JIMMA UNIVERSITY

COLLEGE OF LAW AND GOVERNANCE

SCHOOL OF LAW

SECURITY INTERESTS IN INTELLECTUAL PROPERTY RIGHTS UNDER ETHIOPIAN SECURITY DEVICE LAW: A CRITICAL ANALYSIS

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF LL.M. DEGREE IN COMMERCIAL AND INVESTMENT LAW

BY: GUTEMA WOLDE MANDERA

ADVISOR: YOSEF ALEMU (LL.B, LL.M, ASS. PROF.)

CO-ADVISOR: BEKI HAILE (LL.B, LL.M)

NOVEMBER 2019

JIMMA, ETHIOPIA

DECLARATION

I declare that **"Security Interests in Intellectual Property Rights under Ethiopian Security Device Law: A Critical Analysis"** is my own original work which has not been presented for any degree in any University and the sources used has been duly acknowledged and cited.

Gutema Wolde Mandera

November, 2019

The thesis has been submitted for examination with my approval as an advisor.

Yosef Alemu (Assistant Professor of Law)

APPROVAL

The Undersigned certify that they have read and hereby recommend to Jimma University to accept the thesis submitted by Gutema Wolde Mandera entitled "**Security Interests in Intellectual Property Rights under Ethiopian Security Device Law: A Critical Analysis"** in partial fulfillment for the award of the Master of Laws (LL.M) Degree in Commercial and Investment Law.

BY- GUTEMA WOLDE MANDERA Signature _____

Date _____

ADVISOR

Yosef Alemu Signature _____

Date _____

APPROVED BY BOARD OF EXAMINERS

EXAMINERS

1._____ Signature _____

Date _____

2._____ Signature _____

Date _____

ACKNOWLEDGMENT

I have no words to fully express what Jesus has accomplished in my life. I shall render nothing to him.

My deep enthusiasm goes to thank my principal advisor Yosef Alemu and co-advisor Beki Haile for the invaluable feedback and support they have given me. This work may not have a light without their insightful and constructive comments.

I would like to thank respondents on interview who gave me their subjective opinions and access to relevant documents.

I am indebted to my brothers Geremu and Bedasa for their encouragements through different ways, and my friend Misganu for his constructive comments on the work.

Gutema Wolde Mandera

November, 2019

DEDICATION

I dedicate this work to the evergreen memory of my beloved Mother_ Galane Dabalo_ who nurtured and earnestly believed in all my dreams including education and career, but sadly, never lived to see this particular dream actualized.

ABSTRACT

IPRs are palatable and untapped resources for the use as security for debt-finance provided that the risks in the transaction are surmounted appropriately. In Ethiopia, as are many LDCs, access to credit, a critical element of healthy economy, through encumbering movable property is at its embryonic stage since only possessory security interests were encouraged. More immature is the availability of debt-based finance against IPRs as security. Both the practice in the business and the laws used to govern secured transactions were ignorant of security rights in IPRs. Even, in cases where fledgling business mortgage transactions were made, inclusion of IPRs were incidental and only for completeness of the transaction; not as frontline source of finance. Ethiopia's recent move to reform secured transactions on movable assets, perhaps in line with UNCITRAL legal texts, will revamp security interests in IPRs. The objective of this research is to analyze the adequacy of Ethiopian security device law for the use of IPRs as security. It was conducted with mixed-type-research; descriptive and critical designs; and qualitative approach. Hence, primary and secondary data sources were extensively used. Accordingly, owing to different inherent complexities existing within IPRs, the reform is found inadequate even for IPRs embedded in business mortgage that introduced to Ethiopian legal system about six decades ago. Also, the reform would not be realized with lender's trust for traditional assets than IPRs. Moreover, without devising the financing scheme needed to level the playing field, the reform will merely symbolic. The researcher recommends for legislative fiat with detailed rules on all the stages through creation to enforcement of security interests and on valuation of IPRs. In addition, policy matters for garnering trust in, and incentivizing, security interests in IPRs through different financing schemes must be devised.

KEYWORDS: - access to credit, IPRs, owners / holders of IPRs, Ethiopian security device law, security right/ interest, debt-based finance.

ABBREVIATIONS AND ACRONYMS

art. / arts.	article / articles
EBRD	European Bank for Reconstruction and Development
EIPO	Ethiopian Intellectual Property Office
IP	Intellectual Property
IPRs	Intellectual Property Rights
LDCs	Least Developed Countries
NBE	National Bank of Ethiopia
OECD	Organization for Economic Co-operation and Development
OHADA	Organization for the Harmonization of Business Law in Africa
para. /paras.	paragraph / paragraphs
R & D	Research and Development
S.C	Share Company
SMEs	Small and Medium-sized Enterprises
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UN	United Nations
UNCITRAL	United Nations Commission on International Trade Law
US	United States
US $	United States Dollar
WIPO	World Intellectual Property Office
WTO	World Trade Organization

TABLE OF CONTENTS

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Nowadays, IPRs become important resources unlike the previous realities when tangible property dominated the world economy.[1] Accordingly, IPRs become the greatest assets for companies of all size both in developed and developing countries.[2] IPRs are very sensitive property both for IPRs holders /owners and the public. For IPRs holders/ owners, creation of IPs mostly consumes huge capital through *R & D* necessary for creations or inventions. Unless protection is granted, therefore, exploitation of the inventors /creators would ensue. On the other hand, protection for the knowledge and innovation can contribute to the public welfare.[3]

At international arena, protections for IPRs are administered by WIPO which reached on co-ordination and co-operation agreement with UN.[4] Also, UDHR confirmed IPRs.[5] The protections for IPRs are included within the WTO framework through TRIPS Agreement.[6] In the modern era, therefore, it is hardly possible to get use of the existing and the newly coming knowledge/ invention without recognizing the economic use rights of the IP for the owners/ holders thereof.

In case there is no guarantee for being paid-back, it is more likely that creditors will either not extend loans or make it at higher interest rates. Empirical studies have shown the positive correlation between legal reforms facilitating secured transactions and the availability of credit or

---

[1] Dov Solomon and Mariam Bitton, 'Intellectual Property Securitization' (2015) 33 (125) Cardozo Arts & Entertainment 126; Andrea Tosato, 'Secured Transactions and IP Licenses: Comparative Observations and Reform Suggestions' (2018) 81 (155) Law and Contemporary Problems 155-157.

[2] WIPO, 'WIPO Questionnaire on Security Interests in Intellectual Property' <https://www.wipo.int/edocs/mdocs/copyright/en/wipo_ip_fin_ge_09/wipo_ip_fin_ge_09_7_annex.doc.> accessed 5 March 2019; Marilee Owens Richards, 'The Collateralisation and Securitisation of Intellectual Property' (PhD Dissertation, Queen Mary, University of London 2016) 16.

[3] For example, developments in pharmaceutical industries producing life-saving (essential) medicines were stimulated by allocation of patent rights; developments in information technology are also encouraged by copyrights protection; trade in goods and services are interlinked with the good reputation of the goods and services_ trade mark or service mark protection.

[4] Agreement between United Nations and World Intellectual Property Organization (entered in to force 17 December 1974).

[5] Universal Declaration of Human Rights (adopted 10 December 1984) UNGA Res 217 A (III) (UDHR) art 27.

[6] Agreement on Trade-Related Aspects of Intellectual Property Rights, 1869 UNTS 299; 33 ILM 1197 (1994) (hereinafter referred to as TRIPS Agreement).

external finance.[7] World Bank, which firmly advocates for reform in secured transactions, has also concluded that laws of secured transactions mitigate lender's risk of default and thereby enhance capital flow as well as low-cost financing.[8] But, the category of assets to be held as security largely depends on the legal frameworks of a concerned country.

According to Business Dictionary, IP is defined as "knowledge, creative ideas, or expressions of human mind that have commercial value and are protectable under copyright, patent, trademark, or trade secret laws from imitation, infringement, and dilution".[9]

Article 2 (Viii) of the WIPO Establishment Convention also defines IP as to include rights relating to inventions or creations.[10] Again, WIPO understands IP as "creations of mind: inventions; literary and artistic works, and symbols, names and images used in commerce."[11]

The economic use rights for owners/ holders of IPRs extend to furnishing IPRs as a security device for a loan (or credit finance).[12] In this regard, WIPO, to which Ethiopia is a party,[13] has launched security rights in IPRs since 2002.[14] Henceforth, security interests in IPRs abound in

[7] Giuliano G. Castellano and Marek Dubovec 'Global Regulatory Standards and Secured Transactions Law Reforms: At the Crossroad between Access to Credit and Financial Stability' (2018) 41 (3) Fordham International Law Journal 580.

[8] William H. Henning 'The Benefits of Secured Transactions Reform' (2016) <https://www.caymanfinancialreview.com/2016/11/01/the-benefits-of-secured-transactions-reform/ > accessed 11 March 2019.

[9] <http://www.businessdictionary.com/definition/intellectual-property-html > accessed 5 March 2019.

[10] Convention Establishing the World Intellectual Property Organization (WIPO) 21 UST 1749; TIAS 6932; 828 UNTS 3, art 2(Viii).

[11] WIPO, 'What is Intellectual Property Rights' <https://www.wipo.int/edocs/pubdocs/en/intproperty/450/wipo_pub_450.pdf > accessed 5 March 2019.

[12] Note that for using IPRs as a security device, the terms "security interests" and "security rights" are interchangeably used in this work. This is partly aimed at avoiding the redundant use of the word 'right' under the title to this work but with full knowledge that the term 'right' is wide and more acceptable than 'interest' under UNCITRAL Legal frameworks (predominant text on the area) and also used within our recent law.

[13] The Convention Establishing the World Intellectual Property Organization Accession Proclamation of 1997, Proclamation No.90, Federal Negarit Gazeta, Year 4, No. 2.

[14] See Dashpuntsag Erdenechimeg, 'Using Intellectual Property as Collateral: An International Experience and a Mongolian Perspective' (2016) <https://www.itcilo.org/masters-programmes/ll-m-in-intellectual-property/final-research-papers/Erdenechimeg.pdf> accessed 11 March 2019. However, the fact that WIPO is often criticized for being in charge of proselytizing the universalist notion of IP (or developing and/or LDCs' laws be kept in pace with developed countries IP laws rather than their own development pace) does not warrant excluding IP from being used as collateral since this is for the economic development of the developing nations/ LDCs too. Besides, LDCs have untapped potential on biodiversity, agricultural sector, and community cultural expressions demanding IP protection. Hence, there are huge and renewed appetites for protection of IPRs in LDCs as well; See Heywood Fleisig, Mehnaz Sefavian and Nuria de la Pena, *Reforming Collateral Laws to Expand Access to Finance* (World Bank, 1818 H Street NW, Washington 2006) 6-7 (pointing that the failure of firms in lower and middle income countries to access for credits is not for the absence of assets to be collateralized, but for the legal system which prevents assets such as IPRs from being collateralized); See also British Business Bank, 'Using Intellectual Property to Access Growth

different corners of the world.[15] Moreover, UNCITRAL has recommended using IPRs as security so as to make credit more available and at lower cost for holders of IPRs.[16]

Security rights in IPRs give another avenue for the holders to recoup their investment and encourage them to further innovate.[17] Security interests in IPRs also increases the financial growth of a company which in turn led to creation of more IPRs, and thus IP-finance growth spiral.[18] Thus, IPRs can be encumbered to secure debt-based finance, and thereby used for raising finance for the holders thereof.[19] In line with these, it is indicated that, 'Just as physical assets were used to finance the creation of more physical assets during the industrial age, *intangible assets should be used to finance the creation of more intangible assets in the information age'*.[20]

But, using IPRs as security device for financing is not a completely new phenomenon as there was a trend in foreign countries since so long.[21]

Ethiopia has also recognized protection for IPRs since the 1960 Civil Code, albeit the Code under Articles 1647-1674 only deals with literary and artistic rights.[22] Again, Article 40 of the

---

Funding' (2018) 14 <https://www.british-business-bank.co.uk/wp-content/uploads/2018/10/502-IP-Report_singles.pdf > accessed 6 August 2019.

[15] See Kenan Patrick Jarboe and Roland Furrow, 'Intangible Asset Monetization: The Promise and the Reality' (2008), Working Paper No.3, 36, citing *Leedds, J. and A.R. Sorkin* 'Bailout of Jackson Expected' (New York Times 2006) <https://intangibleeconomy.files.wordpress.com/2016/02/intangibleassetmonetization.pdf> accessed 5 March 2019. (Indicating that Michael Jackson had collateralized his songs to get US $ 270 million loan).

[16] UNCITRAL Legislative Guide on Secured Transactions: Supplement on Security Rights in Intellectual Property, para.7 <https://www.uncitral.org/pdf/english/texts/security-lg/e/10-57126_Ebook_Suppl_SR_IP.pdf > accessed 5 March 2019 (hereinafter referred to as UNCITRAL IP Supplement). There are also a lot of developments within UNCITRAL on security interests in IPRs.

[17] Solomon and Bitton (n 1) 128.

[18] Richards (n 2) 17-18.

[19] Janice Denoncourt, 'IP Debt Finance and SMEs: Revealing the Evolving Conceptual Framework Drawing on Initiatives from around the World' in Toshiyuki Kono (ed), *Security Interests in Intellectual Property* (Springer Nature Singapore Pte Ltd. 2017) 8.

[20] Jarboe and Furrow (n 15) 7 (emphasis added).

[21] ibid 1. It is shown as example that IP on a secret chocolate making process was used as part of the collateral in 1837 in US. Again, in the aim to start a pen-manufacturing, Waterman's patent was collateralized to obtain US $ 5,000 worth debt from Ara Shipman in 1884; Brain W. Jacobs 'Using Intellectual Property to Secure Financing after the Worst Financial Crisis since the Great Depression' (2011) 15 (2) Marquette Intellectual Property Law Review 450-451 citing *Andrea Millard*, 'Edison and the Business of Innovation' [1990]. (Indicating that in late 1880s Thomas Edison had used his patent on the incandescent electric light bulb as collateral for financing his company which later became General Electric Company).

[22] Civil Code of Empire of Ethiopia of 1960, arts.1647-1674, Proclamation No.165, Negarit Gazeta, Year 19, No.2 (hereinafter referred to as Civil Code).

1995 FDRE Constitution recognizes protection for IPRs.[23] Other separate laws for protection of IPRs also exist. Patent Proclamation[24], Copyrights and Neighboring Rights Proclamation[25], Trademark Proclamation[26], Access and Benefit Sharing Proclamation[27], and Plant Breeders' Right Proclamation[28] form specific IP laws. Domestic investment laws and all the bilateral investment treaties signed with Ethiopia also recognize IPRs in one way or the other while defining 'investment'.

Coming to the reality in Ethiopia, though we see legions of literary and artistic rights protected under copyrights and neighboring rights, only few are registered at EIPO; many trademarks (majority of them being foreign) are registered at EIPO; and few patents are registered at EIPO.[29]

However, WIPO has concluded that Ethiopia has no law for security interests in IPRs.[30] Besides, according to the latest annual rating from the World Bank, Ethiopia ranked 159 out of 190 economies in the ease of doing business[31] and 175th as to the quality of legal environment for access to credit.[32] But, recently, NBE has drafted the bill for security Rights in movables[33] and included the case of IPRs therein, though with so many flaws. Albeit, no study has

[23] The Constitution of the Federal Democratic Republic of Ethiopia of 1995, arts. 40 (1) and (2), Proclamation No.1, Federal Negarit Gazeta, Year 1, No. 1.
[24] Inventions, Minor Inventions and Industrial Designs Proclamation of 1995, Proclamation No. 123, Federal Negarit Gazeta, Year 54, No.25 (hereinafter referred to as Patent Proclamation).
[25] Copyright and Neighboring Rights Proclamation of 2004, Proclamation No. 410 (as amended), Federal Negarit Gazeta, Year 10, No.55 (hereinafter referred to as Copyright and Neighboring Rights Proclamation).
[26] Trademark Registration and Protection Proclamation of 2006, Proclamation No. 501, Federal Negarit Gazeta, Year 12, No.37 (hereinafter referred to as Trademark Registration and Protection Proclamation).
[27] Access to Genetic Resources and Community Knowledge, and Community Rights Proclamation of 2006, Proclamation No. 482, Federal Negarit Gazeta, Year 13, No.13.
[28] Plant Breeders' Right Proclamation of 2006, Proclamation No. 481, Federal Negarit Gazeta, Year 12, No.12.
[29] See EIPO website < www.eipo.gov.et > accessed 6 March 2019. The very recent tabular data indicates: 84 Patents, 775 Industrial Designs, 838 Utility Models, and 180 of Patents of Introduction are registered at EIPO. Again, it indicates that 1,235 Copyright and related rights are registered. It also shows 6,242 foreign trademarks and 3,461 local trademarks are registered at EIPO; See also Ethiopian Intellectual Property Office Establishment Proclamation of 2003, art. 6 (1), Proclamation No.320, Federal Negarit Gazeta, Year 9, No.40. (EIPO is established to register at least patents and trademarks).
[30] WIPO (n 2).
[31] World Bank, 'Doing Business' (2019) <http://documents.worldbank.org/curated/en/807951541094964582/Doing-Business-2019-Training-for-Reform-Ethiopia> accessed 6 April 2019.
[32] World Bank, 'Doing Business' (2019) 4 <http://documents.worldbank.org/curated/en/807951541094964582/pdf/131658-WP-DB2019-PUBLIC-Ethiopia.pdf> accessed 6 April 2019.
[33] For the draft bill, see Abraham Yohannes, 'Movable Property Security Right Draft Proclamation of 2010', (29 March 2019) < https://chilot.me/ > accessed 6 April 2019. That draft was later promulgated by Parliament in August of 2019, see Movable Property Security Right Proclamation of 2019, Proclamation No. 1147, Federal Negarit Gazeta, Year 25, No.76 (hereinafter referred to as Movable Property Security Right Proclamation).

comprehensively shown the contribution of IPRs to the Ethiopian Economic Development yet,[34] it is timely to investigate in security interests in IPRs under Ethiopian security device laws as the country's economy is likely influenced by protection for IPRs and secured credits[35] _ there is enormous opportunity for Ethiopia to reap benefits from security rights in IPRs which are untapped sources of collateral.

1.2. Literature Review

There are plenty of literatures at international scene on secured transactions reform in general and security interests in IPRs in particular. Amongst, access to credit through reformed secured transactions law is mentioned as a magic bullet for creating better jobs, enhancing innovation, and for economic growth and social inclusion.[36]

Also, one study has made the law and economic analysis so as to indicate the preferred legal means to optimize the use of IPRs for debt finance especially in SMEs.[37] The theme of the work is that once we can legally control moral hazard and other risks associated with encumbering IPRs as security for debt-finance, security interests in IPRs are the best sources of external finance for high-tech enterprises and SMEs[38] that have no other assets to collateralize.

More, the potential of capital adequacy requirements of some credit institutions, mainly banks, in line with Basel Accords for undermining the use of assets as security devices are shown.[39] More profoundly, considering the nature of IPRs_ assets which will be rendered obsolete overnight due

[34] But, there are patchworks showing the contribution of IPRs to Ethiopian Economic Development. For example, EIPO has assessed the contribution of copyright industries on Ethiopian economy in terms of: the value added to country's GDP (4.73 %); employment (4.2 %); and revenue generated from foreign trade (US $ 22 Million) in the year 2014; See In-house East Africa, 'Creative Industries contribute more to Ethiopia's Economy, Report Shows' (19 November 2015) <https://www.musicinafrica.net/magazine/creative-industries-contribute-more-ethiopia%E2%80%99s-economy-report-shows > accessed 7 March 2019.

[35] EIPO, 'Facts about Intellectual Property', *Intellectual Property Gazette* (14 (2), 8 January 2018) 81. The theme was "strategic utilization of intellectual property assets can substantially enhance the competitiveness of small and medium enterprises" which, however, is shallow without actualizing security rights in IPRs.

[36] Teresa Rodriguez de las Heras Ballel, 'Digital Technology -Based Solutions for Enhanced Effectiveness of Secured Transactions Law: The Road to Perfection?' (2018) 81 (21) Law and Contemporary Problems 23

[37] Min Lin, 'Law and Economics of Security Interests in Intellectual Property' (DPhil thesis, Erasmus University Rotterdam 2015).

[38] For the importance of secured transactions for the SMEs, see generally Orkun Akseli, 'SMEs and Access to Finance: A vulnerability Perspective' in Abdul Karim Aldohni (ed), *Law and Finance after the Financial Crisis: The Untold Stories of the UK Financial Market* (1st edn, Routledge 2016).

[39] Castellano and Dubovec 'Global Regulatory Standards and Secured Transactions Law Reforms' (n 7) 534-588; Giuliano G. Castellano and Marek Dubovec 'Credit Creation: Reconciling Legal and Regulatory Incentives' (2018) 81 (63), Law and Contemporary Problems, 63-65.

to technological advancement or reputation of the right holder and where huge information asymmetry and murky marketplace are very common_ the use of IPRs as security has serious ramifications.[40] Absence of standardized market for IPRs also affects security interests in IPRs.[41] More importantly, the necessity of having effective co-ordination between IP laws and secured transactions laws for registration and perfection of security interests are elucidated.[42] Again, with heightened conditions for creditors such as banks to enforce their security interests under the law, banks will be very curious in their agreement to extend loan backed by assets (such as IPRs), affecting availability of credit or rate of interest and rendering micro-businesses "un-served" or "underserved".[43]

Coming to the case of Ethiopia, there exist only few studies related to using IPRs as security device. One scholar has conducted a research entitled 'Valuation and Commercialization of Intellectual Property Rights in Ethiopia'[44] in which he has attempted to indicate the place of Ethiopian Law on security interests in IPRs. Later on, this research was reduced to an article[45] without any change to the substances of the research as far as security interest in IPRs is concerned. However, both the research and the article were generally focused on valuation and commercialization of IPRs, and thus shed a light on valuation, assignment, licensing, and security interests in IPRs in a wholesale approach; rather they do not mainly aimed at examining security interests in IPRs under Ethiopian legal framework. However, owing to complexity of the matter (than other forms of commercialization of IPRs such as assignment and licensing) which interlinks it with secured transactions and other contiguous areas of the law, legal regimes governing security interests in IPRs need a separate and in-depth study so as to depict a clear picture on the law and recommend for the better future.

[40] Iwan Davies, Secured Financing of Intellectual Property Assets and the Reform of English Personal Property Security Law' (2006) 26 (3) Oxford Journal of Legal Studies 574-583.
[41] ibid 575.
[42] Francois Painchaud and Jason Moscovici, 'Intellectual Property and Secured Transactions: Going the Wrong way in the Right Direction?'(2010) CIPS 2 < https://www.robic.ca/wp-content/uploads/2017/05/407-FP-2010.pdf> accessed 7 September 2019.
[43] Louise Gullifer and Ignacio Tirado, 'A Global Tag of War: A Topography of Micro-Business Financing' (2018) 81 (109) Law and Contemporary Problems 128-134.
[44] Dagnachew Worku, 'Valuation and Commercialization of Intellectual Property Rights in Ethiopia' (LL.M Thesis, Addis Ababa University 2016).
[45] Dagnachew Worku Gashu, 'Examining the Legal Regime Governing Commercialization of Patents, Copyrights and Trademarks in Ethiopia' (2018) 8 (1) Developing Country Studies 39-41, and 43.

