

SOCIAL SCIENCES & HUMANITIES

Journal homepage: http://www.pertanika.upm.edu.my/

Digital Era and Intellectual Property Challenges in Malaysia

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ABSTRACT

The world is undergoing a digital transformation where everyday connections are done among people, businesses, data, and processes online. The digitalisation is taking shape and undermining conventional notions about how businesses are structured, how firms interact and how consumers obtain services, information, and goods. Issues of piracy and infringement of IPRs raise concerns surrounding the enforcement of legal measures for (IPRs) protection. The paper seeks to explore the challenges of IPRs protection towards the world of digitalisation. This research utilities secondary data and semi-structured interview with government officials who are directly involved in the IPRs. The findings reveal that the challenges dwell in the issues of the rise of technology which requires advanced technology to cope with it, the lack of enforcement officer to monitor the entry point to the country, the issues of cross border where the agencies need to cooperate with international agencies, lack of awareness among the public, territorial limitation and the piecemeal of the institutional framework. Finally, recommendations on how to improve the enforcement are offered.

Keywords: Digitalisation, intellectual property rights, policies, Malaysia

ARTICLE INFO

Article history: Received: 05 May 2020 Accepted: 12 March 2021 Published: 17 May 2021

DOI: https://doi.org/10.47836/pjssh.29.S2.14

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INTRODUCTION

In the digital area, most of the economic activities have been digitalised. Every day online connection among people, businesses, devices, data, and processes is taking place at a fast pace which undermines the conventional style of connectivity (Ghazali et al., 2017). The

effects of technologies and platforms (such as the Internet, artificial intelligence (AI) robotics, 5G, computational biology, the Internet-of-Things or IoT, data analytics, and computational analysis) give rise to whole new industries that have changed our lives fundamentally. Looking at the current situation, the digital transformation is happening at breakneck speed.

For example, for transportation services, many customers prefer using 'Grab' compared to a taxi. Previously, if you needed a taxi you would need to call the taxi driver to place a booking, but with 'Grab' you just need the applications to place your booking through the application installed on your mobile phone which is cheaper and more convenient. Many benefits that can be reaped from the digitalisation of businesses particularly cost-cutting, efficiency, effective operations, lack of human error, safe data storage that enables data to be analysed which benefits the consumer as well as the businesses (Abdul Ghadas et al., 2015). Examples of companies that benefit from the advent of digitalisation are Amazon, Facebook, Alibaba, Google, and Netflix.

On the other hand, Intellectual Property Rights (IPRs) are seen by economists as a policy tool to ensure the market is efficient and competitive despite the growing innovation and creative activities. IPRs are defined as the right to use and sell knowledge and inventions- as one category of intangible assets that may be owned by a firm, some others being customer goodwill, human skills embodied in their workers and good management practice.

In simpler terms, IPRs confer upon its owner an exclusive right to its creator of the product. There are a few types of IPRs such as patents, industrial designs, copyrights, trademarks, geographical indications, and confidential information. In the new digital or high-tech environment, IP protection, awareness and actual use of IP assets as an integral part of business strategy in achieving competitiveness have become an absolute necessity. As the World Intellectual Property Organization (WIPO) publication explained: "The history of the human race is a history of the application of imagination, or innovation and creativity, to an existing base of knowledge to solve problems... imagination feeds progress in the arts as well as science...intellectual property (IP) is the term that describes the ideas, inventions, technologies, artworks, music, and literature, that are intangible when first created, but become valuable in tangible form as products."

Due to the rise of technology, counterfeiting is a massive drain on the economy. Counterfeiting is an activity of imitation to deceive or fraud which can lead to unconscionable bargain. Nowadays, the issues of unconscionability bargain has gone wider (Alias & Abdul Ghadas, 2012). The range of counterfeit items is luxury items such as branded consumer products, spare parts, batteries, and business-to-business goods to common consumer goods such as food, pharmaceuticals, cosmetics, and toothpaste. As long as the product has a logo, it is exposed to the danger of counterfeiting. This means someone else's

efforts of creativity can be stolen without having to undergo the process until the final product exists.

