people do not consider IP as a private right which cannot be used without the owner’s permission” (Respondent from Copyright Office)

“Access to finance remains a major challenge. For instance, securing funds from financial institutions to develop a creative idea that will be converted into an IP asset is virtually impossible.” (Respondent from University of Ghana)

“The country’s underdeveloped manufacturing base and its limited human and institutional capacities remain a challenge in exploring the country’s IP system to harness its innovation.” (Response by Ghana’s Former Ambassador)

In sum, the country’s underdeveloped manufacturing base, limited human and institutional capacities, poor IP awareness, absence of an IP Coordinating Council, absence of government IP- sponsored programmes, inadequate public funding for research and difficulty in accessing funds to support IP- related activities, have hindered creativity and innovation in Ghana, in the country’s attempts to explore the existing IP system to its advantage.

3.5 An Examination of the Prospects of Exploring the Country's IP System to Harness Creativity and Innovation in Ghana

Notwithstanding the above-mentioned setbacks, it was gathered that the country's IP system inherently has numerous prospects and potentials which can be exploited to harness creativity and innovation in Ghana. The interviewees indicated as follows:

“Ghana has the potential of reviewing and utilizing its IP system to trigger research activities among the various research institutes, universities and enterprises that are in existence, to harness its creativity and innovation”
(Respondent from CSIR)

“The already instituted legal and structural IP frameworks can be strengthened to effectively tackle IP violations in order to generate creative and innovative activities in the country”
(Respondent from RGD)

“The established Collective Management Organizations (CMO), including Ghana Music Rights Organization (GHAMRO), Audiovisual Rights Society of Ghana (ARSOG) and COPYGHANA, which are overseen by the Copyright Office and serve as a link between users and copyright owners, can be strengthened to collect the requisite royalties due creators of artistic works”
(Respondent from Copyright Office)

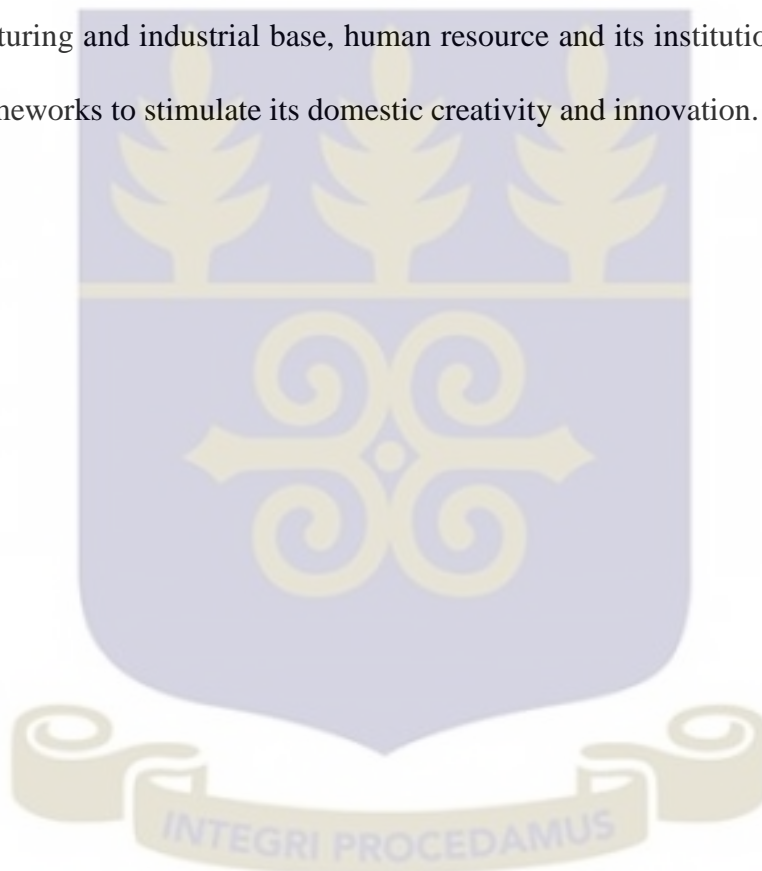
“The country is endowed with human resource whose capacity can be equipped to exploit the country's IP system to harness innovation ”
(Respondent from University of Ghana)

“The country is endowed with distinctive products, articles and raw materials such as cocoa, minerals, timber, cotton, oil and pineapple, of which IP can be utilized as a tool for adding value to them in enhancing the country's domestic creativity and innovation. Ghana also has a rich tradition of weaving unique African fabrics such as Kente cloth and batik, which has the potential to be expanded internationally through niche markets”
(Response by Ghana's Former Ambassador)

“Ghana is rich in talent and creativity in many fields of human endeavour, including arts that can be harnessed by exploring the country's IP system”
(Respondent from Horseman Shoes)

The above primary data gathered was buttressed by W.T.O report that Ghana has a relatively broad and diverse industrial base, including aluminium smelting, timber, cement manufacturing, oil refining and pharmaceuticals, which IP system can be used to harness domestic innovation for socio-economic gains.²⁵

In sum, the above data gathered from both primary and secondary sources indicate that Ghana can explore its national IP system by taking advantage of its relatively broad and diverse manufacturing and industrial base, human resource and its institutionalized legal and structural IP frameworks to stimulate its domestic creativity and innovation.



