Assessing the current situation of the policy and regulatory frameworks for fostering the markets of intellectual property and copyright patents on digital, products and services in technology of Mongolia

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The main purpose of this report is to analyze the current situations of the policy and regulatory frameworks which will be used as foundational materials for fostering the markets of intellectual property and copyright patents on digital technology, products and services in Mongolia.

The assessment has been conducted on policy and regulatory framework related to information and communications technology and the intellectual property in Mongolia through literature review and the interviews as well as discussion of Mongolia experts of the Intellectual property office of Mongolia and business sectors as well as representatives of the Mongolian institute of the certified appraisers.

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1. Introduction

The approval of the Digital Nation program initiated by the Government of Mongolia includes e-Mongolia applications, approval of 5 new laws and related regulations, establishment of the Ministry of Digital Development and Communications（MDDC）from 1 January 2022, and other initiatives which have laid grounds for advancing digital transformation in Mongolia. To accelerate digital transformation of Mongolia, there is a need for "new development paradigms, policy and regulatory frameworks in a more flexible, adaptive, and corroborative way".[1] There are over 100 software development companies in Mongolia that should be encouraged and protected properly, which have produced valuable software for promoting almost all the sectors of Mongolia and for supporting citizens, government organizations and businesses.

One of main leading office is the Intellectual Property Office of Mongolia（IPOM）, whose primary mission is to protect intellectual property by improving industry laws, implementing state policies on intellectual property protection, legally securing intellectual property, protecting the legal rights and interests of their authors and copyright holders, and providing legal advice and services in this regard.

There are 4 major IP related laws（Law on intellectual property, Law on patent, Law on copyright and Law on trademarks and geographical indications）, which were approved in 2020-2021. They identify software and database as an intellectual property protected by the Law on copyright. There are a number of organizations, which are involved in the intellectual property application, registration, verification and granting process and these includes Association of Mongolian intellectual property agents, Mongolian institute of certified appraisers, Mongolian intellectual property protection association.

Even though the policy and regulation environment is favorable with established institutions in place, in order to adapt to rapidly changing digital environments and landscapes, there is an urgent need and gaps for Mongolia to strengthen legal and regulatory frameworks related to the digital technology product and services（for example, terminology）; increase knowledge on intellectual property to all levels starting from secondary schools; tertiary institutions and at the policy level as well as specific sector such as judicial system; improve public advocacy and outreach of IP; improve the capacity of the IPOM staff, certified intellectual property specialists, specialized valuators/appraisers. As the first step, it is recommended to build a task force team to promote digital market with IP and patent protection in the MDDC.

[1] Shaping our Digital future, Asia-Pacific Digital Transformation Report 2022, UNESCAP.

Mongolia has over 3.4 million of citizens on a territory of over 1.56mln square kms. The information and communications technology infrastructure stretched to more than 48,000 kms connecting all 21 aimags , 330 soums , baghs and settlements. There are four major mobile operators – Mobicom, Unitel, Skytel and G-mobile, which provide services to over 4.5 mln of active mobile users.

The social networks such as Facebook, are not only used for "communications among people sharing common interest, irrespective of location" , but also as means for doing business – selling, trading, advertisements, etc. The digital payment systems, such as Q-pay, MostMoney, SocialPay as well as mobile applications of the banks such as KhaanBank, GolomtBank, Trade and development bank of Mongolia, Khasbank, etc. have become an essential component of everyday life of Mongolians.

There are over 100 software development companies in Mongolia, the majority of which are established companies with 10+ years of experience in software system development, system integration, complex information systems, business process re-engineering, mobile application development, etc. Enterprise architecture planning（ERP）solutions, including human resource management systems, accounting and financial systems, customer relationship management information systems（CRM）, project management information system are developed by these companies and being used by government organizations, business entities and citizens of Mongolia.

There are a number of the associations to unite software development companies, such as Mongolian software industry Association（MOSA）, Chief information officers'（CIO）club, User system' developers' association. The MOSA has initiated and introduced the Mindgolia initiative, a hub of software and applications developed by Mongolian companies. The main purpose of Mindgolia is to provide single window for software and to take the procurement of software into the next phase by reducing expenses and increasing productivity. Currently, it has a registration of over 100 companies and 180 products.

There is an increased tendency for new companies being introduced in the market by developing mobile applications and solutions, including cloud-based. In addition, there is an extensive effort for supporting start-up companies by not only the government organizations, but also by the private sector. The National Information technology park provides incubator services for startup companies, supporting them to develop their business plans, marketing strategy, training the staff, etc. There is also initiative of private companies, for example, M-stars startup initiative supported by Unitel, a mobile operator, which already have second intake of start-up companies for their training.

