

LEGAL PROTECTION OF INTELLECTUAL PROPERTY RIGHTS (IPR) IN BANGLADESH

Nik Zulkarnaen Khidzir ¹
Shekh Abdullah-Al-Musa Ahmed²

¹ Global Entrepreneurship Research and Innovation Centre, University Malaysia Kelantan (UMK), Malaysia, (E-mail: zulkarnaen.k @umk.edu.my)

² PhD Fellow, Faculty of Creative Technology and Heritage, University Malaysia Kelantan (UMK), Malaysia, (Email: almusa.c17e002f@siswa.umk.edu.my)

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Abstract: Intellectual Property ordinarily includes patent, design, trademark and copyright. Due to the technological growth and globalization Intellectual Property (IP) has acquired an international character. The greater importance on Intellectual Property all over the world can be traced from the concern of different international organization. WIPO and WTO are playing the leading role jointly for the protection of Intellectual property. Under the WTO agreement developing countries and transition economies were given use years to ensure that their laws and practices conform with the TRIPS agreement (1995 to 2000). Least-developed countries had 11 years, until 2006 conform to the TRIPS agreement. At present this period was extended to 2013 in general, and to 2016 for pharmaceutical patents and undisclosed information. Though fake merchandise are promptly accessible in Bangladesh. The legislature has restricted assets for intellectual property rights (IPR) protection. Industry evaluates that 90 percent of business programming software is pirated. various U.S. firms, including film studios, makers of customer merchandise, and programming firms, have announced infringement of their licensed innovation rights. This papers describe about Bangladesh that is a member of both the WIPO and WTO. Being a member of WTO, it has also to conform its national law to conformity with the TRIPS agreement within the stipulated time. Presently IP protection is governed by the Patents and Designs Act, 1911 and The Trademark Ordinance Act ,2008 and the Copyright Act, 2000. The law relating to trademark and copyright has been modified to greater extent but patent and design law of our country was not modified yet to cope with the present situation.

Keywords: Intellectual Property, Patent Monopoly, Copyright, Inventions, Industrial Design, Trademark, Antitrust, WIPO, WTO

Introduction

Intellectual Property (IP) refers, the creation of human mind or intellect which ordinarily includes invention, design, trademark and service mark these properties are defined by the laws of respective countries. Intellectual Property lets people on the work they create. It results from the expression of an idea, which can be owned, bought and sold. So IP might be a brand, an invention, a design, a song or other intellectual creation (Abhayawansa, 2009). The protection is availed through the national law and the international cooperation and protection respecting the IP is maintained by the World Intellectual Property Organization. IP protection, as has been framed by laws, is directly connected with the trade and commerce. Today within the capitalist form of society, the IP is closely linked with the trade and commerce and this can easily be identified from the concern of the WTO for the protection of IP (Bodenhausen, 1968). But the concept's origins can potentially be traced back further. Jewish law includes several factors whose effects are similar to those of modern intellectual property laws. The Talmud contains the prohibitions against certain mental offences (Geneivat da'at literally "mind theft"), which some have interpreted as prohibiting fraud of ideas, though the doctrine is especially worried with fraud and lies, not property (Hagen, 1984). IP has got an organized shape and structure during the last 3 decades of 19th century. IP law has developed and shaped mainly in European continent. Perhaps the Italian Renaissance and industrial revolution has greatly influenced IP to be developed within and has acted as the key factor of development of the IP and its protection. IP law has expanded in the other region of the world by the colonial powers England and France played important role in caring the IP law into their colonies. During the medieval period the IP was located within patent monopoly for invention, trademark and copyright. Patent might be the oldest form of IP among these three and copyright is the last one. The reason act behind may be that the patent pave the way for expanding business, which lead the necessity for trademark for different manufacturer. The copyright as IP evolved with invention and growth of printing machine (Naznin, 2011). However. Some scattered historical instances can be identified to, explore the growth and development of IP all over the world. Primarily the IP has been developed within the patent, trademark and copyright.

Literature Review

Some instances of grant of patent monopoly can be found in England, France and Italy, which led the early development of patent law such as-The Florentine architect Filippo Brunelleschi received a three-year patent for a barge with hoisting gear, that carried marble along the Arno River in 1421. In France, King Henry II introduced the concept of publishing the description of an invention in a patent in 1555. In 1449, King Henry VI of UK granted the first patent with a license of 20 years to John of Utynam for introducing the making of colour glass to England (May et al., 2006). As a matter of fact Patents were systematically granted in Venice as of 1450. These were mostly in the field of glass making. Royal grants for monopoly privileges by Queen Elizabeth I (1558. 1603). So when Patents in the modern sense originated in 1474. Then the Republic of Venice enacted a decree that new and inventive devices, once put into practice, had to be communicated to the Republic to obtain the right to prevent others from using them (Cohen, et al., 2000). Then in England followed with the Statute of Monopolies in 1623 under King James I. which declared that patents could only be granted for -projects of new invention. During the reign of Queen Anne (1702-1741). The lawyers of the English Court developed the requirement that a written description of the invention must be submitted. However in France, patents were Fantod by the monarchy and by other institutions like the "Mason du Rol" and the Parliament of Paris. Therefore the Patents were Fantod without examination since inventor's right was considered as a natural one. The modern French patent system was created during the Revolution in 1791. The Colonial power had brought the patent laws into their colonies. And most of states as emerged after the decolonialisation had the origin of ascent

from their colonial ruler (Coombe, 1990). Although in presence of several scattered instances of grant of patent monopoly, the patent protection has got a spirit in a true sense by the adoption of Paris Convention in 1883. After the industrial revolution, the communications between different regions of the world become more flexible and accessible. This led to a practical problem of the protection of patent rights. This problem became apparent when the government of Empire of Austria-Hungary invited the other countries to participate in an international exhibition of inventions that held a Vienna. The visitors' countries were unwilling to participate and exhibit their inventions due to the inadequate protection. This helped a lot in bringing a worldwide protection for the invention. Vienna Congress was convened in 1873 to bring about an international understanding upon patent protection as soon as possible. Which set up the root for the adoption of the Paris Convention in 1883 (Bado, 1987).

