# An Analysis on the Protection of Property Rights and the Intellectual Property Rights: Comparison between Bangladesh and China

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Abstract: Intellectual property rights (IPR) always encourages innovation and creativity. It further generates new jobs and enhances competitiveness. Intellectual property rights ensure the rights and bring benefits for authors, artists, designers, inventors, and other IPR users while their work is using by others. Intellectual property rights (IPR) helps Inventors, designers, developers, and authors to protect the ideas and creative works they have developed. Eventually, the protection of the intellectual property is one of the biggest challenges for both developed and developing countries. There are various international laws regarding the protection of intellectual property. International laws adopt many rules and recommendations to ensure the protection of intellectual property. Moreover, most of the countries have their laws and acts to protect Intellectual property. Most of the countries have dedicated legislative authoritative body to protect Intellectual property related interest. But without proper execution all these international and national laws to protect Intellectual property become worthless. The legal system that Bangladesh and China follow to protect Intellectual property is quite similar to western countries and the USA, yet they have some major differences as well. This article tries to analyze the evaluation of IPR protection in China and Bangladesh. This article also tries to discuss the IPR protection measures in China and Bangladesh. Moreover, this article initiates to compare the international intellectual property rights protection index and also tries to show and explain the differences in the assessment of IPR protection. This article will also list and describes different factors that influence the lack of appropriate protection for Property rights and Intellectual property rights in both countries.

**Keywords:** Property rights, intellectual property rights protection, international intellectual property rights protection index, China, Bangladesh.

#### INTRODUCTION

Intellectual property rights and their protection is one of the major issues of the current world. The enforcement strategies of Intellectual property rights protection are different from country to country. Intellectual property rights protection has a deep effect on the modern national economy. Based on enforcement strategies and proper execution of the existing legal system some countries ensure a higher level of property rights protection and intellectual property rights protection. Appropriate property rights protection and intellectual property rights protection are considered as an important element for reducing economic, legal, or social problems as well as considered as an important factor for growth and development. In some countries, however, the exercise of property rights and intellectual property rights protection is underestimated or deliberately ignored. Unfortunately, piracy is one of the major threats to continued economic development for developing countries. This paper aims to compare the aspects of property rights protection and intellectual property rights protection in Bangladesh and China. The first part of this paper shortly discusses the intellectual property rights laws of Bangladesh and China. The second part of this paper discusses the general information of the legal system of Bangladesh and China that ensures the protection and rights of intellectual property. In the third part of this paper the methodology of three main international institutions that deal with the protection of property rights index: the Heritage Foundation, the Fraser Institute, and Property Rights Alliance is discussed. Moreover, this paper discusses the data of the IPR index and compares the position of Bangladesh and China in the International property rights index. Assessment of different values and rankings of Bangladesh and China will be highlighted the nature of property protection offered by the government in both countries. The last part of this paper will initiate to described and commented on the reason behind such differences in the assessment of intellectual property rights protection.

General aspects of Intellectual Property Rights in Bangladesh and China

The legal framework for intellectual property (IP) in Bangladesh has a very long history. It started from the British-Indian rule. In the Indian subcontinent, the first act on The Patents, Designs, and Trademarks was introduced in 1883. The Patents, Designs, and Trademarks Act 1883 had been replaced by the new Patents and Designs Act 1911 and the Trademarks Act in 1940. In 1985 Bangladesh joined the World Intellectual Property Organization. It was a bit late for China to take initiative to adopt laws and regulations for intellectual property rights protection. China started to take initiative to formulate laws and regulations for intellectual property rights protection in the late 1970s. In that continuity, China joined the World Intellectual Property Organization as a signatory member in 1980. The government of the People's Republic of China adopted its first-ever Trademark Law on August 23, 1982, which come to effect on March 1, 1983. Later, in 1984 government of the People's Republic of China adopted a Patent Law which came into force on 1 April 1985.

Bangladesh has been a member of the World Trade Organization (WTO) since 1995 and china joined the World Trade Organization (WTO) in 2001. For joining WTO there are specific requirements on establishing laws related to intellectual property (IP) and the effect of these laws should have minimum standards. Based on the legal system and economical structure, there are few major differences between Bangladeshi and Chinese Intellectual property rights laws. Both the countries are signatories to the Berne Convention on copyright.