With this increasing support, there is a tendency for increased software solutions and applications developed. One example is that the Government of Mongolia has issued a degree No.39 from the 1 February 2023, which approved the regulation of providing support for startup and software development business entities. "The purpose of this regulation is to provide tax support from the state to the start-up company registered as a member of the technology transfer center or joint office and the enterprise operating in the field of software production and development in accordance with Article 16.4.1 of the Law on Innovation, and to regulate other relations arising in connection therewith."

One of the main initiatives of the Government of Mongolia is the e-Mongolia platform, which was launched in 2020 and has become most appreciated during Covid-19 situation. It has become one of the highly used by citizens' public service platform. e-Mongolia currently provides over 800 public services starting from simple certification issuance（such as birth certificate issued by the General Authority for state registration）and extended services, such as registration of children in kindergarten, receiving Covid-19 vaccination certification and is used by over 1.2 millions of people and has already provided over 20 millions of services.

Legal and regulatory framework of ICT in Mongolia

The Digital Nation policy has been approved by the Minister of digital development and communications on 18 May 2022, which outlined the directional objectives as 1）infrastructure readiness; 2）development of e-government; 3）information completeness, protection and accessibility; 4）building creative citizens; 5）supporting innovation and production to develop digital economy; and 6）increase competitiveness, productivity and effectiveness.

There are 5 new laws approved by the Parliament on 17 December 2021, which have marked another phase for the development of the ICT in Mongolia.

There is a National committee on digitial development, which was established in 2019 by the decree of the Primer Minister of Mongolia. The National committee is headed by the Chief of Cabinet Secretariat of the Government of Mongolia and comprised from the state secretaries of ministries and representatives of software industry.

The Ministry of digital development and communications has been established from 1 January 2022 on the foundation of the Communications and information technology Authority. It has the policy planning, digital development policy implementation coordination, telecommunications policy implementation coordination, cyber security policy implementation coordination, public administration management, monitoring, evaluation and internal audit and sectoral monitoring departments.

Intellectual property organizations

The Intellectual property office of Mongolia has a long and

outstanding history for over 70 years, initially being established in 1944 as a State commission for New Initiatives of the State planning department of Mongolia. Since then, it has been reorganized 6 times and since 2018, by the decree No. 175 of the Government of Mongolia, Intellectual property office has been setup as an implementing agency of the Government of Mongolia under the Ministry of Justice and home affairs.

Currently, it has 59 employees, which work in Industrial property rights department, Copyright rights' department, Administration management department and Monitoring departments and 3 divisions – finance division, patent and trademarks division and Dornogovi aimags Zamyn uud soum's control and inspection division. (www.ipom.gov.mn). The majority of staff of IPOM have 2-5 years of experience working at IPOM.

There is a National committee on Intellectual property, which has been established by the decree of the Government of Mongolia No. 350 issued on 22 September 22 . The Prime Minister of Mongolia is a Chair of this committee, the Minister of Justice and home affairs its deputy. The director general of the IPOM is a secretary for this Committee.

There are a number of the non-government organizaions, whose functions and activities related to the intellectual property.

- There is an Association of Mongolian Intellectual property agents (AMIPA), which was established in 1996 as an Association of the Mongolian Patent Attorneys and renamed in 2007. Currently, it has 80 members, which are individuals, private companies, research and education institutions and non-government organizations.
- There is a Mongolian Intellectual property protection association (MIPPA), which was established in 2017 by the initiatives of the video content business development companies of Mongolia, such as Univision, Ddish, Ger content, Mongol TV, Bloomsbury pictures LLC, etc.
- There is a Mongolian institute of Certified appraisers (MICA) and unites over 300 specialized appraisers. Initially it was established in 1997, but in 2010 it has been re-organized to setup current MICA. Currently, there are 20 certified appraisers specialized in Intellectual property. They undergone through training at IPOM and were certified by IPOM.

Legal and regulatory framework of Intellectual property

The intellectual property has been specified by the two articles in The Constitution of Mongolia as following:

- "The historical and cultural memorials, as well as the scientific and intellectual heritage of the Mongolian people shall be under State protection"
- "Intellectual valuables produced by citizens shall be the property of their authors and the national wealth of Mongolia."
- The citizens of Mongolia are guaranteed to exercise the following rights and freedom … "the right to conduct cultural, artistic and scientific activities, to engage in creative works, and to benefit thereof. Copyrights and patents shall be protected by law."

