Legal facilitating of E- Commerce ; an analytical study under IP Law's in Pakistan.

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It is certified that we have gone through the thesis titled, **"Legal facilitating of E- Commerce; an analytical study under IP Law's in Pakistan"** submitted by Mr. Wazirzada Muhammad Owais, student of LLM (Corporate Law) Registration No.21.FSL/LLMCL-F04, and we have come to the conclusion that the research work is up to the mark and fulfils all the requirements for the grant of the Master Degree in Laws by the faculty of Shariah & Law, International Islamic University, Islamabad.

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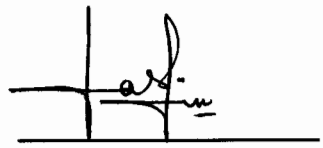

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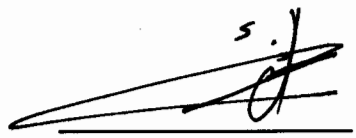

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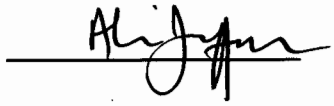

Dedicated To

MY PARENTS

for leading me into intellectual pursuits

MY WIFE

for her support and cooperation

MY CHILDREN

for making life a pleasure

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OUTLINE

ABSTRACT

The world is shrinking into a global village therefore in this world the norms are changing which includes doing business also. Now a customer is a click away from the seller with standing any country or border, not only this time is also no more a constraint. Aim of this study is to explore the question as to what WIPO and WTO has done to protect IP's against the infringements on Internet and to what extant Pakistan has adopted the same. Study also entails sub questions like, the IP's Laws in Pakistan and the entire spectrum of IPR's, agreement & their impact on Pakistan E-Commerce activity and what are the dispute resolutions mechanisms to safe guard the IP's in Pakistan in light of Brussels agreement.

Study comprises four chapters along with the conclusion in last. This first chapter is about e-Commerce, its objectives and significance of Intellectual Property Rights & its relation with e-Commerce. Second chapter includes the Copy rights, Digitization, WIPO Internet Treaties and Software Protection in Pakistan. Third chapter is about Trade Mark and domain name and its allocation system. Fourth chapter is about Patents and its importance in e-Commerce and the last chapter is concluding chapter which does the analysis of all the above and also highlighting any short comings in this regards.

INTRODUCTION

1. The business world is changing, sitting in your office or home you can get information about a product alongwith its price, mode of payment, specification, time of delivery, warranty etc. on your computer and if you want to buy you can place an order on the computer. In this perspective, the issues of IP's security and possible safeguard against infringements on Internet have become very important.

2. The interest and the intention in this study is to explore the question as to how WIPO and WTO can help us protect IP's against the infringements on Internet. This broad question entails sub questions like, Do the IP's Laws in Pakistan cover the entire spectrum of IPR's or not? Also how TRIPS agreement affects Pakistan E-Commerce activity? And what are the dispute resolutions mechanisms installed by WIPO to safe guard.

3. Now in the first chapter we would be discussing as to what e- Commerce is?

4. Electronic Commerce is not limited to any border or to any time zone. One is able to log on to the web regardless of the country one is residing or the time of the day. The Alliance of Global Business (AGB) has defined Electronic commerce as "Incorporates all value transaction involving the transfer of information, product, service or payments via electronic networks. This includes the use of electronic communication as the medium through which goods and the services of electronic value are designed, placed, advertised, cataloged, inventoried, purchased or delivered" further we would be discussing the history of E- Commerce and the relationship of E-commerce and IP's.

5. Now further to the above as we know that patent, copy right, trademark and rest of the Intellectual property Laws are defined by the individual countries, as Pakistan has promulgated different Laws with regard to IP *but* does it covers IP rights on the internet originating from Pakistan or vice versa? Therefore, in our subsequent chapters we would be discussing the different types of IP's as mentioned above one by one in the framework of e-Commerce. Also we shall be discussing the procedure adopted by WIPO for protecting different IP's with regard to e-commerce and we shall also discuss whether software is a protected by Copyright or by patent in Pakistan and who the same is protected in the USA and Europe Union.