The above-mentioned study also failed to comprehensively address the issue of security interests in IPRs under Ethiopian legal framework. For example, encumbering IPRs involved within business is not examined; nor does the security interests in IPRs under the Civil Code are fully analyzed. The research recommendations are also insufficient for the law makers to shape the Ethiopian laws for security interests in IPRs. To be very specific, the work does not suggest the detailed proposals for legislative reform that delineate the substances of a legal regime for security interests in IPRs in Ethiopia.

Again, the research is flawed in recommending that the government needs to consider security interests in main IP laws or in secured transaction laws. This is because such recommendation results in further uncertainty as to the relationship between the two regimes (i.e., interface between IP laws and secured transaction laws not settled). Moreover, the study does not indicate the manner in which security interests in IPRs can be made or created, regulators for the transaction (for example, the way and the organ before which registration of the security interests in IPRs shall be made), the ways for perfection of security interests against third parties and enforcement of security rights, what the priority rules shall be in case of different interest holders, and the risks involved in the transaction and the methods to control the risks. The analysis made is also partial as it focuses on good lessons from some international experience without indicating the possible risks involved in security interests in IPRs. But, due to the nature of IP (i.e., an asset which becomes obsolete through technological advancements) the laws for security interests in IPRs need to respond to the risks in the transaction. Thus, the study is not aimed mainly at analyzing the Ethiopian legal regime on using IPRs as security, and also left many gaps to be filled-in by further studies.

Furthermore, a study has conducted on Ethiopian secured transactions law taking the cue from Article 9 of US Uniform Commercial Code, and specifically that of the state of Louisiana.[46] More interestingly, the author has argued that Ethiopia shall undertake secured transactions reform adopting functional approach and unitary theory, and floating (not fixed) security

[46] Asress Adimi Gikay, 'Rethinking Ethiopian Secured Transactions Law through Comparative Perspective: Lessons from the Uniform Commercial Code of the US' (2017) 11 (1) Mizan Law Review.

interest.[47] Nevertheless, owing to its generality to all movables, the work has not taken due emphasis for security interests in IPRs.

Moreover, Ethiopian patent regime was studied to indicate the contribution of patent for development.[48] The main findings of the study were: Ethiopia shall make patent law reform in order to exclude sensitive technological fields (such as textile, metal works, leather and leather products, chemicals and pharmaceuticals, agro-processing, agricultural technology, biotechnology, information and electronics, and construction) from patent protection, and enhance technical skills and knowledge of domestic firms via exposure to foreign enterprises.[49] But, the work did not analyzed the legal regime for using patent as a security device; nor does it indicate the potential effect of encumbering patent as security vis-à-vis development.

Also, there is a law that adopted in the year 2019 (Movable Property Security Right Proclamation) which changes the course of the discussion as regards the use of IPRs for securing debt-finance transactions.

To the best of researcher's knowledge and access, therefore, there was no study which succinctly analyzed the position of Ethiopian law on taking IPRs as security device. Hence, the study takes; (1) the advantage of literature gaps as much was not written on the area, (2) recentness of the issue as only recently that new law was adopted. In doing so, the study contributes its part through filling in the lacuna and proposing legislative and policy reforms.

1.3. Statement of the Problem

The 1960 Ethiopian Civil Code governs security interests in movable (under Articles 2825 through 2874). But, Articles 2863 to 2874 of the Civil Code dealing with *"pledging of claims and other intangibles"* have failed to regulate security interests in IPRs.

[47] ibid 190-195.
[48] Habtamu Hailemeskel, 'Designing Intellectual Property Law as a tool for Development: Prospects and Challenges of the Ethiopian Patent Regime' (LL.M Thesis, Addis Ababa University 2011).
[49] ibid 69-70.

Besides, business mortgage under the Commercial Code[50] is found to be a floating charge; not give especial emphasis for IPRs lumped in business, and thus leaves security interests in IPRs on a shaky ground.

Again, unlike other means of commercialization, Ethiopia's specific IPRs legal regimes have no mention of using IPRs as security device.

Until very recently, the legal and practical realities in Ethiopia has shown mainly the tangible (often called 'traditional') properties, and in some instances only businesses and shares, were used as security devices to raise funds. Also, the legal regimes suitable only for security interests in tangible and other intangible assets do not recognize the full value, unique nature and fluidity of IPRs. Hence, in Ethiopia, IPRs were rendered a 'dead capital'[51] as far as using them as security device for generating finance is concerned.

But, the very recent law on the area (i.e., Movable Property Security Right Proclamation) attempts to allow security interests in IPRs. However, that law has also failed to respond to the unique nature and fluidity of different types of IPRs in proposing their use as security device. It proposes centralized electronic notice filing system for security interests with no other alternative to fit with the needs of end-users. Again, treatment of IPRs embedded in business has got no much difference from the Commercial Code except as to registration of the encumbrance. The proclamation has also repealed the laws enacted for secured creditor bank's re-possessory rights, priority rights of banks as secured creditors, and swift enforcement of security interests by banks as secured creditors whilst overburdening foreclosure power of banks. Thus, the revisions made by the proclamation are not full of merits as IPRs need constant monitoring when used as security device, but lenders may comfort with notice registration, and thereby become reluctant to monitor the encumbered IPRs. Besides, the law provides debt-financing for after-acquired (future) IPRs which is a highly risky business. However, such transaction is not conditioned nor restriction is made for the category of financiers to engage in.

[50] Commercial Code of Empire of Ethiopia of 1960, arts.171 *et seq,* Proclamation No. 166, Negarit Gazeta, Year 19, No.3, (hereinafter referred to as Commercial Code).

[51] The term was first coined by economist Hernando de Sato, see Castellano and Dubovec 'Global Regulatory Standards and Secured Transactions Law Reforms' (n 7) 535 citing *Hernando de Sato*, The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else (3rd edn. 2000).

More profoundly, introducing the use of IPRs as security devices requires balancing the interest of IPRs holders and lenders; valuation of IPRs and organs to conduct such functions; priority of secured creditors vis-à-vis other right holders; rights to preserve the security interests; and the enforcement mechanisms for security rights in line with unique nature of IPRs. But, our security device laws including the recent proclamation on security interests have failed to address these matters succinctly. Hence, it is questionable whether Ethiopian secured transactions legal reform deliver on its promises and effectively expand access to credit for holders/ owners of IPRs or if other hurdles must be addressed to unlock the full potential of IPRs.

1.4. Objectives of the Study

1.4.1. General Objective

The general objective of the research is to critically analyze the Ethiopian security device laws on using IPRs as security device.

1.4.2. Specific Objectives

1. To describe Ethiopian security device laws on preservation of encumbered IPRs, and creation, perfection, priority and enforcement of security rights in IPRs.
2. To scrutinize the adequacy of Ethiopian security device laws for treatment of IPRs lumped in business while collateralizing the business.
3. To analyze the adequacy of Ethiopia's laws governing security interests in IPRs mainly for controlling the risks in the transaction.
4. To draw lessons from international and foreign experiences for using IPRs as security device.

1.5. Research Questions

The research addresses the following questions;

1. Do Ethiopia provide sufficient legal framework for using IPRs as security device?
   (a) How are Ethiopian security device laws treating preservation of encumbered IPRs, and creation, perfection, priority, and enforcement of security interests in IPRs?
   (b) Do IPRs embedded in business treated adequately by Ethiopia's security device laws while encumbering the business as collateral?
   (c) Do Ethiopia's security device laws provide adequate means for controlling risks associated with using IPRs as security device?

(d) What are the lessons from international and foreign experiences for using IPRs as security device?

1.6. Significance of the Study

The study is aimed at analyzing the Ethiopian security device law in relation with IPRs. Hence, it contributes for academia and further research as much is not written on the area. More, it invigorates a scholarly debate on some of the key issues regarding the use of IPRs as security device in Ethiopia. It also helps commercial parties in their private dealings as it clarifies areas where the law has gaps. The research also helps the IPRs holders in showing them the ways to optimize their IPRs through furnishing as security device.

Again, the study contributes for EIPO in implementing protections given for holders of IPRs, making policies on IPRs, and plays its part to effectuate the laws on security interests in IPRs. Moreover, the research informs the NBE on how to encourage and direct the banks as well as other financial institutions to employ IPRs- backed loans, and how to enforce the registration of security interests as it (NBE) is the organ proposed to carry on the activity of registration for certain duration until the establishment of Collateral Registry Office. In doing so, the study provides an insight for the would-be Collateral registry Office on how to conduct registration of security interests in IPRs. Last, but not least, the study help legislators shape the Ethiopian law on security interests to address unique nature of IPRs and policy makers on how to enhance implementation of security rights in IPRs.

1.7. Research Methodology and Methods

1.7.1. Research Type and Design

The research focuses on analyzing the Ethiopian security device laws on using IPRs as security device. Thus, the researcher has conducted mixed (doctrinal and empirical) research type. Doctrinal research type was employed in order to make legal analysis and provide in-depth understanding of the matter, and thereby broaden the knowledge on Ethiopian security device laws in relation with IPRs. More, some numerical data showing the existing IPRs in Ethiopia and their potential for using as security device were used along with subjective opinions of key informants_ grounds making the research empirical type.

As far as design is concerned, the research is inherently descriptive in order to analyze Ethiopian security device law on using IPRs as security device. Again, it is critical/ normative as it offers concrete lines of reforming the laws and making the policies. Besides, some lessons were taken to indicate international experiences (such as UNCITRAL developments) and the trend in few notable jurisdictions for using and implementing IPRs as security device.

1.7.2. Sources of Data

Primary and secondary sources of data were used in the research in order to make a quality analysis. Primary sources include legislative instruments (both domestic legislations and binding international instruments) and data from interviews. Books, articles, journals, reports, foreign legislative texts, international soft laws, unpublished materials, internet sources, and dictionaries form secondary sources.

1.7.3. Tools of Data Collection

The researcher has collected data through interview which help gather in-depth information. Semi-structured interview was employed to collect data from respondents. This was because, owing to its nature to address key themes than specific questions, semi-structured interview was the most effective method to collect data from respondents; and gave the researcher certain flexibilities to respond to the answers from the informants.

Furthermore, data was collected through legal review, document review, and literature review.

1.7.4. Sampling Techniques and Sample Size

Informants for interview were selected through purposive sampling because they have likely a big role (which cannot be played by others) on security interests in IPRs. Such interview was with key informants from: EIPO, Ethiopian Commercial Bank Head Office, and Awash Bank S.C Head Office. All of these informants are found at Addis Ababa. EIPO was chosen as it is an institution entrusted with the enforcement of laws governing IPRs and supervision of their implementations. The Ethiopian Commercial Bank was selected because it is the government bank hugely involved in commercial activities. Among the private banks, Awash Bank S.C was

chosen as it is the leading private commercial bank established in 1995 and, at the time of writing, with huge potential for experience.[52]

Again, few IPRs owners were interviewed to show the (likely) practical problems for transacting IPRs as security device with Ethiopia's existing secured transactions legal framework. These informants were selected through snow-ball (chain-referral) sampling technique after approaching EIPO.

As far as sample size is concerned, two (2) key informants from each of the three (3) institutions and two (2) IPRs holders/ owners were selected. Thus, the sample size is eight (8) persons.

1.7.5. Method of Data Interpretation and Analysis

The data was analyzed and interpreted using qualitative method. The reason was qualitative method has the potential to unearth enormous amounts of information from the study.

1.7.6. Ethical Considerations

The research took in to account ethical considerations. The respondents for the interview were approached only after being informed for their free, full, and informed consent. Also, the respondents were informed that any confidential information taken from them would not be used unless they have consented to, and solely for the purpose of the study. Again, proper acknowledgments of interviewees' contribution to the study were made. Furthermore, proper citation and referencing was made for any information obtained from any sources.

1.8. Scope of the Study

The substantive scope of the study only focused on using IPRs as security device_ i.e., owners' encumbering their IPRs as security device to raise funds or creditors get charge of IPRs against which they recourse to get back unpaid claims. Thus, transactions on other forms of commercialization of IPRs such as securitization (pooling the revenue streams to Special Purpose Vehicle which then issue securities or bonds thereon, also called equity-financing), licensing, and assignment were not within the scope of this research. But, licensing and assignment of IPRs were incidentally dealt with as those transactions can lead the holders thereof

[52] <https://www.awashbank.com/company-profile/> accessed 7 July 2019.

to encumber IPRs as security device and to deal with chargeable interests, priority of claims, and disposition of encumbered IPRs. The research did not deal with protections for IPRs; rather followed a pragmatic approach for using IPRs as security device_ i.e., ones IPRs are ensued or after-acquired property, how security interests in IPRs are (to be) treated by the laws.

The geographical scope of the study was at Ethiopia and the data sources through interview were mainly gathered from Addis Ababa where most of the informants reside. The laws analyzed were the federal laws. But, reference was made to some international experiences and lessons from few notable jurisdictions.

1.9. Limitations of the Study

The study faced shortage of time to deal with each and every aspect of the subject under investigation. But, the researcher has managed and effectively used the available time.

1.10. Organization of the Study

The thesis was organized in the way to address questions raised in the research.

In addition to *Chapter one* (introduction), the thesis contains other four chapters organized as follows;

Chapter two describes conceptual frameworks for using IPRs as security device and its potential for economic growth. It highlights the relationship between security interests in IPRs and financial stability. It also analyzes the risks involved in using IPRs as security device, and indicates mechanisms to control such risks.

International legal frameworks and experiences from some notable jurisdictions on security interests in IPRs form *Chapter three* of the research.

Under *Chapter four*, the researcher analyzes the Ethiopian security device laws on using IPRs as security device, and brings comparable foreign experiences for the transaction. This chapter also sheds a light on the complex nature of encumbering IPRs under Ethiopian security device laws.

Summary of the main findings, Conclusion and recommendations form the *fifth Chapter* of the research.

CHAPTER TWO

CONCEPTUAL FRAMEWORKS ON USING INTELLECTUAL PROPERTY RIGHTS AS SECURITY DEVICE: REVIEW OF THE LITERATURE

2.1.Introduction

Security interest offers an alternative method of repayment and, thus, reduces credit risk while contributing for access to lower-cost credit.

The modern information economy has brought security interests in intellectual capital to frontline, transforming the historically dead capital to productive one. Only recently, relatively vivid literatures on the use of IPRs as security have flourished. Within the general secured transactions system, explanations and vigorous debates continued with notable emphasis on security interests in IPRs and the unique natures and qualities of IPRs for use in secured transactions, *inter alia.* Complexities within the use of IPRs as security added another wing to the discussion.

The bulk of literature reviewed in this chapter depict that the very initial argument for scholars in the field of secured transactions backed by IPRs is the growing and desperate demands of external finance for SMEs _to fund their *R & D*_ as well as firms in financial distress. In the subsequent sections of this chapter, the researcher offers some general remarks on security interests in IPRs from review of the related literature against which the answer for research questions will be made and evaluated in the other chapters.

2.2.The *Raison d' être* of Using Intellectual Property Rights as Security Device

The main and overt reason for secured lending is to reduce creditors' risk of default in the repayment of the debt, and thereby enhance access to external finance at the cheaper cost.[53] The assumption is that creditors, being buoyant about settlement of their claims through enforcing preferential rights on the collateral, will disburse credit at a lower interest rate and longer term.

[53] Richards (n 2) 10.

We have noted elsewhere[54] that tangible assets were the primary sources of economic value creation in the old times, but only recently that the scenario is changed. The change is due to the transformation from industrial (manufacturing) age to information (knowledge-based economy).

Cash is the lifeblood of business. Those businesses which have the required capital use their own funds for financing their project (also called bootstrapping). However, businesses at start-ups and financially difficult situations need external finance. Otherwise, such businesses face credit crunch and consequently run-out of the socially important activity.

For an asset to be used as security, there are only two requirements in principle_ an asset must have economic value (both for the debtor /grantor and secured creditor), and separable from the business of the grantor and transferable independently in case of financial hardship.[55] IPRs can also fulfill these requirements to be used as security. Statutory temporal protections in IP laws target to recover costs in *R & D* and accrue fair profit to the IPRs owner[56]; IPRs have also liquidation value for secured creditors if used to guarantee the transactions; and independent of the businesses of the debtor/ grantor, IPRs are transferable.[57]

World Bank, citing the empirical study conducted in 100 countries, has concluded that in more than 75 % of the loans security/ guarantee was required.[58] For technology-intensive firms and individual IPRs owners, who might not have other valuable assets, their IPRs are the principal part of their assets. As far as IPRs owners are concerned, their IPRs may be the only source for access to external finance.

Also, legal protection for IP is a necessary (but not sufficient) underpinning for promoting works of mind.[59] Indeed, financing is a pre-requisite to foster creation and dissemination of IP to the extent that profit motivates creator.[60]

---

[54] See section 1.1 Background to the Study.
[55] Lin (n 37) 48.
[56] cf Jonathan C.Lipson, 'Financing Information Technologies: Function and Fairness' (2001) Wisconsin Law Review 21 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=274191> accessed 12 August 2019 (arguing that income or future royalty streams from IPRs is not an exclusive rights of IPRs owner).
[57] Lin (n 37) 48-49; See also OECD, 'IP-based Financing of Innovative Firms' (2015) 458, 471 <https://www.oecd.org/sti/ieconomy/Chapter9-KBC2-IP.pdf> accessed 31 August 2019.
[58] Henning (n 8) .
[59] Shubha Ghosh, 'The Morphing of Property Rules and Liability Rules: An Intellectual Property Optimist Examines Article 9 and Bankruptcy' (1996) 8 (1) Fordham Intellectual Property, Media & Entertainment Law Journal 101.
[60] ibid.

It is also the case that without financing, the works of mind would simply dry-up. *R & D* requires continuous financing to reach its outcome in the form of IPRs. Once IPRs is created, financing is still required to advertise and disseminate the works of mind to the potential end users.

Debt- financing is the primary means to finance works of mind; rather than equity investment which is expensive and would bring dilution in the ownership or title.[61] As economies are transformed from industrial age to information age, a paradigm change in finance is also needed.[62] Thus, in the very recent years, IPRs have become a sought-after form of security.[63]

Repayment function is not the only justification for security interests in IPRs. Using IPRs as security device is also justified based on the signaling and bonding effects that IPRs perform uniquely in contradistinction with tangible assets and other intangibles. IPRs when used to guarantee a transaction as security have signaling effect in three different ways. First, IPRs, through granting owners with competitive edges, give direct information to forecast future revenue streams.[64] Again, IPRs is highly informative about good quality and potential of the borrowers as only few, capable and confident persons do have IPRs to encumber as security.[65] These are highly true for patents where the application and grant are respectively expensive and with higher threshold than other kinds of IPRs.[66] Second, IPRs are more costly for less quality borrowers to provide as security[67] _ *R & D* or even creations need capital and time which less-quality borrowers may not expend. The fact that IPRs, especially the title to which is registered at IP offices and thus accessible to the general public, can be easily discernible and verifiable by potential lenders forms the third signaling effect.[68]

---

[61] ibid 101-102; Lin (n 37) 40-41; Denoncourt (n 19) 5; Takashi Shimizu, 'Intellectual Properties and Debt Finance for Startups' in Toshiyuki Kono (ed), *Security Interests in Intellectual Property* (Springer Nature Singapore Pte Ltd. 2017) 40 (pointing out debt-finance is necessary for: countries which do not have functioning secondary markets; startups to retain and secure control of their business; and lenders to have repayment regardless of failure or otherwise of the business).
[62] Denoncourt (n 19) 29.
[63] Francina Cantatore, 'Intellectual Property Rights and the PPSA: Challenges for Interest Holders, Creditors and Practitioners' (1 January 2015) 1 < https://works.bepress.com/francina_cantatore/13/download/> accessed 12 August 2019; Jacobs (n 21) 450.
[64] Lin (n 37) 85-86.
[65] ibid 86-87; OECD, 'Enquires into Intellectual Property's Economic Impact: IP-backed Financing of Innovative Firms' (2015) 458, 471< https://www.oecd.org/sti/ieconomy/Chapter9-KBC2-IP.pdf > accessed 31 August 2019.
[66] Lin (n 37) 87.
[67] ibid 87-88.
[68] ibid 88-89.

Additionally, security right in IPRs also has bonding effect as it can discipline the borrower's behaviour through attracting voluntary compliance while, at the same time, prohibit the debtor from opportunistic behaviour. Such is the case when encumbered IPRs have more value to the debtor /grantor than to the secured lender or secured lender valued the encumbered IPRs less than what the grantor/debtor did.[69] Even the mere threat of foreclosure triggers *ex post* compliance by the debtor as owners do not want lose valuable IPRs and liquidation value is insufficient to cover all the secured debt. If foreclosure of the security does not relieve the debtor from the secured obligation while the asset has more value than what to be offered on foreclosure, it is more likely for prudent borrower to comply with one's obligation and save the IPRs from being sold or assigned. Thus, unlike asset backed transactions charging other economic resources, security interests in IPRs offer the secured creditor to make meaningful threats against, and disciplines, the debtor to comply with his/her obligations.

2.3.Using Intellectual Property as Security Device and Economic Growth: The Nexus

The realization of steady economic growth (both short-term and long-term), which every state aspire for, is unthinkable with a poor and inexistent access to finance.[70] Access to credit is an instrument for private sector development through increasing the level of credit and decreasing the cost of credit[71] which, in turn, contribute for economic growth. The primary reason for introducing secured transactions is economic purpose which would be realized through repayment function of the security interests, boosting access to finance and managing credit risks. To be very specific, secured financing reduces the debtor's misbehavior, increase the availability of credit, promotes investment, and enhances production.[72] And the law is needed to maximize those economic benefits through bringing efficiency and certainty in transactions while controlling transaction costs and the costs of credit.

[69] ibid 89-90.
[70] Denoncourt (n 19) 6.
[71] Alejandro Alvarez de la Campa, 'Increasing Access to Credit through Reforming Secured Transactions in the MENA Region' (2011) World Bank Policy Research Working Paper 5613, 3, 6 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1794918> accessed 28 August 2019.
[72] Xuan-Thao Nguyen, 'Collateralizing Intellectual Property' (2007) 42 (1) Georgia Law Review 19.

Be it for mature economies who want to maintain their competitive edge in the global market or for emerging economies who strive for building-up their economic base, IPRs play pivotal role to bring about sustainable development.[73]

Security interests in IPRs contribute for economic growth-spiral.[74] That occurs as access to external finance through security interests in IPRs enable the owners to create more IP which, in turn, can be used for getting external finance. Thus, security interest in IPRs spurs economic growth through enabling financial inclusion for IPRs owners. It transforms dead capital to productive capital. The creation of more IP through financing, on its part, begets employment and fastens poverty reduction in the growing economies. However, these are a reality only if the legal uncertainty in using IPRs as security is alleviated.[75] Absent legal certainty, using IPRs as security would be like opening a Pandora's Box.