The four main laws, which govern intellectual property rights area of Mongolia have been approved in 2020-2021 and these are Law on intellectual property approved in January 2020, Law on patent approved on May 2021, Law on copyright approved on May 2021 and Law on trade mark and geographical locations amended in May 2021.

There are over 20 regulations and rules, which are developed to ensure the enforcement of these laws. In addition, a number of laws have been reviewed in their clauses related to intellectual property. For example, Law on technology transfer, Law on competition, Law on innovation, Law on infringement, etc.

Detailed review has been carried out on intellectual property laws related to digital products and services.

Systems used in IPOM

The following systems are used at IPOM,:

1. IPOM publish[2] – publication of the industrial property database

   The IPOM Publish is the publication provided by the World Intellectual Property Organization (WIPO). Currently, it contains 76,767 trademarks and 2,951 product designs, which are protected by Mongolian law.
2. Intellectual property license registration information system.[3] This system displays information of copyright, new products, effective design, product design and trademark.
3. IPOM copyright – copyright search system.[4] This is copyright search system, which allows to search for copyright product or the name of owner of the copyright. The system is currently being tested, but still allows to display the results.
4. IPOM e-filing system – online application system, which has been used since 2018.
5. Registration system of the copyright agents and brokers.[5] The system contains information of total of 43 agents and brokers, out of which 39 are agents and 4 are brokers. It displays the date when they were issued with certificate for copyright agent/

[2]https://publish.ipom.mn/wopublish-search/public/home;jsessionid=BEFF102EDB0E0F92D2AC638A8E5A6392?0.
[3]http://iplicense.ipom.mn/#/ipom [4]http://copyright.ipom.mn. [5]http://ipbrokerage.ipom.mn/#/ipom.

broker, contact information (phone number, email, address).

6. MGS – category of the products and services. This is a WIPO's IP portal, which allows to search for products and services by categories.[6]
7. WIPO IPAS (World Intellectual property organization's Industrial patent automated system) has been introduced from 2016.

Economic circulation of IP works

The IPOM has conducted a survey among the patent and copyright holders in 2021 with the purpose to define the possibility of making intellectual property works in the economic circulation. According to this survey, there were 14,197 registrations in intellectual property information system, out of which 5,996 are patents, 4,527 designs, 3,674 trademarks. However, only 42.4% of patents, 31.8% of designs and 25.8% of trademarks licenses were protected having valid intellectual property rights.

The report showed that 81% of holders of new product patents use their patents to manufacture and trade and 19% as a license or by contract as a way of economic circulation of their patent. As per the type of the patent holder, only one of these patent holders was an individual and the rest are business entities. When asked about the inability for economic circulation of the patent, it was said that there is a no knowledge, experience or information on how to do that, lack of the investment and financial support, due to the legal environment and other reasons. The general findings of the report are as following:

1. Even though the IP license has been received, but could not protect the product.
2. If the copyright holder is individual person, then, he/she may not be able to get benefits.
3. Even though the IP certification has been received, when there is a similar product is introduced to the market, the state (government) or Intellectual property office does not do their job, do not support IP certificate holder, sometimes work closely and get supported by the large companies and do not support small entities and individuals.
4. Do not know how to make the IP product into the economic circulation.
5. Cannot protect IP product, because it can be easily replicated and produced in other countries and sold wholesale there.

Intellectual property of digital technology products and services.

Copyright

There are Mongolian 14,600 granted applications for copyright, including 1,310 granted applications for software and 5 granted applications for database. Figure 2 7 represents the number of the granted applications for copyright and those of software and databases for the past 3 years.

The total number of copyrights issued by categories in 2021, which is produced by the National statistical office (NSO). There are over 996 copyrights issued in 2022, out of which only 88 are computer software and 4 databases. Considering that there are over 100+ software development companies and more start-up companies coming in the market, the number of the copyrights issued for the software is comparatively low – 8%.

Patents

There are 100,588 Mongolian patents registered in the IPOM public, industrial property information

database, out of which 8,039 patents, 3,741 industrial designs and 88,808 trademarks.

Industrial designs

ICT and Audiovisuals represent only 1.16% compare to all other industry. This 1.16% ICT and Audiovisuals displayed 44 designs, out of which there were 35 inactive, 6 rejected and 3 active designs. Among these 3 active industrial designs, there were eco phone holder designed by 3 Mongolians, door phone by Korean corporation and plated springs. There were 5 rejected applications, all of which were produced by Mongolians between 2014-2018, such as smart notebook, GPAY – ticket transaction machine (kiosk), Gerege payment machine (kiosk)(large and small), ticket transaction kiosk machine and dispensing kiosk machine. There were no reasons for rejections.

