



**ECONOMIC POLICY PAPER
ON
Copyright, Trademark and Patent Protection**

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Introduction to Intellectual Property Law

Intellectual property law is that area of law, which concern legal rights associated with creative effort or commercial reputation and goodwill. The subject matter of intellectual property is very wide and includes literary and artistic works, films, computer programs, inventions, design and marks used by traders for their goods or services. The law deters other from copying or taking unfair advantage of the work or reputation of another and provides remedies should this happen. There are different forms of rights and areas of law giving rise to these rights that together make up intellectual property. The traditional pillars of the subject have been the laws of patent and of copyright. As developed over a period of centuries, these have pursued goals of expanding and advancing the range of general and scientific knowledge available to the world at large whilst rewarding adequately the innovative work of the artist or the inventor.

2. An Overview of Intellectual Property Law

More recent times have seen the topic of intellectual property law expanding beyond patents and copyright to include breach of confidence. Although the basis of this right has itself been debated extensively and it remains uncertain whether it is grounded in concepts of property, contract or equity, it plays a significant role in preventing inequitable use of information acquired in the course of business or professional relationship. The concepts of trade secrets and unfair competition have also been developed. In the TRIPS Agreement the following rights are treated as part of intellectual property:

- (a) Patent
- (b) Copyright
- (c) Trademark
- (d) Industrial Design
- (e) Confidential Information
- (f) Layout-designs of integrated circuits

This list is not exhaustive and there are other rights, for example passing off, rights associated with plant and seed varieties protection.

There are many similarities and differences between the various rights that make up intellectual property law. For example, there is common ground between patents and registered designs, as there is between copyright and rights in performances. Some rights give rise to monopolies whilst others merely prevent the unfair use by other of an existing work or article. The various rights are not necessarily mutually exclusive and two or more of the rights can co-exist in relation to a certain "thing". Sometimes, the rights will progressively give protection, one right taking over from another over a period of time during the development of an inventions, design or work of copyright.

A practical distinction that can be used to subdivide the various rights is whether there is a requirement for registration, that whether the right is dependent upon the completion of formalities, or whether it automatically springs into life at a specified time. Another distinguishing feature is the nature of the right, whether it applies to something which is primarily creative or has to do with goodwill in a wide commercial sense. Creative things can be further subdivided into those that are creative in an artistic or aesthetic sense, such as an oil painting, music or literature, or those that are inventive in an industrial context such as a new type of machine or engine or a new way of making a particular product.

Some intellectual property rights, in respect of particular ideas, works or things, are secured by the successful completion of a formal application and registration procedure. The necessary formalities are not simply satisfied by depositing details with an appropriate authority because such rights are not granted lightly. They do put the owner of the right in a privileged position whereby he can restrain others from doing certain things whilst exploiting the right for himself. The rights impinge upon the freedom of action of others. The owner has a form of property which he can use as he likes, subject to some constraints, and he can take legal action either to deter would be trespassers or to obtain damages against those who have trespassed just as the owner of real property can do.

Having examined the various distinctive features of various rights that come within the purview of intellectual property, I would draw my attention to the terms of reference of my project. Although the terms of reference of the project would restrict my discussion of intellectual property only to the extent of patent, trademark and copyright law, I would endeavour to discuss some pertinent issues in the field of intellectual property which are necessary for the economic reform of the country.

3. Patent Law

3.1 Genesis of Patent of Law

The origins of patent can be traced back to the fourteenth century. The word 'patent' is derived from the Letters Patent (or open letters) which would be issued by the sovereign and which could be presented by recipients as evidence of the extent of the rights conferred upon them. A Flemish weaver who wanted to practise his trade in England was granted a patent in 1331, one of the earliest recorded instances of a patent. The regulation of trade was deemed to fall within the provenance of the Crown and letters patent proved to be a useful method of encouraging the establishment of new forms of industry and commerce, giving the Crown powerful control over trade. In this early form, there was no need for anything inventive; it had more to do with the practice of a trade and the granting of favours by the Crown. However, some letters patent were granted for inventions - for example, a patent was granted to John of Utyman in 1449 for his new method of making stained glass. Eventually, there was strong need for an effective system that prevented unfair competition where, for example, one person had made some novel invention and wanted to stop other from simply copying it. A monopoly system developed in the reign of Elizabeth I and many letter patent were granted.

3.2 Patent Law in Bangladesh

The law of patent in Bangladesh is found in the Patents and Designs Act, 1911 ("the PDA") and the Patent and Design Rules, 1933. The PDA codified the common law relating to patent prevailing at that time. The salient features of the Patent Act are as follows:

- (a) the subject matter of a patent should be a "manner of new manufacture;
- (b) the inventor or his legal representative or his assignee should be a party to the application for a patent;
- (c) the application for a patent may be made along with either a Provisional Specification or a Complete Specification;
- (d) every application in respect of which a Complete Specification has been filed is examined before it is finally accepted;
- (e) on the acceptance of an application , the specification or the specification in respect of it, become open to public inspection;

- (f) the grant of a patent on an application may be opposed by any person within 4 months from the date of the advertisement of its acceptance;
- (g) every patent should be confined to one invention only , but the specification may contain more than one claim;
- (h) the normal term of a patent is 16 years from its date; but in special circumstances the term may be extended for a further period not exceeding 10 years;
- (i) the continuance of a patent other than a patent of addition is subject to payment of certain renewal fees;
- (j) the patentee can be compelled by the Government to grant licences in public interest;
- (k) a patent can be revoked by the Controller, the Government or the High Court, in certain circumstances.