In spite of all the progress in collateral reform in recent years, there has been a failure to create a coherent and constructive connection between the economic and the legal fundamentals.[76] In this regard, it is convincingly opined that the laws of information technology and commercial finance speak albeit not to one another.[77] Provided that the laws of secured transactions, being backed by IP laws, give appropriate recognition and safeguard for the security interests in IPRs, it is likely for IPR to contribute its part to economic thriving. But, it does not mean security interest in IPRs is a magic elixir that can grow an economy overnight.

2.4.Benefits of Using Intellectual Property as Security Device

The main advantage of secured transactions in general is that "the loan can be called in and leverage is thereby provided by the prospect of foreclosure." [78] Secured transactions protect the

[73] Denoncourt (n 19) 2-3 (indicating that in OECD countries SMEs owning IPRs contribute for 60 to 70 % of the employment, and make paramount contribution to economic growth); Spyridon V.Bazinas, 'UNCITRAL's Contribution to Intellectual Property Financing Law' in Toshiyuki Kono (ed), *Security Interests in Intellectual Property* (Springer Nature Singapore Pte Ltd. 2017) 104 (pointing out economic development depends on innovation or generally IPRs to a large extent).
[74] Richards (n 2) 17-18.
[75] ibid 18.
[76] Frederique Dahan and John Simpson, 'Legal Efficiency for Secured Transactions Reform: Bridging the Gap between Economic Analysis and Legal Reasoning' (2009) 27 (3) Penn State International Law Review 625.
[77] Lipson (n 56); Sean Thomas, 'Security Interests in Intellectual Property: Proposals for Reform' (2016) The Society of Legal Scholars 1 <https://www.cambridge.org/core/journals/legal-studies/article/security-interests-in-intellectual-property-proposals-for-reform/8E20AEB9238515021DA3FC62E8A86733> accessed 25 August 2019.
[78] Davies (n 40) 574.

parties to the transaction and bring about efficiency.[79] Security interests in IPRs have more advantages. The discussion below takes the most fundamental benefits from using IPRs as security device.

Firstly, in the modern knowledge economy, intangibles (and mainly "pure intangibles" such as IPRs) form the principal assets of businesses. This is the case largely in technology-based small firms.[80] Thus, security rights in IPRs ensure better access to low-cost credit for the owners of IPRs. Opportunity to acquire debt finance is a powerful incentive for owners of IPRs. Indeed, a security interest in IPRs widens the scope of commercialization of IPRs, and stimulates the growth of inventions and creations through financing.[81] Security interests in IPRs boost competition which, in turn, breeds innovation. Access to finance for technology-based firms also sustains the life of those firms as they require finance for production, advertisement, and marketing of IP.

Secondly, unlike sale or licensing of IPRs which can take years to materialize cash flows, security interests in IPRs allows owners of IPRs to collect the present value of future cash flows in lump-sum today rather than waiting until the time of their materialization, and thereby provide IP-intensive firms with a better way to enhance their liquidity or unlock the monetary values of their property for capital needs.[82] More importantly, unlike assignment and license of IPRs which transfer exclusive rights and thus require authorization of the transferee (assignee or licensee), owners continue to exploit their IPRs so long as they are not in default for payment of secured credit.[83]

Thirdly, encumbering IP as security help IP- intensive firms and individual IPRs owners share some of the risks associated with exploitation of IPRs to some lenders; but not risk-shifting.[84] Nevertheless, risk-sharing is meaningful provided that the secured creditor has necessary

[79] Steven L.Shwarcz, 'Secured Transactions and Financial Stability: Regulatory Challenges' (2018) 81 (45) Law and Contemporary Problems 45.
[80] Davies (n 40) 565.
[81] Denoncourt (n 19) 3; Lin (n 37) 49; Jacobs (n 21) 458.
[82] Lin (n 37) 49.
[83] Nguyen (n 72) 30-40.
[84] ibid 49 (pointing that risk-sharing can be realized through incentivizing both the lender and the grantor to take part in controlling the risks out of using IP as security devices as both of them are residual claimants while risk-shifting is when the grantor intentionally transfers his risks to the secured lender which must not be the case in encumbering IPRs as security device); cf Jacobs (n 21) 458 (noting risks of: failure of royalty, infringement and obsolescence would be shifted to the secured creditor as one of the benefits through encumbering IPRs as security device).

sophistications to monitor or control risks associated with IPRs. However, most of the creditors have no expertise to effectively deal with the risks in encumbered IPRs, and management and future exploitation of the IPRs.[85]

Fourthly, for lenders such as commercial banks and financial institutions, IPRs-backed lending spreads their investment risks and diversifies their investment portfolios.[86] Hence, through lending against IPRs (which are untapped sources of collateral) banks and financial institutions can be safeguarded against collapse and get the chance to finance in *R & D*.[87]

Fifth, and lastly, owing to the availability of consistent future cash flows generated from IPRs which, in turn can be licensed so as to minimize the risk of defaulting in payment of the loan, using IPRs as loan security is more secure than other forms of collateral.[88] However, unleashing these benefits require the concerted efforts of various stakeholders.

2.5.Security Interests in Intellectual Property Rights *vis-à-vis* Financial Stability

The global financial crisis of 2008 has squeezed lending, by banks and financial institutions, mainly against IPRs.[89] Relative to the traditional categories of assets,[90] lending against IPRs which have risks and do not show as physical a value as real property can be easily neglected and dubbed a risky business.[91]

However, lending against IPRs help maintain financial stability in different ways. Firstly, IPRs will generate revenues while economic recessions hit the economy in general and the financial system in particular.[92] Economic meltdown thrust more businesses to scrupulously protect their

[85] Davies (n 40) 565.
[86] Lin (n 37) 50.
[87] For more details on this point, see Section 2.5 below.
[88] Jacobs (n 21) 458.
[89] See Steven L.Shwarcz, 'The Financial Crisis and Credit Unavailability: Cause or Effect?' (2017) 72 Business Lawyer 409-410 (arguing lack of credit availability appears to have caused the financial crisis more than the reverse);Lin (n 37) 50; Denoncourt (n 19) 28 (arguing that the global financial crisis has told us a different story than what many perceived before as lending against real assets, shares, and other financial products become more riskier).
[90] For general account of the relation between secured transactions and financial stability, see Schwarcz, 'Secured Transactions and Financial Stability' (n 79) 45-62.
[91] Jacobs (n 21) 461; See also Denoncourt (n 19) 4-5 (pointing that IP is a 100 % risk-weighted asset from capital adequacy perspective).
[92] Jacobs (n 21) 462.

IPRs, and find and expand ways for revenue generation.[93] What is more, nowadays, the fruits of human intellect are more connected with the daily life of human being. Even in case of economic crisis, the demand for using products and services protected through IPRs is there for indispensable goods and services that people cannot leave without.[94] IP can also serve as stable asset during uncertainties and continue to serve the purpose of investment and growth when consumer and investor emotions run disruptive.[95]

Secondly, in the great deal of the cases the revenue generating lifetime of the IPRs extends beyond recession time.[96] Businesses which continue focusing on their IPRs during recession will most likely get competitive edge after the recession.[97]

Thirdly, using IPRs as security device diversifies the risks and sources of profits rather than using solely the real property and other intangibles as collateral during the economic tough times.[98]

Fourthly, unlike traditional assets, IPRs are less correlated with the broader financial markets.[99] Thus, failure to the market has insignificant relation to the IPRs when compared with other assets.

Fifthly, participating in debt-financing through security interests in IPRs enables fund providers to invest in the technological economy, a scheme which has lower risks than engaging in equity financing.[100]

Lastly, empirical study has proven that inventions / creations only surge in response to economic recessions and financial instability.[101] Security interests in IPRs, on its part, support more

[93] Sheetal Chopra and Astha Negi, 'Role of Intellectual Property during Recession' (2010) 15 Journal of Intellectual Property Rights 122.
[94] ibid.
[95] ibid.
[96] Jacobs (n 21) 462.
[97] Chopra and Negi (n 93) 123.
[98] Jacobs (n 21) 462; Lin (n 37) 50.
[99] Lin (n 37) 50.
[100] ibid.
[101] Chopra and Negi (n 93) 122-123 (Showing recession era inventions such as Television, Nylon, and Electric Razor in 1929-1939; Internet Economy in 1990-1991; IPod in 2001-2003; and Green Energy, Telecom Computing Convergence, and Nanotech in 2007-2010. And some of the major corporations born during economic recession are Microsoft, LexisNexis, General Electric Company, HP (Hewlett-Packard Development Company LP, MTV Networks, CNN, and FedEx Corp.).

creations/ inventions through access to external finance. Hence, IP is relatively[102] a safe, stable and acceptable security device than the real property and other intangibles during economic recessions.

But, just like other tangible assets, sustaining credit creation in IPRs need proper balance of secured transactions law and capital adequacy requirements for banks and financial institutions[103]_ banks and other financial institutions are inextricably connected to the welfare of the general economy and financial stability. The operation of secured transactions under similar incentives and constraints for all the lenders (i.e., for banks and financial institutions as well as other lenders) would trigger financial instability.[104] Notable examples are priority and enforcement of security interests where, unlike other lenders and lending against other assets, banks and financial institutions lending against movable properties shall maintain the highest priority and swift enforcement of security interests for recovery of the debt.[105] Such swift enforcement of security interests would be the case with tools like foreclosure power. Otherwise, banks would face contagion effect through credit-risk (risk of borrowers not paying their long-term loans) and liquidity risk (risk of not having sufficient cash to meet short -term obligations). Besides, banks' regulatory standards put some loan requirements. Although regulatory standards for banks' capital adequacy requirements do not prohibit extending new loans, banks must increase their own funds or minimize their exposure to credit risks in case they opt to extend new loans.[106]

2.6. Challenges and Risks involved in Security Interests over Intellectual Property Rights

The challenges to the use of IPRs as security devices starts with the very contesting purposes of IP laws and secured transactions laws. This is due to the fact that IP laws concern with rewarding IP owners/ holders through granting them monopolistic (exclusive) rights to recoup costs and get profits while secured transactions law aims at establishing effective security regime with well-defined priority rules and enforcement mechanisms up on default, in favour of secured creditor

[102] It is to be noted that the 2008 global financial crisis has proven the absence of completely safe collateral. Thus, it is not to mean IPRs are totally free from economic recession and financial instability.
[103] Castellano and Dubovec, 'Credit Creation' (n 39) 63-85.
[104] ibid.
[105] ibid 72.
[106] ibid 71.

against other creditors and the grantor.[107] Unless such tension is managed carefully by the laws, it would result in 'extreme uncertainty'.[108] However, it does not mean that IP laws shall govern security interests in IPRs as such laws are not principally designed for transactional rules_ "They (IP laws) create property, but often tell us little about how to dispose of it".[109]

Furthermore, there are inherent vagueness and fluidity in IPRs. IP is intangible in its nature. The intangible nature of IP affects actual and constructive possession of the IP.[110] IPRs are choses in action (not choses in possession),[111] uniquely mobile and infinitely replicable,[112] non-rivalrous (i.e, additional use can be made at zero marginal cost to the right or the use of the right by others), non-exclusive (once made it is difficult to keep IP secret and exclude others from exploiting it), and exploitation outside the territorial limit of the IPRs protection might not be controlled.[113] Also, some IPRs are not transferable in many jurisdictions_ for example, moral rights within copyrights protection.

It is also the case that IPRs may face risks related to market acceptance. It is extremely difficult to make accurate prediction about the degree of failure or success, on the market, of newly created or invented IPRs.[114] Market acceptance affects transactions on IPRs than any other forms of assets, and the problem is more critical in case of secured transactions.[115]

Valuation of IPRs also complicates the security interests in these assets. Only valuable IPRs would be the subject for security interests. Literatures have identified three valuation approaches for IPRs: Income, Market, and Cost approaches.[116] However, income approach is criticized as it does not work for IPRs which newly entered the market or those which have no established

[107] Davies (n 40) 582-583; Thomas (n 77) 2; Ghosh (n 57) 110-116.
[108] Thomas (n 77) 2; Ghosh (n 57) 101.
[109] Lipson (n 56) 8; Thomas (n 77) 34 (emphasis added); See also Denoncourt (n 19) 4.
[110] Cantatore (n 63) 10.
[111] Thomas (n 77) 8-9; Davies (n 40) 565; Andrea Tosato, 'Security Interests Over Intellectual Property' (2011) 6 (2) Journal of Intellectual Property Law & Practice 94-95.
[112] Lipson (n 56); See also Tosato 'Security Interests Over Intellectual Property' (n 111).
[113] Lin (n 37) 18; Toshiyuki Kono and Claire Wan-Chiung Cheng, 'IP and Debt Finance: Cross-Border Considerations' in Toshiyuki Kono (ed), *Security Interests in Intellectual Property* (Springer Nature Singapore Pte Ltd. 2017) 97 (arguing IPRs protection is territorial while their exploitation is borderless as IPRs are ubiquitous once protected in one country).
[114] Darin Neumyer, 'Future of Using Intellectual Property and Intangible Assets as Collateral' (January/ February 2008) 45 <https://cfa.com/eWeb/docs/tsl_archives_pdf/jan08_pg042.pdf> accessed 10 August 2019.
[115] Jacobs (n 21) 458-459.
[116] Richards (n 2) 22-28; Worku (n 44)14-18.

revenue streams. Even IPRs revenue streams fluctuate with reputation of the IPRs owner [117] or technological advancement affecting the IPRs. Market approach does not seem appropriate, too. IPRs have no standardized markets unlike physical properties and other intangibles. Again, market place for IP transactions are at best murky (dark and gloomy). The search for comparable market transaction for valuation of IPRs is normally futile[118] as far as the public or active trading market that exist for financial and physical assets do not exist for IP assets. As the function of their being, IP assets by definition are dissimilar or unique. For example, patents shall be novel, copyrights must be original, and trademarks must be distinctive. Cost approach is also not safe from critics. This approach emphasizes on what it would cost to replace or reproduce the IPRs (which are difficult to value), because historical cost does not respond to inflation; present day value may not respond to market efficiency; realistic future benefits of IPRs are ignored in cost approach; and for the huge complexities involved in *R & D per se*.[119] But, cost approach is better for valuation of IPRs which newly entered the market. So, there are information asymmetries to optimize economic transactions related to IPRs.[120] Absence of clear valuation standards for IPRs means that lenders do not know what amount to recover in case of default. It also affects IPRs owners' as in the case of security liquidation sale auctioneers may act in consortium to undermine the value of IPRs to the detriment of interests of owners thereof.[121]

More, IPRs easily face obsolescence (an opposite to market acceptance) as an IP which newly entered the market surpass the value of the old ones.[122] The most banal example is patent in rapidly evolving-technology[123] such as computer processing speed and memory capacity that in expensively double every two years.[124] Technological advancement can also render the IPRs to being obsolescence and volatile.

[117] For example, the value of Michael Jackson's catalogue was decreased in 2007 due to the alleged sex abuse scandal though the burst of nostalgia following his sudden death in 2009 increased the value of his songs and albums as millions of fans bought, see Richards (n 2) 22.
[118] Davies (n 40) 576; Richards (n 2) 26-27.
[119] Richards (n 2) 27-28.
[120] Davies (n 40) 575, 578-579; Denoncourt (n 19) 8-9.
[121] Lin (n 37) 68-69.
[122] Neumyer (n 114).
[123] ibid 48; Jacobs (n 21) 459.
[124] Jacobs (n 21) 459.

Just like other assets, IP need to be maintained; for instance from infringement, like trade name requiring advertisement in order to retain its value.[125] But, similar to other assets, IP maintenance is often neglected when IPRs holder/ owner is performing poorly.[126] Accordingly, IP maintenance affects security interests in IPRs.

Besides, there are legal risks which are inherent problems to IPRs: ownership challenge and expiration of time for protection.[127] For instance, patents may be challenged for lack of novelty, and owing to the once released information leading to the possibility of "design around", which is normally not IP infringement, patent would face costly litigation.[128] The statutory time of protection for IPRs is also limited to some duration causing problems on the use of IPRs as security. But, some IPRs such as registered trademarks and confidential information have the potential to exist indefinitely.

Still, in the modern knowledge economy, there is integration among tangible goods and IPRs (that make the tangible goods functional), which some scholars call 'internet of things'[129] that poses serious problems to secured transactions using IPRs.[130] Albeit, the tension posed by 'internet of things' is more evident in software and hardware technologies, 3D printers, and smart meters, it is also the case that IPRs can exist being embedded in equipment or inventory.[131] In similar vein, there is the problem posed by the existence of uncoordinated numerous right holders in single IPRs as the rights themselves may be divided between different parties who can block each other.[132] For example, the IPRs in copyrights can be divided among different persons.

The challenges and risks involved in security rights in IPRs would increase transaction costs. Consequently, lenders and debtors may hesitate to deal with IPRs as security interest. However, the risks and challenges surrounding IPRs in general and the use of those resources as security in particular could not prevent IPRs from being used to secure a transaction. The next section

[125] Neumyer (n 114); Jacobs (n 21) 459.
[126] Jacobs (n 21) 459.
[127] ibid 459-460; Neumyer (n 114).
[128] Davies (n 40) 574.
[129] For the concept of internet of things, see generally W. Keith Robinson, 'Patent Law Challenges for the Internet of Things' (2015) 15 (4) Journal of Business and Intellectual Property Law 656-670. (Wherein 'internet of things' is elaborated as 'a complex network of : smart devices, protocols for facilitating communications among smart devices, and systems and methods for storing and analyzing data acquired by the smart devices').
[130] Thomas (n 77) 3.
[131] ibid 4-6.
[132] Solomon and Bitton (n 1) 171; See also Lin (n 37) 22.

discusses mechanisms to do away with the challenges and risks related to security interests in IPRs to unlock the full economic potential in the likely untapped resource.

2.7. Mechanisms to Overcome the Challenges and Control the Risks involved in Encumbering Intellectual Property Rights as Security Device

Security device laws shall put agile, effective, and simplistic set of rules so as to bring efficiency in the secured transactions.[133] Albeit most aspects of the bargain such as valuation of the encumbered asset and level of risks are left to the idiosyncratic choices of the parties due to party autonomy, which is a general principle in contract law, secured transactions law needs to have mandatory rules and arm secured creditors and debtors "with the tools to make assessment of risk exposures while exercising their contractual freedom".[134]

Coming to IPRs as security device, secured transactions law needs to enable the lender to monitor and police the IP, and preserve his/her interests through periodic renewal of registration.[135] Only in this way that we can minimize adverse selection problem (risks of selecting bad transaction and undermining what otherwise is a good deal) and moral hazard problem (risks in change of the debtors' behaviour after extension of credit) in using IPRs as security.[136]

The risks of obsolescence of IPRs can be controlled through proper loan structure.[137] Diversified IP licensing programs may spread the use of old IP in many markets and thereby safe the decline of the value of old IP as the result of new entry in a single market.[138] Also, obsolescence risk can be mitigated through employing limited-term amortizing loan structure so as to control the duration of time capital is at risk relative to valuation analysis[139]_portion of the debt secured through IPRs is to be paid regularly until the whole payment of the debt is due.

[133] Castellano and Dubovec, 'Credit Creation' (n 39) 67.
[134] ibid 68-69.
[135] Davies (n 40) 574.
[136] Lin (n 37) 28-30.
[137] Neumyer (n 114); See also Jacobs (n 21) 459.
[138] Neumyer (n 114).
[139] ibid.

Even, in case a patent is declared invalid, the owner can surpass competitors on the market and earn revenue.[140] Challenges to ownership and maintenance risk in case of lending against IPRs could be controlled through active and continual monitoring by compliance specialists.[141] Risks related to expiration date for protection of IPRs could be handled via taking into consideration those risks before closing the loan, and then through employing loan-amortization structure.[142] IP law has also in-built mechanisms to control the risks of ownership, non-rivalrousness, and non-exclusiveness of IPRs ranging from uniqueness of the creation/ invention to get IPRs protection, giving temporal exclusive rights to owners thereof as incentives, to damages for infringement.

For problems related to valuation of IPRs, the IP valuing and tracking approach adopted by US Financial Accounting Standards Board (FASB), an independent organization fully funded by private sector since June 2001, is crucial. It unanimously approved Statement of Financial Accounting Standards (SFAS) 141 (Business Combinations) and 142 (Goodwill and Other Intangible Assets).[143] The approaches adopted by FASB made businesses determine the fair market value of their IPRs; rather than basing on the historic values of IPRs.[144] In similar vein, International Financial Reporting Standards (IFRS) allows, under International Financial Accounting 38, asset recognition only if intangibles (including IPRs) satisfy the probability recognition criterion_ i.e., "it is probable that the future economic benefits that are attributable to the asset will flow to the entity, and the cost of the asset can be measured reliably".[145] In the latter too, internally generated IPRs solely for internal use do not satisfy the required probability recognition criteria, they are recognized once as expenses and even that is only if an expense has been incurred.[146] But, having merely expenditure evidences does not inform lenders much; let alone enabling them to take note of the value of IPRs. It also means lack of financial transparency through leaving valuable IPRs 'off-balance sheet'. Again, licensing out the IP, which authorizes someone to use the cash flows, help establish estimated value of the IP_ up on

[140] Denoncourt (n 19) 4.
[141] Neumyer (n 114).
[142] ibid.
[143] Jarboe and Furrow (n 15) 8-9 (elaborating that SFAS 141 rejected accounting through "pooling-of-interests" wherein, in case of merger, an organization simply merges the financial statement of the acquired firm with its own without a separate accounting of the intangible components of the transferred goodwill while SFAS 142 dictates organizations to value and track their own intangibles annually and record on the balance sheet).
[144] Albeit SFAS was criticized for not working on the intangibles made in house (by the business itself), it provides a meaningful valuation approach in case of transfer of IPRs for the purpose of security interests, see ibid 9.
[145] < https://www.iasplus.com/en/standards/ias/ias38> accessed 22 August 2019.
[146] ibid.

default of licensor, the licensee would be the potential buyer of the IP asset though this would not absolutely solve the problem of valuation, because valuation is still necessary for fixing the appropriate royalty or fee for exploitation of IPRs.[147]

A more acceptable approach to valuation of IPRs is a "narrative description" on the financial statements that valuation is based on inter-disciplinary methodologies such as law, economics, investment, accounting, and finance.[148] Also, jurisdictions shall device innovative valuation approaches with an accurate forecast of future revenues, a good judgment of the probability of market change, and a greatest care as to ownership validity of IPRs.

As to the inherent vagueness and fluidity of IP affecting security interests, having a written security agreement[149] and creating a charge than other forms of security interests are suggested.[150] This is because giving IPRs as pledge is "like giving a Stradivarius piano to a gorilla, a gorilla can only destroy it!"[151]

In a nutshell, provided that the risks and challenges which may scare away potential lenders from lending against IPRs as security are surmounted to the required degree, IPRs are the potential economies with greatest benefits for use as security. In effect, unlocking the full potential of IPRs as security is based on how the secured transactions law is devised to control the risks and challenges involved therein.