In Bangladesh, the Copyright Act, 2000 is the basic legislation that responsible for governing the copyright law of Bangladesh. Copyright Act, 2000 is largely influenced by the Copyright Ordinance, 1962 of Pakistan. China's copyright legislation is established through Copyright Law 1990 and Copyright Implementing Regulations of 2002. Copyright Law 1990 was amended in 2001. Registration for copyright is not obligatory in Bangladesh and China but it is recommended to register to avoid any disputes or lawsuits related to ownership of intellectual property. Right after the independence of Bangladesh in 1971, the regional copyright office was turned into its' national copyright office and named Copyright Office Bangladesh. The Copyright Office Bangladesh is responsible for the administration and enforcement of copyright and related issues. The Copyright Office Bangladesh is a department under the ministry of culture. The National Copyright Administration of China is the authoritative body to administrate and enforce copyright and related issues in China. In order to get copyright protection in Bangladesh, the owner of intellectual work should register his/her work from Copyright Office Bangladesh under the Copyright Act, 2000. Copy right protection policy legally ensures the ownership of the intellectual work of a person. After registering for copyrights, the owner will get a certificate issued by the Registrar of Copyright after considering all the prima-facie evidence of ownership of the copyright (Hosen, M. 2017)). For being entitled to the copyright, the owner must have to show that the work is original. This is not the subject to consider that whether the work is wise or foolish, accurate or inaccurate even it doesn't important that the work has any literary merit or not (Azam Mohammad Monirul 2008). The basic condition of being entitled to copyright in China is that the work must be original and reproducible. Right after the creation of a work, a person can be entitled to copyright protection for his intellectual property. Online piracy of films, music, books, and software is still a very important issue in both Bangladesh and China. Patent and design rights in Bangladesh are governed by the Patents and Design Act of 1911 and the Patent and Design Rules of 1933. By the provisions of these laws, DPDT (Department of Patents, Designs & Trademarks) provides patent protection for 16 years. In Bangladesh, an invention must have a practical existence to be patentable. Patent protection coverage is subject to annual fees and the duration of patent protection can be renewed for a further period of 5 to 10 years. Patent and design rights in Bangladesh follow the 'first to file' policy. Application for an identical patent the person who applies first will be entitled to the patent. Patents and designs in China are protected by the China National Intellectual Property Administration (CNIPA), which is renamed as State Intellectual Property Office (SIPO). To be considered for getting patent inventions are substantively examined in China, and as for utility model patents, those are only subject to a formal examination. The patent law of china gives protection of the rights over technological inventions as well as covers utility models and designs. In China, there are different time limits for the protection of Invention and utility models. Inventions get protection coverage for a maximum of 20 years, utility models and designs get their protection coverage for 10 years. To be entitled to the protection coverage owner need to pay annual fees. In China, patent protection coverage can be extended for one more year. Chinese patent law also follows the 'first to file' policy. In Bangladesh, the duration of the term for a design is five years from the date of registration and it is renewable for the second and third period of every five years. In China, designs will get protection for a maximum of ten years.

Bangladesh is a signatory country of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement under the World Trade Organization (WTO). Trademark gives protection to a symbol, word, number, phrase, design, or combination which is used to identify the source of goods or services. Department of Patents, Designs, and Trademarks (DPDT) is the registration authority for trademark-related issues in Bangladesh. In Bangladesh, the duration of the term for a trademark shall be of 7 years, and subject to be renewable for 10 years from the date of expiration. In general, it takes 24-36 months to register for a trademark in Bangladesh. In China, trademark laws give protections for designs, symbols, colors, or other devices, which identify products or services. It takes about eighteen months to register a foreign business under the Madrid Protocol, while direct registration using the Chinese domestic method usually takes four years. In Chinese trademark law, the duration for a trademark is valid for ten years and can be renewed for 10 more years.