6. In chapter two we discussed the Copy rights and its place in the virtual world of E-commerce. Moreover we will be discussing the related rights and what is digitization and other internet relationship. In the end we have discussed the WIPO treaties the protection of Software's under the laws governing Copy rights including the exception & limitation to copy rights & related rights in the digital environments placed by the i.p laws of Pakistan.

7. The third chapter is with relation to the Trade Mark, domain name and there usage in the e-commerce environment and it ends with the discussion on the protection of trade mark in Pakistan.

8. The fourth Chapter is about the Patent and its role in the world of e-commerce alongwith the protection of patents under the Pakistani laws.

9. In the end the fifth chapter being the last chapter is all about going through the facts and data collected and have analyzed what Pakistan has done after becoming member of ICANN, WIPO and WTO has implemented . Moreover the latest changes whether have

amended or promulgated, Patents Ordinance 2000, Trade Mark Ordinance ; thus has domiciled the international laws and whether has secured the interest of the public at large , while addressing the policies and bye laws of the international organization as the dead line for amending the local laws in line of the TRIPS agreement for the developing countries came to an end in 2005.

STATEMENT OF THE PROBLEM

What we have discussed here is the analysis of what Pakistan has done to control and manage to secure the IP rights with regard to the rest of the world. Furthermore we have discussed the dispute resolution mechanism in this regard prevalent in the world.

Aim of the Study

In the present study, the research's aim is to study thoroughly the intellectual property as well as other matters relating to laws of IP protection in E- environment, the comparison of the changes in the rest of the world and the infringement of IP in e- environment. The interest and the intention in this study is to explore the question as to how the newly promulgated and amended IP Laws of Pakistan cover all the dimensions and guidelines, agreements laid down by WIPO and WTO and can they help us protect IP's against the infringements on Internet. This broad question entails sub questions like, Do the IP's Laws in Pakistan cover the entire spectrum of IPR's or not? And what are the dispute resolutions mechanisms installed by WIPO to safe guard IP infringement and what remedies we have in Pakistan.

During the study the researcher has come across the abuse of IP and how the people are ignorant of their rights in e- environment.

In this regard we have done analyses as to the developed world laws and their protection of IP with our Patents Ordinance 2002, the trademark ordinance 2001 and the amendments in

the Copyright Act. We further analyze what the amendments have covered in order to safeguard the national interest within the framework of guidelines laid down in the TRIPs agreement, and other international treaties.

In this study the ambiguity, incompleteness and inconsistency in the IP laws of Pakistan if any will be discussed thoroughly in the following pages. The aim of my study is to find out whether by virtue of amendment or promulgation of the IP laws has safe guarded the interest of the individual and business community both for the local and internationally.

Methodology

The present study is descriptive and analytical in nature and the researcher has discussed the IP laws, with the ones which are promulgated in the rest of the world keeping in view the treaties and agreements of WIPO and WTO. The researcher has also looked into the detail of how the IP's like copyright, trade mark and patent right fit in the e-environment and what are yet to be covered. The researcher has also tried to analysis the exception & limitation to copy rights and also gone in to the history of the development of these rights.

CHAPTER 1

(i) DEFINING E-COMMERCE

The term 'E-Commerce' can justifiably be understood in the context of the most commonly used terms in the English language and thus I will try to define those terms as I proceed with the document.

The Internet is defined as "a cooperative message forwarding system linking computer networks all over the world."[1] This system of worldwide digital connection enables many activities, including e-mail, use of the World Wide Web, and e-commerce transactions.[2] E-commerce, short for electronic commerce, simply denotes the conduct of business on the Internet, including completing highly complex transactions, such as those involving human consumers purchasing products from an online retailer, or e-tailor.[3] Electronic commerce is broadly defined as the delivery of information, products, services or payments by telephone, computer or other automated media. It is recognized in the definition that e-commerce can take place through many electronic means e.g., telephone, fax, automated banking machine, credit and debit cards, Internet, etc.