3.3 Characteristics to be Patentable

In order to be patentable an invention should have the following characteristics:

- (a) the invention should relate to a manner of manufacture;
- (b) the manner of manufacture should be novel;
- (c) it should be the outcome of inventive ingenuity;
- (d) it should have utility;
- (e) it should not be contrary to law or morality.

3.3.1 Manner of Manufacture

The expression "manner of manufacture" includes any process or apparatus for producing, preparing, or making an article by subjecting materials to manual, mechanical, chemical, electrical or the like operations, for preserving or modifying their properties, or for producing new materials, and also any article so prepared, produced, or made. It is essential that the process, apparatus or article of manufacture should suggest an act to be done or an operation to be performed, and that the result must be a vendible product.

Mere abstract principles of schemes, which may be of a high order from the standpoint of originality or utility, which do not involve the subjecting of materials to manual or mechanical or other operations, and which do not relate to the making of vendible products, are not considered to be within the scope of this expression.

An article or an apparatus is prima facie a manufacture, but a method or process may not be a manufacture unless (a) it results in the production of some vendible product, or (b) improves or restores to its former condition a vendible products, or (c) has the effect or preserving from deterioration some vendible product to which it is applied.

3.3.2 Novelty

Novelty is considered with reference to what is publicly used in Bangladesh and to what is publicly known in Bangladesh prior to the date of patent. If an invention has been put into practice in Bangladesh publicly, it would constitute a public use of the invention and would prejudice the novelty of the invention. The working of an invention by a person secretly would not invalidate patent of a subsequent date granted in respect of the same invention, unless such secret working was on a commercial scale.

A prior publication, i.e. the printing, writing or publishing of some document to which the public has access, containing such a description of the invention as will enable the invention to be carried into effect from the description given, would also prejudice the novelty of the invention, on the ground of the invention being publicly known.

3.3.3 Inventive Step

Although an invention may be a manner of manufacture, and may also be novel, it may yet be not proper subject matter for a patent, if it does not have the quality of "invention". The quality of "invention" may arise either from the actual exercise of the originating powers of the mind, or may result from an accidental discovery, a happy inspiration, or a lucky hit. Mere simplicity of an invention is not a bar to its patentability.

A real test for inventive merit is whether or not what is effected is of such a nature as would suggest itself to a competent workman in the art to which the invention relates, if he was confronted with the problem which has to be solved.

3.3.4 Utility

No valid patent can be granted for an invention devoid of utility. Utility does not mean abstract utility or comparative utility, or competitive utility or commercial utility. Utility mean having practical existence as a manner of manufacture. If what is proposed by the invention is giving an option of a process or an apparatus which is better in some respect though not necessarily better in every respect, than what is previously known, the invention will be deemed to possess utility.

3.4 Types and Procedure for Obtaining Patent and Duration

34.1 Types and Procedure

An inventor of process of manufacture may have the either of the following types of patent:

- (a) An ordinary patent (under Section 3 of the Patent Act);
- (b) A patent claiming priority of date (under Section 78A);
- (c) A secret patent (under Section 21A)
- (d) A patent of addition (under Section 15A of the Act).

The following are the successive steps of the procedure for obtaining a patent:

- (i) Filing the "Application", accompanied by either a Provisional or a Complete Specification;
- (ii) Filing the Complete Specification, if the Specification filed with the Application was a Provisional Specification;
- (iii) Examination and Acceptance;
- (iv) Overcoming Opposition, if any, to the grant of patent;
- (v) Sealing the patent.

3.4.2 Duration

Every patent, other than a patent of addition, is granted for the term of 16 years from its date, which in the case of ordinary patents is the Official date of the application and which in the case of application claiming priority under Section 78A of the Patent Act, is the priority date allowed.

A patent of addition will ordinarily remain in force as long as the patent for the original invention to which it is an addition remains in force, but no longer, but if the letter revoked, the patent of addition may be made an independent patent and continued for the unexpired term of the patent for the original invention.

3.5 Infringement of Patent

Proceedings may be instituted by the patentee under Section 29 of the Act against any person who, during the continuance of a patent makes, sells or uses the invention protected by it without a licence from the patentee, or who counterfeits or imitates the invention.

Under Section 21 of the Act the subject matter of a patent or of an application for a patent may be used for the service of the Crown, after giving notice to the applicant or the patentee, on such terms as may, either before or after the use thereof, be agreed on with the approval of the Government.

3.6 Analyzing Remarks

3.6.1 Legal Perspective

As it is evident from the above that a patent granted under the PDA is only applicable within the jurisdiction of Bangladesh. In the age of globalization and Internet such a limited protection has no effect in true commercial sense. Bangladesh, not being a signatory to the Patent Co-operation Treaty, 1970, is not bound by any patent granted by foreign country.

Present system of Bangladesh in its present form is not in conformity with the TRIPS Agreement. Under the TRIPS Agreement a patent is granted for invention, whether products or process, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. Pursuant to Article 27 (3) members are given option to exclude from patentability:

- i. diagnostic, therapeutic and surgical methods for the treatment of humans and animals;
- ii. plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes.

However, member states are obliged to provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof.

Unlike the Patent and Design Act, 1911, duration of patent under the TRIPS Agreement is twenty years from the filing date. The Patent and Design Act, 1911 does not provide any provision for injunction against import of infringing goods in Bangladesh. Under the TRIPS Agreement member states are required to repeal local providing injunction granting power against importation of infringing goods. Furthermore, in addition to the remedy of damages for infringement of intellectual property, Article 46 of the TRIPS Agreement provides as follows:

In order to create an effective deterrent to infringement, the judicial authorities shall have the authority to order that goods they have found to be infringing be, without compensation of any sort, disposed of outside the channels of commerce in such a manner as to avoid any harm caused to the right holder, or, unless this would be contrary to existing constitutional requirements, destroyed, The judicial authorities shall also have the authority to order that materials and implements the predominant use of which has been in creation of the infringing goods be, without compensation of any sort, disposed of outside the channels of commerce in such a manner as to

minimize the risks of further infringements. In considering such request, the need for proportionality between the seriousness of the infringement and the remedies ordered as well as the interest of third parties shall be taken into account.