Historically it is found that the blacksmiths who made swords in the Roman Empire are thought of as being the first users of trademarks. Other notable trademarks that have been used for a long time include Lowenbrau, which claims use since 1383, and Stella Artois, which claims use since 1366. As of its origin it was used by the maker of the bricks. Leather, books, weapons, cooking-ware and other things in the ancient times. These were usually letters, initials or other symbolic signs attached to indicate the maker of the product. Guilds also used to affix marks to their products in order to exercise control over their production. It may refer here that the first trademark registered in U.K. under no. 1 of 1876 consisting of a red equilateral triangle in respect of alcoholic beverages is still in force. The English word brand was used synonymously with trademark. Even today this word is used to reflect the mark placed by the farmers with hot iron on the cattle. The Bass Red Triangle was the first trademark to be registered under the Trade Mark Registration Act 1875 (Coombe, 1990). Trademark protection is developed by the court practice in England. The British law was in force in their colonial regions. Together with the British contribution, law of trademark has developed mainly within the European continent. The France and Germany had great contribution towards the development of trademark law. France adopted a comprehensive law on trademark in 1857 that was in force for more than 100 years. Germany allowed protection for the registered trademark by legislative means in 1874 with the adoption of Prussian Ordinance. United States of America also showed separate legal development into their continent after their independence. The development of trademark law owes its significance not only to the legislature but also the court decisions. These separate and individual developments of trademark laws were combined and oriented into a common shape after the adoption of the Paris convention in 1883 (Naznin, 2011).

In ancient time creative writers, musicians, and artists wrote, composed or made their works mainly for fame and recognition rather than to earn profits. The importance of copyright protection was recognized only after the invention of the printing press in the 15th century which enabled the reproduction of books in large number practicable. The invention of printing press led to a new business or trade. The printers or booksellers as known as stationeries in England invested a large sum of money in this sector. But there were no set of rules in printing and selling of the works and no protection was available for the unauthorized copying of books. In such a hazardous situation many entrepreneurs ruined. Pressures began to be increased for some form of protection and it came in a form of privileges granted by various authorities e.g. in England and France by the King, in Germany by the Princes of various states (Maskus, et al., 2005). The Statute of Anne as the first copyright statute was enacted in 1709 in England. But there was a continuous dispute and litigation between the copyright granted under the common law and copyright under the Statute of Anne, which was finally decided by the House of Lords in the case of Donaldson v. Beckett in 1774. It was ruled in this case that at common law the author had sole right of printing and publishing his books, but that once a book was

published the rights were exclusively regulated by the statute. Today copyright subsist only by the statute in most of the countries (Landes, et al., 1987).

Intellectual property has great contribution towards the economic, technological and cultural development. A patent system acts as an incentive to the creation of new technology and facilitates the transfer of technology from one territory to another. Granting of patent monopoly in the field of product or process facilitate to manufacture new and improved products or to effect the improvement of existing process of manufacture. Patent specifications save the invention from being lost. A patent system provides an environment to facilitates the successful industrial application of new technology and encourage flows of foreign investment (Khan, et al.,2008). Industrial design encourage talented people to use their skill and energy in making new designs for product to make the product appealable in the eye of consumers particularly in garment, furniture toy and many others field of business. A trademark allows the consumers to test the qualities of concerned product. The market position of the manufacturer is improved and the possibility of export is increased by the balanced system of trademark protection. Trademark system protects the market from being flooded with inferior and bogus goods. A country's development is largely depends upon the cultural advancement of that nation. A useful copyright protection encourages national creativity and promotes the cultural development of a nation. Besides the cultural development the copyright system is improving the printing, publishing and entertainment industries (Naghavi, 2007).

Criticism of IP Law and The Term Itself

Besides the advantages of IP and the IP law, these are not beyond any criticism. It has been criticized from different point of view, sometimes from the view of the term itself and sometimes from view of the law itself (Khan et al.,2008). The criticism of IP can be headed out as follows:

1. Invention cannot be in nature be a subject of property of economic value.
2. Protection of IP systematically promotes those who gain from confusion.
3. It is also argued that the public interest is harmed by ever expansive monopolies.
4. Trends towards larger copyright protection raising the fear that it may someday be eternal.
5. Granting of patent for living organism have deprived developing and under developed countries from the benefit.
6. Instead of viewing IP as one of many tools for development and focus more on the needs of developing countries, it is being acted as an end itself.
7. The term itself misleading in a sense that the term property referred is the rights, not the intellectual work itself, which eliminates the traditional property presumption.
8. The word IP implies scarcity, which may not be applicable to ideas.
9. Laws itself treats these rights differently than those involving physical property, e.g. copyright piracy is not punishable under theft.

The enormous technological progress of transport and communication has resulted globalization of trade and commerce. This globalization has resulted the international character of the IP. Due to the impact of globalization IP can pass through from one country to another without any restriction. The technological development makes the piracy of IP an easier one. IP differs from the other form of property in a sense that it can be stolen easily than that of other property and its movement becomes very flexible by the technological development than that of other property. These factors make the international character of the IP which has been recognized by different International Conventions (Rahl, et al.,1969).

In simple language Intellectual Property (IP) can be defined as the creation of human mind or intellect. The term Intellectual Property reflects the idea that this subject matter is the product of the mind or the intellect and that IP rights may be protected at law in the same way as any other form of property. It refers to a legal entitlement which sometimes attaches to the expressed form of an idea, or to some other intangible subject matter (Olwan et al.,2012). This legal entitlement generally enables its holder to exercise exclusive rights of use in relation to the subject matter of the IP. Intellectual property (IP) is a number of distinct types of legal monopolies over creations of the mind, both artistic and commercial, and the corresponding fields of law. Under intellectual property law. Owners are granted certain exclusive rights to a variety of intangible assets.

Intellectual property rights are a bundle of exclusive rights over creations of the mind, both artistic and commercial. Therefore, IP denotes the specific legal rights which authors, inventors and other IP holders may hold and exercise not the intellectual work itself. IP relates to the pieces of information which can be incorporated into tangible objects at the same time in an unlimited number of copies at different locations anywhere in the world. The property is not in those copies but in the information reflected in those copies (Petitcolas et al.,1998). Since, it is an intangible object, so it must be expressed in some distinguishable way to be protected.

The convention establishing the World Intellectual Property Organization (WIPO), concluded In Stockholm on July 14th. 1967. Provides that. 'Intellectual property' shall include rights relating to:

1. Literary, artistic and scientific works,
2. phonograms and broadcasts.
3. Inventions in all fields of human endeavour,
4. Scientific discoveries,
5. Industrial designs.
6. Trademarks, service marks and commercial names and designations,
7. Protection against unfair competition and all other.

Rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields. (Article 2/V III) World Intellectual Property organization (WIPO) has recognized the above mentioned creation of human mind as eligible to be protected under the law of Intellectual Property. All the works mentioned above, except scientific discoveries, are protected at national and international levels (Olwan et al.,2012). No national law or international treaties gives any property rights in scientific discovery. Scientific discovery is different from invention, scientific discovery may be defined as "the recognition of phenomena, properties or laws of the material universe not hitherto recognized and capable of verification". IP is usually divided into two branches as- (a) Industrial Property. and (b) Copyright. The WIPO and WTO directs to its member to protect these creation of human intellect. However, all these objects are not protected in all over the countries (Ulmer et al.,2003).