[147] Davies (n 40) 577-578.
[148] ibid 579.
[149] Cantatore (n 63) 10.
[150] Davies (n 40) 565-566 (pointing that 'charge and mortgage do not involve possession and removal of assets from the grantor while pledge and lien, which are possessory in nature, are not applicable for security interests in IPRs (pure intangibles). Unlike mortgage that involves the transfer of title to the mortgagee, charge does not remove the chargor's title but places an encumbrance on it to the value of outstanding debt').
[151] Bazinas (n 73) 107.

CHAPTER THREE

INTERNATIONAL LEGAL FRAMEWORKS AND EXPERIENCES FROM SOME NOTABLE JURISDICTIONS ON USING INTELLECTUAL PROPERTY RIGHTS FOR SECURING DEBT-FINANCE TRANSACTIONS

3.1.Introduction

Laws for IPRs-backed debt-finance are recent phenomena both at international and national scene. Besides, different schemes were adopted by national jurisdictions to promote security interests in IPRs through leveling the playing field to forge trust in the use of IPRs as their counterpart (i.e., tangible assets) have dominated secured transactions market.

In the contemporary world, so many jurisdictions (largely inspired by developments within UNCITRAL) joined the bandwagon of reforming and adopting their secured transactions law where they made IPRs can serve the economic function of guaranteeing repayment of the underlying debt. Moreover, some jurisdictions have made significant initiatives to garner a trust in the use of IPRs as security for lending, and thereby ensure monetization of IPRs for the owners/ holders. Taking notes of certain foreign developments for proposing profound reforms and unlock the potential within untapped resources such as IPRs is of essence. This chapter is an attempt to do that. In so doing, the researcher is not of the view that a country shall transplant foreign development (s) on secured transactions law wholly or verbatim. Rather, it is for a certain national jurisdiction to take foreign lessons after thoroughly correlating with its own contexts.

3.2. Justifications for Selection

As far as the justification for selection is concerned, UNCITRAL legal frameworks were selected since they are the base for modern secured transactions reform across the world and for the recent reform on secured transactions happened in Ethiopia. EBRD was chose as it originally aimed at countries with civil law origin similar to Ethiopia. The secured transactions reform within OHADA was selected as it is the reform in African continent mainly for sub-Saharan countries, the region including Ethiopia albeit Ethiopia is not a party to OHADA.

USA was opted for as it has a well-developed jurisprudence and, as some commentators claim, reproduced a huge contribution even for the secured transactions reform within UNCITRAL

framework. The evaluation of IPRs in Russia and the IP-financing schemes in Singapore, Malaysia, China, and Hong Kong were selected as they bring the best implementing tools if the idea of security interests in IPRs_ that Ethiopia has embarked on in the recent legal reform_ has to have a firm-ground.

In respect of the specific countries referred in this work, it is better to note that contrary arguments may arise based on economic development and other contexts that those countries have than Ethiopia. Actually, however, we cannot get exactly identical systems to learn from each other. Also, lessons from foreign jurisdictions serve only as signal to the reform; not as hard and fast rules. Above all, international developments and other countries' experiences in this work were selected as lessons over security interests in IPRs; not as a full-fledged comparative study.

3.3.International Legal Frameworks on using IPRs to Secure Debt-Finance

3.3.1. UNCITRAL Legal Frameworks

UN has established UNCITRAL in 1966 with a mandate to promote progressive harmonization and modernization of international trade law.[152] Within UNCITRAL, six working groups were established on each specific topic identified by the commission. The six working groups meet biannually and present their findings to annual UNCITRAL meeting. Accordingly, Working Group VI was organized for the purpose of security interests.

The remarkable work of UNCITRAL in security interests began in 2001 when it entrusted Working Group VI (Security Interests) to develop a legislative guide on secured transactions. In 2003, UNCITRAL began cooperating with WIPO on the development of a Legislative Guide on Secured Transactions focusing on secured finance in IPRs.[153] WIPO's cooperation is for ensuring the views of IP community within secured transactions legal reform. UNCITRAL

[152] UN General Assembly Resolution No. 2205 (XXI) of 17 December 1966 Establishing UNCITRAL, s I, para.1, <https://www.jus.uio.no/lm/uncitral.2205-xxi/portrait.pdf> accessed 29 August 2019.
[153] WIPO, 'WIPO Questionnaire on Security Interests in Intellectual Property' (n 2).

Working Group VI, after conducting twelve sessions between 2002 and 2007, developed a draft which was adopted by UNCITRAL in 2007.[154]

UNCITRAL Legislative Guide is "to assist states in developing modern secured transactions laws with a view to promoting the availability of credit".[155] It also provides the general objectives and the legal framework through which it strives to achieve its objectives. Accordingly, the general objectives of the guide are to: (1) promote low-cost credit by enhancing availability of secured credit; (2) allow debtors to use the full value inherent in their assets to support credit; (3) enable parties to obtain security rights in a simple and efficient manner; (4) provide for equal treatment of diverse sources of credit and of diverse forms of secured transactions; (5) validate non-possessory security rights in all types of assets; (6) enhance certainty and transparency by providing for registration of notice (financing statement) in a general security rights registry; (7) establish clear and predictable priority rules; (8) facilitate efficient enforcement of secured creditors' rights; (9) allow parties to maximum flexibility to negotiate the terms of their security agreement; (10) balance the interests of persons affected by a secured transaction; and (11) harmonize secured transaction laws including conflict of law rules.[156] On the other hand, the legal framework that the UNCITRAL Legislative Guide establishes are: (a) comprehensiveness in scope, (b) functional approach, (c) allowing security interests in future assets and proceeds, (d) clear rules on effectiveness between parties and towards third parties, (e) creation of security rights registry, (f) allowing multiple security rights in the same collateral, (g) priority rights, and (h) effective enforcement rights.[157]

However, the UNCITRAL Legislative Guide was found not sufficient to address the specific reality of security interests in IPRs. Thus, after series of negotiations, Working Group VI came up with supplement on IPRs which was adopted by UNCITRAL in 2010.[158] The IP Supplement is aimed at making credit more available and at a lower cost to IP owners and other IPRs holders.[159] It also aims to address the problem of coordination between secured transactions and

[154] UNCITRAL Legislative Guide on Secured Transactions <https://www.uncitral.org/pdf/english/texts/security-lg/e/09-82670_Ebook-Guide_09-04-10English.pdf> accessed 29 August 2019 (hereinafter referred to as UNCITRAL Legislative Guide).
[155] ibid 1, para.1.
[156] ibid 19-22.
[157] ibid 23-26.
[158] UNCITRAL IP Supplement.
[159] ibid.

IP law through facilitating the extension of credit at a lower cost without, however, interfering with the fundamental policies of IP law.[160] For example, where there is registration of security interests in IPRs at IP-specific organs (Intellectual Property Offices), UNCITRAL Legislative Guide does not recommends complete overhaul of such trend.

The UNCITRAL Legislative Guide and IP supplement deal with creation, perfection, priority and enforcement of security interests in movables, although specific recommendations for security interests in IPRs are the subjects emphasized by IP supplement. Both the UNCITRAL Legislative Guide and IP supplement followed soft law approach; they are non-binding (upholding sovereignty of states); addressed to the legislator (not contractual guide for parties in private transaction); offer plenty of recommendations and commentaries to the states; follow the functional approach to security interests (i.e., usability of all movables including IPRs to raise debt-finance); and highly recommend establishment of electronic-based central collateral registry with notice filing system (not transaction filing system which affects privacy of secured creditor and grantor through publicizing the security agreement).

In view of supporting the UNCITRAL Legislative Guide and IP Supplement which do not address in every detail the numerous legal, technical, administrative and operational issues involved in effective general security rights registry, UNCITRAL has adopted the Guide for Implementation of Registry in 2013.[161]

Moreover, in search of simple and concise law for ease of enacting secured transactions law by states than the bulky matters discussed under the UNCITRAL Legislative Guide, IP Supplement and other works on security interests,[162] UNCITRAL adopted a model law for secured transactions in 2016.[163] The UNCITRAL Model Law provides general and IP-specific rules for creation, perfection, priority and enforcement of security interests. It also prescribes flexibilities

[160] ibid 1 , para.1, 3 para.7, 19-21 paras.46-52.
[161] UNCITRAL Guide on the Implementation of a Security Rights Registry, 1 <http://www.uncitral.org/pdf/english/texts/security/Security-Rights-Registry-Guide-e.pdf> accessed 30 August 2019 (hereinafter referred to as UNCITRAL Registry Implementation Guide).
[162] UNCITRAL, Report of Working Group VI (Security Interests) on the Work of its twenty-first session, 45th Session (2012) 17, para.74 <https://undocs.org/en/A/CN.9/743> accessed 30 August 2019.
[163] UNCITRAL Model Law on Secured Transactions <https://www.uncitral.org/pdf/english/texts/security/MLST2016.pdf> accessed 30 August 2019 (hereinafter referred to as UNCITRAL Model Law).

for states to specify within their secured transactions laws, for example, any preferential claims affecting priority of security interests.[164]

Besides, to explain each provisions of the UNCITRAL Model Law in coordination with other UNCITRAL works and clarify matters to help states modernize their laws, the Guide to Enactment of UNCITRAL Model Law on Secured Transactions was adopted in 2017.[165]

However, secured transactions reforms uphold by UNCITRAL for security interests in IPRs are not silver bullets that will remove all the problems related to the transaction. Even UNCITRAL has recognized that 'producing the acculturation necessary for quick acceptance of any new law does not occur by happenstance.'[166] In this regard, adopting States are recommended to: prepare explanatory legislative commentary of the new law, prepare contractual models on which practitioners can rely, conduct educational campaigns to educate both practitioners and end-users, and make efficient publication of judicial decisions and commentary to increase legal certainty.[167] Thus, it is up to jurisdictions to cautiously take the secured transactions reform proposed by UNCITRAL and contextualize with their own settings, and co-relate with their domestic existing laws.

3.3.2. European Bank for Reconstruction and Development (EBRD)

Being established in 1991, EBRD adopted a Model Law on Secured Transactions in 1994 initially in the advent of reforming secured transactions within Central and Eastern European countries (which have civil law origins), but later on extended its project to Central Asia, Southern and Eastern Mediterranean including North African countries too.[168] As an international financial institution, EBRD's mission is to encourage transition to market economy through lending for private sectors following sound banking rules.[169]

[164] UNCITRAL Model Law, art.34.
[165] A Guide to Enactment of UNCITRAL Model Law on Secured Transactions, 3, para.1 <https://www.uncitral.org/pdf/english/texts/security/MLST_Guide_to_enactment_E.pdf> accessed 30 August 2019 hereinafter referred to as UNCITRAL Guide to Enactment of Model Law).
[166] UNCITRAL Legislative Guide, 29, para.85.
[167] UNCITRAL Legislative Guide, 29-30.
[168] Gikay (n 46) 190.
[169] EBRD, 'Law in Transition: Competition Law and Policy: Enhancing Enforcement and Cooperation' (2004) 5 <https://www.ebrd.com/downloads/research/law/lit041.pdf > accessed 14 August 2019.

Moreover, to help countries make informed choices, EBRD has crafted the guiding principles for the development of the charges registry,[170] and some ten core principles for secured transactions law.[171]

3.3.3. Organization for the Harmonization of Business Law in Africa (OHADA)

OHADA, a pan-African Organization created by treaty signed on 17 October 1993 in Port-Louis (Mauritius), is aimed at promoting regional integration and economic growth, and ensure secure legal environment through harmonization of business law in OHADA territory.[172] OHADA promulgated a number of Uniform Laws which bind the member states. Amongst, Uniform Law on Security Interests was adopted in 1997 but repealed in 2010 with the law permitting non-possessory security rights in movables including IPRs and the business.[173]

3.4. Experiences from Some Notable Jurisdictions

3.4.1. USA

In US, IPRs are under the jurisdiction of federal government while security interests are the jurisdiction of each States to the federation.[174] US *Uniform Commercial Code* (UCC), which harmonized the law of states, came up with unitary concept of security interests as it brought all secured transactions in personal property under the same roof.[175] In this regard it is argued that

---

[170] See EBRD, 'Publicity of security Rights: Guiding Principles for the Development of a Charges Registry' (2004) <https://www.oas.org/dil/ebrd-publicity.pdf > accessed 6 September 2019.

[171] The principles are: (1) Security should reduce the risk of giving credit leading to an increased availability of credit on improved terms, (2) the laws should enable quick, cheap and simple creation of proprietary security right without depriving the person giving security of the use of his assets, (3) the law should device priority of secured creditor, (4) There should be enforcement procedures with a prompt realization at market value of the encumbered assets, (5) Security right should subsist in, and being enforceable after, the bankruptcy or insolvency of the grantor, (6) costs of taking, maintaining and enforcing security should be low, (7) security should be available over all types of assets, to secure all types of debts, and between all types of person, (8) Effective means of publicizing the existence of security rights should be there, (9) the law should establish rules for competing rights of persons holding security and other persons claiming rights in the assets given as security (such as buyers in the sale conducted within the ordinary business of the grantor of security), and (10) the law should give the required room for the parties to adapt security to the needs of their particular transaction. See, generally, EBRD, 'Core Principles for a Secured Transactions Law' <https://www.ebrd.com/documents/legal-reform/secured-transactions-core-principles-english.pdf > accessed 6 September 2019.

[172] OHADA's Uniform Law on Security Interests (2 November 2015) <https://www.insideafricalaw.com/.../**ohada**s-uniform-law-on-**security-interests**-harmonising-business-law-across-africa> accessed 14 August 2019 (OHADA's members include 16 sub-Saharan African countries such as Benin, Burkina-Faso, Cameroon, Central African Republic, Chad, Comoros, Cote d'Ivoire, Congo (Republic), Democratic Republic of Congo, Equatorial Guinea, Gabon, Guinea, Guinea-Bissau, Mali, Niger, Senegal and Togo).

[173] Uniform Act Organizing Securities <https://www.droit-afrique.com/.../OHADA-Uniform-Act-2010-securities.pdf > accessed 14 August 2019 (hereinafter referred to as OHADA Uniform Securities Act), arts. 156-165.

[174] Painchaud and Moscovici (n 42) 4.

[175] Schwarcz (n 79) 61.

UCC Section 9 is an innovative disentanglement of commercial and property law.[176] It incorporated intangibles including IPRs under security interests for debt-finance.[177]

However, perfection and priority of security interests in IPRs in US are troublesome. This is because the US IP laws (such as Patent Act and *Lanham* / trademark Act) provide for security interests in IPRs and the perfection of those security interests before the IP organs while UCC provides registration of security interests at State level.[178]

Furthermore, US Congress had passed Sarbanes-Oxley Act in 2002 in reaction to reporting scandals within colossal companies such as Enron and Worldcom. The Sarbanes-Oxley Act requires companies to increase valuation and disclosure on internal control structures of valuable IPRs that have material effect on financial performance, identify and disclose risks associated with IPRs.[179] Although the Act is criticized for not going further than FAS 141 and 142 as it require documentation of merely fair value of IPRs; not the value in use,[180] it has contributed for valuation of IPRs through instructing the corporate officers to make and facilitate thorough periodic audit of company's portfolio, the volatility of IPRs and the degree to which the company depends on IPRs.[181]

In an attempt to control the risks involved in using patent as security, Patent Quality Initiative (hereinafter PQI) was formed by the Clearing House (US banking industry group representing about 20 US and international financial institutions) in 2014.[182] The project is targeted to avoid low-quality patents through well-functioning prior art-search, research and filing.[183] The message is clear: patents with low quality will likely face more litigation and legal uncertainty while high

[176] ibid 59-62.
[177] UCC does not recite any of IPRs. But, UCC Section 9 (402) (a) (42) incorporates 'general intangibles'. Official comment 5d interpreted general intangibles so as to include IPRs. See Official Comment to New Article 9 (1 February 2009) <https://www.cali.org/lessons/web/ct11_1/comments_to_new_a9.htm> accessed 15 September 2019.
[178] See, generally, Anjanette Raymond, 'Intellectual Property as Collateral in Secured Transactions: Collision of Different Approaches' (2009) 10 (1) Business Law International < https://www.ssrn.com/abstract=2019612 > accessed 19 September 2019.
[179] Roya Ghafele, 'Accounting for Intellectual Property? (2010, University of Oxford, Oxfirst) <https://mpra.ub.uni-muenchen.de/37360/1/MPRA_paper_37360.pdf> accessed 11 April 2019.
[180] ibid.
[181] Gallagher & Dawsey Co., LPA, 'Wading through the Intellectual Property Requirements of the Sarbanes-Oxley Act of 2002' (2005) <https://www.invention-protection.com/wading-through-the-intellectual-property-requirements-of-the-sarbanes-oxley-act-of-2002/> accessed 7 September 2019.
[182] Denoncourt (n 19) 18.
[183] ibid.

quality patents are better resources to be used as security in loan transactions.[184] Indeed, PQI manifests the greatest sophistication of financial institutions as regards IPRs, though only with patents.[185]

3.4.2. Singapore

Understanding the risks involved in security interests in IPRs and the hesitation of financiers to extend a loan backed by IPRs, recommendations have made to the government of Singapore in 2013 to adopt specific policy scheme to partially underwrite the loans secured by IPRs.[186] The move was part of the broader ten years Master Plan which is to make Singapore a "Global Hub of IP".[187] In 2013, Singapore government has adopted the IP hub master plan recommendations of IP Steering committee.[188] Accordingly, in 2014, Intellectual Property Office of Singapore (hereinafter IPOS) released US $ 70 million to help local SMEs use their patents as security for loans.[189] Besides, the panel of nine valuers was established by IPOS to support IP owners know the value of their property.[190]

The scheme works in three steps: first, applicants who have registered patents approach the eligible financiers for the preliminary credit assessment; second, a borrower selects a panel of valuers appointed by IPOS who assesses the applicant's IP portfolio using standard guidelines to offer financiers with a ground on which to decide the amount of funds to be extended through loan; third, the applicant submits a formal application together with valuation report to the lender.[191] In addition to partial underwriting of the loan, the government of Singapore provides

[184] ibid.
[185] ibid.
[186] Singapore IP Steering Committee, 'Intellectual Property (IP) Hub Master Plan: Developing Singapore as a Global IP Hub in Asia' (April 2013) Recommendation 2.1, and paras, 3.3.10 <https://www.mlaw.gov.sg/content/dam/minlaw/corp/News/IP%20Hub%20Master%20Plan%20Report.pdf> accessed 7 September 2019.
[187] ibid.
[188] Singapore Ministry of Law, 'IP as new growth area: Government accepts IP Hub Master Plan recommendations; Rolls out initiatives to develop Singapore as a global IP hub in Asia' (1 April 2013, Press Release) <https://www.mlaw.gov.sg/news/press-releases/IP-hub-master-plan-launched.html> accessed 7 September 2019.
[189] Lin (n 37) 53-54l; Denoncourt (n 19) 19. It is to be noted that the eligible financiers (participating financial institutions) under the scheme are only: AFC Merchant Bank, DBS Bank Ltd, Oversea-Chinese Banking Corporation Ltd, and United Overseas Bank Ltd. More, initially the scheme works only for patent, but also for registered trademarks and copyrights since 1 July 2016, see Intellectual Property Office of Singapore, 'Cash for Intellectual Property through loan financing now a reality in Singapore' (2 June 2016) <https://www.ipos.gov.sg/media-events/press-releases/ViewDetails/cash-for-intellectual-property-through-loan-financing-now-a-reality-in-singapore/> accessed 31 August 2019.
[190] Lin (n 3) 53-54l; Denoncourt (n 19) 19.
[191] Denoncourt (n 19) 19.

valuation subsidy once borrowers successfully collected the whole credit, and such subsidy is in an amount equivalent to the lowest of (i) 50 % of valuation cost, (ii) 2% of the value of patent, or (iii) Singapore dollar 25,000.[192] With such schemes to support IP-financing, it is likely that Singapore will become IP hub.[193]

Also, Singapore gives five to ten years of tax allowance or tax breaks for IPRs-backed transactions and more subsidies for priority industries to flourish.[194]

3.4.3. Malaysia

Similar to the scheme in Singapore, in 2013 Malaysian Government launched 2% interest rate per annum subsidy (profit equalization payment) and additional guarantee of 50% of the loan via the Credit Guarantee Corporation Malaysia Berhad, and released a US $ 65 million fund administered by Malaysia Debt Venture for supporting SMEs to get access to finance.[195] The scheme helps IPRs owners who have registered and get valued their rights, encumber for the maximum period of five years, and their IPRs to secure financing of up to the lowest of (i) US $ 2.25 million, or (ii) 80 % of the value of their IPRs.[196]

Moreover, Intellectual Property Corporation of Malaysia was entrusted with IP valuation initiatives such as training and certifying the IPRs valuers who passed the exam after the training, offering continuing and capacity-building practical IPRs valuation, and developing the national IP valuation model being in concert with other relevant organs.[197] But, to avoid conflict of interest as it is an organ who subsidizes the training and certification, Intellectual Property Corporation of Malaysia is prohibited from conducting valuation of IPRs in itself.[198]

---

[192] ibid; See also Rodyk & Davidson LLP, 'Intellectual Property as Security and the IP Financing Scheme in Singapore' (September 2014) <http://aspheramedia.com/wp-content/uploads/2015/01/Rodyk_Reportersept14-Business-Bulletin-2.pdf> accessed 7 September 2019.

[193] Lorenzo Montanari, 'Will Singapore be the next Intellectual Property Hub?' (19 September 2017) <https://www.forbes.com/sites/lorenzomontanari/2017/09/19/will-singapore-be-the-next-intellectual-property-hub/> accessed 7 September 2019.

[194] Asia-Pacific Economic Cooperation Intellectual Property Rights Experts Group, 'Best Practices on Intellectual Property (IP) Valuation and Financing in APEC' (January 2018) 6 <https://www.apec.org/-/media/APEC/Publications/2018/4/Best-Practices-on-IP-Valuation-and-Financing-in-APEC/218CTIBest-Practices-on-Intellectual-Property-IP-Valuation-and-Financing-in-APEC.pdf> accessed 31 August 2019

[195] ibid 3; Lin (n 37) 54; See also Denoncourt (n 19) 24-25.

[196] Lin (n 37) 54; Asia-Pacific Economic Cooperation Intellectual Property Rights Experts Group (n 194) 4.

[197] Asia-Pacific Economic Cooperation Intellectual Property Rights Experts Group (n 194) 3-4.

[198] ibid 4; Lin (n 37) 54.

3.4.4. China

China introduced national pilot scheme in 2008 to test various polices as to financing IPRs although China State Intellectual Property Office have not published how the scheme works yet.[199] But, some scholars argue that China use mechanisms such as interest subsidies and intermediary services to reduce costs of encumbering IPRs as security, establishing financing service platforms, and forging cooperation between valuation institutions and financiers.[200] The IP financing initiative adopted by China is with significant contribution because in 2015 alone, the total amount of loans secured by patents was around US $ 8.1 billion.[201]

3.4.5. Hong Kong

The pioneering Intellectual Capital Statement (hereinafter ICS) initiative was introduced in 2010 by five Hong Kong Banks. The banks give young SMEs more favourable financial and service privileges if SMEs prepare their own ICS.[202] This encourages IPRs owners to prepare their own ICS which is based on careful and credible analysis for otherwise banks will not extend a loan against IPRs.