It would be necessary for Bangladesh to amend the PDA so as to develop a harmonious system of patent protection. As far as IT sector is concerned patent protection is the key to development in hardware components and in the telecommunication sector. With regard to extending patent protection toward software, the legal community is divided. The U.K. Patent Act, 1977 includes in its list of developments which will not qualify for patent protection, inter alia, 'a program for a computer'. A similar provision is found in the European Patent Convention which refers to 'programs of computer'. Although the Patent Co-operation Treaty does not contain any specific prohibition against computer programs, it is provided that an International Searching Authority is not obliged to conduct a search of the prior art in respect of an application concerning a computer program 'to the extent that the International Searching Authority is not equipped to search prior art concerning such programs.

Patent protection in the USA has taken a dubious turn after the decision of the Delaware District Court in the case of *Paine, Webber, Jackson and Curtis. Inc v Merrill Lynch, Pierce, Fenner and Smith, Inc.* [564 F Supp 1358 (1983)]. In this case a patent was granted in respect of a financial system which permitted funds to be switched between a variety of accounts in such a way as to maximize the financial benefit accruing to the account holder. The various forms of account involved were totally orthodox. Merill Lynch's innovation was to automate the transfer procedures, and a patent was awarded in respect of the data processing methodology and apparatus devised to implement the system.

Before the decision of *Paine v Merill Lynch*, the possibilities of granting patent to computer programs were examined by the Supreme Court in *Gottschalk v Benson*. This concerned the invention of a method of converting what were referred to as 'binary-coded decimal numbers' into their 'pure binary' equivalents. The application was rejected in the Patent Office, whose decision was reversed by the Court of Customs and Patent Appeals. Their decision was in turn reversed by the Supreme Court. Delivering the judgment of a unanimous court, Mr. Justice Douglas referred to dicta in the earlier Supreme Court case of *Mackay Co. v Radio Corpn* to the effect that:

"while a scientific truth, or the mathematical expression of it, is not a patentable invention, a novel and useful structure created with the aid of knowledge of scientific truth may be."

Given that computer programs are based on mathematical formula, judiciary is generally reluctant to grant patent protection to software programs. However, now a days there are instances in the USA where patent protection is granted to such inventions. Patent provides an exclusive right to industrial exploitation of the invention, but obtaining patent is extremely expensive. Given the supersonic nature of developments in software industry IT companies have lost their interest in protecting software as a patent.

3.6.2 Administrative Perspective

Although registration of patent during last decade has increased in great numbers there has been little or no progress at all in respect of administrative restructuring of the Patent Office. Under the current organogram of the Patent is an equivalent post of Deputy Secretary and posting of the Controller is controlled by the Ministry of Industry. There is no Deputy Controller of Patent appointed to the Patent Office Two Assistant Controllers of Patent are appointed who are supervising both patents applications and application relating to registered design. Although 4 patent examiners are approved to be appointed, but in reality only one examiner of patent works under the present administrative set up.

The above administrative set up does not give us an impressive picture of patent registration system in Bangladesh. Inadequate staff causes delay in getting registration of patent. As discussed above granting of patent requires numbers of steps that must be followed by the Patent Authority. Since examination of Patent Applications requires state of the art knowledge about developments in science and technology, one examiner of patent is manifestly inadequate. It would be a mockery of patent examination processes if it is expected that one patent examiner is expected to know about latest development in chemistry, physics, biotechnology etc. at the same time.

Currently it takes around 21 months to get a patent registration. Such delay in getting the registration is mainly due to inadequate staff in the Patent Office. Given the current boom in the field of IT and biotechnology there would be an influx of applications for patent registration. Unless the patent office is properly equipped with sufficiently qualified staff, business community would suffer irreparable loss.

4. Copyright Law

4.1 Copyright Law: An Overview

Copyright is a property right that subsists in certain specified types of works as provided for by the Copyright Ordinance, 1962. Examples of the works in which copyright subsists are original literary works, films and sound recordings. The owner of the copyright subsisting in a work has the exclusive right to do certain acts in relation to the work such as making a copy, broadcasting or selling copies to the public. These are examples of the acts restricted by copyright. The owners of the copyright can control the exploitation of the work, for example by making or selling copies to the public or by granting permission to another to do this in return for a payment. If a person performs one of the acts restricted by copyright without the permission or licence of the copyright owner, the latter can sue for infringement of his copyright and obtain remedies, for example damages and an injunction.

4.2 Copyright System in Bangladesh

Like most of the other areas of law, the law of copyright in Bangladesh is based on English common law. Development of copyright law is closely linked with the invention of printing press. At its initial period, right to publish in England was controlled by royal licences and patents granted, and the grant of these printing privileges became a source of considerable income for the State. These licences were not granted to the authors rather were granted to the printers. With an increase in the number of printers, the publishers belonging to the Stationer's Company were granted the original Charter in 1556. The first British copyright statute that was made applicable in the British India was the English Copyright Act, 1842. The Copyright Act, 1911 of England was extended to India as part of His Majesty's dominions and was brought into force, albeit in limited scope, by the proclamation of October 1912. Later on the Copyright Act, 1914 was enacted with extended rights. The present copyright law of Bangladesh is contained in the Copyright Ordinance, 1962 ("the Ordinance"). This Ordinance was later amended by the Copyright Act, 1974.