Industrial property is mostly misunderstood as relating to the movable and immovable property used for industrial purpose e.g. factories, tools or equipment for production of industrial premises. Although it is a kind of intellectual property, and thus relates to the creations of human mind. These includes inventions, industrial designs, trademarks, service marks, commercial names and designations , indication of source, appellations of origin and the protection against unfair competition. The Paris Convention for the Protection of Industrial

Property provides this subject matter of industrial property as protected by its provision. Let's define different kinds of Industrial property.

Inventions are new solutions to specific technical problems. Such solutions must, naturally, rely on the properties or the laws of the material universe. It means any manner of new manufacture and includes an improvement and an alleged invention. It means any new and useful art, process, method or manner of manufacture, machine apparatus or other article or substance produced by manufacture and includes any new and useful improvement of any of them, and an alleged invention. In order to be protected an invention must fulfil the following three conditions:

- 1) It must be new,
- 2) It must involve an inventive step,
- 3) It must be industrially applicable.

Industrial design is the ornamental or aesthetic aspect of a useful article. Such aspect may be of the shape, or pattern or colour of the article, which must appeal to the sense of sight. The designed article must be reproducible by industrial means and that is why it is called industrial design. Mass production need not only to meet the public's expectations as to their utility, but also to appeal in their appearance to the taste of concerned purchaser in order to be efficient and saleable product. The ornamental or aesthetic aspect of the design must appeal to the eye and be reproducible by industrial means. If it is not 'industrially reproducible' the creation will not be protected under the category of industrial property rather by the copyright law. Any composition of lines or colours or any three-dimensional form, whether or not associated with lines or colours is deemed to be an industrial design (Schmoch et al., 2003). Provided that such composition or form gives a special appearance to a product of industry or handicraft and can serve as a pattern for a product of industry or handicraft. Industrial design rights protect the form of appearance, style or design of an industrial object (e.g. spare parts, furniture or textiles).

Trademark is a distinctive sign which is used to distinguish the products of one business from those of another business. It is a sign which allows the customer to identify the manufacturer of a product. Any visible symbol in the form of word, a device, or a label or a sign or combination of such signs, capable of distinguishing the goods or services of one undertaking from those of other undertakings shall be eligible for constituting as trademark. A trademark is a type of intellectual property, and typically a name, word, phrase, logo, symbol, design, image, or a combination of these elements. A trademark is a distinctive sign or indicator used by an individual, business organization, or other legal entity to identify that the products or services to consumers and to distinguish its products or services from those of other entities e.g. McDonald's & Coca-Cola®, Wikipedia & It distinguished the goods manufactured or otherwise dealt in by a particular person from similar goods manufactured or dealt in by other person. A trademark can be used for perpetually subject only to the condition that it is renewed periodically. The owner of a trademark enjoys exclusive rights over the mark. These exclusive rights can be obtained through use or registration. Generally, a trademark is designated by the following symbols:

1. TM (for an unregistered trade mark, that is, a mark used to promote or brand goods)
2. (For a registered trademark) generally a trademark performs the following functions:
 1. It distinguishes or differentiates the product of different enterprises,
 2. It creates an image for the products,
 3. It guarantees the quality of the products.
 4. It advertises the products.

5. It identifies the product and its origin.

Two special kinds of marks namely collective marks and certification marks have also to be taken into account. Collective marks refer to a mark which usually belongs to a group or association of enterprises and its use is reserved for the member of that group or association. Certification marks refer to the goods bearing the mark have been certified by the proprietor of the mark as to certain characteristics of the goods like geographical origin, ingredients and so on (Merges et al., 2003).

A mark which is used for the purpose of distinguishing the service of one enterprise from the service of another enterprise is called service mark instead of trademark. Terms or designations which serve to identify and distinguish an enterprise and its business activities from those of other enterprises. A trademark or service mark differentiates the goods or services of different enterprises, whereas trade names identify the entire enterprise, without making any reference to the goods or services. And symbolized the reputation and goodwill of the business as a whole. Indication that identifies a goods as originating in the territory or a region locality in that territory, where a given quality, or reputation or other characteristics of the goods is essentially attributable to its geographical origin. Such indication may be constituted by any denomination, expression or sign indicating that a product or service originates in a country or a region or a specific place (Oxley et al., 1999).

Unfair Competition

Any act of competition contrary to honest practices in industrial or commercial matters constitutes an act of unfair competition. The following in particular shall be prohibited:

1. All acts of such a nature as to create confusion by any means whatever with the establishment, the goods, or the industrial or commercial activities, of a competitor.
2. False allegations in the course of trade of such a nature as to discredit the establishment, the goods, or the industrial or commercial activities, of a competitor.
3. Indications or allegations the use of which in the course of trade is liable to mislead the public as to the nature. The manufacturing process. The characteristics, the suitability for their purpose, or the quantity of the goods.

Copyright subsists in creative artistic and literary works (e.g. books, movies, music, paintings, photographs and software), giving a copyright holder the exclusive right to control reproduction or adoption of such works for a certain period of time. It relates to the literary and artistic creations means the exclusive right to do or authorize others certain acts in relation to literary, dramatic, musical, cinematographic film, and sound recordings. It is the author's idea that is protected rather than the ideas themselves (Oxley et al., 1999). It is particularly deals with that form of creativity concerned essentially with mass or public communication, and not only with printed communication but also such matters as sound and television broadcasting, films for public exhibition in cinemas, and computerized systems for the storage and retrieval of information. Copyright protects the owner of the rights of his works against those who make unauthorized copy of the form of expression of the original work of the author. The copyright law protects the creativity of the author in the choice and arrangement of the words, musical notes, colours, shapes and so on. Following types of works are protected under the law of copyright:

1. Literary works such as novels, short stories, poems dramatic works, any other writings etc.
2. Musical works such as songs, choruses. Operas, musicals, operettas etc.

3. Artistic works such as drawing, painting. Etching, lithographs (as two dimensional) or sculptures, architectural (as three dimensional), pure art, for advertisement (as destination).
4. Maps and technical drawing.
5. Photographic works such as portraits, landscapes current events etc.
6. Motion pictures (cinematographic work) theatrical exhibition, television broadcasting, film dramas, documentaries , newsreels, filming live, cartoons, pictures on transparent film pictures on electronic video tapes.
7. Others- work of applied arts (artistic jewellery, lamps, wallpaper, furniture), and choreographic works, phonograms records, tapes and broadcast also as works.

A copyright holder may own the works as he wishes and none other can use the works without the authorization of the author. The rights vested to author as protected are described as exclusive rights. The exclusive rights include the following:

1. The right to reproduce the work,
2. The right to control the public performance of the work.
3. The right to control the sound recording of the work.
4. The right of motion picture (i.e. visible recording),
5. The right to broadcast the work,
6. The right to translate (transform the language) and adopt (modification) the works.