The law has traditionally lagged behind commercial and technological development; thus, the issue of piracy and infringement is a major flipside to this development. There is a close nexus between IPRs and the digitalisation of businesses that is inevitable due to the rapidly changing nature of the technology. Therefore, it is the objective of the research to explore the challenges of IPRs protection towards the world of digitalisation in Malaysia.

MATERIALS AND METHODS

This section highlights the literature and methods utilised in this research.

LITERATURE REVIEW

IPR and Digitalisation

Intellectual Property Rights or IPR is referring to the legal protection given to the creativity and innovation of a person as the creator of the products or services. In this context, legal protection is referring to a set of laws such as patents, trademarks, industrial designs, copyright, geographical indications, and layout designs of integrated circuits. As the creator of the product, the creator usually possesses exclusive legal rights over the use of his/her creation for a certain duration of time. The IPRs allow the creators of intellectual property (IP) to gain financial benefits for creating the products or services. At the same time, the creator of the products or services also has an exclusive right to prevent others from using, dealing or tampering the product or services without the consent of the creator. For instance, a patent owner can prevent the production of the patented good or the registered trademark owner can prevent others from applying the names to goods or services (Ramaiah, 2017).

Due to the rapid development of the digital area, IPRs are important for economic growth, innovation, and competition. Currently, the world is in the midst of a digital transformation, with 40% of the world population now connected to networks, an increase from 4% in 1995. (Li & Lin, 2018). In Southeast Asia in particular, nearly 80% of adults in Indonesia and around 20% of adults in Lao PDR and Cambodia have shown the interest of digital technologies. The connection among people grew due to the rapid growth of mobile broadband where it enables people to get connected to digital networks and digital services (Li & Lin, 2018).

Digital transformation has been the forefront of changing how the world works, particularly businesses. The importance of IPRs policies with regard to digitalisation has been contentious such as in the case of pirated music, film and software. Literally 'digitalisation' means technology has become part of people's life activities as it alleviates the problems or challenges experienced by people in their everyday lives. Therefore, digitalisation refers to the amalgamation of material or information into a digitised form. Recently, TechCrunch, a digital economy news site, acknowledged

the rapid development of the world of digitalisation in our everyday activities such as "Uber, the world's largest taxi company, own no vehicle. Facebook, the world's most popular media owner, creates no content. Alibaba, the most valuable retailer, has no inventory and Airbnb, the world's largest accommodation provider, owns no real estate... Something interesting is happening." (Deloitte, 2018).

In another context, 'digitalisation' refers to the process of computerising systems and jobs for a more efficient organisation and use. Mesenbourg (2001) categorises 'digitalisation' into three elements such as a) E-business infrastructure such as hardware, software, telecommunication networks and human capital b) E-business, namely how business is run and any process that a company manages using a computerised system and c) E-commerce, the selling and buying of goods online.

Studies have shown that industries that are more technologically advanced will be more competitive as they focus on producing technologically advanced systems, platforms, and activities. On the other hand, industries that are not technologically advanced can only participate in world trade by exporting products that are labour intensive and then only proceed to produce higher value-added activities. However, it is important to note that both industries benefit from the exchange which contributes to global trade (ERIA, 2016). Research also suggests that major industries such as pharmaceuticals and semiconductors regard intellectual property as a fundamental aspect in the growth of their companies. For

instance, in the semiconductor industry, major companies use intellectual property rights to cross-license portfolios and protect their liberty to work, instead of focusing to regain R&D investments. Smaller companies use intellectual property to signal commercial potential to venture capitalists (Hall & Ziedonis, 2001).

Digitalisation: Piracy and Infringement Issue

Due to the development of digitalisation, the issue of piracy and infringement has grown on a global scale. The form of piracy and infringement issues that are happening now are more intangible where it could be done easier and faster. As pointed out in the Financial Times, 2016 "Pirates are more adept at using new technologies than those trying to shut them down." Michael Evans, Alibaba's president, has asserted, however, that Alibaba has "the tools to change the way the war is waged...using data and technology...to defeat the counterfeiters... If Alibaba delivers, it will be a game-changer by stopping counterfeiting at source rather than at platform level." (Monstert, 2018).