Utility models

The chemical sector represents 38.19%, the electrical engineering – 4.14%, instruments – 9.69%, mechanical engineering – 20.57%, non-classified – 17.63% and other fields 9.78%. Among electrical engineering sector, there were a number of active patents issued to Mongolians in the ICT related sector such as I-pass announcement information board, registered on 2 Feb 2023, Smart traffic lights issued on 27 July 2022, Mobile home phone system issued on 3 March 2020, kiosk machine issued on 28 Dec, 2020.

Trademarks

Out of 88,808 trademarks registered in Mongolia, the following graphs displays trademarks filling by industry sector as following: (12.59% agriculture, 11.21% business services, 4.45% chemicals, 11.32% clothing, 6.91% construction, 15.41% health, 6.10% household equipment, 10.71% leisure and education, 13.42% research and technology and 7.89% transportation).

There are over 7,000 trademarks registered under NICE classes 9 (computers), and 38 (telecommunications) and includes

[6]https://webaccess.wipo.int/mgs/

trademarks for example, for Amar sankhuu（Amar finance）, Ondo space, Mobi insurance, Mobi life insurance, Mongolian data club, Go+, Unitel, Ger Internet（both registered）,Tsakhim, etc.

The case studies of China, Korea, Singapore, Thailand and Estonia have been conducted and presented in the report.

2. Challenges, opportunities and policy recommendations

1. *Insufficient knowledge on the IP related legal and regulatory framework.*

   As it was expressed during interviews held with the representatives of IPOM, National IT Park and some of software development companies, there is a lack of knowledge on the IP related legal and regulatory framework and some of them do not have clear understanding on how to register their products, what are requirements for registration and what are the benefits of this.

2. *Insufficient knowledge on the copyright among the software companies.*

   The software is explicitly specified in the Law of Mongolia on copyright as an item for the protection in 6.1.10. computer programs, 6.1.12. databases and in Article 22. Copyright in software program. Not many people are aware of this. Moreover, according to the Law of Mongolia on copyright, Chapter 3. Copyright and its term Article 10.1. Copyright in scientific, literary and artistic works shall arise from the moment the work is actually created and acquired a material form. This means, the computer software or database is already considered as copyright work when it's created. It does not have to be registered as copyright work at IPOM and get certification. And such, not many software products are registered with IPOM.

3. *Lack of knowledge of valuation of software.*

   There are 20 certified intellectual property valuators. But because, there is insufficient information about the software sector, it's difficult to conduct valuation of the software either its by cost, market-based or income based approach.

4. *Lack of knowledge on copyright among the juridical systems.*

   There were cases in the court, when the court ruled in the favor to the person who had certification from IPOM on copyright of software, even though the software was produced by person who did not have certification, but had a proof that he/she was the one who has developed software. The court officials rely on the official documents, and there is a lack of knowledge on intellectual property rights.

5. *Insufficient intellectual property specialized experts and evaluators on digital technologies.*

   There is no established framework for evaluating software. There is a specialized evaluators institution, however, they evaluate software based on the how many persons worked to develop software and how many man-months were spent for developing the software. And this is insufficient to define the value of the software. Therefore, some of the software companies approached international valuation companies and experts for this to have adequate valuation of the software.

Proposal of policy and regulatory framework

- Develop and implement Action plan directed to the manufacturers and producers to increase their knowledge and awareness on IP rights and legal and regulatory framework.
- Develop and implement plan of joint activities with other ministries and agencies on introducing intellectual property rights into the production and increase its economic value. This applies to the Ministry of digital development and communications in relation to the digital technology products and services, in particular, development of terminologies, development of policy and regulatory documents related to digital technologies, training of specialists with experience and knowledge on both areas – digital technologies and intellectual property, etc.
- Cooperate with the sectoral professional associations such as Mongolian software industry association（MOSA）and develop joint action plan for cooperation, which includes organization of regular trainings on intellectual property rights（particularly on the copyright）, developing framework for valuation of the software, education of users of the software and applications.
- New terms and terminologies are being introduced and they need to be translated as well as make changes into the legal and regulatory framework in relation to new digital technology products.

Public advocacy and public outreach:

- Develop plan and organize public media outreach programs on regular basis about the intellectual property rights, protection and benefits.
- Enforce the introduction of intellectual property and copyright related topics into the curriculum of universities at all levels.
- Develop and implement the training program for the civil servants at the Academy of Management to improve the knowledge and understanding of IP by the civil servants. This also applies to training for judges and court officials.
- Develop and implement plan to introduce about the IP and CP to the children from their early childhood. This could be a series of short movies to give them knowledge and understanding about the IP and CP as well as to promote them to be inventors themselves.
- Need to improve the knowledge and awareness of intellectual

property among the judicial system staff, particularly, when they are dealing with the complaints related to IP.