A copy right holder also enjoys moral rights. Enjoyment of moral rights is independent of his economic rights and this right remains in force even after the transfer of right. Moral rights denote the rights of the author to:

1. Claim authorship of the work and
2. Object any distortion, mutilation, or other modification of, or other derogatory action in relation to the work that would be prejudicial to the honour or reputation of the author.

There are three other rights that arise from the original work and these rights are called neighbouring rights (Rangnekar et al.,2004). These neighbouring rights protects those who assist the creator of the intellectual works, in communicating his message and help to disseminate work in public at large, enjoys some rights. The neighbouring rights includes:

1. The rights of performing artists in their performance.
2. The rights of the producers of phonograms in their phonograms,
3. The rights of broadcasting organizations in their radio and television programs.

The protection of the IP depends on the laws of different countries and it varies from country to country. In our country different IP is protected in following ways:

1. An invention is protected by the grant of patent from the concerned authority upon registration. The patent certificate refers the title of the invention.
2. A design is protected by the issuance of a certificate by the concerned office upon registration. The certificate acts as the title of that design.
3. A trademark is protected either upon registration by the issuance of certificate or by the principles of common law.
4. Copyright protection does not require any registration. Publication of work can alone justify as being eligible for the copyright protection.
5. Confidential information, secret information and know can be protected by the principles law of contract and law of tort.

The antitrust laws proscribe unlawful mergers and business practices in general terms, leaving courts to decide which ones are illegal based on the facts of each case. Courts have applied the antitrust laws to changing markets, from a time of horse and buggies to the present digital age. Yet for over 100 years, the antitrust laws have had the same basic objective: to protect the process of competition for the benefit of consumers, making sure there are strong incentives for businesses to operate efficiently, keep prices down, and keep quality up (Ray, 1998).

Protection of IP in International Arena

It has already been discussed that the IP has an international character. Due to its international character it demands international cooperation in its protection. Several international treaties have been adopted in this respect and different international institution has been working for the promotion and the protection of IP throughout the world. The World Intellectual Property Organization (WIPO) is one of the specialized agencies of United Nations system of organization. WIPO was established by the 'Convention establishing the World Intellectual Property Organization. Which was signed at Stockholm in 1967 and entered into force in 1970. WIPO had a long run to be reached in its present status actually from 1883 because it is closely linked with development of Paris Union and Benet Union. The Paris Convention and Berne Convention were adopted in 1883 and 1886 respectively for the purpose of establishing two international secretariats (one is for industrial property and other for copyright) under the supervision of Swiss Federal Government in Berne, Switzerland. At the very beginning few official were needed to carry out the functions of the Conventions. In 1893 two secretariats were united and several times its name was being changed. It was known as BIRPI (in French language) United International Bureaux for the Protection of Intellectual Property (in English) before it was transformed into WIPO. The treaties administered by the BIRPI were revised and the supervisory control of the Swiss Government was removed at the diplomatic conference in 1967. These actions gave the position of full governing body of the WIPO and gave it the same status as all other comparable intergovernmental organizations and thereby paved the way for it to become a specialized agency of the UNO. WIPO become a specialized agency of the UN by an agreement signed to that end between WIPO and UN in 17' December. 1974. Specialized agency retains its independence although it belongs to the family of the UN. Similarly, WIPO has its own membership. WIPO's mandate, functions, finances and procedures are set out in the WIPO Convention.

The objectives of the Organization are:

1. To promote the protection of intellectual property through on: the world through cooperation among States and appropriate, in collaboration with any other internal organization.
2. To ensure administrative cooperation among the Unions. In order to attain the objectives described in Article 3, the Organization through its appropriate organs, and subject to the competence of each of the Unions:
3. Shall promote the development of measures designed to the efficient protection of intellectual property throughout the world and to harmonize national legislation in this field.
4. May agree to assume, or participate in, the administration of any other international agreement designed to promote the protection of intellectual property.
5. Shall encourage the conclusion of international agreements designed to promote the protection of intellectual property:
6. Shall offer its cooperation to States requesting legal-technical assistance in the field of intellectual property.
7. Shall assemble and disseminate information concerning the protection of Intellectual property, carry out and promote studios in this field, and publish the results of such studies.

At present, WIPO administers four different mechanisms of protection for specific industrial property rights. These WIPO administrated system if international protection includes the followings:

1. The Patent Cooperation Treaty (PCT) for filing patent applications in multiple countries.
2. The Madrid System for the International Recognition of Marks for trade and service marks.
3. The System for the International Deposit for Industrial design.
4. The Lisbon -System for the International Recognition of appellations of origin.

WIPO works with a wide spectrum of stakeholders, including other intergovernmental organizations, non-governmental organizations, representatives of civil society and of industry groups. Some 250 NGOs and IGOs currently have official observer status at WIPO meetings. Every two years WIPO's Director General presents a Program and Budget document to Member States for approval. This details objectives, performance measures and budgetary planning for all proposed program activities. WIPO is unusual among the family of UN organizations in that it is largely self-financing. About 90 percent of the Organization's budgeted expenditure of 618,8 million Swiss francs for the 2010- 2011 biennium will come from earnings from the services which WIPO provides to users of the international registration systems (PCT, Madrid system, The Hague System).

The WIPO Convention provides four different organs for the purpose of conducting its objectives and functions. These are as follows:

Article 6 of the Convention laid down the constitution, power function and other details about the General assembly. Clause 1 of Article 6 of the Convention states that there shall be a General Assembly consisting of the States party to this Convention which are members of any of the Unions. Clause 2 of the Article 6 laid down its functions as follows-

The General Assembly shall:

- I. appoint the Director General upon nomination by the coordination committee.
- II. Review and approve reports of the Director General concerning the Organization and give him all necessary instructions;
- III. Review and approve the reports and activities of the Coordination Committee and give instructions to such Committee;
- IV. Adopt the biennial budget of expenses common to the Unions;
- V. approve the measures proposed by the Director General concerning the administration of the international agreements referred to in Article 400;
- VI. Adopt the financial regulations of the Organization.
- VII. Determine the working languages of the Secretariat that practice of the United Nations;
- VIII. Invite States referred to under Article 5(2)(ii) to become party to this Convention;
- IX. Determine which States not Members of the Organization and which intergovernmental and international nongovernmental organizations shall be admitted to its meetings as observers;
- X. exercise such other functions as are appropriate under this Convention.

Article 7 of the Convention deals with Conference, which laid down in its clause I that there shall be a Conference consisting of the States party to this Convention whether or not they are members of any of the Unions (Sabbir Rahman et al.,2011). The Conference shall:

I. discuss matters of general interest in the field of intellectual property and may adopt recommendations relating to such matters, having regard for the competence and autonomy of the Unions.