Counterfeit products are often at a lower quality from the original products. This means the products that are sold under another brand's name with (or without) the authorisation of the owner of the product. In the eyes of the law, the seller of the product has infringed the IPRs law such as trademark, patent or copyright of the brand owner. When consumers buy counterfeit products, including digital content, distributed by or benefiting organised crime, they are contributing to financing their dangerous

and illegal activities. Besides, counterfeit medicines may create wider threats to society by exposing the public to health risks (Setiati & Darmawan, 2018). The profit from intellectual property infringement is a strong lure to organised criminal activities as a revenue source to fund their unlawful illegal activities (Jankovic, 2017).

In addition, the counterfeiting activities negatively impact economic growth where it leads to a revenue loss of the country where tax cannot be imposed on the illicit trader. Despite revenue loss, it also poses a serious threat to the health of consumers because the goods are produced and distributed without the need to pass any quality standard. Asia is often targeted to be a favourable place for counterfeit trade because it is so easy to have access to transportation via maritime and manufacturing platforms that are highly active due to cheap labour and costs. In 2018, The Edge Market reports that an alarming level of counterfeiting activities in South East Asia can be found particularly in Malaysia (Li & Lin, 2018).

Based on past studies, the issues and challenges arise from the perspective of IPR protection during the digital era can be summarised as follows:

Challenges of IPR Protection During the Digital Era

The Volume of Imitation Goods is Still Prevalent. The issue of global counterfeiting becomes more serious with the rise of online shopping (Shahbaz et al., 2019). Infringing activities normally happen in the free trade zones area. The activities may include manufacturing, storing, assembling,

exporting, re-exporting, re-labelling, and repackaging of imitation goods to conceal the country of origin. In Malaysia, although the laws grant a power to the Royal Customs Office to take action against the counterfeiters by asking the operators to provide information on any activities at free trade zones, the issue of the lack of control over physical and documentary matters in free trade zones trigger the usage of such area for storing and moving imitation goods by the counterfeiters (European Commission, 2018).

On the other hand, Deloitte (2017) stresses that counterfeiters normally work in a complicated logistic system that involves ever-changing distribution routes to escape from authorities. This situation may exist in most countries in the world particularly those with low investment in R&D and enforcement of IPR. In many instances, it is difficult to identify the counterfeiter as it is often unknown to the brand or content owner.

Online Piracy becomes a Developing

Conundrum. Most of the countries without established protection of the IPR system seem to have higher rates of online piracy (Priest, 2006). In other words, the stricter the IPR protection enforcement, the lower the prevalence of online piracy. Setiati and Darmawan (2018) highlight that as access to the internet has broadened, illegal downloads of many media content, either for private use or for reselling, have become open to the public. The infringement happens in various forms of piracy which

includes music, movie, software, and books. There is no appreciation to the creator or the owner notwithstanding the high cost incurred to obtain the right.

Capacity Building of The Officials and Institutions Need to be Elevated. Not all the countries in the world have a mature IPR system, which makes the administration and enforcement require assistance from various stakeholders especially from private IPR specialists' groups (Deloitte, 2017). Therefore, capacity building of the officials and institutions remains crucial in developing a conducive IP environment, as well as raising public awareness on IP issues and providing the right skills to identify and support the innovation that contributes to economic growth. The procedure and registration of IP should accommodate the needs of the creator/owner in terms of timeframe and process. Clear procedures and processes will ensure the effectiveness of the IP system and inevitably could encourage more registrations of IPs.

Apart from that, border measures enforcement is also a crucial issue. The customs authorities need to be equipped with relevant and up-to-date skills and knowledge on IP particularly with the era of digitalisation. Therefore, IP experts may be required to provide such training and disseminating knowledge to relevant authorities. Combating corruption may also be important for effective enforcement of trademark through border measures (Mukhtar et al., 2018).