End Notes

¹See World Intellectual Property Organization. What is Intellectual Property? WIPO Publication No.450(E) .

² Ibid

³ Harmonize intellectual property laws by Dominick Andoh. Business and Financial Times Publication. , <http://thebftonline.com/content/gov%E2%80%99t-harmonise-intellectual-property-laws> [Accessed 28 October 2014]

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⁵ Ibid

⁶ Ibid

⁷ Piracy and Counterfeiting a drain on local Industries GEA. Ghana News Agency publication. Retrieved from <http://www.ghananewsagency.org/economics/piracy-and-counterfeiting-a-drain-on-local-industries-gea-77544>. [Accessed 28 October 2014]

⁸ Ibid

⁹Sowah, H. C. (2009). Civil and administrative procedure and remedies: Issues in the adjudication of intellectual property cases in Ghana. Newsletter of the Judicial Training Institute. 2nd Edition . *The Judiciary Bulletin* , 35-38. Retrieved from <http://jtighana.org>. [Accessed 25 October 2014].

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¹¹International Chamber of Commerce (2011) “Intellectual Property: Powerhouse for Innovation and Economic Growth”. ICC.

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¹⁴ Ibid

¹⁵Muchie, M. & Baskaran, A. eds. (2013). Creating systems of innovation in Africa: country case studies. Africa Institute of South Africa (AISA), TUT and Aalborg University, Pretoria, South Africa.

¹⁶ Ibid. p34

¹⁷ Ibid. p34

¹⁸ Ibid.p34

¹⁹ Ibid. p 35

²⁰ Ibid. p35

²¹ Ibid. p 34

²²Shapiro, R. J. & Hassett, K. A. (2005). The Economic Value of Intellectual Property. WIPO

²³Science, Technology and Innovation Policy Review – Ghana.(2011). UNCTAD/DTL/STICT/2009/8. United Nations : New York and Geneva. Available at http://unctad.org/en/docs/dtlstict20098_en.pdf . pp 2 [Accessed 4 November 2014]

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²⁵ Trade Policy Review (16th April 2014). Report by Secretariat –Ghana .World Trade Organization .WT /TPR/S/298. Available at http://www.wto.org/english/tratop_e/tpr_e/s298_e.pdf [Accessed 14 November 2014]

CHAPTER FOUR

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

4.0 Introduction

The study sought to assess the role of Ghana's national Intellectual Property system in stimulating creativity and innovation in Ghana for the period 2003 to 2013. Specifically, the study aimed at determining the effectiveness of the country's IP system and enforcement mechanism in tackling IP violations, and how the system facilitates research activities and transfer of advanced technology to stimulate creativity and innovation in Ghana. It also examined the challenges and prospects of exploring the country's IP system to harness its creativity and innovation. Situated within the framework of Regime Theory, the study was guided by the hypothesis that Ghana's dysfunctional national IP system and enforcement mechanisms have stifled the country's domestic creativity and innovation. This chapter ultimately presents the key findings, draws conclusions and makes recommendations for policy consideration.

4.1 Summary of Findings

From the results gathered, it is evident that Ghana's IP protection and enforcement mechanism are weak and unable to tackle IP violations to motivate their owners to undertake more creative works. The pertaining weak IP system and enforcement mechanism have thus resulted in incessant piracy of the country's IP products, including traditional textiles, herbal medicines and music production. Such products are easily copied in some Asian countries, including China and smuggled as cheap products via Ghana's borders and ports onto the country's local market.

The presence of such counterfeited products on the local market distort competition in the marketplace as legitimate IP industries struggle to compete with manufacturers of counterfeit goods, and undermine the livelihoods of creators and innovators. The situation has also discouraged individuals and companies from undertaking more creative and innovative works and resulted in a loss of goodwill and prestige held by brand.

Another significant finding of this study is that the country's dysfunctional IP system does not create an incentive for researchers and universities to engage in patenting and licensing of inventions borne out of research. This is due to the absence of a central framework that regulates how such inventions are to be handled, transferred or assigned.