Definitions can in any case vary, depending on the use to which they will be put. E-commerce is also defined as "any business transaction concerning goods and services,

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[1] Douglas A. Downing, Michael A. Covington & Melody Mauldin Covington, *Dictionary of Computer and Internet Terms* (7th ed., Barron's 2000) pp. 243
[2] Ibid. at 243-44.
[3] Ibid. at 153.

where participants are not in the same physical location and communicate through electronic means"[4]

The United Nations Commission on the International Trade (UNCITRAL) refers to e-commerce as involving 'the use of alternatives to paper-based methods of communication and storage of information'.[5]

E-Commerce is defined in WTO as[6] referring to six instruments, namely: 'the telephone, the fax, television, electronic payment and money transfer systems, Electronic Data Interchange and the Internet.' Under WTO, "the term electronic commerce is understood to mean the production, distribution, marketing, sale or delivery of goods and services by electronic means." [7] The Alliance for Global Businesses (AGB) defines electronic commerce more broadly to mean that it "incorporates all value transactions involving the transfer of information, products, services or payment via electronic networks. This includes the use of electronic communications as the medium through which goods and services of electronic value are designed, placed, advertised, catalogued, inventoried, purchased or delivered." E-commerce also includes the computer synapses and peripheral transactions that make the arrival of a digital trade guide on the entrepreneur's computer a reality, including providing the customer support and other services vital to the efficient

[4] Lodder, A and Kaspersen, H (eds), eDirectives: Guide to European Union Law on E-Commerce, 2002, The Hague: Kluwer Law International, p 3.
[5] Preamble to UNCITRAL's Model Law on Electronic Commerce (1996), referred to in Lodder and Kaspersen, ibid, p 3. UNICITRAL's English frame
[6] Bar Chetta, M, Low, P, Mattoo, A, Schuknecht, L, Wager, H and Wehrens, M, Electronic Commerce and the Role of the WTO, 1998, Geneva: World Trade Organisation, p 5, quoted by Brownsword, R andHowells, G, 'When surfers start to shop: Internet commerce and contract law' (1999) 19 LS 287, p288, note 1.
[7] *Declaration of May 20, 1998* WT/MIN(98)/DEC/2 at http://www.wto.org/english/thewto_e/minist_e/min98_e/ecom_e.htm. last visited 4/1/2010

functioning of the electronic market.[8] The "components of electronic commerce" are varied and include the institutions (including governmental/legal), processes, and networks that make the Internet go in the most basic sense; furthermore, the scope and composition of electronic commerce are always in flux as new technologies and uses explode into a traditionally hungry market.[9]

The International Telegraph Union ("ITU"), came to govern the use of telegraph for purposes of communication and business[10] and still operates today, as the International Telecommunications Union, and addresses issues such as protocols for modems used to access the Internet[11] and it requires accepting that the complex legal and technical challenge of reconciling economic and government policy, the Internet, and trade law is the first step towards creating a harmonized legal framework for international trade and e-commerce. The figure of internet users may be estimated to have crossed the figure of 1,596,270,108 as on 30th May 2009[12]. In the future e-world, the push of e-commerce would continue to grow at the cost of ordinary off-line business.

Electronic commerce is the trading of information, money, or goods and services via electronic means. The World Intellectual Property Organization ("WIPO") explains the phenomenon by separately addressing the two words, "electronic" and "commerce." The term **"electronic"** refers to the global infrastructure of computer and telecommunication

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[8] David Kosiur, *Understanding Electronic Commerce* (Microsoft Press 1997) pp. 4
[9] Ibid. at 6.
[10] Tom Standage, *The Victorian Internet: The Remarkable Story of the Telegraph and the Nineteenth Century's On-line Pioneers* (Berkley Books 1999) pp. 111
[11] Ibid. at 207-08.
[12] http://www.internetworldstats.com/stats.htm last visited 3/1/2010

technologies and networks upon which the processing and transmission of digitized data takes place.

The term **"electronic"** can be taken to refer to the global infrastructure of computer and telecommunication technologies and networks upon which the processing and transmission of digitized data takes place. There are two types of networks:

(1) private and proprietary networks such as electronic data interchange (EDI), on which electronic transactions have been common place for several decades,

(2) open networks with non-proprietary protocols, such as the Internet.