Transparency on the Regulation and Procedures. Deloitte (2017) emphasised the importance of transparency in government regulations as the IP matters is a global issue and may involve more than one country. An open and flexible regulatory framework is critical to accommodate cross border enforcement. All regulations should also consider public comments and should be administered in a uniform and reasonable manner. Besides, modes of alternative dispute settlements should be properly addressed and explained to ensure effectiveness by eluding technicalities of procedural law (Mukhtar et al., 2018).

Awareness among Stakeholders. Deloitte (2017) highlighted the importance of awareness among all stakeholders such as governments, private sector experts and the public which were capable of assisting to safeguard IPRs locally and globally. This can be done through the sharing of information and educations with the consumers. Furthermore, global sharing of IP risks includes the tactic of bad actors and best practices, understanding IP issues through public campaigns and other communication strategies are also critical to promote awareness among the stakeholders. Lee et al. (2019) stressed the importance of educating students upon entering college about the ethical and legal use of IPRs to provide them awareness and capability of observing the integrity of digital media.

Institutional Framework for IPRs in Malaysia. Malaysia has shown strong support for IPRs protection both at the national and international levels. The 26th April has been declared as the annual IP Day of Malaysia. The motto 'IP as a current economic spinner' MyIPO was established in March 2003, to regulate matters relating to IP. Over time, online registration and IP courts are introduced and developed. The National Intellectual Property Policy (DHIN) has also been introduced by the government and the main purpose is to leverage IP as a new growth engine to improve economic and social prosperity. Agencies have been established such as MyIPO (Malaysia Intellectual Property Corporations) and IAM (Intellectual Asset Management) - comprise of 3 value chains such as IP creation, IP protection, and IP commercialization. There are various ministries or agencies which are responsible to IPRs issues in Malaysia such as the Ministry of Communication and Multimedia Malaysia (MCMM), the Malaysian Administration Modernisation and Management Planning Unit (MAMPU), Ministry of Domestic Trade, the Cooperatives and Consumerism (MDTC), and Ministry of Home Affairs (MOHA), supported by the Royal Malaysia Police and the Intellectual Property Corporation of Malaysia (MyIPO).

Besides, Malaysia has also established specialised IP enforcement units, including the Special Internet Forensics Unit (SIFU) in Malaysia's Ministry of Domestic Trade, Cooperatives, and Consumerism which is responsible for IP enforcement that has also

been proven to be an important catalyst in the fight against counterfeiting and piracy. Furthermore, IP enforcement coordination mechanisms and agreements to enhance interagency cooperation are also developed. In deterring and preventing networks that distribute counterfeit and pirated goods, the progress is shown by an inter-agency, namely the Special Anti-Piracy Task Force. At the international level, Malaysia is a member of the World Intellectual Property Organisation (WIPO) and a signatory to the Paris Convention and Berne Convention which regulates these intellectual property rights. Also, Malaysia is also a signatory to the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) signed under the auspices of the World Trade Organisation (WTO).

Malaysia's intellectual property laws are in conformance with international standards and have been reviewed by the TRIPs Council periodically. Intellectual property protection in Malaysia comprises of patents, trademarks, industrial designs, copyright, layout designs of integrated circuits, and geographical indications. Patent protection is governed by the Patents Act 1983 and the Patents Regulations 1986. A patent is an exclusive right granted by law to the creator to prevent others from benefiting from his or her patented invention without the creator's consent. The scope for patents is wide, but it does not include ideas because the ideas must be transformed into the following; a process or method, a machine, a manufactured article, a new composition and an asexually reproduced and new

variety of plants. Trademark protection is governed by the Trade Marks Act 2019 and the Trade Marks Regulations 1997 where the Act protects registered trademarks and service marks in Malaysia. The scope for the trademark consists of words, letters, numeral devices, brands, heading, labels, tickets, names, and signature. At the same time, industrial design protection in Malaysia is governed by the Industrial Designs Act 1996 and Industrial Designs Regulations 1999 which gives protection to the registered industrial designs. It protects the feature of configuration, shape, pattern or ornament applied to an article by any industrial process or means. The Copyright Act 1987 provides comprehensive protection for copyrightable works. It extends to various types of works such as literacy works, dramatic works, artistic work, drawing, musical work, recordings, broadcasts, and finally layout. The Layout Designs of Integrated Circuits Act 2000 provides for the protection of layout designs of integrated circuits based on originality. A layout-design of an integrated circuit is a three-dimensional disposition of the elements of an integrated circuit and some or all of the interconnections of the integrated circuit or such three-dimensional disposition prepared for an integrated circuit intended for manufacture (MYIPO). The Geographical Indications Act 2000 protects the origin of the goods which possess unique qualities that essentially represents the goods' geographical origin.