II. adopt the biennial budget of the Conference.

III. Within the limits of the budget of the Conference, establish the biennial program of legal-technical assistance.

IV. Adopt amendments to this Convention as provided in Article 17.

V. determine which States not Members of the Organization and which intergovernmental and international non-governmental organizations shall be admitted to its meetings as observers.

There shall be a Coordination Committee consisting of the States party to this Convention which are members of the Executive Committee of the Paris Union or the Executive Committee of the Berne Union, of both Article 8 of the Convention deals with the Coordination Committee. The Coordination Committee shall:

1. Give advice to the organs of the Unions. The General Assembly, the Conference, and the Director General, on all administrative, financial and other matters of common interest either to two or more of the Unions or to one or more of the Unions and the Organization, and in particular on the budget of expenses common to the Unions .

2. Prepare the draft agenda of the General Assembly.

3. Prepare the draft agenda and the draft program and budget of the Conference.

4. When the term of office of the Director General is about to expire, or when there is a vacancy in the post of the Director General, nominate a candidate for appointment to such position by the General Assembly; if the General Assembly does not appoint its nominee, the Coordination Committee shall nominate another candidate: this procedure shall be repeated until the latest nominee is appointed by the General Assembly.

5. If the post of the Director General becomes vacant between two sessions of the General Assembly, appoint an Acting Director General for the term preceding the assuming of office by the new Director General.

6. Perform such other functions as are allocated to it under this Convention.

Article 9 deals with the secretariat of the WIPO. The International Bureau shall be the Secretariat of the Organization, which shall be directed by the Director General, assisted by two or more Deputy Directors General (Landes et al., 1987). The Director General shall be appointed for a fixed term which shall be not less than six years and shall be eligible for reappointment for fixed terms the periods of the initial appointment and possible subsequent appointments, as well as all other conditions of the appointment, shall be fixed by the General Assembly. The Director General shall be the chief executive of the Organization, who will represent the Organization.

The World Trade Organization (WTO) is an organization that intends to supervise and liberalize international trade. The organization officially commenced on January 1, 1995 under the Marrakech Agreement, replacing the General Agreement on Tariffs and Trade (GATT), which commenced in 1948. The WTO has 153 members at present representing more than 97% of total world trade: Basically WTO is established with the purpose of mobilizing International trade. But it has a significant role in the international protection of IP. Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) has been signed by WTO in Marrakesh, Morocco on 15 April 1994 for the purpose of protecting a wide range of IP. The agreement describes its object in its preamble as the "members desiring to reduce distortions and impediments to international trade, and taking into account the need to promote effective and adequate protection of intellectual property rights, and to ensure that measures and

procedures to enforce intellectual property rights do not themselves become barriers to legitimate trade desiring to establish a mutually supportive relationship between the WTO and the World Intellectual Property Organization (referred to in this Agreement as "WIPO") as well as other relevant international organizations.

WTO provides following fundamental principles for trading:

1. A trading system should be discrimination free in sense that a country cannot favour another country or discriminate against foreign products or services.
2. A trading system should be freer where there should be little barrier (tariff and non-tariff barrier).
3. A trading system should be predictable where the foreign companies and governments can be sure that trade barriers would not be raised and the market will remain open
4. A trading system should be more competitive.
5. A trading system should be more accommodating for less developed countries, giving them more time to adjust, greater flexibility, and more privileges.

Agreement Between the World Intellectual Property Organization and the World Trade Organization" has been adopted in 22nd December 1995 between WIPO and WTO in order to establish a mutually supportive relationship between them, and with a view to establishing appropriate arrangements for cooperation between them in order to the promotion and protection of Intellectual Property. The fact that the WTO made adherence to the Berne Convention compulsory for copyright protection under TRIPS in 1995, led a large majority of countries to join the Berne Convention (Naghavi, 2007). To this date, 159 State parties have ratified the Berne Convention and 99 are States parties to the UCC. Although both organizations still cooperate and participate in each other's meetings a repartition of tasks has been tacitly established: WIPO has been basically dealing with normative action and UNESCO's copyright program has mainly focused on copyright teaching, information and awareness as well as promoting copyright enforcement and piracy eradication. Besides the international organizations mentioned above, there are some regional international organizations promoting the protection of the IP within specific territory (May et al., 2006). For example:

1. The European Patent Office (EPO) as was established by the European Patent Convention. The convention was entered into force on 7th October 1977.
2. The African Intellectual Property Organization (OAPI) was established in 1982 by the Bangui Agreement. It is an organization of French speaking African countries for the promotion of IP.
3. The African Regional Industrial Property Organization (ARIPO) was established by the English speaking African nations to develop their industrial property system. It was established under the assistance of WIPO and UN Economic Commission for Africa (ECA). Agreement on the Creation of an Industrial Property for English Speaking Africa (ESARIPO) is responsible for establish of this organization.

There are a number of treaties by which the WIPO administered its functions related to international cooperation for protection of the Intellectual Property. These treaties can be divided into three groups according to its nature. The treaties fallen under these group have established the international protection i.e. treaties which are the source of legal protection agreed between countries at international levels. Following treaties fall into this group:

1. Berne Convention for Protection of Literary Artistic Works.

2. Brussels Convention Relating to the Distribution of Program-Carrying Signals Transmitted by Satellite.
3. Madrid Agreement for the Repression of False or Deceptive Indications of Source on Goods.
4. Nairobi Treaty on the Protection of Olympic Symbol.
5. Paris Convention for the Protection of Industrial Property.
6. Patent Law Treaty (PLT).
7. Convention try to the protection of producers of phonograms against unauthorized duplication of their phonograms.
8. Rome Convention (International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations).
9. Singapore Treaty on the Law of Trademarks.
10. Trademark Law Treaty (TLT).
11. Washington Treaty on Intellectual Property in Respect of Integrated Circuits.
12. WIPO Copyright Treaty.
13. WIPO Performance and Phonograms Treaty (WPPT).

This group is consisted of treaties which facilitate international protection. The treaties fall into this group includes the following:

1. Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure.
2. lingua Agreement Concerning the Registration of Industrial Designs.
3. Lisbon Agreement for the Protection of Appellations of Origin and their International Registration.
4. Madrid Agreement Concerning the International Registration of Marks and the Protocol relating to that Agreement.
5. Madrid Protocol Concerning the International Registration of Marks and the Protocol relating to that Agreement.
6. Patent Cooperation Treaty (PCT).

The treaties fallen under these group have established classification systems and procedure for improving them and keeping them up to date. Anyone applying for a patent or registering a trademark or design, whether at the national or international level, is required to determine whether their creation is new or is owned or claimed by someone else. To determine this, huge amounts of information must be searched. Four WIPO treaties (listed below) created classification system which organize information concerning inventions trademarks, and industrial designs into indexed, manageable structures for easy retrieval. Regularly updated to include changes and advances in technology and commercial practices the classification systems are used voluntarily by many countries which are not member States of the related agreements.