The concept of intellectual property (IP) in Bangladesh is not new it has a long history. IPR concept has existed in Bangladesh from the British-Indian regime. The Patents, Designs, and Trademarks act 1883 was the first act in the Indian subcontinent. Later on, The Patents, Designs, and Trademarks act, 1883 has been replaced by the new Patents and Designs Act 1911 and the Trademarks Act in 1940. Copy right act does exist in the Indian subcontinent from the British-Indian regime. Now In Bangladesh, copyright protection is ensured by the Copyright Act 2000. Bangladesh still follows The Patents and Designs Act, 1911 to ensure the protection for patent and design. Very recently Bangladesh introduces the Trademarks Act, 2009 to offer protection for trademark-related issues. Bangladesh is a signatory member of several international IP related agreements. Bangladesh is a signatory party of the Paris Convention, the Berne Convention, and the Madrid Protocol. But Bangladesh is not yet a signatory to The Hague Agreement and the Patent Cooperation Treaty.

Chinas' history of intellectual property protection begins with the "four modernizations" policy introduced by Deng Xiaoping in 1978 (The Commission on the Theft of American Intellectual Property, 2013; Jilin X., 2000). Because of the rapid development of the Chinese economy, the Chinese government fells the importance of intellectual property rights. The Chinese government believes that the intellectual property protection system has a very significant role to promote science and technology, as well as enriching the culture and developing the economy. From this point of view, the Chinese government introduced a very extensive IPR protection system and becoming a major signatory member of most of the international conventions and treaties. China has very extensive and well-furnished IPR protection laws. China has established its authoritative legislative body that responsible for the development and monitoring of IPR compliance (Alfold W.P., 1998; Cheung G.C.K, 2011). China is a signatory party of the Paris Convention, the Berne Convention, the Madrid Protocol, and the Patent Cooperation Treaty. But China is not yet a signatory to The Hague Agreement. The Hague Agreement mainly allows the protection of designs in multiple countries through a single filing.

# **International Property Rights Index**

To measure the level of protection of property rights, progress, and prosperity there are several international organizations that scores and ranks each country based on different factors that reflect the state of Legal and Political Environment (LP), Physical Property Rights (PPR), Economical Freedom and Intellectual Property Rights (IPR). As for detailed research and comparison between Bangladesh and China's Intellectual Property Rights Protection, this paper will discuss The Heritage Foundation's Index of Property Rights, Fraser institutes Legal System and Property Rights Index, and Property Rights Alliances International Property Rights Index.

# **Index of Property Rights of the Heritage Foundation**

The Heritage Foundation works on the economic freedom of most countries in the world. The index of economic freedom of Heritage foundation is mainly based on 12 quantitative and qualitative factors of four broad categories. Rule of law, Government Size, Regulatory Efficiency, and Markets Openness are the main four aspects of the heritage foundations' Property Rights Index. The elements of property rights are part of the rule of laws, which are closely related to a country's legal framework. Property rights are a qualitative assessment which indicates how much a country's legal framework allows it's a citizen to freely accumulate private property. Index of public property rights also indicates how effectively a government enforces its legal system to protect property rights for its citizen. Index of property rights indicates that how much a country's law can protect private property rights for its citizen. Index of private property rights analyzes the freedom of the judiciary and the level of corruption that lies in the judicial system. Ranking and score of a country in the index of property rights depend on its economic freedom and effectiveness of its' legal system to protect the property rights. In 2020 the index of property rights includes 12 freedoms from property rights to economic freedom in 186 countries.

Property Rights Index comparison between Bangladesh and China from 2000-2020

Table 1 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 25 25 30 30 30 30 30 30 30 30 20 Bangladesh (90)(86)(110)(101)(92)(82)(81)(81)(135)(142)(147)30 30 30 30 30 30 30 20 20 20 20 China (101)(92)(90)(110)(86)(82)(81)(143)(138)(151)(147)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Bangladesh	20	20	20	20	20	20	35	32	36	41
_	(146)	(143)	(141)	(138)	(137)	(139)	(149)	(155)	(143)	(143)
China	20	20	20	20	20	20	48	47	50	61

(146)	(143)	(141)	(138)	(137)	(139)	(99)	(102)	(91)	(68)