Consequently, a number of inventions borne out of research undertaken by universities and research institutes, which could have been converted into IP assets to boost the country's innovative capacity, remain idle on the shelves and in in-house journals. Also, the pertaining IP regime does not make provisions such as IP tax relief, to encourage companies and private sector enterprises operating in the country, to invest in research activities aimed at making new discoveries.

Furthermore, the study uncovered that the country's IP system has not facilitated the diffusion and acquisition of technological innovation, even though there has been considerable increase of FDI inflows into the country, particularly in the communication, banking, oil and gas sectors. As a result, local SMEs continue to depend on second-hand and old technological products for their operations, while multinational companies operating in the country continue to import equipment and personnel with technical expertise from abroad.

The study also found that the country's underdeveloped manufacturing base, limited human and institutional capacities, poor IP awareness, absence of an IP Coordinating Council, absence of government IP- sponsored programmes, inadequate public funding for research and difficulty in accessing funds to support IP activities have hindered creativity and innovation in Ghana, as it attempts to explore the existing IP system to its advantage. Nonetheless, it emerged that the country can explore its national IP system by taking advantage of its relatively broad and diverse manufacturing and industrial base, human resource, and its institutionalized legal and structural IP frameworks to stimulate its domestic creativity and innovation.

The findings are in conformity with the hypothesis held by this study. It also justifies the theoretical framework which underlined the study (i.e. Regime Theory). The study thus highlighted the role played by regimes such as WIPO in ensuring adherence to IPRs protection among member states. Accordingly, Ghana, which is a signatory to IP agreements, has instituted a national IP system. The study, however, showed that those legal and structural arrangements are not enough to stimulate Ghana's creativity and innovation, but will have to function effectively and efficiently to achieve the desired results.

The outcome of the study also confirms studies conducted by the World Bank, Andreean Leger and Keith E. Markus that establishment of IP systems do not necessarily stimulate domestic creativity and innovation in developing countries, including Ghana, as these countries are confronted with challenges, such as absence of Research &Development, lack of key technological inputs and undeveloped labour force, which are crucial in stimulating domestic creativity and innovation.

4.2 Conclusion

The outcome of the study indicates that Ghana has the potential of exploring the country's IP system to harness its domestic creativity and innovation. However, the pertaining weak IP system coupled with its inherent constraints have stifled its creativity and innovation, resulting in poor research culture and reliant on low level technology. Against this background, it is prudent for Ghana to strategically position itself to ensure its competitiveness on the international scene by undertaking pragmatic initiatives and designing IP strategies that correspond to modern trends to harness its creative talents and potentials to spur socio-economic gains.

4.3 Recommendations

In view of the aforementioned findings, the following recommendations are made for policy consideration:

From the results gathered, the incessant IP piracy and violations have stifled creativity and innovation in Ghana; it is therefore recommended that, the various IP enforcement agencies be strengthened with the requisite logistical and human resources to effectively tackle IP infringements in order to encourage IP owners to undertake more creative and innovative works. Additionally, the Copyright Office and the Registrar Generals Department would have to initiate necessary actions on reviewing the country's IP legal frameworks. This should be done in consultation with other IP- related stakeholders to ensure that a possible revised IP framework will correspond with modern trends which ensure a flexible system that protects and promotes IP in relation to, among others, the stimulation of creativity and innovation for socio-economic gains in Ghana.

It also emerged that there is no incentive inherent in the country's IP system that facilitates research activities to harness Ghana's domestic creativity and innovation. It is recommended that a central framework, similar to that of US Bayh-Dole Act, be enacted to regulate how inventions borne out of research conducted jointly by public research institutes, universities and enterprises are to be handled, transferred or assigned. The proposed regulatory body should also make provisions such as IP tax relief to encourage companies and private sector enterprises operating in the country to invest in research activities. Multinational companies and private enterprises, as part of their social responsibilities to Ghana, should be encouraged to channel their sponsorship in support of IP innovation-based research activities.

Again, the study revealed that the country's limited human capacity is unable to acquire, assimilate and diffuse technological innovation that come along with FDI inflows into the local firms. It is therefore recommended that the Ministry of Education, under the auspices of the Ghanaian Government, will have to embark on an educational policy aimed at producing highly skilled labour with technical expertise that can easily absorb and diffuse technological innovation that come along with FDIs into the local firms. The policy will have to factor inculcating IP courses in relation to harnessing creativity and innovation into the educational curriculum at both the tertiary and pre-tertiary levels.