The difference is that proprietary networks are operated for specifically defined purposes and managed exclusively for the designated participants, whereas non-proprietary ones enjoy a more decentralized architecture.

The Internet, for example, allows communications and transactions to take place over an **"open network,"** with no required security apparatus, between a potentially unlimited number of participants who may have had no pre-existing contacts. The Internet has rapidly evolved from a scientific and academic network into a network whose principal feature, the World Wide Web, has brought mass adoption. It is the open nature of this network, along with its multifunctional character and increasingly low-cost access, which has released the potential for electronic commerce.

At the same time, the Internet is providing access to a digital medium in which multiple perfect copies of text, images, and sounds may be transmitted, and trademarks easily misused, posing new challenges for intellectual property owners.

The word **"commerce"** in this context refers to an expanding array of activities taking place on the open networks – buying, selling, trading, advertising and transactions of all kinds – that lead to an exchange of value between two parties. Some common examples include on-line auctions, banking and other financial services, sales of software, and an ever-increasing diversity of Internet sites offering a broad range of consumer goods or services. In the consumer area, a commercial Web site that, early on, achieved widespread recognition is associated with the sale of books; using this site a consumer can place an order for a book, elect to pay by electronic means such as providing credit card details, and the book will be delivered by post to the individual's address. Other media, such as music, are now being made available for purchase by direct download in digital form to the consumer's computer (or another digital device). While these examples show how individuals may engage in transactions over the Internet, most of the growth in electronic commerce is being driven by the less visible business-to-business sector. Here, the Internet is acting as a powerful means for improving the quality of management and service, thereby enhancing existing or establishing new customer and supplier relationships, while bringing new efficiency and transparency to operations. It is a potent mechanism for reducing costs across-the-board, including those associated with production, inventories, sales execution, distribution and procurement.

We have seen above different definitions of e-commerce as defined by different international organizations. It is evident that issues of electronic commerce are dealt by various international organizations from different points of view[13].

1.1 ELECTRONIC COMMERCE AND THE OBJECTIVES

Electronic Commerce Regulations are to increase the trust of consumers and purveyors in the arena of commercial transactions conducted over telecommunications means via electronic media and the transparency of electronic transactions, the protection of personal data, the security of the electronic transactions including the encryption of data and information, and the determination of the applicable law and dispute resolution mechanisms. Under the work programme, issues related to electronic commerce and on cross-cutting issues[14] have been examined and discussed through dedicated discussions.[15] Before going to classification debate, a test is given to distinguish between the goods and services. There is three criteria distinguishing goods from services vis-à-vis., production and consumption are generally simultaneous in the case of services but not goods, unlike goods, services cannot be stored and services are intangible, whereas goods are usually in a tangible form. Two basic types of electronic commerce have developed yet:

[13] For information about these Organizations' electronic commerce programs, see: "Important Links" (available at *http://www.wipo.int/copyright/ecommerce/en/links.html*). Last visited 3-1-2011

[14] Cross-cutting issues are the issues whose potential relevance may "cut across" different agreements of the multilateral system.

[15] So far, there have been five discussions dedicated to electronic commerce, held under General Council's auspices by the Council for Trade in Services, the Council for Trade in Goods, the Council for TRIPS and the Committee on Trade and Development under the auspices of General Council.

1. Business to business, that is, commerce between companies; and

2. Business to consumer, that is, commerce between companies and individual consumers.

(these have been discussed in detail in Chapter 2)

These days companies prefer to take part in business-to-business via the internet, however, the regulators are becoming more and more concerned about the monopoly or monophony issue growing across the world. There are two truly new characteristics that the internet provides to the economy viz., global scale and the possibility that any person can emit information. These two elements are what differentiate the "old" or "traditional" from the so-called "new economy." For example, a Pakistani customer can purchase a Car from Dubai via a website originating in the Unites States with a UK credit card. There are risks all round, the car might be a total loss and the picture might be two years old, the payment might be faulty, and taxes might not be paid. These all form the basis for the question "where such matters should be settled?" Trade borders are being erased by cyberspace, but borders are never erased, they are simply replaced. Determining whose cyber-territory a transaction originates from can be settled by using the criteria, such as whether a website deliberately targets residents of a certain country, or whether they just happened to stumble across it. Where do you sue a website? How do you protect personal data and privacy? Is an online contract valid? These are some of the issues that International Electronic Commerce regulations have to face and WTO is trying to solve these problems.