One of the significant amendments that was brought about by the 1974 Act was that of requirement of registration of copyright work. A new subsection was introduced which provided that in order to bring a civil action for the infringement of copyright the work must be registered or deemed to be registered.

Under the Ordinance copyright protection is granted for various types of works. Section 10 of the Ordinance provides as follows:

Works in which copyright subsists -

(1) Subject to the provisions of this section and to the other provisions of this Ordinance, copyright shall subsist throughout Bangladesh in the following classes of works, that is to say -

- (i) original literary, dramatic, musical and artistic works;
- (ii) cinematographic works;
- (iii) records; and
- (iv) broadcasts;

(2) Copyright shall not subsist in any work specified in sub-section (1), other than a work to which the provisions of section 53 or section 54 apply, unless -

- (i) in the case of published work, the work is first published in Bangladesh, or where the work is first published outside Bangladesh, the author is at the date of such publication, or in a case where the author was dead at that date, was at the time of his death, a citizen of Bangladesh;
- (ii) in the case of an unpublished work other than an architectural work of art, the author is at the date of the making of the work a citizen of Bangladesh or domiciled in Bangladesh;
- (iii) in the case of a work of architecture, the work is located in Bangladesh.
- (iv) in the case of a record, the recording is made in Bangladesh; and
- (v) in the case of a broadcast, the broadcasting is transmitted from within Bangladesh.

(3) Copyright shall not subsist, –

- (a) in any cinematographic work, if a substantial part of the work is an infringement of the copyright in any other work;
- (b) in any record made in respect of a literary, dramatic or musical work, if, in making the record, copyright in such work has been infringed; and
- (c) in any broadcast, if a substantial part of the broadcast, is an infringement of the copyright in any other work;
- (d) The copyright or the lack of copyright in a cinematographic work or a broadcast or a record shall not affect the separate copyright in any work in respect of which or a substantial part of which the work or the broadcast, or as the case may be, the record is made.
- (e) in the case of a work of an architectural work of art, copyright shall subsist only in the artistic character and design and shall not extend to the process or methods of construction.

During the 1970s and throughout much of the 1980s, one of the most controversial topics in intellectual property concerned the question as to whether computer programs (software) should be considered eligible for protection as a species of intellectual property and, if so, as to the most appropriate form of such protection. In most jurisdictions, this debate has virtually terminated with the view prevailing that software should qualify for protection under the law of copyright. This is now established that computer software is protected as literary copyright work.

Far from ushering in an era of legal certainty, the application of various provisions of copyright law to software has created numerous difficulties and uncertainties. It is reasonably certain that a simple reproduction of a protected work would constitute infringement of copyright. However, the copyright owner might find it difficult to enforce his or her rights. The issues become far more complex where the dealings in the work fall short of literal copying of the lines of code. The most intractable problem concern the issue as to how far the provisions of copyright law permit an author to make use of an earlier work, and where this activity falls into the prohibited category of reproduction or copying.

4.3 Computer Programs as Literary Work

Although the phrase 'literary work' may have qualitative connotations there is no requirement that a work should possess any form of literary merit. According to Peterson J. (in *University of London Press v. University Tutorial Press* [1916] 2 Ch 601) the expression "literary work" covers "work which is expressed in print or writing, irrespective of the question whether the quality or style is high. The word 'literary' seems to be used in a sense somewhat similar to the use of the word 'literature' in political or electioneering literature, and refers to written or printed matter." As long as a work involves the usage of "skill, judgment and labour" it would be granted copyright protection.

The above description of the nature of 'literary' work implies that a work to get copyright protection must be expressed in 'print' or in 'writing'. Thus the initial debate was whether computer software which is not 'printed' or 'written' in paper would be eligible for copyright protection as 'literary work'. In order to circumvent this problem most of the European and North American countries changed the definition of "literary work" to extend copyright protection to computer software.

In Bangladesh it is a widely known fact that the Ordinance in its present form does not provide any copyright protection to computer software and other computer related works which are termed to be protected under the TRIPS Agreement. The unavailability of copyright protection for such works is one of the most deterring factors for the growth in computer software and in overall IT sector of Bangladesh.

Section 2 (p) of the Ordinance provides that "literary work" includes works on humanity, religion, social and physical sciences, tables and compilations. Obviously this definition of "literary work" is outdated and has become obsolete. Plain reading of the definition provided in the Ordinance suggests even a narrower scope of work which may qualify for protection as a "literary work". The definition specifically provided the types of work which would be treated as literary work.

Fortunately the Government has taken steps towards repealing the Ordinance. An expert committee under the chairmanship of late Gaji Shamsur Rahman was formed by the Ministry of Cultural Affairs. After more than three years of its formation the committee submitted its Report to the Government with a draft Copyright Bill ("the Bill"). The Bill had been laid before the Parliament during April, 2000 session and on 2 April 2000 it was sent to the Parliamentary Standing Committee on Law Justice and Parliamentary Affairs for scrutiny after long delay and the Bill was passed by the Parliament as the Copyright Act, on 18 July 2000 ("the Act"). The Gazette Notification of the Copyright Act, 2000 is yet to be available for public.

The Act seeks to overcome the problems which were prevailing in the Ordinance. It was felt that a mere change of the definition of "literary work" would not be sufficient to protect computer software. There are few more areas of copyright which need to be amended to bring our copyright law in line with the minimum standard requirements as provided for in the TRIPS Agreement.