The score of IP has shown a commendable improvement as it has slightly decreased from 6.44 in the year 2016 to 6.4 in the year

2017. The overall score has also decreased from 6.75 in the year 2016 to 6.6 in the year 2017. Notwithstanding this decrease, Malaysian authorities have continuously expanded their efforts in combating online piracy which includes access to piracy websites, removing infringing content on domestic sites, and handling raids and arrests of Malaysians either operating or posting links to sites with pirated content.

The Malaysian government understands the importance of intellectual property not just as a new element that will propel the nation's economic and social prosperity, but it will also protect Malaysian innovations which will develop Malaysia into an international ICT hub. Currently, in Malaysia, it is self-evident that the mushrooming of 'digitalisation' of many services are online such as transportation, banking, products, and goods. Businesses are becoming more competitive. Thus, it is high time for the study to be conducted, as the growing world of 'digitalisation' particularly in the business industry and at the same time, IPRs policies are necessary pillars for the market to be efficient and competitive.

RESEARCH DESIGN

This study utilised secondary data based on library research together with the qualitative methods including interviews with relevant authorities and practitioners were adopted. Articles, books, case law legislation, and subsidiary legislation were the references. A semi-structured interview was utilised to interview the key players

of the IPRs protection. Key respondents were from the Ministry of Domestic Trade, Co-operatives and Consumerism (MDTC) and the Intellectual Property Corporation of Malaysia (MyIPO). The respondents consisted of Senior level officers which included director and senior enforcement officers. For confidential and ethical reasons, the names of the respondents and the respective organization are not disclosed in this paper.

Respondents were carefully selected to represent an important cross-section of the industry. Therefore, the credibility of the study has been achieved including these professional and intellectually qualified respondents. All the interviews took place from May until June 2019. The questions asked during the interviews were carefully framed to reflect the main IPRs concerns of that particular stakeholder. The information obtained was analysed from the segment of challenges from the IPRs perspective. Based on the views of respondents during interviews, several themes were identified. These themes were based on responses that were corroborated by more than one respondent. The thematic findings reveal the challenges faced by authorities in addressing IPR protection during the digital era which is discussed in the next section. The findings in the semi-structured interviews, as well as the data from the current literature, were analysed to draw out the conclusion and to arrive at policy recommendations.

ANALYSIS AND DISCUSSION

The findings of the interviews reveal that the challenges of IPRs enforcement during the digital era are associated with the rise of the technology which can be summarised as follows:

Entry Point Enforcement

In specific, the offence committed involves advanced technology which requires high technical skills to prove, in which the government is still lacking in this expertise. Based on the responses given by the respondents, the problem is due to their insufficient knowledge on technical skills. One respondent commented:

"We have limited skill because most of us are trained and equipped ourselves with skills within our scope only...for example...when you came back from Vietnam for example, you just need to pay tax, custom officers focus on tax only, not the skill to trace forfeited items."

Therefore, it shows that entry point enforcement remains challenging as the customs officers are not trained to identify the counterfeit items, and instead, they are more interested to impose a tax that is within their portfolio. As mentioned by Mukhtar et al. (2018), the customs authorities needed to be equipped with relevant and up-to-date skills and knowledge on IP particularly with the era of digitalisation. This will include an alliance with the countries that have an established IPR system where IP experts in

those countries may be required to provide such training and disseminating knowledge to relevant authorities.