3.4.6. Russia

Since 1998, Russia adopted and (on so many occasions) amended a federal law dealing with evaluation standards of assets, including standards for valuation of IPRs.[203] The law is too detail to include what assets to value, who the valuers are, and the manner of valuation (market approach but others only for compelling reasons and providing the reason with in evaluation report), requirements for valuation, and the rights and duties of valuers and the client.[204] Accordingly, professional valuers give value to IPRs after assessment following the standards in line with the law. Valuers get professional training through higher educational institutions.[205]

---

[199] Denoncourt (n 19) 20-22.
[200] See, for example, Lin (n 37) 54.
[201] ibid.
[202] See Denoncourt (n 19) 25-26.
[203] Ministry of Economic Development of the Russian Federation, 'Federal Law from July 29, 1998 of No. 135- FZ on Evaluation Activity in the Russian Federation' <http://en.smb.gov.ru/support/regulation/135-fz/ > accessed 7 September 2019 (hereinafter referred to as Federal Law on Evaluation Activity in Russia); See also Asia-Pacific Economic Cooperation Intellectual Property Rights Experts Group (n 194) 5.
[204] See Federal Law on Evaluation Activity in Russia, arts. 5, 4, and 6_20.
[205] ibid art.21.

CHAPTER FOUR

ETHIOPIAN SECURITY DEVICE LAW ON SECURITY INTERESTS IN INTELLECTUAL PROPERTY RIGHTS: CRITIQUE ON ITS ADEQUACY

4.1.Introduction

The use of IPRs as security rights, previously unheard of in Ethiopia, is now set to get the ground through Movable Property Security Right Proclamation. Even before this particular law, we have the rules for business mortgage under our Commercial Code and other laws. But, the rules under the business law allow security interests only on transactions under which all the present and future assets of the firm, also called 'floating charge' in security interest jurisprudence, are charged. However, the inclusion of IPRs is incidental as it is ridiculed to the status of being for completeness of the transaction; not as a frontline source of finance through securing credit. Also, IPRs integrated in the tangible assets making those assets functional were neglected as far as security interests subjecting those tangible assets are concerned.

The Movable Property Security Right Proclamation through allowing non-possessory security interests in all movable assets including business and IPRs is aimed at modernizing the out-dated rules. When it comes to security rights in IPRs, the Ethiopian legal reform brought through Movable Property Security Right Proclamation is found to be incomplete as it does not fit to the specific nature of IPRs, and some other reforms such as valuation of IPRs and financing schemes need to be conducted to actualize the security interests in IPRs. This chapter is up to analyzing these matters and other related issues on security interests in IPRs.

4.2.Secured Transactions Law Reforms in Ethiopia: Brief Overview

The traceable legal reform of secured transactions has started with the 1950s and 1960s reforms in Ethiopia. The Civil Code governs security interests in movable (pledge) under Articles 2825 through 2874. Also, security interests in immovable are governed under mortgage as per Articles 3041 to 3116, and antichresis pursuant to Articles 3117 to 3129.

The rules under Articles 2825 to 2874 of the Civil Code deal with possessory pledges, dispossession of the pledger being an essential quality of pledge as stipulated under Articles 2832 and 2852.

However, *"pledging of claims and other intangibles"* as stipulated under Articles 2863 to 2874 of the Civil Code have failed to regulate security interests in IPRs for two main reasons. Firstly, in view of the recognition given only for artistic and literary works under Articles 1647 through 1674 (the property law part dealing with works of mind), it is a far-fetched interpretation and incongruent to argue that the Code's understanding of *"pledging of claims and other intangibles"* includes security interests in other IPRs such as patents and trademarks. Secondly, owing to the nature of IPRs (i.e, pure intangibles) that cannot be evidenced by title documents, considering the IPRs as *"claims and other intangibles"* is beyond the stipulations of Article 2863-2874 of the Civil Code.

In relation with the secured transactions reform brought about by the Civil Code is revision of those provisions in the year 1997 dealing with enforcement of pledges and mortgages as related to creditor banks.[206]

Another legal reform in the area came through the Commercial Code that deals with the business mortgage.[207] The business mortgage is a floating charge as it encumbers the changing assets of the business, both existing and future assets. Hence, IPRs, which can form elements of a business and IPRs holders fulfilling the requirements for being traders (Articles 127, 124, and 5 of the Commercial Code) can be within the scope of business mortgage. On top of this, a law introduced in 1998 brings about issues like the foreclosure power of the banks on secured credits through business mortgage and the organs for registering the transaction.[208]

Very recently, Ethiopia adopted Movable Property Security Right Proclamation in line with UNCITRAL legal texts and the help from International Finance Corporation (IFC). As can be inferred from preamble paragraph (1) and many articles of the Proclamation, the reform is aimed at introducing non-possessory security interests for all movables, including IPRs and business. Enhancing creation and access of credit, investment expansion, increasing production and productivity, and expanding banking services to rural areas through efficient enforcement

[206] Property Mortgaged or Pledged with Banks Proclamation of 1997, Proclamation No. 97 (as amended), Federal Negarit Gazeta, Year 4, No.16
[207] Commercial Code, arts.171 *et seq.*
[208] Business Mortgage Proclamation of 1998, arts.2 (2), 3, & 14, Proclamation No. 98, Federal Negarit Gazeta, Year 4, No.17.

mechanisms and begetting single comprehensive electronic based registration regime are mentioned as the purpose-clauses of the proclamation.[209]

4.3.Valuation of Intellectual Property Rights for the Purpose of Security Interests

The importance of valuation of the asset is manifold when it comes to security rights. Firstly, valuation determines how the secured creditor recovers in case of default by the debtor. Secondly, maintaining and monitoring the encumbered asset mainly in the interest of the secured creditor requires knowing the initial value, the value causing maintaining and monitoring of the asset, and what value diminishment will come against the value of the asset if not monitored neither maintained properly. In effect, valuation of the asset eases enforcement of duties of maintaining and monitoring. Thirdly, valuation of the asset also affects access to credit. The proper and the greater the value of the asset to be encumbered as security is the more access to credit on favourable terms. Fourthly, proper valuation of the asset helps control encroachments against property rights of the debtor/ grantor under the guise of enforcing and preserving security interest. Valuation of IPRs is indifferent to the abovementioned issues. Even, valuation of IPRs is more important for debt-finance,[210] and as the market for IPRs is gloomy posing huge information asymmetry. Thus, security interest in IPRs is unthinkable without valuation of IPRs, because potential lenders (financiers) will not partake in the transaction. In this regard, one scholar has noted in his seminal article that; for a value to be accorded to IPRs in connection with a loan, its ownership must be established, the value must be assessed, and the likelihood of infringement of other third parties rights need to be determined beforehand.[211] Indeed, this scenario is evaluation; not mere valuation of IPRs.[212] Thus, to extend loan backed by IPRs, lenders need to be satisfied whether the grantor is worthy of it.

Coming to Ethiopia, we see the absence of legal requirement for disclosure of IPRs on a business organization's and trader's balance sheet.[213] Thus, valuable IPRs are rendered invisible or 'off-balance sheet'. The crux of the problem is that how we can value and encumber for loan security

[209] Read Preamble paras. 1-3 of Movable Property Security Right Proclamation.
[210] Shimizu (n 61) 46, 47.
[211] Robert S. Bramson, 'Intellectual Property as Collateral: Patents, Trade Secrets, Trademarks and Copyrights' (1981) 36 (4) The Business Lawyer 1574 <https://www.jstor.org/stable/40686311> accessed 11 September 2019.
[212] ibid.
[213] See arts. 74, 75 and 84 of the Commercial Code. These provisions are ignorant of IPRs in the balance sheet and their valuations. The scourge is repeated in the undergoing changes to the Commercial Code, see arts.78 and 82 of the Revised Draft Commercial Code of 2010.

something even not required legally to be disclosed. Again, no law deals with valuation of IPRs for the purpose of security interests and the mechanisms thereof in Ethiopia.

But, we have scattered provisions dealing with disclosure of IP in different laws. For example, Ethiopian Income Tax laws, though silent on valuation techniques for the underlying asset, provide depreciation of business intangibles including IP.[214] Accordingly, for the purpose of deducting depreciation of the business intangibles, paragraph (1) of Article 25 (7) (a) of the Federal Income Tax Proclamation defines business intangibles so as to include IP such as patents, copyrights, and trademarks. Article 25 (1) of the same proclamation allows deduction of the decline in value (depreciation) of the IP during the year provided that such value fall-off is through using the IP for deriving business income. And Article 25 (2) of the proclamation leaves for the Federal Income Tax Regulation the method for computation of the depreciation value of IP. In effect, Article 39 (2) of the Federal Income Tax Regulation provides the rate of depreciation applicable to IP: 25 % for preliminary expenditure,[215] 10 % for IP with a useful life of more than 10 years, or 100 % divided by the useful time of IP for any other IP. However, the deductions for depreciation value of IP depend on the existence of the record for such assets on financial statements of the taxpayers and the willingness of the taxpayers: deduction is in the interest of the taxpayer and only who comply with the law can get deductions. Owing to the higher degree of sophistication that IP valuation requires and for such disclosure is not a requirement under the main law governing traders (i.e the Commercial Code), it is unlikely for taxpayers to record IP value-decline merely for the purpose of getting deductions which depends up on their consent.

[214] Federal Income Tax Proclamation of 2016, art. 25, Proclamation No.979, Federal Negarit Gazeta, Year 22, No. 104 (hereinafter referred to as Federal Income Tax Proclamation); Council of Ministers Federal Income Tax Regulation of 2017, art.39 (2), Regulation No.410, Federal Negarit Gazeta, Year 23, No. 82 (hereinafter referred to as Federal Income Tax Regulation).

[215] From the cumulative reading of Article 39 (3) of the Federal Income Tax Regulation and paragraph (4) of Article 25 (7) (a) of Federal Income Tax Proclamation it means an expenditure incurred by taxpayer before the commencement of a business and for providing an advantage / benefit running more than one year, but not including expenditure incurred to acquire tangible movable or immovable asset.

Moreover, IP laws provide mechanisms for valuation of infringement damages for IPRs such as based on lost profit, accrued unlawful enrichment, or royalty streams.[216] But, these are not related to valuation of IPRs for debt-finance.

Adding fuel to the fire, private firms and accountants in Ethiopia do not conduct valuation of other intangibles, let alone valuation of IPRs which is a costly and difficult business. IPRs owners/ holders have no consistent mechanisms for valuation of IPRs as no institution helps them do that.[217] More, EIPO is not engaging in building valuation of IPRs to the required degree. It is only in the year 2019 that EIPO facilitated training (given by certain American University) on valuation of IPRs for a small number of IP owners and the business community.[218]

Looking the IPRs financing in Ethiopia, Commercial Bank of Ethiopia has issued a guideline (procedure) in 2013 incorporating idea financing as one scheme.[219] But, the idea financing that the procedure (guideline) is in view is totally different from security interests in IPRs: if at all

[216] Read art. 34 of Copyright and Neighboring Rights Proclamation; art.40 of Trademark Registration and Protection Proclamation.

[217] Telephone Interview with Dr. Birhanu Andualem, Patent and Copyright owner (Gondar, 16 September 2019). According to the interviewee, owners only value their IPRs while transacting license and even that is not based on consistent rules; it is solely for the parties to the deal to agree on the royalty and no institution (private or government) help them in valuation of IPRs.

[218] Interview with Ato Getachew Tafa, Patent Examiner, EIPO (Addis Ababa, 3 September 2019).

[219] Commercial Bank of Ethiopia, Credit Process Procedure (Volume 1) (March 2013), art. 14. The provision reads:

> 14. Idea Financing
>
> 1. Idea Financing is a term loan that is extended to individuals/groups for the purpose of implementing scientific studies, which has got recognition in invention and innovation by the concerned government organ.
> 2. The loan can be granted for commercial / mass production and marketing of the creative idea that have obtained recognition from Intellectual Property Right Protection Office.
> 3. The Bank may extend the loan for a maximum period of ten years with two-year grace period.
> 4. The loan may be availed without collateral.
>
> 4.1. Eligibility
>
> 1. The applicant shall present an Intellectual Property Right Certificate that confirms he/she/they obtained recognition from the Intellectual Property Rights Protection Office.
> 2. The applicant shall present valid investment and business license from the concerned government body.
> 3. The applicant shall submit feasibility study justifying the financial, technical, market, and environmental viability of the project.
> 4. The Bank may not require equity contributions (emphasis added).

It is to be noted that this guideline (procedure) is not available publicly; the researcher has got access to it while interviewing the key informants from the Commercial Bank of Ethiopia Head Office (on 2 September 2019).

collateral is to be encumbered in idea financing, that collateral must not be IPRs.[220] The idea financing scheme has not tested to practice, though.[221]

Even in case using IPRs as security (loan guarantee) comes to fore, banks, as the main financiers, have also concern for valuation of IPRs in Ethiopia: who conduct the valuation, what methods to employ for valuation, and the reliability of the valuation.[222]

Banks lack expertise in valuation of IPRs unlike having their own expertise for tangible assets.[223] More specifically, the amount of cash flows from the IPRs shall be precisely identified by private or government organ and assured by EIPO for the bank to extend IPRs-backed loan.[224]

In relation with absence of valuation of IPRs in Ethiopia is banks capital adequacy requirement[225] which limits the amount of loan a bank extends per year. Then, banks rely on tangible assets which have relatively clear market value than IPRs and ignore securities offered in the form of IPRs.[226] Hence, there is an incoordination between secured transactions law and regulatory governance of financial institutions in Ethiopia.

[220] Interview with Ato Abate Jambo, Business Loan Relationship Manager, Commercial Bank of Ethiopia Head Office (Addis Ababa, 2 September 2019); Interview with W/ro Achamyelesh Zewdie, Corporate Loan Manager, Commercial Bank of Ethiopia Head Office (Addis Ababa, 2 September 2019). According to them, there is no other financing scheme for owners /holders of IPRs under the Bank's internal rules of procedure.

[221] ibid.

[222] Interview with Ato Abate Jambo, Business Loan Relationship Manager, Commercial Bank of Ethiopia Head Office (Addis Ababa, 2 September 2019); Interview with W/ro Achamyelesh Zewdie, Corporate Loan Manager, Commercial Bank of Ethiopia Head Office (Addis Ababa, 2 September 2019); Interview with Ato Lemmi Furgasa, Corporate Credit Division Manager, Awash Bank Head Office (Addis Ababa, 3 September 2019).

[223] ibid.

[224] See Castellano and Dubovec, 'Credit Creation' (n 39) 76.(pointing out that 'secured transactions and capital adequacy requirements modify lending behaviors and thereby affect the supply side of credit market: secured transactions incentives (through granting protection) lenders to extend credit in support of the real economy while capital adequacy requirement (via increasing the amount of own funds to hold against risky operations) controls the creation of credit and discourages banks from taking excessive risks').

[225] Interview with Ato Teshome Regassa, Senior Legal Expert, Awash Bank Head Office (Addis Ababa, 3 September 2019).

[226] Interview with W/ro Achamyelesh Zewdie, Corporate Loan Manager, Commercial Bank of Ethiopia Head Office (Addis Ababa, 2 September 2019); Interview with Ato Abate Jambo, Business Loan Relationship Manager, Commercial Bank of Ethiopia Head Office (Addis Ababa, 2 September 2019); Interview with Ato Teshome Regassa, Senior Legal Expert, Awash Bank Head Office (Addis Ababa, 3 September 2019): Interview with Ato Lemmi Furgasa, Corporate Credit Division Manager, Awash Bank Head Office (Addis Ababa, 3 September 2019).

Russian[227] kind of law, at least for IPRs, is necessary for the purpose of IPRs-backed debt financing in Ethiopia. This is vital to start solving the problem from the scratch; there is no or insignificant trend of valuing IPRs yet in Ethiopia.

4.4.Rules on Creation of Security Interests in Intellectual Property Rights

4.4.1. What Categories and which Parts of Intellectual Property Rights can be encumbered?

For the creation of effective security interests in IPRs, it is necessary first to identify what category of IP, and which part within an IP, can be used for security interest so that we can decrease the transactional costs, legal uncertainties and practical difficulties associated with the deal.[228] It is difficult to take security interests in other category of IP than patents, copyrights and trademarks.[229] For unregistered IPRs such as copyright, creating security interest is difficult as there is no register from where lenders will get and verify information about the existence of the right itself.[230]

Within an IP too, there are some rights which are non-transferable. For example, moral rights within copyrights are non-transferable during the life time of the author and transferred only to the author's heirs and legatees (who can enjoy it until lapse of time of economic rights in a copyright) pursuant to succession law.[231] Hence, knowing the precise encumbered IPRs would be a painstaking endeavour both for the lenders and the IPRs owner as they will be in the dark. This will heighten the future disputes.

Nevertheless, Article 2 (22) of Movable Property Security Right Proclamation in defining IP for the purpose of security interests cross-refers it to IP laws. It simply says IP will have the meaning given to it in IP laws. It does not list, either in exhaustive or illustrative way, which category of

[227] See the discussion on Federal Law on Evaluation Activity in Russia under Section 3.4.6 above.
[228] Lin (n 37) 113-115; see, for example, Property Law of the People's Republic of China, Order No.62, part 4, chapter XVII, section 2, art. 223 (5) < http://210.82.31.8/englishnpc/Law/2009-02/20/content_1471118.htm > accessed 22 September 2019. In listing rights that can be pledged, it reads "property rights consisted in the intellectual property rights, such as *the right to exclusive use* of registered trademarks, patents and copyrights, which are *transferable*" (emphasis added).
[229] Across national jurisdictions, the laws of patent, copyrights, and trademark have got harmonization and relative clarity, ibid.
[230] Interview with Ato Nassir Nuru, Copyright and Neighboring Right Development and Protection Directorate, EIPO (Addis Ababa, 3 September 2019).
[231] Copyright and Neighboring Rights Proclamation, art.8 (2) and (4).

IP and what kind of rights within an IP is acceptable for security interests. Linking the definition of IP, a category of asset the scope of which is evolving through technological progress, to the IP law would be justified on legal predictability. For instance, IP protection for trade secrets, computer software, internet domain names, and e-commerce business methods are of recent phenomena on the world[232] and it is more likely that another area will be added in the future. To cope up with the ever widening scope of assets to be protected under IP law, therefore, leaving the definition of IP for IP laws under the secured transactions law seems being prudent. Changing secured transactions laws with rapidly changing and evolving IP laws will be economically inefficient too. Cross-referring the definition of IP to IP laws also helps adopt functional approach in the security interests among different IPRs.

UNCITRAL legal framework is of the view that which part of IPRs can be transferred is the concern of IP law; not secured transactions law.[233] It also provides validity and ownership of the IPRs is not within the scope of secured transactions law.[234] Even licensee can have power to encumber the asset based on the license agreement.[235] However, it is based on the principle *nemo dat quod non habet* (i.e., the grantor cannot grant the secured creditor more rights than the grantor has or may acquire in future).[236] License of IPRs is within the scope of IP laws too. It is for the creditor to carefully check the terms and conditions of the license agreement so as to ensure that s/he can actually acquire the licensee's right as satisfaction of secured claim upon post-default enforcement of security.

IPRs may be annulled or terminated during the lifetime of security agreement. But, in our case, EIPO is not releasing necessary information as to the status of registered IPRs periodically. These would bring excessive due-diligence on the part of the lender.

Our IP laws are silent on security interests in IPRs. Besides, our lenders are less acquainted with IP and IP financing. These two being the reality in our country, Movable Property Security Right Proclamation is better had it put (at least by illustrative listing and permissive requirement to follow the listing) which category of IP, and which part of IPRs, is eligible for security interests.

[232] Lin (n 37) 113.
[233] UNCITRAL IP Supplement, Chapter I, paras. 54 and 55.
[234] UNCITRAL IP Supplement, Chapter I, para. 63.
[235] UNCITRAL IP Supplement Paras. 17, 190, and 41.
[236] See Recommendations 13 and 18 of UNCITRAL Legislative Guide; UNCITRAL IP Supplement paras. 55, 82, 86, 90, and 119.

UNCITRAL's stand in making ownership and validity of IP the concern of IP laws does not mean that secured transactions law shall not contribute to creation of the transaction only on valid IPRs_ economic efficiency that secured transactions purport to serve envisages creation of security interests on valid IPRs. Absent at least the minimum level of clarity under our law, the use of IPRs in secured transactions would be rendered rhetoric than reality as transaction costs, legal uncertainties, and practical difficulties will remain with us. Such problems will likely affect financiers' trust for the use of IPRs as security device which, in turn, affects availability of low-cost credit for IPRs owners / holders.

Proceeds from the encumbered IPRs can also form part of encumbrance as per Article 7 (1) of Movable Property Security Right Proclamation. Proceeds are defined under Article 2 (36) of the same proclamation as to include payment of damages for infringement claims and proceeds of proceeds, *inter alia*. UNCITRAL legal framework has it that unlike payment of damages for infringement claims, the right to pursue infringement claims cannot be used as security for credit.[237] It seems, in relation with security interest in IPRs, allowing the right to pursue infringement claim for the purpose of secured credit encourages unlawful transaction to happen. Though clarity necessitates our law to provide definition of proceeds in a negative way to list what are not included in addition to positive list, understanding and applying the provision in line with UNCITRAL legal framework takes us to safe conclusion. But, some elements within the definition of proceeds still need clarification. For example, it is unclear whether fruits of the encumbered asset include neighboring rights in a copyright as proceeds, because neighboring rights come mainly subsequent to copyright. However, neighboring rights in a copyright are rights demanding independent protection_ fruits of proceeds do not encompass neighboring rights. Thus, the scope and definition of proceeds also matter a lot in creation of security agreement.

Moreover, receivables or future royalty streams from license of IPRs can also be encumbered. Article 2 (37) of Movable Property Security Right Proclamation defines receivables in a way to include payment of monetary obligation, which can be accruable in the form of royalty from the license of the IPRs.

[237] UNCITRAL IP Supplement, Chapter I, para. 76.

4.4.2. Requirements for Security Agreement and Effectiveness as Between the Parties

Article 4 (1) of Movable Property Security Right Proclamation stipulates that security right is created by security agreement. So far as security agreement is a contract, it needs to fulfill the requirements under general contract law (Article 1678 of the Civil Code). Accordingly, object of the agreement (resultant duty) on the part of the grantor is encumbering an asset that he/she/it has rights on or empowered to encumber.[238]

The requirement for security interests to be evidenced in written form[239] is another issue demanding analysis. What is provided under Article 4 (5) of Movable Property Security Right Proclamation is based on the model options that Article 6 (3) of UNCITRAL Model Law offers to states: security agreement must be concluded in or evidenced by a writing signed by the grantor. The requirement here is only for the effectiveness of the agreement as between parties to the transaction; not in relation to third parties.