In the course of producing a computer program a good deal of other materials may be developed. The process may begin with a general formulation of the intended purpose of the program. Subsequently, a detailed specification may be written down describing all the functions and manner of operation to be provided in the completed work. This may take the form of a flow chart depicting the structure and sequence of the operations to be carried out. It may also be that drawings are made depicting various aspects of the screen displays to be produced. To cover all these aspects of computer software the act defines "literary work" in the following language:

"literary work" includes work on humanity, religion, social and physical sciences, computer programs, tables and compilations including computer databases".

4.4 Computer Programs as Audio or Visual Works

There can, today, be no doubt that computer programs are protected as literary works. It is also arguable that other forms of audio or visual copyright may be applicable in respect of screen displays and any soundtracks which may accompany the program's operation. These points will be of particular significance in the field of computer games.

A sound recording is defined in the act as:

"... a recording of sounds from which such sounds may be produced regardless of the medium on which such recording is made or the method by which the sounds are produced."

In many instances the digitized squawks and screams emanating from a computer game will not satisfy any criterion of originality for the grant of copyright protection. There would appear no reason to doubt that where the audio contents is more sophisticated, this will not benefit from protection in its own right.

4.5 Analyzing Remarks

Mere granting copyright protection to computer software may become otiose unless an effective mechanism is provided for enforcement of copyright as well as prevention of infringement. In the diverse development of IT sector manner of infringement has no bound. Under the act knowing use of infringing copy of computer program is an offence punishable with imprisonment for a term which may extend to three years and shall not be less than three months or with fine which may extend to taka two lakh and shall not be less than taka fifty thousand.

As far as civil remedies are concerned, under section 77 of the act where copyright in any work or any other right conferred by the Act has been infringed, the owner of the copyright shall be entitled to all such remedies by way of injunction, damages, accounts and otherwise as are or may be conferred by law for the infringement of a right. The requirement of registration, inserted by 1974 Act, is omitted in the act. In order to file a civil suit for infringement, one would not be required to register the software.

The Bill does not only confer copyright protection towards computer software, it also specifies the instances which would not amount to infringement of the copyright in computer software. This is dealt in Section 73 (1) (y) in the following terms:

(1) The making of copies or adaptation of a computer program by the lawful possessor of a copy of such computer program, from such copy-

- i. in order to utilize the computer program for the purpose for which it was supplied; or
- ii. to make back-up copies purely as a temporary protection against loss, destruction or damage in order only to utilize the computer program for the purpose for which it was supplied.

This drafting of permitted acts appears to take partial account of computer related activities which should not amount to infringement. The act only permits a licensee to create back up copies and usage of software for the purposes for which it was supplied. It is not clear from the above provision whether de-compilation would amount to infringement. Plain reading of the section suggests that unless the particular software in question was supplied or bought for the purpose of de-compilation, any attempt to convert a software into version expressed in a higher level language would amount to infringement.

One further weak point, which remains in the act, is that it does not provide any provision for interlocutory remedy in the nature of *Anton Piller* order, which would allow a victim of copyright infringements to enter the premises of the infringer and seize the infringed articles including instruments of infringement. Absence of this interlocutory remedy would certainly undermine the effectiveness of the remedies available under the act. Given the nature of infringement of software, it would be extremely difficult for a copyright owner to prove infringement in the absence of an opportunity to collect the evidence from the control and possession of the infringer.

After the amendment of Copyright law by the Parliament, we will have a legal basis for the protection of software. In the JRC Committee Report, one of the key recommendations was the infrastructure development of intellectual property law and extension of copyright protection to computer software. It is expected that once software protection is granted local software market would be benefited greatly and the software market would expand. Without a solid local market for software we can not possibly expect to extend our software market in the international market. Absence of copyright protection of software is, inter alia, responsible for poor flow of foreign client and extremely low rate of export of software.

Another step for infrastructure development that should be initiated by the private sector is establishment of a copyright society. Chapter VIII of the law provides for registration of copyright societies. Functions of a copyright society are provided in Section 43 of the act in the following terms:

Administration of rights of owners by copyright society –

(1) Subject to such conditions as may be prescribed-

- (i) a copyright society may accept from an owner of rights exclusive authorization to administer any right in any work by issue of licenses or collection of licenses fees or both;
- (2) It shall be competent for a copyright society to enter into agreement with any foreign society or organisation administering rights corresponding to rights under this Act, to entrust to such foreign society or organisation the administration in any foreign country of rights administered by the said copyright society in Bangladesh, or for administering in Bangladesh the rights administered in a foreign country by such foreign society or organisation.

(3) Subject to such conditions as may be prescribed, a copyright society may -

- (i) issue licenses under section 49 in respect of any rights under this Act;
- (ii) collect fees in pursuance of such licenses;
- (iii) distribute such fees among owners of rights after making deductions for its own expenses;"

At this stage of IT development, it is very important that Bangladeshi programmers should get assistance for copyright protection as well as commercial exploitation of their software. A central copyright society established by the IT community in Bangladesh could act as watchdog against infringement of software copyright at the same time ensure proper marketing of software to ensure maximum licence fee.

4.6 Arbitration Forum

In order to operate a smooth and effective software copyright regime, a mechanism must be developed which would ensure speedy resolution of disputes relating to software copyright. In IT sector time is the essence. Various Associations, which represent IT community in Bangladesh, should take steps towards setting up a panel of expert who would be readily available to resolve any dispute relating to infringement of copyright between commercial houses outside the Court. This sort of panel would act as arbitrator(s) and they could be appointed as and when required.