1.2 SEQUENCE OF EVENTS LEADING THE DEVELOPMENT OF E-COMMERCE IN ITS CURRENT FORM:

The Internet

Let's begin with the history of the Internet, so as to build a solid foundation for how electronic commerce, as we know it today, came into being.

1. Development of the Internet until the 1980s

The United States government along with key educational institutes initiated the work on computer networking. In the late 60s ARPANET (Advanced Research Projects Agency NET) was asked to research networking by the United States Department of Defense.

Massachusetts Institute of Technology (MIT), University of California Los Angeles (UCLA), and Stanford Research Institute (SRI) were among the first organizations to research technologies that would culminate to become the Internet. Predictably, e-mail was the first "killer-app." A "killer-app" is a software application that becomes popular quickly. In the 70s, Ray Tomlinson of Bolt Beranek and Newman, Inc. (BBN) invented an email program to send messages across a distributed network. The first international connections to ARPANET were made. E-mails constituted 75% of ARPANET's traffic. Even the Queen of England, Elizabeth II, sent an email message.

In the early 80s, the number of hosts exceeded 1000 and the Domain Name System (DNS) was put into place. Domain names are easy-to-remember names mapped to the Internet Protocol number used to identify each computer linked to the network and therefore to access sites on the World Wide Web (e.g., wipo.int).[16]

Consortiums were created specifically for the Internet and became increasingly involved in sharing ideas and creating solutions to further Internet technology. For example: the Internet Architecture Board (IAB) was established to create a forum to discuss technology issues. The Internet Engineering Task Force (IETF) and the Internet Research Task Force (IRTF) were also formed to facilitate the development of the Internet.

In the late 80s the first signs of private-sector involvement appeared. For example, IBM and MCI begin to contribute to backbone development efforts via collaboration with Merit Network, Inc. and National Science Foundation. The number of hosts at this stage exceeded 100,000.

From the 1990s: the Internet becomes a business tool In the early 90s, the first commercial provider of Internet dial-up access, world.std.com, opened for business. Tim Berners-Lee, a CERN (a Geneva, Switzerland based research institute) computer scientist invented the World Wide Web. The Internet Society was formed, the World Bank came online, Jean Armour Polly coined the term "surfing the Internet", and the number of hosts exceeded 1, 000, 000.

[16] Module 1 Intellectual Property in electronic Commerce- Intruduction;Page08

When the World Wide Web was first developed in the 1990s, it transformed the Internet from a technological infrastructure into a popular network linking people in diverse communities throughout the world. The Internet, and 'killer apps' such as the Web, became the instrument by which people throughout the world exchanged and shared ideas, information and, gradually, goods and services. What had begun as a military and research tool became the conduit for electronic commerce and the harbinger of the 'information age'.[17] The Web now contains several billion pages of information, growing at the rate of more than seven million pages each day. It is this ready availability of information on every conceivable subject, combined with advancements in digitization that has made the Internet such a revolutionary tool.

By January 2004, the number of Internet hosts had increased to over 233 million, and by June 2004, there were more than 51,635,284 websites worldwide. By the end of 2003, more than 676 million people were online (11.8% of the world population), and 36% of these users were located in developing countries. [Source: UNCTAD E-Commerce and Development Report 2004].

There are numerous .com companies that rely on business models that trade in physical objects of intellectual property. The online traders Barnes and Noble and Amazon, for example, utilize vast databases of book, video and music titles and user-friendly purchasing systems to attract consumers away from the shopping mall, and then send these products (each a work of intellectual property) to consumers using postal mail. Auction

[17] Module 1 Intellectual Property in electronic Commerce- Intruduction;Page10

sites such as eBay facilitate the trade in products among more than 100 million registered users, and many of the products traded by auction are protected by intellectual property rights. Travel sites and airline companies such as EasyJet and RyanAir and entertainment ticket sellers such as Ticketmaster, profit through saved overheads by conducting sales online, using e-ticketing or mailing tickets to purchasers. Numerous small and medium sized enterprises have used the Internet in this way, as a marketing tool to locate buyers for their products in a global marketplace of more than half a billion users.