Written form requirement for conclusion of the contract is backed by nullity of the contract in Ethiopia.[240] To the contrary, the requirement that a security agreement shall be evidenced in writing has no effect of nullity among the parties; it only means that evidence to prove the existence or otherwise of the agreement shall be written (documentary) evidence. If there is no dispute among the parties to the transaction throughout, there is no ground to seek evidential purpose requirement. Accordingly, our lawmakers opted for and retained the second scenario which is written (document) form requirement for evidential purpose; not for conclusion of the contract. This is to meet to the idiosyncratic needs of the parties to secured transactions as parties are allowed to agree even orally at their own peril for prove of the existence or otherwise of security agreement if disputed.

Besides, security agreement that is not in a written form but its terms are evidenced (confirmed) by a written document signed by the grantor subsequently would suffice to meet the requirement

[238] Art. 4 (1) of Movable Property Security Right Proclamation; art. 1712 of Civil Code; See Section 4.4.1 above for discussions on category of encumbered assets.
[239] Movable Property Security Right Proclamation, art. 4 (5).
[240] Read arts. 1719 (2) and 1720 (1) of the Civil Code.

that security interest must be evidenced by writing.[241] Thus, requirement as to security interests to be evidenced in writing gives parties more flexibility while entering into the transaction. It is also commercial solution against the time and resource-consuming written forms of agreement for creation (conclusion) of security interests in IPRs.

More connected with security agreement is how to control the risks of obsolescence within IPRs. Our law is silent as to this. Still secured creditors can resort to proper and limited-term amortizing loan structure in which portion of the debt is to be paid regularly until the due date for the whole debt.

4.4.3. Treatment of Intellectual Property Rights Embedded in Tangible Assets

More on creation of security interest is treatment of IPRs embedded in tangible assets. Article 12 of the Movable Property Security Right Proclamation provides severability of security interests in IPRs found integrated in tangible assets_ for instance, computer hardware with embedded software; and more precisely, Toshiba Laptop including trademark, patent and other IPRs can be subject to security interests. In effect, this provision is the direct copy of Article 17 of the UNCITRAL Model Law which is an asset (IP) specific provision. These provisions are aimed at giving maximum protection to IPRs holders/ owners as transactions on IPRs shall only directly (not implicitly) affect them in principle. The message is straightforward: if parties want to create security interests on IPRs which are embedded in tangible assets altogether with the tangible assets, they have to make it unequivocally. Thus, it is to avoid implied inclusion of IPRs in the secured transaction.[242]

However, for 'internet of things' where IPRs make the tangible assets functional (or their presence is essential for the operation of tangible assets), it would be an absurdity to separate security interests on IPRs from security rights on those tangible assets.[243] It is also problematic to give effect for the provision in case of implementation. If at all not absurd, the situation begs complex factual disputes on implementation than the expertise that our judges possess. Owing to

[241] UNCITRAL Guide to Enactment of Model Law, Chapter II, para.88.
[242] Cantatore (n 63) 17.
[243] Thomas (n 77) 6-7; See also Cantatore (n 63) 17.

the uncertainty in the secured financing it would bring[244], treatment of 'internet of things' embedding IPRs also augments the lenders suspicion against the use of IPRs for secured transactions which, in turn, affects the access to low-cost credit for owners of IPRs. The more absurd scenario is when different parties have security interests on tangible assets and the IPRs embedded in tangible assets, respectively.[245] Thus, our law's treatment of security interests in IPRs which are integrated in the tangible assets, making those assets functional, is not full of merits.

4.4.4. Description of the Encumbered Intellectual Property Rights and Secured Obligation

In view of facilitating transactions based on floating charge and security in after-acquired property, general description of collateral in movable assets has got recognition in the modern era.[246] But, IP is a bundle of rights with different risks and exclusive rights, [247] causing troubles in general description of encumbered assets when it comes to security rights in IP. Since the different exclusive rights within an IP asset can be independently assigned to different parties based on various transactions, it is to the nature of IP exploitation and for the safety of all the IP-related transactions that specific description of encumbered IPRs is a requirement.[248]

On the other extreme, specific description of the collateral would increase transaction costs as lenders have to know which right within an IP asset is free of other transactions and also as it renders impossible the use of future (after-acquired) IP as security; not to mention its benefit to the secured creditor over evolving IPRs subsequent to the once created right.[249] It is posited that, at best, secured transactions law shall balance these competing interests.[250]

[244] Cantatore (n 63) 17.
[245] Thomas (n 77) 6-7; See also Cantatore (n 63) 17.
[246] UNCITRAL Legislative Guide, Chapter II, Para.29; Lin (n 37) 120.
[247] Lin (n 37) 120. (Mentioning as an example that patent-holder has exclusive rights for excluding others from commercially making, selling, using, importing, and distributing the patented invention without permission; and copyright owner has the right to exclude others from reproducing, adapting, publicly distributing, and displaying or performing the copyrighted work without authorization).
[248] ibid.
[249] ibid.
[250] ibid 120-121.

As creditor banks are concerned, however, Basel frameworks for banking regulation stipulate a loan agreement must include detailed description of collateral.[251] Description of collateral in a general manner is feared for extending a loan against unpalatable assets, risks of illiquidity post-default, and thereby poses credit Bubbles and financial instability.

Coming to Movable Property Security Right Proclamation, Article 4 (5) paragraph (c) and (b) prescribe security agreement shall describe the collateral and secured obligation, respectively. Article 6 of the same law puts the manner of, and requirements for, description of encumbered asset and secured obligation. The general principle, as put under Article 6 (1) of the English version of the Proclamation, is description that reasonably allows identification of security interest and secured obligation. While Amharic version of the same provision seems to adopt a description which "sufficiently and clearly" identify encumbered asset and secured obligation.[252] English version of this provision is direct replica of Article 9 (1) of UNCITRAL Model Law while Amharic version is supported by the qualifications (viz. specific listing, category, type of collateral, or quantity) made on description of encumbered asset under Article 6 (2) of Movable Property Security Right Proclamation. The problem with English version of Article 6 (1) of the proclamation is even generic description can suffice to meet the requirement of reasonably allowing the identification of encumbered asset. This can be inferred from Article 9 (2) of UNCITRAL Model law, from where English version of Article 6 (1) of our proclamation is taken.

Thus, few things can be said at this juncture: (1) English version of Article 6 (1) of the Movable Property Security Right Proclamation in providing the requirement that the security agreement shall reasonably allow identification of encumbered asset is in apparent contradiction with Article 6 (2) of the proclamation which is one point where our law departs from UNCITRAL Model Law, (2) the English version of Article 6 (1) of the Proclamation in requiring security agreement to reasonably allow identification of the encumbered asset has lost sight of the

[251] Bank for International Settlements, 'International Convergence of Capital Measurement and Capital Standards' (June 2006) Chapter III, para.522 <https://www.bis.org/publ/bcbs128.pdf> accessed 11 September 2019 (hereinafter referred to as Basel II); Bank for International Settlements, 'Basel III: Finalizing Post Crisis Reforms' (December 2017) para.296 <https://www.bis.org/bcbs/publ/d424.pdf> accessed 11 September 2019 (hereinafter referred to as Basel III). But, the Basel frameworks deal with physical collateral. Thus, the particular characteristics of intangible assets mean that IPRs does not meet the criteria as collateral under the Basel Accords from the very beginning.

[252] Amharic Version of Movable Property Security Right Proclamation says, under Article 6 (1), **"... በበቂ ሁኔታና በግልጽ..."**.

UNCITRAL Model Law as Article 9 (2) of UNCITRAL Model Law makes generic description sufficient to meet the requirement, (3) the rule of interpretation dictates Amharic version of Article 6 (1) of our proclamation prevails over English version of the same,[253] (4) manner of description of encumbered IPRs is something on which lenders and grantors need to be very serious as far as different rights exist within an IP making complexities on differentiating which rights are encumbered and which are not.

However, it needs to be noted that accurate description of encumbered IPRs is not the requirement. It is also impossible to accurately describe IPRs. For instance, unregistered copyright have no serial number in the property indexed IP-registration system, an element of accurate description. But, detailed description of encumbered IPRs _something that mere reasonability may not fulfill_ shall be made in security agreement to the extent possible so as to better protect the secured creditor and IP owner through offering certainty within the transaction.

The other important issue as to the description of secured obligation is pointing the maximum amount secured by the security right. In this regard, Article 6 (3) of the Movable Property Security Right Proclamation says "secured obligation may be described… including by a reference to the maximum amount secured by the security right." This provision is permissive as it is clear. But, why is it not put mandatorily to describe maximum amount of secured obligation? Why our parliament not maintained the position under Article 2828 (1) of the Civil Code which puts description of maximum amount of secured debt mandatory under pain of nullity of security agreement for failure to do so? But, arguments can surface as to the effect of Article 2828 (1) of the Civil Code which specifies nullity of the security agreement that do not indicate the maximum amount guaranteed vis-à-vis Article 6 (3) of the Movable Property Security Right Proclamation.

The first argument is for inapplicability of Article 2828 (1) of Civil Code. In support of such argument, security interests in movables are provided in the latest Proclamation that aimed at modernizing secured transactions system as we can infer from preamble paragraph (1) of the Movable Property Security Right Proclamation. And stipulating the rules for the maximum

[253] Read Federal Negarit Gazeta Establishment Proclamation of 1995, art. 2 (4), Proclamation No.3, Federal Negarit Gazeta, Year 1, No. 3.

amount of secured claim in permissive ways is to serve such modernization for the purpose of encouraging secured transactions at minimal requirements and leaving others for party autonomy. Even Article 93 (3) of the Proclamation impliedly repealed other inconsistent laws. The latest proclamation put permissive rules which parties can use at their will for specifying maximum amount of secured claim. Thus, there is no need to go to the rules of Civil Code even as gap-filling.

The second argument may be Article 2828 (1) of Civil Code applies to oblige parties to specify the maximum amount of secured obligation under pain of nullity. To substantiate this argument, Article 93 (3) of the Movable Property Security Right Proclamation would be resorted. Then, Article 93 (3) of the Proclamation provides implied repeal only for the laws which are inconsistent with it. Nevertheless, Article 2828 (1) of the Civil Code is not inconsistent with the Proclamation as the Proclamation is silent on the effect of non-compliance with specification of maximum amount of secured debt.

Description of maximum amount of secured debt in the security agreement is important for identifying the amount to be realized from encumbered asset, facilitate other transactions on the part of the asset the value of which is not encumbered, and minimize complex factual disputes which may occur later. Thus, it is better that the position under the Civil Code for mandatory requirement of maximum amount of secured debt be maintained clearly. More specifically, description of maximum amount of IPRs-backed debt finance enhances better exploitation of IP which is a bundle of rights and forges certainty in the IP transactions.

4.4.5. Creation of Security Interests on After-Acquired Intellectual Property

It is at the time when the security right was attached to the collateral that security right can be created.[254] For present assets, creation of security rights is relatively simple since the right would be effective as to the encumbered asset as soon as the entry of security agreement. However, for future assets, the security right would not be crystallized until the debtor acquires rights in the encumbered asset or the power to encumber the asset.[255]

[254] See Recommendation 13 Para. 13 of UNCITRAL Legislative Guide.
[255] ibid.

The cumulative reading of Articles 2 (2), 2 (18), and 4 (3) of the Proclamation indicates the future IPRs (which have not created or invented yet or IP at its earliest stage of development) can be encumbered for access to credit. Allowing creation of security rights in future IPRs is congruent with 'floating security rights', a situation where a non-specific security right is created over the changing assets of the grantor.[256]

But, even for IPRs which need registration to get protection, IP laws do not extend protection before creation/ invention is fully materialized.[257] In future IPRs, the nature and extent of protection is unknown, and the protection would not be granted in certain cases. It is to the profit making goal of banks that banks would not extend loans against IPRs which are to be created in the future, and the future is always unknown.[258] Thus, with the existing position of our IP laws in extending no protection for future IPRs and absent enlightened and highly sophisticated financiers to deal with IPRs at development stage wherein information asymmetry and risk of failure are high, the provision would likely face absurdity. Until these conditions meet, it is advisable that banks and financial institutions, in order to maintain financial stability, restrict themselves from extending loans against future IPRs.

4.4.6. The Case of Intellectual Property Rights Embedded in Business

The Commercial Code provides business can be mortgaged to secure debts.[259] The cumulative reading of Articles 127, 124, and 5 of the Commercial Code dictates business mortgage would be the case only for IPRs which can form elements of a business and IPRs holders fulfilling the requirements for being traders. However, the business mortgage in our Commercial Code was criticized for being floating charge over the present and future (after-acquired) assets of the business.[260] The once created floating charge within business mortgage also affects the use of elements of the business as security since potential lenders would lose confidence; they could not safely know which element of business is charged and which is not.[261]

[256] Lin (n 37) 117.
[257] ibid 119.
[258] Interview with Ato Teshome Regassa, Senior Legal Expert, Awash Bank Head Office (Addis Ababa, 3 September 2019).
[259] Commercial Code, arts.171 *et seq*.
[260] Gikay (n 46) 182-190. (Convincingly arguing that floating charge is ambulatory which crystallizes with occurrence of something and it brings more complexities in enforcement of security interests).
[261] ibid 190.

The Movable Property Security Right Proclamation subjects security interests in business to the same rules for security interests in movables. This proclamation starts to deal with collateralization of business through deferring the definition of business to the Commercial Code[262] while that of IPRs to IP laws.[263] The Proclamation further subjects perfection of security rights in business to similar rules with other movables (detailed discussion for perfection is provided under section 4.6 below).

But, as valuable IPRs are 'off-balance sheet' in case of Ethiopia,[264] treatment of IPRs embedded in business while collateralizing the business is on a shaky ground even under the Movable Property Security Right Proclamation. Unlike the case of security rights in IPRs incorporated in the corporeal assets which is specifically dealt with under Article 12, the proclamation nowhere put for separate treatment of IPRs embedded in business. It seems that floating security interest on business under the old law repeated under the new proclamation. In the absence of other specific provision requiring so, even 'clear and sufficient' description of encumbered collateral as put under Article 6 (1) of the Amharic version of the proclamation does not seem a requirement for description of each and every IPRs lumped in business while collateralizing the business. Presumably, the absence of specific provision dealing with treatment of IPRs embedded in business is based on the assumption that IPRs such as trademark cannot dissociated from the related business or goodwill attached to it. If some property cannot exist independent of business or goodwill, that property is not palatable for security as it cannot be transferred separately on foreclosure sale. Actually, however, this is part of the scenario since other IPRs such as patent and copyright can be transferred being dissociated from the business and goodwill.

The poor treatment of IPRs embedded in business is reinforced practically in a fledgling business mortgage transaction too.[265] With the new law not elucidating the matter unequivocally, it is likely that the practice subsists as it was_ IPRs lumped in business will not get due consideration while collateralizing the business.

[262] Read art.2 (3) of Movable Property Security Right Proclamation.
[263] Read art. 2 (23) of Movable Property Security Right Proclamation.
[264] See footnote 213 and accompanying texts.
[265] Interview with W/ro Achamyelesh Zewdie, Corporate Loan Manager, Commercial Bank of Ethiopia Head Office (Addis Ababa, 2 September 2019). According to the interviewee, in the too little practiced transaction of business mortgage in Ethiopia, no one considers the IPRs existing within business and the value thereof. The focus is on how much machineries and other equipment that the business retains.

4.5.Pre-default Rights and Obligations of Grantor and Secured Creditor: Preservation of Encumbered Intellectual Property Rights

Responsibility for the preservation of the value of collateral has significant role as it determines the liquidation value that the secured creditor would get at foreclosure sale.[266] The intangible nature of IP renders impossible transfer of physical possession to secured creditor_ grantor shall bear duty to preserve the encumbered IPRs.[267] Also, IP owner/ holder shall maintain the value of IP used as security right through exercising his statutory monopoly power, effective exploitation, and actively pursuing infringement suits against infringers.[268] If not, IPRs may not generate revenue streams thereby affecting liquidation value for the secured creditor. Secured transactions law shall, therefore, allow the secured creditor to have safeguard mechanisms in order to preserve the encumbered IPRs and maintain the liquidation value of collateral upon the failure of the grantor to exercise such duties.[269]

In this regard, UNCITRAL IP Supplement, noting the intangible nature of IP which make encumbered IP non-transferable physically to the secured creditor, allocates the obligation to maintain the value of the encumbered IP to the debtor (who keeps the control of IP). Specifically, it is the grantor/ debtor who have been obliged in IP-backed debt to deal with authorities, to renew registrations and pursue infringers to preserve the validity and value of encumbered IP.[270] At this juncture, it needs to be noted that the latest UNCITRAL legal frameworks recognized the grantor's/ debtor's duty to preserve the asset; rather not the value of the asset, as preserving the asset would result in preserving the value of the asset while in some instances preserving the value of the asset heightens the burdens on the grantor /debtor to the extent of humanly impossible responsibilities.[271]

As regards protecting legitimate interests of secured creditor in case of failure of the debtor to preserve the encumbered IP, some alternative mechanisms to enable secured creditor to monitor the debtor as to exploitation and maintenance of encumbered IP[272], and specific

[266] Lin (n 37) 122.
[267] ibid.
[268] ibid 123.
[269] ibid 124.
[270] See UNCITRAL IP Supplement, para.223.
[271] Read UNCITRAL Model Law, art.53; See UNCITRAL Guide to Enactment of Model Law, para.372.
[272] See UNCITRAL IP Supplement, paras.224-226

recommendations are mentioned.[273] Accordingly, agreement enabling the secured creditor to take preservation measures is one alternative. Also, secured creditor can consider failure of the grantor/ debtor to conduct renewal of registration of IPRs and inaction against infringement as constituting default indicated under security agreement and thus initiate enforcement of security.[274]

Furthermore, UNCITRAL legal framework entitles secured creditor with the right to inspect the encumbered asset in the possession of the grantor.[275] To control breach of peace under the guise of the right to inspection, UNCITRAL Model Law subjects such right of inspection to the general standard of good faith and commercial reasonableness enshrined under Article 4.[276]

Movable Property Security Right Proclamation adopted the position under UNCITRAL Legal frameworks, but with some flaws. Article 66 of the Proclamation obliges the grantor to preserve the encumbered IPRs and to exercise reasonable care in such preservation. It does not overburden the grantor with preserving the value of the encumbered asset; rather preserving the encumbered asset. However, whether secured creditor and grantor can validly agree in their security agreement so as to enable secured creditor to take measures for preserving the encumbered IPRs is unclear under our law. In this regard, like UNCITRAL IP Supplement,[277] it is better if Movable Property Security Right Proclamation clearly allows an agreement to be made between secured creditor and grantor.

Besides, right of secured creditor to inspect the encumbered asset in possession of the grantor is recognized.[278] This help control risks in IPRs which is a suddenly depreciable category of property. But, without equivalent provision with Article 4 of UNCITRAL Model Law which provides general standards of conduct to exercise rights and duties in good faith and in

[273] Read Recommendation 246 of UNCITRAL IP Supplement. The Recommendation reads:
> The law should provide that that the grantor and the secured creditor may agree that the *secured creditor is entitled to take steps to preserve the encumbered intellectual property* (emphasis added).

[274] See UNCITRAL IP Supplement, para.226.
[275] Read art. 55 (2) of UNCITRAL Model Law.
[276] UNCITRAL Model Law art. 4. In stipulating the general standards of conduct, the provision reads: "A person must exercise its rights and perform its obligations under this law in good faith and in a commercially reasonable manner"; See UNCITRAL Guide to Enactment of Model Law, para.378.
[277] See UNCITRAL IP Supplement paras.224-226.
[278] Read art.68 (2) of Movable Property Security Right Proclamation.

commercially reasonable manner, allowing inspection of encumbered IPRs will bring about breach of peace for trivial cases.

Inspection of encumbered IPRs on the possession of the grantor also requires our lenders' expertise. But, let alone other financiers, banks as the main lenders lack such expertise to deal with IPRs.[279]

4.6.The Rules on Perfection, Publicity and Priority of Security Interests

4.6.1. Perfection and Publicity

Perfection is the mechanism through which a security interest in the encumbered property is made known to the world so that third parties including, but not limited to, potential purchasers and other prospective creditors can be alerted to the existence of the security interest in that encumbered property and organize their affairs vis-à-vis the grantor and the encumbered property. Creation of security agreement establishes *in personam* relationship between grantor and creditor while perfection makes *in rem* relationship between the secured creditor and the rest of the world, also called *erga omnes*. Failure to perfect one's security right would render the creditor unsecured.

Perfection can be guaranteed through registration of the security interests, as proprietary security interest is effective against competing claimants.[280] Thus, registration can serve as a facility for enabling third parties to check for outstanding security interests before they themselves take an interest in the property to be encumbered. Registration publicizes the security interest and alerts others that creditor has prior right over the asset. It is to be noted that registration is voluntary but desirable. This is because registration determines priority status of security interests and secured creditors relative to other interests and other interest holders; and helps the secured creditor

[279] Interview with Ato Abate Jambo, Business Loan Relationship Manager, Commercial Bank of Ethiopia Head Office (Addis Ababa, 2 September 2019); Interview with W/ro Achamyelesh Zewdie, Corporate Loan Manager, Commercial Bank of Ethiopia Head Office (Addis Ababa, 2 September 2019); Interview with Ato Lemmi Furgasa, Corporate Credit Division Manager, Awash Bank Head Office (Addis Ababa, 3 September 2019); Interview with Ato Teshome Regassa, Senior Legal Expert, Awash Bank Head Office (Addis Ababa, 3 September 2019).

[280] Giuliano G. Castellano, 'Reforming Non-Possessory Secured Transactions Laws: A New Strategy?' (2015) 78 The Modern Law Review 18.

survive the insolvency which the debtor may encounter. It is submitted that legislators need to incentivize, but not penalize failure of, registration of security interests.[281]

One of the criteria to analyze the sufficiency of modern secured transactions law is the clarity of rules it provides for perfection, certainty, and priority in relation with the IP laws.

Ethiopian Movable Property Security Right Proclamation established notice based electronic registration system. In the next sub-section, the researcher analyzes the adequacy of notice based electronic filing system, and then priority rules.

4.6.1.1. Notice-based Electronic Registration System: Adequacy?

UNCITRAL legal frameworks identified two kinds of registration: title (document or transaction) filing and notice filing.[282] Title filing requires registrants to file or tender for scrutiny the underlying document, and serves the public as gate-keeping.[283] While in notice filing, register serves only as instrument facilitating negotiations between parties; but neither creates nor transfers property rights.[284] Thus, notice filing may not assure certainty and integrity of the registered information.