Source: The Heritage Foundation

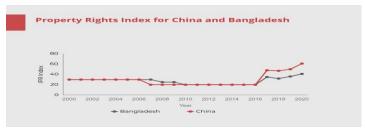


Figure 1: Property Rights Index of China and Bangladesh

According to the Heritage Foundation's International Property Rights Index, from 2000 and 2006 the rights to property in Bangladesh were classified as extremely poor. In this term, Bangladesh scored an overall 30 that means property rights weren't effectively protected and the judicial system wasn't efficient enough. On the other hand in between 2000 to 2006, China also performs poorly; they also scored 30 in this term. It means China also failed to protect property rights properly and Chinas' judicial system also didn't perform well. In 2000 Bangladesh and China both were ranked 110th. Even in 2006 both Bangladesh and China were ranked 81st. it shows from 2000 to 2006 both the countries performed equally as per the data of Heritage Foundation's International Property Rights Index. But in 2007 suddenly China performed more poorly and scored only 20 and ranked 143rd. on the other hand, in 2007 Bangladesh was able to keep its stand. Bangladesh scored 30 and ranked 81st again, Later in 2008 and 2009 Bangladesh failed to keep their stand and their score falling to 25. And China still scored 20 in 2008 and 2009. Both the country started to perform significantly poorer. As for the poor performance in property rights protection in 2009, Bangladesh ranked 142 and China ranked 151. In 2010 Bangladesh's performance was, even more, poorer and scored 20. From 20011 to 2016 both countries continued to perform poorly to protect the property rights of their citizens and continuously scored 20. In 2011 Bangladesh and China were ranked 146 and in 2016 both countries rank was 139. So, far from 2000 to 2016 both the countries performance was noticeably poor and their sore and ranking were almost similar. But in between 2017 to 2020 scenario started to change. Both the countries started to perform positively. In 2017 Bangladesh scored 35 and ranked 139. From 2018 to 2020 Bangladesh shows positive changes in the score, the score was 32, 36, and 41 respectively. On the other hand from 2017 to 2020 China works really well on the protection of property rights. In this period Chinas, positive changes in scores were commendable, the score was 48, 47, 50, and 61 respectively. The index shows China started to work to protect the property rights of its citizens. In Bangladesh judicial system works insufficiently and subject to delays. Corruption in the judiciary system may exist and the judiciary may be highly influenced by the government. Figure 1 shows the comparison of the index of protection of property rights in Bangladesh and China from the year 2000 to 2020.

#### Index of Legal System and Property Rights of The Fraser Institute

Economic Freedom of the World by the Fraser Institute every year publishes the index of Legal System and Property Rights. This index focus on the economic freedom of the citizens of a country. The degree measured by the Fraser Institute is, which national policies and institutions play a supportive role on economic freedom. The index of Legal System and Property Rights by Fraser Institute is based on forty-two data points of five broad categories. Basic five categories of the Index of Legal System and Property Rights by Fraser Institutes are a) Size of the government (expenditures, taxes, and enterprises), b) legal structure and protection of the property rights of citizens, c) access to sound money, d) freedom of international trade and e) regulation of credit, labor, and business. The protection of the rightfully acquired property of an individual is a basic element of economic freedom and civil society. These are very important factors to measure the property rights protection of a country. Rule of law, the security of property rights, an independent and unbiased judiciary, impartial and effective enforcement of the law are the key elements of a legal system that consistent with economic freedom. There are a few more aspects to compare the economic freedom index of a country. International country risk guide, the global competitiveness report and world banks security of property rights, protection of rule of law helps to establish a proper environment for economic growth and development by achieving commendable economic freedom. In 2018 Economic freedom of the world publishes its annual report over 162 countries.

# **Legal System and Property Rights Indexes for China and Bangladesh 2000-2012**Table 2

	2000		2000 20001		20	2002		2003		2004		05
	LSPR1	PPR2	LSP	PPR	LSP	PPR	LSP	PPR	LSP	PPR	LSP	PPR
			R1	2	1	2	R1	2	1	2	R1	2
Bangladesh	2.91	4.26	2.77	4.05	2.69	4.04	2.61	4.04	2.62	4.07	2.88	5.00