1. Locamo Agreement Establishing an International Classification for Industrial Designs.
2. Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks.
3. Strasbourg Agreement Concerning the International Patent Classification.
4. Vienna Agreement Establishing an International Classification of the Figurative Elements of Marks.

The concern for the protection of IP by the WTO has been recognized by the adoption of Agreement on Trade Related Aspect of Intellectual Property (TRIPS Agreement) (May et

al.,2006). The adoption of Universal Copyright Convention (UCC) has focused the role of UNESCO in the protection and promotion of copyright branch of IP.

Intellectual Property Protection in Bangladesh

The ancient, medieval, and colonial history of Bangladesh cover a period from antiquity to 1947, when India was partitioned. So the history of Bangladesh prior to 1947 is a history of India of which Bangladesh was a part. Bangladesh owes the origin of its Statutory IP law from the British Ruler as like the India and Pakistan. Present laws on IP protection is solely based on those laws. The laws have been developed separately on the basis of 'Patent and design', 'Trademark' and 'Copyright'. The Patent system was instituted by the British based on their own patent system in 1856, to protect inventions. This act was gradually modified in the years to follow. The Act VI of 1856 on Protection of Inventions as introduced was based on the British Patent Law of 1852. Certain exclusive privileges were granted to the inventors of new manufactures for a period of 14 years by the Act of 1856. The Act was modified as Act no XV in 1859. Patent monopolies called exclusive privileges (of making, selling and using inventions in India and authorizing others to do so for 14 from the date of filling specification). This continued until 1872 when the Patents and Designs Act, 1872 was adopted. The Protection of Inventions Act was enacted in 1883. Act of 1887 and the Act of 1883 was consolidated into the Inventions and Designs Act, 1888. Finally the Indian Patents & Designs Act was come into existence in 1911. This Act, in the name of Patents and Designs Act, 1911, has been continuing into operation in our country at present with certain forms of modification.

The first legislation on copyright was introduced in 1914 which was mainly based on the British Copyright law of 1911. After the independence from Britain new law on copy right was promulgated in 1962 during ruled undo Pakistan. After independence the Ordinance was continued in govern the laws related to copyright. This Ordinance continued into operation till 1999 when the Copyright Ordinance 1962 has been replaced by the new Copyright Act of 2000. Now in our country, Copyright law is regulated by the Copyright Act 2000 (No 28 of 2000) and it is amended up to 2005 new law contains different provisions in the line of International standard. This Act of 2000 was adopted to cope with the changing circumstances of around world on copyright law and also to fill up the demand required by Berne Convention. There was no specific law for the protection trademark until 1940. The protection of trademark was governed by the Penal Code, 1860. There was also Merchandise Marks Act, 1889 to prohibit the using of fraudulent marks on merchandise. In absence of any specific official trademark Law in India numerous problems arouse on infringement, law of passing off and these were solved by application of section 54 of the specific relief act 1877 and the registration was obviously adjudicated by obtaining a declaration as to the ownership of a trademark under Indian Registration Act 1908. To overcome the aforesaid difficulties the Indian Trademarks Act was passed in 1940, this corresponded with the English Trademarks Act. The laws of trademark were being governed by this Act during Pakistan period the emergence of Bangladesh it has continued into operation. This Act continued its action in Bangladesh till 2007. There was an increasing need for more protection of Trademarks due to the major growth in Trade and Commerce. Considering the circumstance the President of Bangladesh has adopted the Trademark Ordinance, 2008 in exercise of his Power under Article 93 (1). This Ordinance was ratified by the Parliament in 2009 and presently known us the Trademark Act, 2009. The objective of this Act was easy registration and better protection of trademarks and to prevent fraud. The Code of Civil Procedure, 1908 and the Code of Criminal Procedure, 1898 is applied in any suit under the provisions of the Patents and Design's Act, 1911, The Trademarks Act, 2009 and the Copyright Act, 2000.

The protection of IP property at national level is ensured by different Acts and the Rules made there under. There is separate legislation for different kinds of IP. The inventions and designs are being protected under the Patents and Designs Act, 1911 and the Patents and Designs Rules, 1933. The trademark protection is ensured by the Trademark Act, 2009 and the Trademark Rules, 1963. The Copyrights Act, 2000 and the Copyrights Rules, provides protection for the subject matters of copyright. Besides the national laws in this respect, Bangladesh is the member of several International treaties. It is a member of the Universal Copyright Convention (UCC) since 5th May, 1975; of the World Intellectual Property Organization.(WIPO) since 11th May, 1985; of TRIPS Agreement since 15th April, 1994; of Berne Convention since May 1999; of Paris Convention since 31st March, 1991. Being a member of these treaties Bangladesh is enjoying cooperation from the respected authorities at the concerned field.

The Act was enacted with the purpose of protecting invention and design. It has 97 Sections in total and divided into 3 parts. Part one deals with the detail of patent. Part two deals with the details designs Part 3 deals with the detail general provisions. It is to be noted here that the laws regulating patent has become out of date to cope with the existing complex dimension all over the world. This Act is urgently needed to be modified to cope with the present situation. The Trademark Ordinance, 2008 was enacted by the President of Bangladesh in 2008 in exercising his power under Article 93 (1) of the Bangladesh Constitution. This Ordinance was approved by the Parliament in 2009 and presently known as Trademark Act. 2009. The Act was adopted for the purpose of repealing the previous Statutes and modifying the laws relating to the trademark. The Merchandise Marks Act, 1889 (Act IV of 1889) and Trade Marks Act, 1940 (Act V of 1940) have been repealed under section 127 of this Statutes and this Act has become the exclusive law relating to the trademark. It has 127 sections in total and it is divided into 11 parts. The Copyright Act, 2000 was adopted by replacing the Copyright Ordinance, 1962. This Act was merely similar with the Indian Copyright Act, 1957. This Act was enacted to ensure the different types of intellectual works of human mind e.g. literary works, dramatic works, musical works, artistic works, cinematographic films and sound recordings.

There is some specific provision in the Penal Code for the protection of trademark and property mark. The distinction between a trademark and property mark is that whereas the former denotes the manufacture of quality of the goods to which it is attached, the latter denotes the ownership in them!" In other words, trademark concerns the goods, while a property mark concerns the proprietor. A property mark attached to the moveable property of a person remains even if part of such property goes out of his hands and ceases to be his. Using of False trademark and using of false property mark is prohibited and is punishable offence. These provisions yet exist and the application of these provisions is not barred by the Trademark Ordinance. 2008 as section 118 (2) of the Ordinance, this Ordinance shall not exempt any person from any suit or other proceeding which might be initiated against him in absence of this Ordinance. Any person against whom an offence under the Code occurred can initiate a proceeding for having remedy.