From the cumulative reading of preamble paragraph (3), Articles 2 (5), 13 (1), 20, 21 and 91 of Movable Property Security Right Proclamation, it is clear that perfection of security interests in IPRs shall be made through electronic based notice registration of collateral at a single comprehensive registration regime. Structuring and operationalizing the collateral registry regime, as stipulated under Article 95 of the Proclamation, is a matter left for the NBE until the time when independent organ (i.e., autonomous Collateral Registry Office) will be established and came up with the regulation, both of which are yet not materialized at the time of writing. However, the would-be Collateral Registry Office would not interact with the public at large, the situation affecting its feasibility and real operation. Besides, even in developed jurisdictions like

[281] Tosato, 'Security Interests Over Intellectual Property' (n 111) 98.
[282] See, for example, paras. 121 -134 of UNCITRAL IP Supplement; See paras. 20 and 21 of UNCITRAL Registry Implementation Guide.
[283] UNCITRAL Registry Implementation Guide, paras. 56 and 57; Castellano, 'Reforming Non-Possessory Secured Transactions Laws' (n 280) 19.
[284] ibid; See para.59 of UNCITRAL Registry Implementation Guide for advantages of notice registration system. Shortly put, the advantages are: reducing transaction costs both for registrants and third party searchers; reducing risk of registration error through requiring less information to be registered; enhancing privacy and confidentiality for the parties through publicizing limited information (i.e., existence of security interests).

Ontario and US, notice filing through electronic registry regime not operationalized overnight,[285] let alone in Ethiopia where there is a huge technological and infrastructural problems such as shortage of internet[286] and electricity. Thus, in Ethiopia, serving the interest of the rural areas as envisaged under preamble paragraph (1) of the Movable Property Security Right Proclamation would not be materialized with electronic notice filing regime. This would be rectified through different but supportive mechanisms discussed below;

The first mechanism is the use of NGOs under government supervision to operate the register. This is backed by the real economic privatization programme that our country is heading to. The second way is to permit documentary filing in case of limited internet access for electronic filing. For example, mainly in rural areas and small towns there is lack of internet access or internet outages, resulting in usage of electronic notice filing questionable. Similarly, there is lack of electricity. The researcher is of the view that still the first and second mechanisms need to be supported by the third mechanism which is forming private information business services to copy at no cost, and sell registered information at reasonable cost. In doing so, the government may reduce cost of establishing the registry office and the necessary staffs at every corner. Allowing paper-based registration side-by-side with electronic filing system until we develop necessary facilities for notice filling, a situation proved fruitful even in the developed jurisdictions like Ontario and US, forms the fourth mechanism to overcome the teething problems.

Again, with notice filing as the only requirement for perfection of security rights in IPRs, acts of racketeering against IPRs will be widespread. At other extreme, lenders being comfort with notice filing will be dis-incentivized to conduct pre-lending due-diligence and post-lending monitoring in IPRs wherein they have no necessary knowledge and sophistication. However, taking security is only an additional protection; not a substitute for proper individual risk assessment.

[285] Marek Dubovec, 'UCC Article 9 Registration System for Latin America' (2011) 28 (1) Arizona Journal of International & Comparative Law 123. (Pointing out Ontario used both paper-based and electronic based registration system until 2007 when it fully adopted electronic registration system; and many states in US use both paper -based and electronic registration systems).

[286] The most recent data shows that as of 30 June 2019 out of estimated population of 110, 135,635 only 20,507, 255 people use internet in Ethiopia. The figure represents 18.6 % in internet penetration (% of population). See Internet Users Statistics for Africa (2019) <https://www.internetworldstats.com/stats1.htm> accessed 14 September 2019.

At this juncture, it is better to discuss one controversy involved in registration of security interests in copyright in relation to Ethiopia's move to WTO accession. The international legal framework on copyright prohibits registration formality requirements for copyrights.[287] It is unclear whether such prohibition is applicable on operation of the secured transactions system.[288] However, it is plausibly argued that the formality requirement is only for the very creation of the rights in IP (not for security interests), and the prohibition is not absolute as domestic works may face domestic formalities and the restriction is only for international works.[289]

4.6.2. Priority

Priority means the preferential treatment of the secured creditor against other creditors (secured or unsecured) on the repayment of the credit from proceeds of the disposition of encumbered asset. Secured transactions laws usually deal with priority against consensual claims; not against non-consensual claims such as tax and tort. Non-consensual claims make priority ladder difficult and eviscerate the protection given by security interests.[290]

Movable Property Security Right Proclamation after providing registration as a form of perfecting security interests in IPRs puts first-to-file priority rule so as to incentivize registration of security interests.[291] Then, knowledge of the secured creditor about the existence of other unregistered prior security interests is irrelevant as per Article 48 of the same Proclamation which is directly copied from Article 45 of UNCITRAL Model Law. Presumably, the stipulation made under Article 48 of our Proclamation is aimed at avoiding complicated factual disputes as to existence or non-existence of knowledge about unregistered prior security rights and thereby tackle the problems of uncertainty in secured transactions. But, by so doing, Article 48 of the Proclamation affects other secured creditors who had got security interests in IPRs before and with the knowledge of the secured creditor who later registered his interests. It is also unreasonable to give priority for the secured creditor who knows existence of earlier security interests. With inaccessible notice-based electronic filing system that the Proclamation puts as

[287] Berne Convention for the Protection of Literary and Artistic Works, 1971 (as amended 1979), art. 5 (2) < http://www.wipo.int/treaties/en/ip/berne/trtdocs_wo001.html> accessed 16 August 2019. This provision is part of the TRIPS System, read TRIPS Agreement art.9 (1).
[288] Thomas (n 77) 21-22.
[289] ibid.
[290] Castellano and Dubovec, 'Credit Creation (n 39) 73-74.
[291] Read arts. 13 and 46 of Movable Property Security Right Proclamation.

the only mechanism to register the security interests (as discussed above under section 4.6.1.1), giving priority for creditor who registered his interests though with the knowledge of existence of prior unregistered security interests is unjustified. Incentivizing registration of security interest shall not extend to benefiting the secured creditor who may have a bad faith in transacting at the expense of innocent secured creditors.

Article 54 (6) of Movable Property Security Right Proclamation enshrines the rights of a person with non-exclusive license[292], who dealt with grantor in the ordinary business of grantor and without knowledge of violating the secured creditor's interest through license, is not affected. The knowledge requirement here is not about the existence of security rights but knowledge about violation of security rights through non-exclusive licenses. UNCITRAL Model Law has qualified the applicability of such provision through offering asset-specific rule for IPRs under Article 50. The restriction is, without affecting the fundamental rules put under IP laws which focus on whether there is an authorization for license (but not on what constitutes ordinary course of licensor's business), to make secured creditor's right unaffected upon enforcement of the security interest while at the same time maintaining undisturbed use of (non-exclusive) licensee before the time of enforcement of the security interest.[293] The adoption of such IPRs-specific provision does not contradict with the existing IP laws in Ethiopia. But, for reasons which are not clear, our law failed to adopt such qualification to Article 54 (6).

4.7.The Rules on Enforcement of Security Interests

For the secured creditor whose claim is not satisfied, the key issue is "how much and how fast he can recover through realization of the charged assets, and how simple the whole process will be".[294] Thus, the question of enforcement of security rights touches up on availability of efficient court system and secondary market for liquidity of the collateral, *inter alia.*

[292] As far as licensing of IPRs is concerned, jurisprudence has it that there are three categories of license: (1) Sole license in which licensor retains the right to use of licensed IPRs, prior licenses would not be affected by sole license, and licensor agrees not to grant any additional license; (2) non-exclusive license where the licensee has the right to use IPRs, but licensor remains free to exploit by himself and allow any number of other licenses to also exploit the same IP; and (3) exclusive licensee wherein only the licensee has the right to exploit the IPRs.
[293] See paras.360 and 361 of UNCITRAL Guide to Enactment of Model Law.
[294] EBRD, 'Law in Transition' (n 169) 5; See also Gullifer and Tirado (n 43) 128 -130.

More profoundly, the Basel Accords provide banks must enjoy first priority and the right to enforce a security interest swiftly.[295] The bank must demonstrate that, for each asset, there is a sufficiently developed secondary market where prices are publicly available and collateral could be easily liquidated post default.[296]

Article 82 of the Movable Property Security Right Proclamation provides secured creditor has the right to dispose the collateral in the manner he thinks fit. Thus, secured creditor is entitled with power of foreclosure. But, in case the creditor exercised his foreclosure power another issue comes: whether pursuant to Article 82 (1) and 76 (3) of the Proclamation exercising such power is commercially reasonable and in good faith or not? Taking these requirements to enforcement of security rights in IPRs, determining commercially reasonableness necessitates analyzing the best market for IPRs as a threshold. However, the market for IPRs is murky in Ethiopia. Hence, private foreclosure does not seem appealing. Lenders are advised to be cautious in their dealing and develop their own expertise. Unless lenders have sophistication to deal with IPRs and nation-wide IPRs valuation standard is in place, lenders are advised to enforce their security right through court.

Nevertheless, court-enforcement is riddled with legal and practical problems. Article 77 (1) of the Movable Property Security Right Proclamation says secured creditor is entitled to enforcement in the form of expeditious proceeding. This provision seems being informed with Article 73 (2) of UNCITRAL Model Law. But, under our law, it is better to explicitly say 'summary proceedings' (not 'expeditious proceedings') through giving cross reference to Article 284 *et seq* of the Civil Procedure Code. This is because interpretation would render it ordinary procedure wherein, looking the practice within our work-ridden courts, expeditious proceeding is not a reality. If this will not be the case, the law has to provide time limit, subject to extension of certain duration for compelling justifications, within which proceedings once initiated shall be decided by the judiciary so that the aim of expeditious proceedings_ swift enforcement of security interests_ will be realized. This is because it disciplines courts to expeditious disposition of the case and also deterring debtors to perform their obligations duly.

[295] Giuliano G. Castellano and Marek Dubovec, 'Bridging the Gap: The Regulatory Dimension of Secured Transactions Law Reforms' (12 December 2017) 7-23 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3076082&download=yes> accessed 17 September 2019.
[296] Basel II, paras 521-522, Basel III, paras.295-296.

Besides, use of alternative dispute resolution mechanisms can help repayment of the secured credit without lengthy court-proceedings and abusive self-help mechanisms. But, our law has failed on this too.

Though not indicated the category of secured creditor (as bank and financial institutions vis-à-vis others), one scholar has indicated that self-help repossession and enforcement of security would bring breach of peace, and thus argue for its elimination (in line with Louisiana) from secured transactions reform to be taken by Ethiopia.[297] But, that will not be the option. Noting the efficiency it will add to the secured transactions, out-of-court enforcement shall be backed by necessary implementing regulations. Absent such regulations, secured parties would be left with no option than pursuing court-ordered enforcement which is subject to the aforementioned shortcomings.

4.8. Using Intellectual Property Rights as Security Device in Ethiopia: Beyond the Grip of the Existing Laws?

Unique nature of IPRs mean having modern secured transactions laws, perhaps adopted in line with UNCITRAL legal frameworks, would not address all the hurdles in the use of IPRs as security device. For example, even UNCITRAL legal frameworks have failed to fully provide IPRs-specific rules, and uncoordinated with other contiguous areas of law such as insolvency law, capital adequacy requirements for banks, and property law to name a few. Also, the credit market is dominated by real assets (immovable) and possessory pledges in some corporeal assets like vehicle, and equipment. Hence, the question how we can address the hurdles within the use of IPRs as security device in Ethiopia and garner lenders' confidence thereon? The answer to this question may be related to legal and policy options that a country needs to adopt.

In this regard, having nation-wide evaluation standards for IPRs which businesses can implement in their transactions is necessary to implement security interests in IPRs. Let alone financiers who run for profit throughout the transaction, IPRs owners will have a better understanding of the economic advantages of their IPRs and a better determination of what can be done with their rights in case there is IPRs valuation.[298] In Ethiopia, IPRs have no developed market. Thus,

[297] Gikay (n 46) 192-195
[298] Asia-Pacific Economic Cooperation Intellectual Property Rights Experts Group (n 194) 3.

creditors will face problems for enforcement of the security right; not to mention lack of trust for creating security rights in IPRs. Then, the availability of credit for IPRs holders/ owners at low cost_ a central ambition of secured transactions reform as far as IPRs owners/ holders are concerned_ will be left being a mere promise. Nation-wide valuation standards for IPRs can also be backed by a specific law that deals with the manner of valuation, valuators, the ethical conducts for valuators, training of valuators, and rights and duties of valuers and client. Hence, an approach followed by Federal Law on Evaluation Activity in Russia (as discussed under Section 3.4.6 above) is an important lesson in this regard.

Ethiopia can also learn from the IPRs-financing scheme that other countries referred to under Section 3.4 of the third chapter of this research have adhered to. Accordingly, partial underwriting of the loan secured by IPRs employed in Singapore, interest rate per annum subsidy (profit equalization payment) and additional guarantee schemes used in Malaysia, Pilot scheme to test various policies adopted in China and requirement for debtor's to prepare their ICS to get loans from Banks as employed in Hong Kong are the lessons that Ethiopia can learn from. Ethiopia can also learn from requirements of disclosure for IPRs in business reports, and the PQI to control the risks involved in using patent as security that introduced in USA.

It is posited that extreme systemic change (paradigm shift); not a piece meal change nor mere systemic change can nurture access to debt-finance for IPRs owners.[299] Even to learn from the domestic trend to initiate new developments, we can raise the Development Bank of Ethiopia's (hereinafter DBE) 80 % export credit guarantee for loans and interests provided by commercial banks to exporters with bankable exports except coffee export,[300] and 70 % export financing scheme that DBE gave as incentive.[301]

[299] Denoncourt (n19) 29.

[300] See Ethiopian Investment Commission <http://www.investethiopia.gov.et/index.php/investment-process/incentive-package/117-uncategorised/parent-incentive-package/incentive-package/576-financial-incentives.html> accessed 18 September 2019.

[301] Ethiopia Project Financing (11 December 2018) <https://www.export.gov/article?id=Ethiopia-Project-Financing> accessed 18 September 2019. (Indicating DBE allocates 70 % of investment projects as part of Government's initiative to support manufacturing and export oriented investments in selected sectors including commercial farms, agro-processing, export oriented businesses and manufacturing sector with the remaining 30 % covered by owner's equity').

CHAPTER FIVE

SUMMARY OF THE MAIN FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1.Summary of the Main Findings

The analysis made in the research reveals that under Ethiopian recent secured transactions law reform, the rules for creation, perfection, priority and enforcement of security interests and preservation of encumbered IPRs are inadequate as they do not fit to the unique nature of IPRs and, thus, not alluring for IPRs owners and potential lenders.

Amongst, valuation of IPRs_ which is more critical for security interests than any other transactions related to IPRs_ is not governed by specific law and the practice in business dictates absence of developed trend over the subject.

As regards creation of security interests in IPRs, identification of which category of IP and which part of IPRs is eligible for security interests is not made in our law. Thus, the fact that IP is a bundle of rights does not get much emphasis when it comes to Ethiopian secured transaction law. Also, specification of maximum amount of secured obligation is left for the will and whim of the parties. These would lead to uncertainties and affect further exploitation of IP/ IPRs since security interest in IPRs is not dovetailed with interests of other stakeholders. The law also provides for the use of after-acquired IPRs as security without, however, providing any restriction and condition. Thus, as the law stands now, public resources may be deployed to engage with technology that might never materialize. More, the rule for treatment of IPRs found in the tangibles assets, making those assets functional, is not full of merits as it leads to absurdity through allowing different parties to have security interest on IPRs and tangible assets. Again, separate treatment of IPRs and the tangible assets embedding the works of mind augments the lenders suspicion against the use of IPRs for secured transactions which, in turn, affects the access to low-cost credit for owners of IPRs. IPRs embedded in business are also neglected both in the prevailing business collateral transactions and in Movable Property Security Right Proclamation.

Furthermore, the Movable Property Security Right Proclamation does not restrict secured creditor's right to inspect encumbered IPRs. This opens the door for encroachments to holders/ owners of IPRs for trivial cases. The Proclamation's stipulation on notice- based electronic

registration system for perfection of security interests in IPRs, though it would serve as one-stop source of information, is also found in adequate with the existing infrastructural and technological impediments in our country. Even the lessons in Ontario and US_ highly developed jurisdictions_ indicate that operating notice-based electronic filing side-by-side with document filing is necessary. The first-to-file priority rule under our law even in cases where the secured creditor actually knows existence of prior unregistered security interests also unduly benefits the secured creditor, who later gets his interests registered, at the expense of bona fide parties. As regards the rules for enforcement of security interests, enforcement in the form of expeditious proceeding is debatable and not with much help. Again, other alternatives such as the use of alternative dispute resolution mechanism for enforcement of security interests in IPRs are not provided under our law.

The analysis made in line with lessons from some notable jurisdictions also depicts that financing schemes and different measures are necessary to fully unlock the potential benefit from IPRs through using as security device.

5.2.Conclusion

Typical to the secured debt-transactions is the borrower who offers an asset or the right in an asset as security will have greater credit availability at lower interest rate and longer loan duration, because the secured creditor has less risk in such transactions. Using IPRs as security for debt-finance is a bit different due to the inherent nature and characteristics of the underlying rights: lending against IPRs that is characterized by information asymmetry is likely more risky than traditional assets which established relative reputation in the market.

From the nature of IPRs two arguments surface: (a) taking security over IPRs is plagued by numerous difficulties which ultimately render it legally uncertain and economically inefficient form of debt-financing; (b) provided that appropriate precautions and incentives are taken, IPRs are palatable resources for the use as security in debt-finance. This work is in support of the second argument and suggests how to sustain a coherent security legal regime for IPRs, control the risks involved in the transaction, and incentivize the use of IPRs as security for debt-finance.

Ethiopia, as are many LDCs, has poor secured lending facilities so far. IPRs-backed financing was left at the margin. In what is introduced as Movable Property Security Right Proclamation,

however, Ethiopia has adopted very recently a ground-breaking piece of legislation encompassing security interests in IPRs. The law will have positive effect in attracting foreign investment, employment within private firms, further innovations and creations through debt-financing and, above all, economic development. Nevertheless, for Ethiopia, the use of IPRs as security device is a relatively new idea and it is yet to gain any traction.

The rules from the stages of creation to enforcement of security interests in IPRs under Ethiopian security device law are found inadequate. Also, both under the fledgling practice and the recently introduced law, IPRs embedded in business are on a shaky ground while collateralizing the business. Thus, the recent reform reiterates inclusion of IPRs as incidental and only for completeness of the transaction but not as frontline source of finance as far as business collateral involving IPRs is concerned.

Again, only systemic change can nurture access to debt-finance for IPRs owners/ holders. One way of supporting this change is having 'the law in action'; not only having a good written law. Albeit the researcher shares the idea that it is up to the practice to determine how the secured transactions reform will function, any real benefit to the Ethiopian legal system, economy and society as a whole will depend on how IPRs owners and business community accept the reform, and how courts and executive organs interpret and enforce it, respectively. Thus, shattering the mystique surrounding the use of IPRs for raising debt-finance_ through furnishing it as security_ is necessary. Accordingly, different initiatives are required to increase banks' and other secured creditors' tolerance to credit risk so that they will extend a loan against IPRs on one hand, and to bring IPRs on equal footing with traditionally reputed tangible assets (wherein banks have relative confidence) on the other hand. Different financing schemes taken at foreign jurisdictions will serve as a lesson for Ethiopia on how to incentivize the use of IPRs in debt-based finance and control the risks involved in encumbering IPRs. Otherwise, the reform would be a window dressing; not a real when it comes to using IPRs as security. But, it needs to think very wisely for preparing enabling environment to make IP-financing at a lower and feasible cost to the government.

Having IPRs quantification also matters the most for IPRs-backed debt-finance transactions _even more than for other IPRs-related transactions_ to have a firm ground. But, valuation of IPRs is at its rudimentary stage both in laws and practice in Ethiopia.

Therefore, the rules for security interests in IPRs under Ethiopian security device law are in adequate and not full of merits as the law is riddled with so many lacunae and needs enabling policy schemes.

5.3.Recommendations

In view of the analysis made above, the researcher forwards the following;

1. Ethiopia shall have specific law for evaluation of IPRs. An approach adopted by Federal Law on Evaluation Activity in Russia would be a good lesson in this regard. The contents of the law shall include: manner of valuation, valuators, ethical conducts for valuators, training of valuators and organ entrusted to train them, and rights and duties of valuers and IPRs owners.
2. Article 6 (3) of Movable Property Security Right Proclamation which makes permissive the description of maximum amount of secured obligation shall be revised to make it mandatory, and in effect, maintain the position under Article 2828 (1) of the Civil Code. Only in this way that we can create security rights in IPRs without, however, compromising the exploitation of IPRs and affecting certainty of transactions on IPRs.
3. We need circumscription of a financing standard for using after-acquired IPRs as security device. In this regard, too liberal a standard provided under Articles 2 (2), 2 (18), and 4 (3) of Movable Property Security Right Proclamation shall be revised. One way of such revision is to require certification from EIPO for feasibility of future IPRs.
4. Treatment of IPRs lumped in business and integrated in the tangible assets need detailed rules while collateralizing the business and tangible assets, respectively.
5. In order to avoid encroachments to the grantor's rights for trivial cases, Article 68 (2) of Movable Property Security Right Proclamation shall be revised, perhaps in line with Article 4 of UNCITRAL Model Law, to condition the secured creditor's right to inspect encumbered IPRs through good faith and commercially reasonable manner.
6. Article 2 (5) and 13 (1) of Movable Property Security Right Proclamation which provide only notice- based electronic registration system for perfection of security interests in IPRs shall be revised so as to operate it with other alternatives such as document-filing up until the infrastructural and technological impediments in our country are resolved.
7. Article 48 of the Movable Property Security Right Proclamation shall be amended so as to add qualification to first-to-file priority rule in case the secured creditor actually knows

existence of the prior unregistered security interests so that bona fide parties would be protected.

8. Article 77 (1) of the Movable Property Security Right Proclamation which says enforcement in the form of expeditious proceeding shall equivocally mention 'summary proceedings' or make cross-reference to the applicability of Article 284 *et seq* of the Civil Procedure Code. Also, the Proclamation must be revised in order to employ alternative dispute resolution mechanisms for facilitating repayment of the secured credit without lengthy court-proceedings and abusive self-help mechanisms.
9. The following measures must be taken in order to control the risks in, and promote, security interests in IPRs;
   9.1. Private consultants shall be established to carry on valuation and due-diligence services on IPRs. Establishing and making credible such private consultants need concerted efforts of the potential lenders, IPRs owners, and EIPO.
   9.2. Secured creditors shall follow proper and limited-term amortizing loan structure, in which portion of the debt is to be paid regularly until the due date for the whole debt, so that the risks of obsolescence to the IPRs affecting security interests would be managed.
   9.3. Ethiopian government need to incentivize debt-based finance against IPRs as security. For example, like Singapore, Ethiopian government shall partially underwrite the loans secured by IPRs. This promotes security interests in IPRs, at least, until our potential lenders will reasonably develop business acumen and experience to deal with IPRs.
   9.4. The EIPO and Collateral Registry Office shall have information sharing mechanisms to bridge the chasm. Otherwise, lenders would extend loans against IPRs which might have no legal protection, the situation which in turn will render IPRs unsuitable and unacceptable to secure debt-transactions.
   9.5. The government shall prepare forums and seminars for dialogues between IP community, business community, and financial services communities. Also, government institutions such as universities shall prepare workshops on valuation and financing of IPRs. These activities would lead security interests in IPRs to gain momentum from the market.