China	4.90	3.74	5.07	4.41	5.09	4.21	5.20	4.37	5.15	4.05	5.23	4.68

	2006		2007		2008		200	9	2010		2011	
	LSP	PPR	LSPR	PPR	LSP	PPR	LSPR	PPR	LSPR	PPR	LSP	PPR
	R1	2	1	2	R1	2	1	2	1	2	R1	2
Bangladesh	2.93	4.71	2.85	4.86	2.83	4.81	3.21	4.79	3.37	4.91	3.21	4.89
China	5.36	4.97	5.58	5.55	5.62	5.81	5.48	5.70	5.42	5.64	5.32	5.49

	2012		2013		2014		20	15	20	16	2017		20	18
	LSP	PP	LSP	PP	LS	PP	LSP	PP	LS	PP	LSP	PP	LSP	PP
	R1	R2	R1	R2	P1	R2	R1	R2	P1	R2	R1	R2	R1	R2
Bangladesh	2.06	4.7	2.07	4.6	2.9	4.7	2.12	4.9	3.2	4.8	2.06	4.7	2.04	1.00
	3.06	4	2.97	6	9	7	3.13	8	0	9	3.06	9	3.04	4.88
China	5.28	5.2	5.00	5.1	5.0	5.1	5.07	5.1	5.0	5.2	4.94	5.2	4.93	5.07
		9		3	0	0		9	2	4		0		

Source: Economic Freedom of the World: 2020 Annual Report (Data for researchers)

- 1 Legal System and Property Rights LSPR
- 2 Protection of Property Rights PPR- element LSPR



Figure 2: LSPR Index for China and Bangladesh

By analyzing the data from the Economic growth and development of Fraser institute, certainly, both the country Bangladesh and China didn't perform much well in the aspect of economic freedom and property rights protection. The data shows from 2000 to 2008 Bangladesh performing consistently very poorly in Legal System and Property Rights index. In 2000 Bangladesh score only 2.91 on the Legal System and Property Rights index. In the following years, Bangladesh was consistently getting a poor assessment and in 2008 the index was, even more, poorer (2.83). Between the years 2000 to 2008 Legal System and Property Rights index for China also wasn't that much good but China was comparatively performing better than Bangladesh. In 2000 China scored 4.90 in Legal System and Property Rights index, which is far better than Bangladesh. In the following years, China did slightly better in the Legal System and Property Rights sector and was able to get a better score every year. In 2008 China scored 5.62 in the Legal System and Property Rights index. From 2009 till 2018 Bangladesh wasn't consistent in improving its performance. Sometimes assessment score was improving and in the following year, the score fell and rise again. In 2009 Bangladesh scored 3.21 which was better than the previous year but it is still very much poor in the world ranking. After showing, a positive sign of improvement for few years in the year 2013 the assessment score of Bangladesh for the Legal System and Property Rights index was started to falling again. From 2013 to 2018 Bangladesh didn't show any positive sign of improvement in the Legal System and Property Rights index. In 2013 Bangladesh scored 2.97 and in 2018 assessment score was 3.04. In between these years only in 2016 Bangladesh shows a positive sign of improvement. The annual data of the Economic growth and development of Fraser institute over the Legal System and Property Rights index shows from the year 2009 to 2018 assessment score of China started to fall. In 2009 the Legal System and Property Rights index score of China was 5.48 and after a continuous fall in 2018, the score was 4.93. As for the Protection of Property Rights index both the country Bangladesh and China are still poor in the world ranking. From the year 2000 to 2018 Bangladesh was never been consistent on improvement. All the time the score was always facing ups and downs. In 2000 the Protection of Property Rights index score for Bangladesh was 4.26 and after continuous ups and downs in 2018, it was 4.88. The Protection of Property Rights index for China wasn't also consistent. Though, China shows some improvement in the Protection of Property Rights index. In 2000 the Protection of Property Rights index score of China was only 3.74 but in the following years, China started to perform well. In 2009 China assessed its best score (5.70) till 2018. But after 2009 score started to fall again and in 2018 the Protection of Property Rights index score of China was 5.07. Both Bangladesh and China were facing ups and down in the Protection of Property Rights index throughout this two-decade yet in the end both the country did well. In the final ranking of the Legal System and the Property Rights index of Fraser institute, both Bangladesh and China weren't in a good position in the world. But China

shows improvement in both Legal System and the Property Rights Index, which was remarkable especially after 2009. And at the same time, Bangladesh also shows some improvement, yet Bangladesh was way behind in the Property Rights Index and scored close to China in the Legal System index. Similarly in the Heritage Foundation's International Property Rights Index both the country weren't in a good position in the world ranking. And China was doing better than Bangladesh. The remarkable part is in both ranking china started to improve its Legal system and protection of property rights. In the International Property Rights Index of Heritage Foundation China shows more improvement than the Legal System and Property Rights index published by Fraser Institute.