4.7 Copyright Society

Another step for infrastructure development that should be initiated by the private sector is establishment of a copyright society. Chapter VIII of the Bill provides for registration of copyright societies. Functions of a copyright society are provided in Section 43 of the Bill in the following terms:

43 of the Bill. Administration of rights of owners by copyright society –

(1) Subject to such conditions as may be prescribed -

a copyright society may accept from an owner of rights exclusive authorization to administer any right in any work by issue of licences or collection of licences fees or both;

(2) It shall be competent for a copyright society to enter into agreement with any foreign society or organisation administering rights corresponding to rights under this Act, to entrust to such foreign society or organisation the administration in any foreign country of rights administered by the said copyright society in Bangladesh, or for administering in Bangladesh the rights administered in a foreign country by such foreign society or organisation.

(3) Subject to such conditions as may be prescribed, a copyright society may -

- (iv) issue licences under section 49 in respect of any rights under this Act;
- (v) collect fees in pursuance of such licences;
- (vi) distribute such fees among owners of rights after making deductions for its own expenses;"

At this stage of IT development, it is very important that Bangladeshi programmers should get assistance for copyright protection as well as commercial exploitation of their software. A central copyright society established by the IT community in Bangladesh could act as watchdog against infringement of software copyright at the same time ensure proper marketing of software to ensure maximum licence fee.

4.8 Standardization of Software Licensing and Capacity Building

IT sector is such a field of commerce that there is no scope for uneducated persons. Unlike lots of other area of commerce in Bangladesh, IT sector is intellect oriented as opposed to labour orientation. Despite the fact that IT professionals represent highly educated section of the society, there is a lack of legal awareness among the IT professionals of Bangladesh. This is probably partly due to weak judicial system. In the universities intellectual property should be introduced as a part of the undergraduate course.

Without a standard practice of legal documentation, there is every risk that, like most of the other area of business in Bangladesh, IT sector would remain at the bottom of the world market. In this respect BASIS can play a key role in formulating a standard guideline for the software companies in Bangladesh. Most of the software companies have no experience about software licensing and legal implications of such licensing arrangement. Without a fair idea about the implications of copyright protection commercial exploitation of software would always remain elusive.

5. Trademarks Law

5.1 An Introduction to Trademarks Law

A trade mark is a visual symbol in the form of a word, a device, or a label applied to articles of commerce with a view to indicate the origin of the goods as distinguished from similar goods manufactured or dealt by other persons. By virtue of this, the person who sells his goods or services under a particular mark acquires a sort of limited exclusive right to the use of the mark in relation to those goods or services.

Trademarks are diverse and familiar feature in both industrial and commercial markets. Trademarks have long been used by manufacturers and traders to identify their goods and distinguish them from goods made or sold by others. In Roman times it was common for pottery to be embossed or impressed with a mark. Merchants' marks were used in commerce in Britain from the thirteenth century, William Caxton used the mark W74C and gold and silver articles were hallmarked as early as the fourteenth century. By the end of the sixteenth century it was very common for shopkeepers to erect sign illustrating their trade. Traders took to using cards bearing their name and address often accompanied by a device of some sort, an early form of business card. The industrial revolution seen enormous growth in the use of names and marks in advertising and the modern trade mark was born.

Marks are a very valuable form of intellectual property because marks become associated with quality and consumer expectations in a product or service. Some goods become almost synonymous with their trade name, for example Coca-Cola, Levi jeans. Coupled with intensive campaigns, the utility of marks to their owners as marketing weapons is plain to see and trademarks usually will be vigorously defended.

Prior to 1940, there was no statutory law relating to trademarks in the British India, and the law which was applicable to the subject was based on common law which was substantially the same as that applied in England before the passing of the first registration Act in 1875. The Trade Marks Act, 1940, (TMA) promulgated in 1940, introduced for the first time machinery for the registration and statutory protection of trademarks in Bangladesh.

5.2 Trademark Law of Bangladesh

5.2.1 Registration of Trademark

Trademarks has been defined in the TMA as a mark used or proposed to be used in relation to goods for the purpose of indicating or so as to indicate a connection in the course of trade between the goods and some person having the right, either as proprietor or as registered user, to use the mark whether with or without any indication of the identity of that person.

The main features of the Trade Marks Act, 1940 are as follows:

- (a) A trademark may be registered only in respect of particular goods or classes of goods.
- (b) A trademark shall not be registered unless it contains or consists of distinctive character in respect of the name of a company, individual, or firm, or one or more invented words or one or more words having no direct reference to the character or quality of the goods, a geographical name or surname or the name of a sect, caste or tribe in Bangladesh, or any other distinctive mark, provided that the name, signature, or any word, other than such as fall within the descriptions of the above unless evidence of its distinctiveness is produced before the Registrar of Trade Marks.
- (c) A trademark may be limited wholly to or in part to one or more specified colours, and unless a trademark is registered without limitation as to colours it shall be deemed that it is registered for all colours.
- (d) A trademark registration would not be granted if the design is scandalous.
- (e) A design which is likely to deceive or to cause confusion or likely to hurt the religious susceptibilities of any class of the citizen of Bangladesh would not be granted registration.
- (f) Usage of words which is commonly used and accepted name of any single chemical element or single chemical compound is barred from registration.
- (g) Registration of similar or identical trademark belonging to a different person is prohibited.
- (h) Subject to satisfaction of certain conditions a registered owner of trademark may obtain registration of associated marks which nearly resembles to the extent that it likely to deceive or cause confusion if used by a person other than the proprietor of the trademark.
- (i) Unless and until a person becomes a registered owner of a trademark he is not entitled to institute a suit for infringement of registration.
- (j) TMA does not bar a person from bringing an action for passing off action against a person who has been involved in unauthorized use of unregistered trademark.