BIBLIOGRAPHY

1. Primary Sources

- **Domestic Laws**

- Access to Genetic Resources and Community Knowledge, and Community Rights Proclamation of 2006, Proclamation No. 482, Federal Negarit Gazeta, Year 13, No.13
- Business Mortgage Proclamation of 1998, Proclamation No. 98, Federal Negarit Gazeta, Year 4, No.17
- Civil Code of Empire of Ethiopia of 1960, Proclamation No.165, Negarit Gazeta, Year 19, No.2
- Commercial Bank of Ethiopia, Credit Process Procedure (Volume 1) (March 2013)
- Commercial Code of Empire of Ethiopia of 1960, Proclamation No. 166, Negarit Gazeta, Year 19, No.3
- Copyright and Neighboring Rights Proclamation of 2004, Proclamation No. 410 (as amended), Federal Negarit Gazeta, Year 10, No.55
- Council of Ministers Federal Income Tax Regulation of 2017, art.39 (2), Regulation No.410, Federal Negarit Gazeta, Year 23, No. 82
- Ethiopian Intellectual Property Office Establishment Proclamation of 2003, Proclamation No.320, Art. 6 (1), Federal Negarit Gazeta, Year 9, No.40
- Federal Income Tax Proclamation of 2016, Proclamation No.979, Federal Negarit Gazeta, Year 22, No. 104
- Inventions, Minor Inventions and Industrial Designs Proclamation of 1995, Proclamation No. 123, Federal Negarit Gazeta, Year 54, No.25
- Movable Property Security Right Proclamation of 2019, Proclamation No. 1147, Federal Negarit Gazeta, Year 25, No.76
- Plant Breeders' Right Proclamation of 2006, Proclamation No. 481, Federal Negarit Gazeta, Year 12, No.12
- Property Mortgaged or Pledged with Banks Proclamation of 1997, Proclamation No. 97 (as amended), Federal Negarit Gazeta, Year 4, No.16
- The Constitution of the Federal Democratic Republic of Ethiopia of 1995, Proclamation No.1, Federal Negarit Gazeta, Year 1, No.1

- The Convention Establishing the World Intellectual Property Organization Accession Proclamation of 1997, Proclamation No. 90, Federal Negarit Gazeta, Year 4, No. 2
- The Revised Draft Commercial Code of 2010
- Trademark Registration and Protection Proclamation of 2006, Proclamation No. 501, Federal Negarit Gazeta, Year 12, No.37

Interviews

- Interview with Ato Abate Jambo, Business Loan Relationship Manager, Commercial Bank of Ethiopia Head Office (Addis Ababa, 2 September 2019)
- Interview with Ato Getachew Tafa, Patent Examiner, EIPO (Addis Ababa, 3 September 2019)
- Interview with Ato Lemmi Furgasa, Corporate Credit Division Manager, Awash Bank Head Office (Addis Ababa, 3 September 2019)
- Interview with Ato Nassir Nuru, Copyright and Neighboring Right Development and Protection Directorate, EIPO (Addis Ababa, 3 September 2019)
- Interview with Ato Teshome Regassa, Senior Legal Expert, Awash Bank Head Office (Addis Ababa, 3 September 2019)
- Interview with W/ro Achamyelesh Zewdie, Corporate Loan Manager, Commercial Bank of Ethiopia Head Office (Addis Ababa, 2 September 2019)
- Telephone Interview with Dr. Birhanu Andualem, Patent and Copyright owner (Gondar, 16 September 2019)

International Legal Instruments

✓ Agreement between United Nations and World Intellectual Property Organization (1974)

✓ Agreement on Trade-Related Aspects of Intellectual Property Rights, 1869 UNTS 299;33 ILM 1197 (1994)

✓ Convention Establishing the World Intellectual Property Organization (WIPO) 21 UST 1749;TIAS 6932;828 UNTS 3

✓ Universal Declaration of Human Rights (adopted 10 December 1984) UNGA Res 217 A (III) (UDHR)

2. Secondary Sources

Books

- Fleisig H, Sefavian M and Pena N, *Reforming Collateral Laws to Expand Access to Finance* (World Bank, 1818 H Street NW, Washington 2006)

Contributions to Edited Books

- Akseli O, 'SMEs and Access to Finance: A vulnerability Perspective' in Aldohni A (ed), *Law and Finance after the Financial Crisis: The Untold Stories of the UK Financial Market* (1st edn, Routledge 2016)
- Bazinas S, 'UNCITRAL's Contribution to Intellectual Property Financing Law' in Toshiyuki Kono (ed), *Security Interests in Intellectual Property* (Springer Nature Singapore Pte Ltd. 2017)
- Denoncourt J, 'IP Debt Finance and SMEs: Revealing the Evolving Conceptual Framework Drawing on Initiatives from around the World' in Kono T (ed), *Security Interests in Intellectual Property* (Springer Nature Singapore Pte Ltd. 2017)
- Kono T and Cheng C, 'IP and Debt Finance: Cross-Border Considerations' in Toshiyuki Kono (ed), *Security Interests in Intellectual Property* (Springer Nature Singapore Pte Ltd. 2017)
- Shimizu T, 'Intellectual Properties and Debt Finance for Startups' in Toshiyuki Kono (ed), *Security Interests in Intellectual Property* (Springer Nature Singapore Pte Ltd. 2017)

Journal Articles

- Castellano G, 'Reforming Non-Possessory Secured Transactions Laws: A New Strategy?' (2015) 78 The Modern Law Review
- ___ ___ and Dubovec M, 'Credit Creation: Reconciling Legal and Regulatory Incentives' (2018) 81 (63) Law and Contemporary Problems
- ___ ___ and Dubovec M, 'Global Regulatory Standards and Secured Transactions Law Reforms: At the Crossroad between Access to Credit and Financial Stability' (2018) 41 (3) Fordham International Law Journal
- Chopra S and Negi A, 'Role of Intellectual Property during Recession' (2010) 15 Journal of Intellectual Property Rights
- Dahan F and Simpson J, 'Legal Efficiency for Secured Transactions Reform: Bridging the Gap between Economic Analysis and Legal Reasoning' (2009) 27 (3) Penn State International Law Review

- Davies I, Secured Financing of Intellectual Property Assets and the Reform of English Personal Property Security Law' (2006) 26 (3) Oxford Journal of Legal Studies
- Dubovec M, 'UCC Article 9 Registration System for Latin America' (2011) 28 (1) Arizona Journal of International & Comparative Law
- Gashu D, 'Examining the Legal Regime Governing Commercialization of Patents, Copyrights and Trademarks in Ethiopia' (2018) 8 (1) Developing Country Studies
- Ghosh S, 'The Morphing of Property Rules and Liability Rules: An Intellectual Property Optimist Examines Article 9 and Bankruptcy' (1996) 8 (1) Fordham Intellectual Property, Media & Entertainment Law Journal
- Gikay A, 'Rethinking Ethiopian Secured Transactions Law through Comparative Perspective: Lessons from the Uniform Commercial Code of the US' (2017) 11 (1) Mizan Law Review
- Gullifer L and Tirado I, 'A Global Tag of War: A Topography of Micro-Business Financing' (2018) 81 (109) Law and Contemporary Problems
- Jacobs B, 'Using Intellectual Property to Secure Financing after the Worst Financial Crisis since the Great Depression' (2011) 15 (2) Marquette Intellectual Property Law Review
- Nguyen X, 'Collateralizing Intellectual Property' (2007) 42 (1) Georgia Law Review
- Robinson K, 'Patent Law Challenges for the Internet of Things' (2015) 15 (4) Journal of Business and Intellectual Property Law
- Rodriguez T and Ballel H, 'Digital Technology -Based Solutions for Enhanced Effectiveness of Secured Transactions Law: The Road to Perfection?' (2018) 81 (21) Law and Contemporary Problems
- Shwarcz S, 'The Financial Crisis and Credit Unavailability: Cause or Effect?' (2017) 72 Business Lawyer
- ___ ___, 'Secured Transactions and Financial Stability: Regulatory Challenges' (2018) 81 (45) Law and Contemporary Problems
- Solomon D and Bitton M, 'Intellectual Property Securitization' (2015) 33 (125) Cardozo Arts & Entertainment
- Tosato A, 'Security Interests Over Intellectual Property' (2011) 6 (2) Journal of Intellectual Property Law & Practice

- ___ ___, 'Secured Transactions and IP Licenses: Comparative Observations and Reform Suggestions' (2018) 81 (155) Law and Contemporary Problems

News Paper

- EIPO, 'Facts about Intellectual Property', *Intellectual Property Gazette* (14 (2), 8 January 2018)

Unpublished Theses

- Hailemeskel H, 'Designing Intellectual Property Law as a tool for Development: Prospects and Challenges of the Ethiopian Patent Regime (LL.M Thesis, Addis Ababa University 2011)
- Lin M, 'Law and Economics of Security Interests in Intellectual Property' (DPhil thesis, Erasmus University Rotterdam 2015)
- Richard M, 'The Collateralisation and Securitisation of Intellectual Property' (PhD Dissertation, Queen Mary, University of London 2016)
- Worku D, 'Valuation and Commercialization of Intellectual Property Rights in Ethiopia' (LL.M Thesis, Addis Ababa University 2016)

Online Journals

- Bramson R, 'Intellectual Property as Collateral: Patents, Trade Secrets, Trademarks and Copyrights' (1981) 36 (4) The Business Lawyer <https://www.jstor.org/stable/40686311> accessed 11 September 2019
- Lipson J, 'Financing Information Technologies: Function and Fairness' (2001) Wisconsin Law Review <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=274191> accessed 12 August 2019
- Raymond A, 'Intellectual Property as Collateral in Secured Transactions: Collision of Different Approaches' (2009) 10 (1) Business Law International < https://www.ssrn.com/abstract=2019612 > accessed 19 September 2019
- Thomas S, 'Security Interests in Intellectual Property: Proposals for Reform' (2016) The Society of Legal Scholars <https://www.cambridge.org/core/journals/legal-studies/article/security-interests-in-intellectual-property-proposals-for-reform/8E20AEB9238515021DA3FC62E8A86733> accessed 25 August 2019

Websites and Blogs

- A Guide to Enactment of UNCITRAL Model Law on Secured Transactions <https://www.uncitral.org/pdf/english/texts/security/MLST_Guide_to_enactment_E.pdf> accessed 30 August 2019
- Asia-Pacific Economic Cooperation Intellectual Property Rights Experts Group, 'Best Practices on Intellectual Property (IP) Valuation and Financing in APEC' (January 2018) < https://www.apec.org/-/media/APEC/Publications/2018/4/Best-Practices-on-IP-Valuation-and-Financing-in-APEC/218CTIBest-Practices-on-Intellectual-Property-IP-Valuation-and-Financing-in-APEC.pdf> accessed 31 August 2019
- Bank for International Settlements, 'International Convergence of Capital Measurement and Capital Standards' (June 2006) <https://www.bis.org/publ/bcbs128.pdf> accessed 11 September 2019
- Bank for International Settlements, 'Basel III: Finalizing Post Crisis Reforms' (December 2017) <https://www.bis.org/bcbs/publ/d424.pdf> accessed 11 September 2019
- Berne Convention for the Protection of Literary and Artistic Works, 1971 (as amended 1979) < http://www.wipo.int/treaties/en/ip/berne/trtdocs_wo001.html> accessed 16 August 2019
- British Business Bank, 'Using Intellectual Property to Access Growth Funding' (2018) <https://www.british-business-bank.co.uk/wp-content/uploads/2018/10/502-IP-Report_singles.pdf > accessed 6 August 2019
- Campa A, 'Increasing Access to Credit through Reforming Secured Transactions in the MENA Region' (2011) World Bank Policy Research Working Paper 5613 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1794918> accessed 28 August 2019
- Cantatore F, 'Intellectual Property Rights and the PPSA: Challenges for Interest Holders, Creditors and Practitioners' (1 January 2015) < https://works.bepress.com/francina_cantatore/13/download/> accessed 12 August 2019
- EBRD, 'Core Principles for a Secured Transactions Law' <https://www.ebrd.com/documents/legal-reform/secured-transactions-core-principles-english.pdf > accessed 6 September 2019
- EBRD, 'Law in Transition: Competition Law and Policy: Enhancing Enforcement and Cooperation' (2004) <https://www.ebrd.com/downloads/research/law/lit041.pdf > accessed 14 August 2019

- EBRD, 'Publicity of security Rights: Guiding Principles for the Development of a Charges Registry' (2004) < https://www.oas.org/dil/ebrd-publicity.pdf > accessed 6 September 2019
- EIPO website <www.eipo.gov.et > accessed 6 March 2019
- Ethiopian Investment Commission <http://www.investethiopia.gov.et/index.php/investment-process/incentive-package/117-uncategorised/parent-incentive-package/incentive-package/576-financial-incentives.html> accessed 18 September 2019
- Ethiopia Project Financing (11 December 2018) <https://www.export.gov/article?id=Ethiopia-Project-Financing> accessed 18 September 2019
- Erdenechimeg D, 'Using Intellectual Property as Collateral: An International Experience and a Mongolian Perspective' (2016) <https://www.itcilo.org/masters-programmes/ll-m-in-intellectual-property/final-research-papers/Erdenechimeg.pdf> accessed 11 March 2019
- Gallagher & Dawsey Co., LPA, 'Wading through the Intellectual Property Requirements of the Sarbanes-Oxley Act of 2002' (2005) <https://www.invention-protection.com/wading-through-the-intellectual-property-requirements-of-the-sarbanes-oxley-act-of-2002/> accessed 7 September 2019
- Ghafele R, 'Accounting for Intellectual Property? (2010, University of Oxford, Oxfirst) <https://mpra.ub.uni-muenchen.de/37360/1/MPRA_paper_37360.pdf> accessed 11 April 2019
- Giuliano G. Castellano and Marek Dubovec, 'Bridging the Gap: The Regulatory Dimension of Secured Transactions Law Reforms' (12 December 2017) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3076082&download=yes> accessed 17 September 2019
- Henning W, 'The Benefits of Secured Transactions Reform' (2016) <https://www.caymanfinancialreview.com/2016/11/01/the-benefits-of-secured-transactions-reform/ > accessed 11 March 2019
- <https://www.awashbank.com/company-profile/> accessed 7 July 2019
- <http://www.businessdictionary.com/definition/intellectual-property-html> accessed 5 March 2019
- < https://www.iasplus.com/en/standards/ias/ias38> accessed 22 August 2019

- In-house East Africa, 'Creative Industries contribute more to Ethiopia's Economy, Report Shows' (19 November 2015) <https://www.musicinafrica.net/magazine/creative-industries-contribute-more-ethiopia%E2%80%99s-economy-report-shows> accessed 7 March 2019
- Intellectual Property Office of Singapore, 'Cash for Intellectual Property through loan financing now a reality in Singapore' (2 June 2016) <https://www.ipos.gov.sg/media-events/press-releases/ViewDetails/cash-for-intellectual-property-through-loan-financing-now-a-reality-in-singapore/> accessed 31 August 2019
- Internet Users Statistics for Africa (2019) <https://www.internetworldstats.com/stats1.htm> accessed 14 September 2019
- Jarboe K and Furrow R, 'Intangible Asset Monetization: The Promise and the Reality' (2008), Working Paper No.3 <https://intangibleeconomy.files.wordpress.com/2016/02/intangibleassetmonetization.pdf> accessed 5 March 2019
- Ministry of Economic Development of the Russian Federation, 'Federal Law from July 29, 1998 of No. 135- FZ on Evaluation Activity in the Russian Federation' <http://en.smb.gov.ru/support/regulation/135-fz/ > accessed 7 September 2019
- Montanari L, 'Will Singapore be the next Intellectual Property Hub?' (19 September 2017) <https://www.forbes.com/sites/lorenzomontanari/2017/09/19/will-singapore-be-the-next-intellectual-property-hub/> accessed 7 September 2019
- Neumyer D, 'Future of Using Intellectual Property and Intangible Assets as Collateral' (January/ February 2008) 45 <https://cfa.com/eWeb/docs/tsl_archives_pdf/jan08_pg042.pdf> accessed 10 August 2019
- OECD, 'Enquires into Intellectual Property's Economic Impact: IP-backed Financing of Innovative Firms' (2015) < https://www.oecd.org/sti/ieconomy/Chapter9-KBC2-IP.pdf > accessed 31 August 2019
- OECD, 'IP-based Financing of Innovative Firms' (2015) <https://www.oecd.org/sti/ieconomy/Chapter9-KBC2-IP.pdf> accessed 31 August 2019
- Official Comment to New Article 9 (1 February 2009) <https://www.cali.org/lessons/web/ct11_1/comments_to_new_a9.htm> accessed 15 September 2019

- OHADA's Uniform Law on Security Interests (2 November 2015) <https://www.insideafricalaw.com/.../**ohada**s-uniform-law-on-**security-interests**-harmonising-business-law-across-africa> accessed 14 August 2019
- Painchaud F and Moscovici J, 'Intellectual Property and Secured Transactions: Going the Wrong way in the Right Direction?'(2010) CIPS <https://www.robic.ca/wp-content/uploads/2017/05/407-FP-2010.pdf> accessed 7 September 2019
- Property Law of the People's Republic of China, Order No.62 <http://210.82.31.8/englishnpc/Law/2009-02/20/content_1471118.htm> accessed 22 September 2019
- Rodyk & Davidson LLP, 'Intellectual Property as Security and the IP Financing Scheme in Singapore' (September 2014) <http://aspheramedia.com/wp-content/uploads/2015/01/Rodyk_Reportersept14-Business-Bulletin-2.pdf> accessed 7 September 2019
- Singapore IP Steering Committee, 'Intellectual Property (IP) Hub Master Plan: Developing Singapore as a Global IP Hub in Asia' (April 2013) <https://www.mlaw.gov.sg/content/dam/minlaw/corp/News/IP%20Hub%20Master%20Plan%20Report.pdf> accessed 7 September 2019
- Singapore Ministry of Law, 'IP as new growth area: Government accepts IP Hub Master Plan recommendations; Rolls out initiatives to develop Singapore as a global IP hub in Asia' (01 April 2013, Press Release) <https://www.mlaw.gov.sg/news/press-releases/IP-hub-master-plan-launched.html> accessed 7 September 2019
- UNCITRAL Guide on the Implementation of a Security Rights Registry <http://www.uncitral.org/pdf/english/texts/security/Security-Rights-Registry-Guide-e.pdf> accessed 30 August 2019
- UNCITRAL Model Law on Secured Transactions < https://www.uncitral.org/pdf/english/texts/security/MLST2016.pdf> accessed 30 August 2019
- UNCITRAL Legislative Guide on Secured Transactions <https://www.uncitral.org/pdf/english/texts/security-lg/e/09-82670_Ebook-Guide_09-04-10English.pdf > accessed 29 August 2019

- UNCITRAL Legislative Guide on Secured Transactions: Supplement on Security Rights in Intellectual Property <https://www.uncitral.org/pdf/english/texts/security-lg/e/10-57126_Ebook_Suppl_SR_IP.pdf > accessed 5 March 2019
- UNCITRAL, Report of Working Group VI (Security Interests) on the Work of its twenty-first session, 45th Session (2012) <https://undocs.org/en/A/CN.9/743> accessed 30 August 2019
- UN General Assembly Resolution No. 2205 (XXI) of 17 December 1966 Establishing UNCITRAL <https://www.jus.uio.no/lm/uncitral.2205-xxi/portrait.pdf> accessed 29 August 2019
- Uniform Act Organizing Securities <https://www.droit-afrique.com/.../OHADA-Uniform-Act-2010-securities.pdf > accessed 14 August 2019
- WIPO, 'What is Intellectual Property Rights' <https://www.wipo.int/edocs/pubdocs/en/intproperty/450/wipo_pub_450.pdf > accessed 5 March 2019
- WIPO, 'WIPO Questionnaire on Security Interests in Intellectual Property' <https://www.wipo.int/edocs/mdocs/copyright/en/wipo_ip_fin_ge_09/wipo_ip_fin_ge_09_7_annex.doc.> accessed 5 March 2019
- World Bank, 'Doing Business' (2019) <http://documents.worldbank.org/curated/en/807951541094964582/Doing-Business-2019-Training-for-Reform-Ethiopia> accessed 6 April 2019
- World Bank, 'Doing Business' (2019) <http://documents.worldbank.org/curated/en/807951541094964582/pdf/131658-WP-DB2019-PUBLIC-Ethiopia.pdf> accessed 6 April 2019
- Yohannes A, 'Movable Property Security Rights Draft Proclamation of 2010' (29 March 2019) < https://chilot.me/ > accessed 6 April 2019

ANNEX

JIMMA UNIVERSITY

COLLEGE OF LAW AND GOVERNANCE

SCHOOL OF LAW

INTERVIEW QUESTIONS PREPARED FOR KEY INFORMANTS

Name of Respondent (if he /she is consented) _____

Position: _____

Type of the Study: A Master Thesis in Law (LL.M Thesis)

Title: Security Interests in Intellectual Property Rights under Ethiopian Security Device Law: A Critical Analysis

Objective of this Interview: to gather information so as to analyze the Ethiopian secured transactions laws on using IPRs as security device and to suggest possible solutions based on the findings.

Therefore, you are kindly requested to respond to the interviews as your information will be helpful for effective accomplishment of the study and as it will be kept confidential and analyzed anonymously unless you consented for the disclosure of your identity and personal views.

Thank You, in advance, for your Co-operation!

I. Interview Questions for Respondents from EIPO

1. Is there valuation of IPRs in Ethiopia? How and by whom such valuation is made, if any? What roles EIPO played in valuation of IPRs, if any?
2. Does your institution make any initiative in bringing security interests in IPRs to a reality? What are such initiatives, if any?

II. Interview Questions for Respondents from Commercial Bank of Ethiopia and Awash Bank S.C, Head Offices

1. Is there any practice of taking security interests in IPRs within your institution?
2. Does the bank have its own experts for valuing IPRs and special expertise to monitor the encumbered IPRs?
3. Is the bank ready to take security interests in IPRs in order to extend a loan? Why /Why not? How do you see the question in line with capital adequacy requirements? If the

bank is ready for IP-backed lending, on which kind of IPRs (registered IPRs, non-registered, future-coming or after-acquired, or all)?

4. Does your institution give emphasis for IPRs lumped in business while mortgaging business?
5. Can similar treatment of the bank as secured lenders and other secured lenders be fruitful? How foreclosure power of the banks be treated on security interests in IPRs?

III. Interview Questions for owners /holders of Intellectual Property Rights

1. How you valuate (price) your IPRs? Is there any institution (private or government) who support you in valuing your IPRs? Which organ, if any?
2. How do you finance your project? Does the financing channel you use is sufficient to raise funds? Have you ever sought for a loan through encumbering your IPRs?
3. Do you like to charge your IPRs for a debt-finance? Why/ Why not?
4. Do you believe banks and other lenders will extend you a loan against your IPRs as security? Why/ Why not?