Cross Border Enforcement

The challenges become higher for cross border enforcement. In these particular circumstances, collaboration from the respective authorities in the country where the offences are committed is highly demanded. Many of our cases are lost at the cross border due to a lack of collaboration with the respective country. The following statement was expressed by one of the interviewed respondents:

"In the case of Ariani scarf, the unauthorised seller of Ariani will go to Vietnam and print the scarf brand Ariani and then sell it back to Malaysia at a cheaper price as compared to its original price. However, Ariani cannot sue the producer in Vietnam because the IPRs law in Vietnam was not strongly enforceable. So Ariani lost any IPR right of their own product at cross border."

Although Malaysia is also a signatory to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) signed under the auspices of the World Trade Organisation (WTO), in many instances, it is difficult to get full cooperation from the respective country. The settlement of this case is highly dependent on whether there is a good relationship between the state who owns the IPR and the state where

the offences are committed. However, not many of the countries signed to the international conventions, therefore the border enforcement measures will allow the right holders to obtain cooperation of customs administrations so as to prevent release of infringing imports to free market. (Lakshmi & Patro, 2009)

High Technology Skills

Bad actors typically utilise technology to flood pirated and counterfeit products on the online market., whereby they are able to produce perfect copies at unparalleled volume and pace contrasts sharply with the sluggish and shaky way good actors are using technology to authenticate their product across supply and distribution chains. Following this the interview reveals that one of the challenges of IPR protection during the digital era is lack of expertise in high technology to handle many cases of piracy and infringement issues. Many of the cases cannot be traced or missed due to the lack of professional skills to handle cases as high technical skills are involved. As commented by respondent:

"We already equipped ourselves with technology skills for example when the case involved broadcasting equipment like android tv boxes or cases like pirated software..but the law breaker seems to be more advanced in terms of technological skill that made it difficult to trace the infringement..."

Therefore, specific training or courses seems to be inevitable so as to ensure the enforcement officer is capable of discharging the duty very well. Following this, collaboration with relevant technical experts are necessary. Besides, right-holders have responded to the issue by designing and implementing a remarkably similar array of digital resources. In order to produce fruitful outcomes, voluntary collaboration and support are needed between online platforms, right holders and administrative authorities. Relying on complete remedy from a legal protection seems inadequate as the law also appears to have traditionally fallen behind commercial and technological development (Mostert, 2018).

Collaboration and coordination interagencies-In terms of enforcement, many agencies were involved to execute any enforcement activities such as the Police, MCMC, Cyber Security and KPDNHEP.As explained by the respondents:

"Once a complaint is received at KPDNHEP, we must take action immediately. For example in the case of telekung Siti Khatijah or well known as SK....for us as the enforcement officer to conduct a raid; we need to collaborate with the police as well as the owner of SK to bring her to the ground to identify the fake item."

This issue was also discussed by Delloite (2017) where it mentioned the need of collaboration between inter agencies as not all the countries in the world had a mature IPRs system. In Malaysia particularly,

different ministries have different portfolios and jurisdictions over IPRs matters. For example, cyber security has power and skill in tracing the security breach, however in terms of enforcement, collaboration should be extended with the Police Department to ensure the criminal is brought before the court of law. Therefore, collaboration and coordination between inter agencies are inevitably needed.

Territorial Limitation

The interviews revealed that IPRs were by nature, based on territorial limitation, which meant that IPRs within a country was independent of any such rights existing in other countries. The protection is unique because IPRs is offered and governed by the respective country's legislation. This is reflected in a statement by the responded:

"In the case of our prominent film producer Datuk Yusuf Haslam, he found out his film was broadcasted in Uzbekistan.... he is not happy... and complain to us to take legal action. Unfortunately, our country does not have good working relationship with Uzbekistan to handle this situation. Thus, no action can be taken because of the different legal system."

The principle of territorial limitation is rooted in the municipal and international law has further created a complicated environment in case of protection and infringement of IPRs. It was commented by Ginsburg and Lucas (2011) that

"Each country determines, for its own territory and independently from any other country, what it is to be protected as intellectual property, who should benefit such protection for how long and how protection should be enforced."