There are some other types of intangible asset (confidential information's, trade secrets and know how) which can be protected under the ordinary prevailing laws of our country. The confidential information related to private enterprise may sometimes be fallen under the breach of confidence and this can be enforced through the law of contract. Where any confidential information relates to industrial or trade activities, it is called trade secret. The law of tort protects valuable business information from misappropriation by others. Any types of information can be protected as trade secrets. In order to be protected the owner must maintain reasonable precaution to keep the information secrets by owner. Manufacturing Drawing arc

generally regarded and understood by persons working in the engineering field as being confidential: 8 Know how seems to indicate something essentially different from secret and confidential information. It indicates the way in which a skilled man does his job, and is an expression of his individual skill and experience.

Conclusion

In this paper showing the various aspect of IP and the legal protection of intellectual property rights in Bangladesh. However in industrial Property Office of Bangladesh is the Department of Patents, Designs and Trade Marks as established by the Patents and Designs Act, 1911. The Head of this Department is the Registrar of Patents, Designs and Trade Marks. The Department acts under the supervise Ministry of Industries located at Shilpa Bhaban Annex Building 91, Motijheel C/A Dhaka 1000. The Department is divided into two wings i.e. Patents and Designs Wings for dealing with the functions related to patents and designs and Trademarks Wing to deal with the functions regarding trademark. The Copyright Office of Bangladesh is 'Registry of Copyrights' which acts under the supervision of Minister for Cultural Affairs. The Copyright is situated in National Library Building (2nd flr.) Sher-e-Bangla Nagar Agargaon, Dhaka-1207. The head of the Office is the Registrar of Copyrights who discharges the function as conferred upon him by the Copyrights Act, 2000.

Folklore is very important for the developing countries like Bangladesh to express their cultural identity. It has an important significance to represent the cultural heritage of a country. A precise or specific definition of folklore is neither desirable nor possible. However, the 'Model Provisions for the National Laws on the Protection of Expressions of Folklore Against Illicit Exploitation and Other Prejudicial Action' as has been adopted by the joint venture of WIN) and UNESCO in 1985 provides that, the expression of folklore are understood as production consisting of characteristic elements of the traditional artistic elements of the traditional artistic heritage developed and maintained by a community in the country or by individuals reflecting the traditional artistic expectations of such a community. This definition of folklore includes both collective and individual development of traditional artistic heritage. Generally folklore includes epic, stories, music, dance, legends, oral history, proverbs, jokes, talks, songs, myths, riddles, popular belief, custom, tradition and broadly speaking the overall cultural reflections of a country. The skill, knowledge, experience, wisdom, habit and practices of past which are handed over by the examples or spoken means without any forms of printing reference can form part of the folklore. It is to be noted that this definition also includes the traditional knowledge, the traditional cultural expression and traditional medicine. Bangladesh is prosperous and resourceful with its folklore; and our folklore can give majestic insight into the country's social and ethnic background as well as habits and beliefs of our people. In fact, our country is a living museum of traditional cultural expression. The most remarkable folklore of our country includes folk songs (Baul, Gombhira. Bhatiali, Bhawaiya. kavigan. ghatu gan, jhumur, baramasi, meyeli git, jatra gan, sari gan, etc). Purbabanga Gitika (Mahuya, Maluya, Chandravati. Devaina Madina, Kanka Lila. Kamala, Dewan Bhavna etc), Nath Gitika (Manik Chandra Rajar Gan, Govinda Chandrer Git, Maynamatir Gan, Gopi Chandrer Sannyas, Gopi Chander Panchali, goraksavijay, Minchetan etc), folk tales, folk drama (Rama and Sita. Arjun and Draupadi, Radha and Krishna, Nimai Sannyas, Bchula and Laksindar, Isha Khan Dewan , Firoz await Zainab and Haw , Sakhina and Kasem, Hanifa and Jaigun, Ralitin Badsha, Rupban, Baidyani etc), rhymes proverbs, pintos (a types of ancient manuscript). There are more than two hundreds examples of traditional knowledge of farming tasks. Bangladesh is also resourceful for its traditional medicine and the traditional artistic heritage consisting of different types aesthetic and appealable products. There are 39 small ethnic small communities

in our country who also have great contribution to enrich the folklore of our country. These affluent folk properties reflect the rich aesthetic past of our countries.

Article 23 of the Constitution of Bangladesh laid down that, the State shall adopt measures to conserve the cultural traditions and heritage of the people and so to foster and improve the national language, literature and the arts that all sections of the opportunity to contribute towards and to participate in the enrichment of the national culture. But this being a fundamental principle of state policy constitutional enforcement of this provision is no possible. Bangladesh Shilpakala Academy, Bangla Academy, National Museum, National Archives & Libraries, Folk Arts and Crafts Foundation, Copyright Office. Cox's Bazar Cultural Centre, Tribal Cultural Institutes Bandarban. Tribal Cultural Academy, Birisiri, Bangladesh Culture and Heritage Foundation (BCHF) are functioning in order to collect, promote and promote the folklore resources of our country under the supervision of Ministry of Cultural Affairs. Immense folk resources of our country can be utilized for the economic progress in different ways. It could develop the tourism business by exploring a majestic insight into the country's social and ethnic background. Justified and scientific utilization of tradition medicine may form an integral part in the future medical science of the world. The scientific use of traditional knowledge can help to improve the existing cultivation system as well as the other sectors of direct production. The traditional artistic heritage can be used to make aesthetic products and showpieces which have a great demand in the foreign market. Proper use of folk literature might have a role in the development of modern literary works and in the field recreation. But no specific or effective laws are available for the preference and the illicit exploitation of these folklores. By the passage of time most of the folklores are fading away from the society due to the apathetic attitude of present generation, absence of effective protection and of lack of conservation and transmission. These resources which were once popular to people and their spirit of life are going to be lost. The WIPO and UNESCO provide the Model Law for the protection and illicit exploitation of the folklore, but our legislature has not yet taken any steps to adopt such a law. Bangladesh is far more to do for the protection of these traditional resource.

Although the existing law can be applied to protect these estates but there is also certain limitation. Traditional knowledge, traditional medicine could be made a subject matter of protection under the prevailing Patents and Designs Act. 1911. The traditional artistic heritage and the folk literature are worth of coping thereby these resources can be protected under the Copyright Act, 2000. But it is not as easy as it looks. Several barriers seems to be occurred on different issues (e.g. about the authorship, regarding the administration). There is no doubt that the existing measures are not sufficient and efficient to conserve and protect the folk resources. We need appropriate sanctioning law and specific institution for its protection without delay. It being obligatory for the legislature to enact specific law and in this respect the legislature can comply with the Model Law as provided by the WIPO and UNESCO for this purpose. Well-being institution should also be established for the collection, compilation, preservation, conservation, documentation, development and legal protection of folklore. Provisions regarding the safety and prevention of unfair exploitation should also be incorporated. Incentives must also make available for the support of communities responsible for the creation and maintenance of these folk resources. Action plans is mandatory to be taken for building overall public awareness for this purpose.