International Property Rights Index of Heritage Foundation and the Fraser Institutes Legal System and Property Rights index shows some differences in valuation and comparison of the data of Bangladesh and China. International Property Rights Index of Heritage Foundation shows from 2000 to 2006 both the country performing equally but from 2007 to 2009 China last its consistency and fall behind of Bangladesh but from 2010 to 2016 Bangladesh started to performing poorly about Protection of property rights and both countries index and ranking was again equal. But after 2016, China started to perform remarkably well in property rights protection. In this period a positive change has been shown in the score of Bangladesh but still, they were well behind than China. But in Fraser Institutes Legal System and Property Rights index, Bangladesh always doing poorly than China, and both countries were never been equal in the protection of property rights index.

# **International Property Rights Index of Property Rights Alliance**

The International Property Rights Index (IPRI) of the Property Rights Alliance is one of the popular concepts to measure the Protection of Property Rights. This is a platform of global comparison of intellectual property rights protection. This concept is recognized as the most accurate and comprehensive data for studying property rights protection. IPRI was developed to serve as a barometer for global property rights status (Bochańczyk-Kupka D. 2016). The Property Rights Alliance have considered three most important element a) Legal and Political Environment (LP), b) Physical Property Rights (PPR), c) Intellectual Property Rights (IPR) as their core data source for measuring The International Property Rights Index (IPRI). Legal and Political Environment (LP) shows the political stability and practice of the rule of law in a country. LP has a very significant role in the protection of physical and intellectual property rights. Physical Property Rights (PPR) and Intellectual Property Rights (IPR) are very important and significant elements of a countries economic development. PPR and IPR considered both the de jure rights and de facto. Intellectual property rights (IPR) ensure the protection of intellectual property. Intellectual property rights (IPR) involved with the protection of two major intellectual properties (patents and copyrights) from the perspective of de jure and de facto (Bochańczyk-Kupka D. 2016). In 2020 the Property Rights Alliance publishes its annual report on The International Property Rights Index (IPRI) for 162 countries.

# International Property Rights Index and its components for China and Bangladesh between 2008 and 2020

Table 3

		20	12			20	13		2014				
	IPRI	LP	PPR	IPR	IPRI	LP	PPR	IPR	IPRI	LP	PPR	IPR	
Bangladesh	3.600	3.300	4.700	2.700	3.500	3.200	4.600	2.700	3.400	3.200	4.633	2.533	
China	5.500	4.300	6.900	5.400	5.500	4.300	6.800	5.400	5.500	4.450	6.767	5.400	

	2015					20	16		2017				
	IPRI	LP	PPR	IPR	IPRI	LP	PPR	IPR	IPRI	LP	PPR	IPR	
Bangladesh	2.564	2.595	2.765	2.332	2.777	3.070	2.870	2.392	3.117	3.226	3.502	2.622	
China	5.389	4.316	6.539	5.313	5.408	4.389	6.515	5.320	5.712	4.524	6.999	5.614	

	2018					20	19		2020				
	IPRI	LP	PPR	IPR	IPRI	LP	PPR	IPR	IPRI	LP	PPR	IPR	
Bangladesh	3.365	3.509	3.847	2.74	3.313	3.482	3.568	2.889	3.293	3.502	3.576	2.802	
China	5.904	4.791	7.035	5.888	6.033	4.930	7.148	6.021	6.045	4.965	7.149	6.022	

Source: The Property Rights Alliance

1International Property Rights Index (IPRI)

2Legal and Political Environment (LP)

3Protrction of Physical Property (PPP)