Rotstein (2011) further highlighted that there were inadequacies to resolve multijurisdiction intellectual property disputes at international level; "while international conventions allow rights holders access to other national systems and provide a platform of uniform standards, it is unclear whether they extend to conferring jurisdiction regarding multi-jurisdictional disputes".

Lack of Awareness

It is admitted that there is a low level of awareness about IPRs protection particularly at the individual level where it requires more effort to be done by all the stakeholders. One of respondent commented:

"Public still not aware of this issue of IPR as it involves technical knowledge to fully comprehend the infringement issue. Some people easily claimed that they used the forfeited item for themselves...for example...if you copy one CD, it is fine for your personal consumption, but when you copy more than 3 CDs to distribute to others, it will breach the law even without intention..."

There are quite a number of awareness programs on IP which are organised at the national level. The programs utilise several platforms to reach the target which includes social media, electronic media and also newspapers. Schecter (2019) opined that although in some countries the IP awareness was increasing, however IP understanding was not following the same trajectory. As awareness and understanding are two different matters, emphasis should be given to the latter as the general public does not appreciate what IP is, how it is acquired, and how it achieves its intended purpose of promoting innovation. The reason behind this is due to the fact that IP is a complicated subject and articles often refer to different types of IP confusingly. Therefore IP awareness and understanding is very important to establish public trust and respect for IP. Besides promoting IP awareness via national campaign, effort should be enhanced through education by making a silibus in primary or secondary level nationally.

CONCLUSION AND RECOMMENDATION

The era of 'Digitalisation' has been happening across borders and seems to be limitless. Imagine less in many parts of our lives from business, devices, data, and processes. The era of 'Digitalisation' creates innovation through creativity and produces wealth accumulation. On the other hand, IPRs protection is the gatekeeper to ensure protection is given particularly to the issue of piracy and infringement of rights. It is

important to note that the findings indicate that despite the rapid technological growth, the challenges are also moving faster and faster in parallel with its development.

Are the above findings unique to Malaysia? They are certainly not. The entry point, cross border enforcement, the institutional framework and lack of awareness among the public are the main obstacles to its development. Reform is necessary to ensure better protection for the rapid growth of digitalisation is in line with the protection offered by the IPRs policies. Each sector cannot stand alone as it needs a collaborative effort to ensure that the speed neck innovation of digitalisation is well protected by the IPRs.

Based on the findings of this study, with a collaboration on issues by multiple stakeholders interviewed, point to several important conclusions. Overall, they suggest that many of its challenges dwell around the issues of the rise of technology itself. The findings indicate that the entry point is lacking the expertise to monitor counterfeit items, where many counterfeit goods were brought in easily. The challenges at the crossborder enforcement are in peril particularly to get cooperation from the respective state. The settlement is highly dependent on the good relationship between the state who owns the IPR and the state where the offences are committed. IPRs protection is closely associated with digitalisation as the technology needs protection for it to evolve further. Lack of professional skills to handle cases of piracy and infringement have negatively affected the creativity and innovation of the respective industry. In terms of collaboration of enforcement, many agencies are involved which require coordination of inter-agencies. Finally, public awareness is crucial as a medium for educating the individual. IPR protection can only be appreciated and valued if there is enough knowledge about its importance.

What policy implications emerge from these findings? First, it is recommended to adopt best practices on customs including investment in capacity at border and customs operations including the use of the latest technology. Second, it is fundamental to establish formal mechanisms for greater cooperation with the private sector, such as right owners, online platforms, IP lawyers and IP consultants. In addition, it is also recommended to introduce customs recordal systems where those do not exist. The recordal system allows the IPR owner to actively record its IP registration with Customs to prevent pirated products from being exported or imported in an unauthorised manner. Third, to widen the scope of protection but not to limit to a particular territory among the countries and finally, businesses and entrepreneurs should put the protection of their intellectual property at the heart of their business strategy.

ACKNOWLEDGEMENTS

This work would not be possible without the financial support of the University of Malaya Grant GPF012P-2018. We also thank the Ministry of Domestic Trade, Cooperatives and Consumerism (MDTC) and

the Intellectual Property Corporation of Malaysia (MyIPO) who provided insight and expertise that greatly assisted the research.

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