- Develop and organize training on valuation of IP (specifically for the software) for the evaluators and organize training for valuators on the software development process.

Investment and financing

- Identify potential opportunity for supporting patent holders with discounted loans, grants and provide guarantees for the patent holders through looking into existing government special funds or other means;
- Define investment policies which will support for the creation of economic value for the patent holders.
- Define a favorable legal and regulatory framework for the intellectual property valuation.

Human resource capacity building

- There is a need of educating and training software developers and to engage them in intellectual property review or valuation process.
- There is a need of improving capacity of the certified valuators, by organizing workshop/seminars to exchange knowledge and experience with other countries of similar development phase.
- Training center on IP can be established at the IPOM to conduct regular training about the IP, process, etc. This training do not have to be a certification training, rather general knowledge improvement, understanding of IP and awareness about the IP process, benefits, etc.
- Regularly organize capacity building activities for IPOM staff.

International cooperation

- Organize a regional (landlocked developing countries) workshop to share experience and knowledge of countries on developing, implementing and enforcing intellectual property rights legal and regulatory framework for the digital technology products and services. The potential topics could cover digital technology products and services copyright enforcement, evaluation of software products, training of staff at IPOM, specialized IP institutions.
- Conduct extended research comprehensively to cover land-locked countries and make more detailed study on the legal and regulatory framework of these countries and their experience in dealing with intellectual property rights of the digital technology products and services.

3. Conclusion

1. There is certainly a sound legal and regulatory framework of IP and CP in Mongolia with the IPOM, supporting laws and regulations as well as the mechanism in place. The IPOM has become a member of World Intellectual property office (WIPO) in 1979 and have been actively engaged in WIPO activities and benefitted from this membership. This applies to the access to WIPO online resources. However, there is a need to make this information widely known among general public and organizations, including software development companies.
2. The IPOM itself provides with information on copyright products and services to public through not only the website, but also through enabling publicly access to their open systems, such as information system for intellectual property licensing registration, registration system of intellectual property agents and brokers. The list of the licensed intellectual property agents is available on IPOM website and it can be seen by categories (individuals, business entities, non-government organizations). However, not many people are aware about this. Therefore, there is a need of an extensive public outreach, public advocacy programs to provide information to general population, to pupils of secondary schools, to students and teachers of universities as well as to the civil servants of the government organizations. The specially designed training programs can be introduced at the Academy of Governance of Mongolia for civil servants as well as for the judicial system' staff.
3. The IPOM is currently an implementing agency of the Ministry of Justice and Home affairs along with the police, border protection, court enforcement and similar enforcement organizations. Therefore, the approach to IPOM is the same as for those enforcement organizations. There seems a need to change this approach.
4. The process of application for intellectual property rights (copyright, patent, trade marks) is pretty straightforward and there is an online system for registering application, called IPOM e-Filing system. The applicant needs to get access to system from IPOM office and fill out all necessary forms online without the need of visiting IPOM office. The IPOM still receives applications in-person. However, in relation to the application for copyright for software, there is not sufficient experts or resources at IPOM to review the source code of software, etc.
5. The whole process for registration, verification, granting and protection of intellectual property and copyright takes up to 2 years, depending on the completeness, complexity, etc. There is no special process for digital technologies and products.
6. The number of granted patents have been low compare to the applications. This may be due lack of knowledge, experience and information on how and what kind of documents need to prepare and submit applications to get it approved. There seems to be need for the extensive public advocacy works. Integration of the intellectual property related topics in the

curriculum of universities would be beneficial for potential patent applicants. In addition, regular public media campaign would bring more attention to IP and CP in Mongolia. The organization of the IP related training at IPOM itself could boost the public awareness on IP rights.

7. There was no information on Mongolian intellectual property and copyrights at the international property right index（IPRI）– it was marked as “undefined”. It could be beneficial for Mongolia to share its IP and CP data and information with IPRI, so that Mongolia can compare its development with other countries and be able to take actions and measures to improve its status.
8. The valuation of the software is underdeveloped. There is a Mongolian specialized evaluators institute, which has 20 specialized valuators on intellectual property rights. Considering that some software companies used foreign organizations for valuation of their software, there is a lack of knowledge and skills among the Mongolian valuators on performing appraisal of software. At the same time, the software companies need to learn to make their information and data open and transparent.

Reference

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