#### 4 Intellectual Property Rights (IPR)

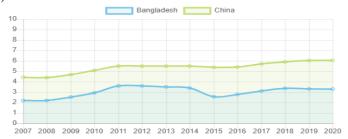


Figure 3: IPRI comparison graph between Bangladesh and China (Property Rights Alliance)

As per data of the International Property Rights Index (IPRI) of the Property Rights Alliance, Bangladesh's performance was very poor. From 2012 to 2020 IPRI score of Bangladesh is continuously falling. In 2012 IPRI index score of Bangladesh was 3.6 which is eventually very poor in the world ranking. After 2012 this poor score started to be poorer, in 2013 score was 3.5. In the following years, Bangladesh performed even poorer and the IPRI index score gradually decreased. In 2015 Bangladesh achieve its worst score of 2.56. After this fall IPRI index score of Bangladesh shows a positive come back again and in the continuation of this positive trend in 2020 Bangladesh scored 3.29. yet 3.29 is one of the poorest showcases of Protection of Property Rights in the world. On the other hand, China performed far better than Bangladesh. But still, it was not satisfactory regarding world ranking. But the most important fact in terms of China is, they are continuously showcasing a positive trend of improvement of Protection of Property Rights. In 2012 China scored 5.5 on the IPRI index. In the following years, China shows consistency of improvement. in the continuation of this positive trend in 2020 China achieve a 6.045 score. Here again, China performed much better than Bangladesh in terms of Protection of Property Rights.

IPRI index data of the Property Rights Alliance shows a significant difference from the index published by the Heritage Foundation and the Fraser Institute. For example, according to all three indexes, China performed better than Bangladesh in terms of the protection of intellectual property rights. But the differences in the data of the Heritage Foundation, the Fraser Institute, and the Property Rights Alliance are still remarkable. The data of the Heritage Foundation shows from 2000 to 2006 both the countries score was same and from 2007 China started to fall and from 2008 Bangladesh also started to fall. Later in 2017, both the countries again show positive results but China did a remarkable job and left Bangladesh behind. The data of the Fraser Institute on the protection of property rights shows a straight difference between the scores of Bangladesh and China. And the difference between both countries was consistent. But the data of the Property Rights Alliance show a huge gap between Bangladesh and China in terms of protection of property rights. According to the data of the Property Rights Alliance China scores almost twice that of Bangladesh every year. The gap between Bangladesh and China is really remarkable. Overall scores of the property right protection and intellectual property rights protection index published by the Heritage Foundation, the Fraser Institute, and the Property Rights Alliances are different but in all the indexes China did well compare to Bangladesh. The values of the indexes are tough to compare but it is quite possible to compare the correlation between the ranking and scores. Mostly the property rights protection has been assessed through surveys (Bochańczyk-Kupka D. 2016). So basically the indexes greatly depend on the reply from the participant. On the other hand, even the research questions and other measures can bring different scores for the indexes. Methodologies also have a great influence on the final scores. Different methodologies focus on different elements. The same methodologies are applied for all the countries whether developed or developing countries. Some methodologies use the structure of the legal systems as their important element for the final score of the Protection of Property Rights Index. The legal system that is considered for Bangladesh (British) and China (American) is similar to developed countries. In Bangladesh and China implementation of its existing Legal system regarding IPR is one of the major problems. Enforcement of IPR laws has been weakened because of insufficient structural and institutional efforts. Bangladesh and China face a lack of coordination between the authoritative agencies. Bangladesh also faces a lack of resources for the enforcement of IPR related laws. Lack of judicial freedom is also a major issue for Bangladesh to perform poorly in the IPR index. In Bangladesh, a lot of people are not yet aware of the Protection of Intellectual Property Rights. Despite the insufficient implementation of laws related to the IPR, both countries are improving in their final scores of the IPR index. In China, there are some signs of improvement in the application of IPR, especially in the courts of major Chinese cities (The United States International Trade Commission Investigation, 2010).

After considering all the aspects that are used in the assessment of the protection of property rights index for both the country are still very poor and unsatisfactory. But compare to Bangladesh China doing much better. But the fact is both the country shows positive progress in the last few years. Lack of respect towards property rights is another major problem. According to the Socialist and This publication is licensed under Creative Commons Attribution CC BY.