Pursuant to section 5 of the TMA, a trademark may be registered only in respect of particular goods or classes of goods. For the purpose of registration of trademarks an application is required to be lodged before the Registrar of Trade Marks along with prescribed fee. After receipt of the application for registration the mark would be advertised in the Trade Marks Journal and after elapse of certain period, if no one raises objection to the mark, the Registrar of Trade Mark would register the mark.

5.3 Analyzing Remarks

5.3.1 Inadequate Trademark Protection

Although there is no direct relationship between IT and functions of trademarks but from a commercial point of view trade mark protection is very important for IT based business community. Given the rapid growth of e-commerce, Internet and IT based services such as ATM service registration is very important for proper commercial exploitation. By its nature most of IT activities are treated as "service" as opposed to "goods". None of the IT related works can be protected under the present trademark system. This issue is now even more important because of the registration of Top Level Domain Names (TLD) and Secondary Level Domain Names (SLD).

This absence of any trademark protection towards service is a serious flaw in the system. Such a lack of trademark protection has created an opportunity for unscrupulous business who tries to make fortune out of the other people's efforts and investment.

In order to ensure protection of goodwill of IT based business concerns it is important that immediate changes should be brought to this area of intellectual property.

Another flaw in the current Trademark regime is that under the Trademark Act protection is extended up to class 34 under International Classification of Goods. There has not been any step taken by the Authority to extend the protection to the goods and services which are beyond class 34.

5.3 Inefficient Administration

The Trademark Office is headed by the Registrar of Trademark, equivalent to the post of Deputy Secretary. There is only one Deputy Registrar of Trademark and Assistant Registrar equivalent to the post of Senior Assistant Secretary and Assistant Secretary respectively. Although the provision for appointment of 4 Trademark Examiner is there, but there is only one Trademark Examiner in the Trademark Office. Total number of staff, including Registrar of Trademark to typist, would not exceed 40. Every year more than 5 hundred applications are filed in the Trademark Office. It takes around 3-4 years to get trademark registration.

The amount of time that is involved in granting trademark registration is seriously high comparing to other jurisdictions. Furthermore, due to delay in publication of Trademark Journals various disputes arise in determining prior use and rectification of Register.

6. Exploitation of Intellectual Property Rights and IT Sector of Bangladesh

6.1 Computer Crime

As the IT sector is developing and Internet access is increasing at the highest possible rate, scope of criminal activities through computer is also increasing at the same rate. Unauthorised access to property, damage to property, theft, distribution of obscene and indecent material are all familiar crimes. Under new guise all are possible using the Internet.

It is indeed difficult to categorise types of crimes that can be committed by using computer. Unauthorised access to computer material is becoming more prevalent, and with our increasing reliance on computers, more serious. The United States' General Account Office discovered that the rate of hackers using the Internet broke into the US Defence Department's computer increasing every year. The Office's report stated that:

"At a minimum, these attacks are a multimillion-dollar nuisance to Defence. At worst, they are a serious threat to national security."

Broadly, there are three main types of computer misuse. First, there is unauthorised access, or 'hacking'. This is where a person without authority physically or electronically penetrates a computer system. This may be compared with breaking and entering, where no further offences is intended or then committed. The second type of digital crime is the more serious form of unauthorised access. This is where a person without authority accesses a computer with the intention to commit a further offence such as theft. Distinct from unauthorised access is the third type of digital crime: destruction of digital information, or the impairment of access to digital information.

The unique legal question in relation to all these three crimes is who or what is actually the victim? Everything which exists in a computer is represented as zeros and ones. These binary digits, or bits, are generally stored using a magnetic medium. So to destroy a computer file a person may only have to change the state of, say, 100 bits from one, on to zero, off.

In many respects, the essential components of the activities involved will be the same regardless of the legal category in which the conduct may be located. In its Report the Council of Europe identified twelve topics as suitable for the attention of the criminal law:

- (a) Computer-related fraud.
- (b) Computer forgery.
- (c) Damage to computer data or programs.
- (d) Computer sabotage.
- (e) Unauthorised access.
- (f) Unauthorised interception.
- (g) Unauthorised reproduction of a protected computer program.
- (h) Unauthorised reproduction of a topography.
- (i) Alteration of computer data or computer program.
- (j) Computer espionage.
- (k) Unauthorised use of a computer.
- (l) Unauthorised use of a protected computer program.

None of the above crimes are covered by the existing legislation. As part of infrastructure development in IT sector, new legislation for preventing computer misuse should be enacted.

7. Cyber Law

Needless to say cyber communication has opened up the floodgate of opportunities in every sector of business one can conceive. Stock markets all over the world have seen a sharp rise of indices because of expansion of Internet activities. The NASDAQ has reached its highest index next before the New Year. All the major stock markets are having steady rise of their indices due to extraordinary demand of IT related stock.

The rises of indices in the stock markets show the trend towards which the world is moving. Internet user all over the world is increasing every minute. Increase of Internet user means increase of cyber activities. There is hardly any aspect of business activities which are not taking place in the Internet.

Every contractual activity through Internet raises the issue of conflict of laws. For example when a Bangladeshi Internet user buys software from an American supplier over the Internet, various legal issues relating to conflict of laws are involved. In case of any dispute between the parties, the issues of governing law and forum (*lex fori*) become crucial. Furthermore, the issue of execution of contract is still controversial. Where the contract took place is very important for deciding the rights and liabilities of the parties.

Apart from the contractual issues, consumer law protection is also relevant. Under sections 14-16 of the Sale of Goods Act, 1930 (Act III of 1930) ("SGA"), unless contrary intention is expressed, it is an implied condition/warranty in every sale of goods by description/or otherwise that the seller has the title to sale, the goods shall correspond with the description and that goods would be of merchantable quality. SGA is silent whether these conditions may be excluded by express exclusion clause. In the U.K, for instance, Unfair Contract Terms Act was passed to prevent exclusion of implied terms. We do not have any legislation which provide clear guidelines in this respect.