Finally, the study uncovered that the Ghanaian populace is generally uninformed about IP matters. It is recommended that a public budgetary allocation be made in support of IP management offices, the Copyright Office and the Registrar Generals Department, to collaborate with other relevant Ministries, Department and Agencies (MDAs), to regularly organize press conferences, seminars, outreach programmes, television and radio

programmes to educate the general populace on IP matters in relation to stimulating creativity and innovation. Additionally, the aforementioned institutions can create IP awareness by instituting an annual innovative award and organizing business-fairs to showcase only IP-related products or services to generate creativity in the general population. Data on IP industries and businesses could be collated and occasionally their contributions to the enhancement of the citizenry published in the newspapers and magazines to encourage potential innovators.



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G. INTERVIEWS

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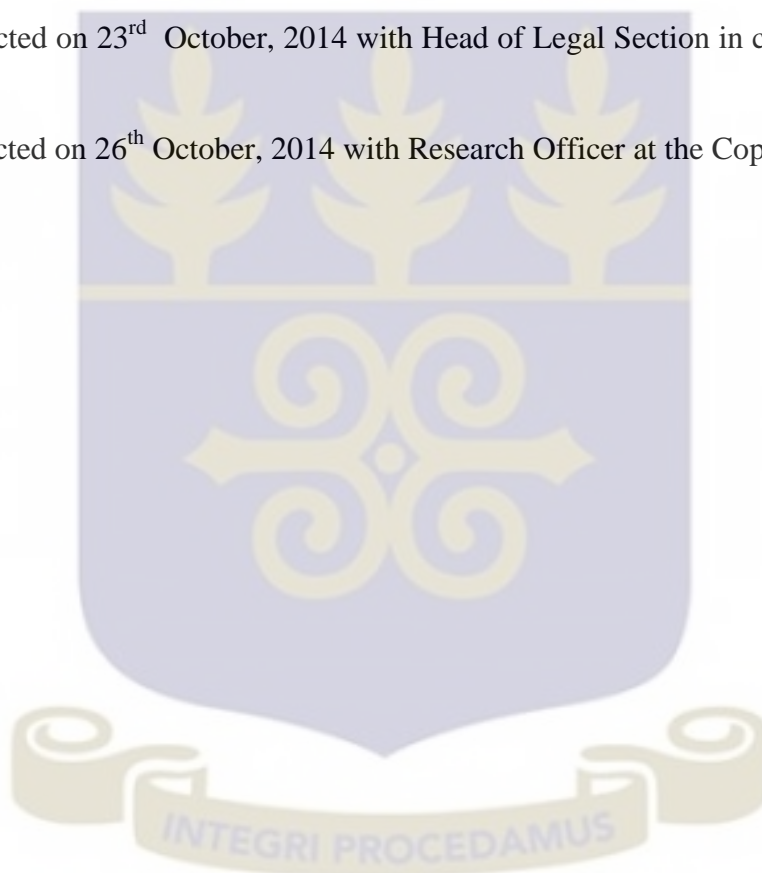
Interview carried out on 16th October, 2014 with Chief Executive Officer of IP at the Registrar Generals Department.

Interview conducted on 17th October, 2014 with Ghana's Former Ambassador to Switzerland

Interview conducted on 21st October, 2014 with a Senior Lecturer with the Faculty of Law at the University of Ghana

Interview conducted on 23rd October, 2014 with Head of Legal Section in charge of IP at the CSIR

Interview conducted on 26th October, 2014 with Research Officer at the Copyright Office



APPENDIX

INTERVIEW GUIDE

I am a student of Legon Centre for International Affairs and Diplomacy of University of Ghana. I am conducting a research work on the topic: *The Role of Intellectual Property Rights Protection in Stimulating Creativity and Innovation: the Case of Ghana*. The research work, which is being conducted within a decade 2003-2013, is purely an academic exercise in honour of Master of Arts degree in International Affairs. I will be grateful if you could respond to the questions below. All responses will be treated with utmost confidentiality.

SECTION A

Background Information of Respondents

- Age
- Place of Work
- Position/ Rank
- Length of Service

SECTION B

1. Would you say that Ghana's IP system and enforcement mechanisms have effectively tackled IP violations and infringements to generate innovative and creative activities in the country during the period under consideration?
2. Does the country's IP system facilitate research activities among universities, research institutes and enterprises to stimulate creativity and innovation in Ghana?
3. Does the country's IP system facilitate transfer or inflows of advanced technology to harness creativity and innovation in Ghana?
4. Are there challenges in exploring the country's IP system to harness creativity and innovation in Ghana?
5. Are there prospects or potentials of exploring the country's IP system to harness creativity and innovation in Ghana?