Confucian point of view, China believes in sharing of ideas among the community, rather than owned by an individual. Chinese people believe if there's a good idea it should be shared among the people for the greater benefit (Zhengzhi, 2014). In Bangladesh, people are not even aware of the Protection of Intellectual Property Rights. In Bangladesh, people are not concern about mass development, they just think about personal gain (Rajin Ahmed, 2017). Even the law enforcement agencies don't have proper knowledge about IPR in Bangladesh. The persons from law enforcement agencies, as well as the lawyers and the judges' none of them, are properly trained about IPR. In Bangladesh, there is an adequate legal system to protect IPR. Yet it is not enough to have an adequate legal system, implementation of laws and positive attitude of the community toward IPR is very crucial for the improvement of the IPR index. Lack of positive approach from the people in Bangladesh and China is one of the major causes for a poor IPR index score and as well as economic growth of the country. According to a report Bangladesh tops in software piracy in the Asia Pacific. Business Software Alliance (BSA) and industry research firm IDC published a report that shows an average of 61 percent of the software in this region was unlicensed in 2008. But in 2007 this number was up to 59 percent. The report shows that the legal software vendors lost 15.26 billion USD which is 8.3 percent higher than the previous year's 14.09 billion USD. According to the study, the global average for unlicensed software has risen from 36 percent to 41 percent in the previous year, resulting in a loss of about 53 billion. In 2009 the economic crisis related to software piracy had a greater impact. Bangladesh topped the list with a 92% piracy rate among Asia-Pacific. The involvement of counterfeit and pirated goods in world trade is also increased. A report of the International Chamber of Commerce says in 2013 the value of domestic and international trade in pirated and counterfeit goods was \$710 -\$ 917 Billion. In 2015 the overall value of digital piracy in films, music, and software was \$213 Billion. International Chamber of Commerce reported that counterfeiting and piracy have significant impacts on the job market by displacing legitimate economic activities. The report added that there will be 4.2 to 5.4 million job losses by 2022. The report also says the impact of the change in the predominance of counterfeiting and piracy on economic growth might reach \$30 Billion to \$54 Billion in 2017 for the 35 OECD countries. The report further states that by 2022 the value of trade in counterfeit and pirated items could reach \$991 Billion. International Chamber of Commerce also reported that by 2022 the value regarding domestically consumed and produced pirated and counterfeit items could range between '\$524 to \$959 Billion'. The worth of digital piracy includes film, music, and software might reach between "\$384 to \$856 Billion" by 2022.

#### CONCLUSIONS

The main objective of this paper was to compare the property rights and intellectual property rights protection between Bangladesh and China. This research paper discusses legal measures related to IPR protection. There was a brief discussion on the International IPR protection index, scores, and rankings. Furthermore, this paper shows how IPR protection index scores and rankings assess the property rights and intellectual property rights protection measures. This is undeniable that there are some significant differences in the IPR index and final scores published by different organizations. Due to the differences between the IPR index and the final scores, this paper discusses the methodology of the organizations. Although the final scores were significantly different, still all the IPR indexes show that China is doing remarkably better than Bangladesh in the last few years. It is always hard to compare the relationship between countries with such different data sources. But still, the given data sets were able to assess and provide comprehensive details about the PR and IPR protection.

Both the country has a highly considerable Legal system and IPR related laws but still Bangladesh or China none of them doing particularly well in world IPR protection measures. The main reason for the poor scores in International IPR indexes for both the country is poor implementation of Legal and Judicial system. Bothe the country is a signatory of all the major international treaties and agreements. Socially and historically the people or even the government of these countries are not fully passionate and aware about the IPR protection. But the hope is that in recent years the government has begun to take appropriate measures regarding IPR protection.

The IPR protection is basically related to human rights but not to economic growth and development. Several reports insist proper IPR protection can bring economic growth and development to the country. But it is really hard to show a definite strong correlation between property rights protection and economic growth. Despite poor protection of property rights, China still able to achieve a great influential economy in the world. According to the report of the World Bank and IMF, Bangladesh has emerged as an emerging economic power. The profits related to piracy and counterfeit products are very high, it can even easily compensate for the poor PR and IPR protection.

#### **Conflicts of Interest**

The authors declare no conflicts of interest.

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