The issue of consumer protection law is important because we are trying to enter into global cyber market, and absence of such law may be fatal in attracting foreign buyers. We should seriously consider enactment of consumer law which would protect the buyers of software and other goods through e-commerce.

E-commerce has opened up a new horizon of business for us. Lots of entrepreneurs are interested to explore this new area of business. What is most discouraging for these entrepreneurs is the banking system. The most essential tool through which e-commerce is carried out is payment of money through credit card. Although now a days there are few private sector banks which are offering credit card facilities, but number of credit card users is still very low. Unless a scheme is taken on the part of the Government to facilitate transactions through credit cards, this area of business will not expand as expected.

Another important legal issue in respect of Internet is the pornography and its widespread availability. We do not have any legislation to prevent this havoc. Most of the Internet users in Bangladesh are from 15-35 age group. Easy access to pornographic materials may cause serious cultural shock unless immediate preventive measures are taken. Most of the European and North American countries have enacted cyber laws which require the Internet Service Providers to install filtering software (firewalls) to prevent/control dissemination of pornography.

Cyber law is basically combination of various laws in the context of Internet; therefore every legal field has relevance with the cyber law. I wish to discuss the issues relating to cyber law in greater details when situation permits.

8. Recommendations

In the light of the above discussion following recommendations are proposed for Patent, Copyright, Trademark, Cyber Law and Computer Crime.

Patent Law

- Bangladesh should amend the Patents and Designs Act (PDA) to develop a harmonious system of patent protection.
- Bangladesh should amend the Patent Co-operation Treaty, 1970, and the PDA should be made internationally applicable because in the age of globalisation and Internet a limited protection for local market has no effect in true commercial sense.
- The organisational capacity of the Patent Office should be increased qualitatively and quantitatively so that it can do its function properly.
- It has been suggested from among the panel of experts that before taking any step regarding the reform of Patent system in Bangladesh a detailed study of the impact of such reform should be carried out.
- One of the most important aspects of patent law reform is to determine whether Bangladesh should grant patent protection for “process” or “product”. Taking Indian experience into account, it would be advisable to allow patent protection only to “Process” rather than to “product”. Reason behind such suggestion is that, given that Bangladesh is an agriculture-based economy, in order to protect farmers rights to indigenous seed. Furthermore, local *ayurvedic* medicine should be protected.

Copyright Law

- Copyright law should provide basis for the protection of software because absence of copyright protection of software is responsible for poor flow of foreign client and extremely low rate of export of software.
- Copyright law should provide provision for interlocutory remedy, which should allow a victim of copyright infringements to enter the premises of the infringer and seize the infringed articles including instruments of infringement because absence of this interlocutory remedy would undermine the effectiveness of the act.
- Along with copyright protection appropriate mechanism should be in place for prevention of infringement. The act should also specify the instances and amount of infringement of the copyright in computer software.
- Legal system should be equipped with proper instance and instrument to deal with sophisticated litigation over the ownership of copyright in software. Besides, technically qualified judges should be provided to settle disputes in this area.
- Mechanism must be developed to ensure speedy and cheap resolution of disputes and litigation by infringement.
- Step should be initiated to establish a private central copyright society, which should act as watchdog against infringement of software copyright and at the same time ensure proper marketing of software and maximum licence fee.

- Associations representing IT community in Bangladesh should be empowered to take steps towards setting up a panel of expert who should be readily available to resolve any dispute relating to infringement of copyright between commercial houses outside the Court.
- In the universities intellectual property right should be introduced as a part of undergraduate education course to make the future IT experts aware of the copyright law.

Trademarks Law

- Law should be enacted to safeguard the trademark because lack of trademark protection especially for IT related works has created opportunity for unscrupulous business that are making fortune out of the other people's efforts and investment and hampering competition and development of the sector.
- To ensure intellectual property right and hence goodwill of IT based business law should be enacted immediately.
- The Trademark Office should be equipped with sufficient number of Registrars and Examiners so that manufacturers of goods and service providers can get their Trademarks registered within shortest possible time because delay in publication of Trademark causes including others disputes in determining prior use and rectification of Register.
- Trademark Rules should also be amended periodically to reflect the changes that have taken place since enactment of the Trademark Act and Trademark Rules.

Law in Connection to Computer Crime

- To hinder unauthorised accesses to a computer with the intention of theft, destruction of digital information, or the impairment of access to digital information the existing legislation should be improved.
- For preventing computer misuse like publication and dissemination of pornography and other prohibited information new legislation should be enacted.

Cyber Law

- Fostering E-commerce law should be enacted to facilitate transactions through credit cards.
- Law should be enacted to protect the buyers of software and other goods through Internet and regulate the service providers.

It has also been suggested by the participants that the Government should take immediate steps for enacting legislation governing electronic signature and e-governance. The panel of expert opined that one of the most important legislative step for creating an environment suitable for e-commerce would be enact legislation making provision for e-commerce and legal enforcement of various contracts executed via Internet.

8. Conclusion

It is obvious from the above discussion about three main areas of Intellectual Property that our current legal framework as well as administrative set up is inadequate to provide expected protection of intellectual property to entrepreneurs who seeks to protect their invention, trademark and other intangible business property. In order to maximise exploitation of intellectual property rights there is no alternative to amending legislation in this area of law.

Reference

- 1. The Patents and Design Act, 1911**
- 2. The Trade Marks Act, 1940.**
- 3. The Arbitration Act, 1940.**
- 4. The Copyright Law (amended and consolidated), Dhaka, July 2000 (in Bangla).**