References

Abhayawansa, S. (2009). Corporate reporting of intellectual capital: evidence from the Bangladeshi pharmaceutical sector. *Asian Review of Accounting*, 22(2), 57-68.

- Ala, M. U. (2013). A Firm-level Analysis of the Vulnerability of the Bangladeshi Pharmaceutical Industry to the TRIPS Agreement: Implications for R&D Capability and Technology Transfer. *Procedia Economics and Finance*, 5(2), 30-39.
- Bado, C.W. and R. Detrick(1987). U.S. Patent No. 4,703,423. Washington, DC: U.S. Patent and Trademark Office.
- Bodenhause, G.H.C.(1968). Guide to the application of the Paris convention for the protection of industrial property, as revised at Stockholm in 1967. Wipo, 611.
- Calboli, I.(2006). Expanding the protection of geographical indications of origin under TRIPS: Old debate or new opportunity.
- Marquette Intellectual Property Law Review, 10(2): 181.
- Cohen, W.M., R.R. Nelson and J.P. Walsh(2000). Protecting their intellectual assets: Appropriability conditions and why US manufacturing firms patent (or not) (No. w7552). National Bureau of Economic Research.
- Coombe, R.J.(1990). Objects of property and subjects of politics: Intellectual property laws and democratic dialogue. *Texas Law Review*, 69: 1853.
- Cornish, W., D. Llewelyn and T. Aplin.(2003). Intellectual property: Patents, copyright, trade marks and allied rights. 6th Edn., London: Sweet & Maxwell.
- Correa, C.(2007). Trade related aspects of intellectual property rights: A commentary on the TRIPS agreement. OUP Catalogue.
- David, P.A.(1993). Intellectual property institutions and the panda's thumb: Patents, copyrights, and trade secrets in economic theory and history. National Academy.
- Edvinsson, L. and P. Sullivan .(1996). Developing a model for managing intellectual capital. *European Management Journal*, 14(4): 356-364.
- Eran Binenbaum, C. N., University of Minnesota. (2018). South-North Trade, Intellectual Property Jurisdictions, and Freedom to Operate in Agricultural Research on Staple Crops. *Economic Development and Cultural Change* 67(1).
- Ficsor, M.(2002). The law of copyright and the internet: The 1996 WIPO treaties, their interpretation and implementation. Ficsor, M., 2002. Collective management of copyright and related rights. WIPO, 855.
- Griliches, Z.(1998). Patent statistics as economic indicators: A survey. In *R&D and productivity: The econometric evidence*.
- Hagen, P.T., D.G. Scholz and W.D. Edwards .(1984). Incidence and size of patent foramen ovale during the first 10 decades of life: an autopsy study of 965 normal hearts. In *Mayo Clinic Proceedings*. Elsevier, 59(1): 17-20.
- Hobsbawm, E. and T. Ranger. (2012). The invention of tradition. Cambridge University Press.
- Jaffe, A.B., M. Trajtenberg and R. Henderson, (1993). Geographic localization of knowledge spillovers as evidenced by patent citations. *The Quarterly Journal of Economics*, 108(3): 577-598.
- Jain, A.K. and A. Vailaya, .(1998). Shape-based retrieval: A case study with trademark image databases. *Pattern Recognition*, 31(9): 1369-1390
- Khan, M. H. U. Z. (2008). An empirical investigation and users' perceptions on intellectual capital reporting in banks: Evidence from Bangladesh. *Journal of Human Resource Costing & Accounting*, 3(1), 33-40.
- Koch, E. and J. Zhao .(1995). Towards robust and hidden image copyright labeling. In *IEEE Workshop on Nonlinear Signal and Image Processing*. Neos Marmaras, Greece, 1174: 185-206.
- Landes, W.M. and R.A. Posner.(1987). Trademark law: An economic perspective. *The Journal of Law and Economics*, 30(2): 265- 309.
- Landes, W.M. and R.A. Posner. (2009). The economic structure of intellectual property law. Harvard University Press.

- Naghavi, A. (2007). Strategic Intellectual Property Rights Policy and North-South Technology Transfer. *Review of World Economics*, 143(1), 55–78.
- Naznin, S. M. A. (2011). PROTECTING INTELLECTUAL PROPERTY RIGHTS IN BANGLADESH:AN OVERVIEW BANGLADESH RESEARCH PUBLICATIONS JOURNAL, 6(1), 12-21.
- Maskus, K.E. and C. Fink . (2005). Intellectual property and development: Lessons from recent economic research. World Bank Publications.
- May, C. and S.K. Sell, .(2006). Intellectual property rights: A critical history. Boulder: Lynne Rienner Publishers. pp: 5-11.
- Merges, R.P., P.S. Menell and M.A. Lemley .(2003). Intellectual property in the new technological age. New York: Aspen Publishers, 118.
- Olwan, R.M. (2012). Intellectual property and development. In *Intellectual Property and Development*. Berlin, Heidelberg: Springer. pp: 1-31.
- Oxley, J.E.(1999). Institutional environment and the mechanisms of governance: The impact of intellectual property protection on the structure of inter-firm alliances. *Journal of Economic Behavior & Organization*, 38(3): 283-309.
- Petitcolas, F.A., R.J. Anderson and M.G. Kuhn, .(1998). Attacks on copyright marking systems. *International Workshop on Information Hiding*. Springer, Berlin, Heidelberg. pp: 218-238.
- Rahl, J.A.(1969). Conspiracy and the anti-trust laws. *Journal of Reprints for Antitrust Law and Economics*, 1: 1111.
- Rangnekar, D.(2004). The socio-economics of geographical indications. UNCTAD-ICTSD Project on IPRs and Sustainable Development, Issue Paper No. 8: 13-15.
- Ray, C.(1998). Culture, intellectual property and territorial rural development. *Sociologia Ruralis*, 38(1): 3-20.
- Sabbir Rahman, M. R., Ahasanul Haque (2011). Purchasing Behavior for Pirated Products A Structural Equation Modeling Approach on Bangladeshi Consumers. *Journal of Management Research*, 11(1), 48-58.
- Schmoch, U.(2003). Service marks as novel innovation indicator. *Research Evaluation*, 12(2): 149-156.
- Singh, J.(2004). World intellectual property organization. Treaty, P.C., 2014. World intellectual property organization.
- Ulmer, G.L.(2003). Internet invention: From literacy to electracy. New York: Longman. pp: 1-10. Wagner, R., 2016. The invention of culture. University of Chicago Press. city of Chicago J. L. (2011).