Textual works such as books and newspapers are ideally suited to digitization and, although online publishing of popular literature has had a mixed reception with a public accustomed to paper and ink, there is evidence of a growing demand for e-books. There has been real success in the online availability of science, technology and medical publications, where the demand for fee-based research has supported the e-publishing industry. Demand has also grown for the online collections of more than 7,300 libraries that have provided free remote access to the texts of hundreds of thousands of e-books, with particular demand for non-English language texts. One commercial operation, Ebrary, offers consumers paid access to more than 60,000 titles published by academic, scientific, technical and professional publishers, as well as maintaining a database of digital books for libraries. Online newspaper publishing is also prolific, although many of these initially free sites are now seeking to introduce subscription access. In September 2002, for the first time, The New York Times received more visitors to nytimes.com (1.28 million daily), than its weekday paper circulation (1.2 million daily) – and in March 2005, they reported more than 555 million page views.

Increasingly, numerous journalists and aspiring writers have engaged in online publishing to post 'blogs', Web logs or journals, that allow individuals to make their views available to the public without the need for intermediation by large publishing houses or distributors.

In the field of fine art, indigenous craft and artifacts, numerous museums and art galleries have digitized their collections and made them available for viewing on the Internet. One such site, Artnet, allows users to access more than 90,000 works by some 18,000 artists and in around 1,000 art galleries around the world. Interesting questions have arisen as to whether the digital images of works of art, themselves, become derivative works entitled to copyright protection. There are also many artists using the digital technologies themselves, to create art specifically for the digital networks. One site, the Digital Art Museum, provides an online resource for information and works of digital art.

1.3 ELECTRONIC COMMERCE RELATED ACTIVITIES IN INTERNATIONAL ORGANIZATIONS

1. Hague Conference on Private International Law

The Hague Conference is an intergovernmental organization, the purpose of which is "to work for the progressive unification of the rules of private international law".

The principal method used to achieve this purpose is the negotiation and drafting of multilateral treaties or Conventions in the different fields of private international law (international judicial and administrative co-operation; conflict of laws for contracts, torts,

maintenance obligations, status and protection of children, relations between spouses, wills and estates or trusts; recognition of companies; jurisdiction and enforcement of foreign judgments).

The Conference has met since 1996 to discuss cross-border legal issues related to electronic commerce. At the end of 2002, in order to move the stalled discussions forward, the Conference limited its talks to the narrower questions of jurisdiction and choice of court agreements, and issued its first draft Convention on Exclusive Choice of Court Provisions in B2B Agreements in mid-2003, to be consideration for adoption in June 2005. The Conference has issued Reports on electronic commerce issues: "Electronic Data Interchange, Internet and Electronic Commerce" (2000) and "Electronic Commerce and International Jurisdiction" (2001).

2. International Telecommunication Union (ITU)

ITU provides the legal and technological infrastructure related to telecommunications that support electronic commerce. Its activities include: providing assistance on the technical and policy aspects of Internet Protocol (IP); assisting with the technical and policy aspects of e-applications and e-services; enhancing security and trust in the use of public networks; implementing projects on MCTs and multipurpose platforms (MPPs); enhancing information and communication technology (ICT) literacy and building awareness on the potentials of ICTs; and promoting the establishment of a favorable legal environment for ICTs. In particular, the ITU assists and increases government efficiency in developing

countries by providing Internet-based services. The ITU is also the lead organizer and provides the Secretariat for the World Summit on the Information Society (WSIS).

3. Organization for Economic Co-operation and Development (OECD)

The OECD conducts research and publishes surveys on several topics relating to electronic commerce, including: Electronic Commerce and Development; Information and Communications Policy; Global Forum: Knowledge Economy - Digital Economy; Measuring the Information Economy; Tax and Electronic Commerce; and Trade Aspects of the New Economy. The OECD Working Party on the Information Economy has undertaken analysis and published studies on the digital delivery of content in the scientific publishing, music, online computer games and mobile content industries.

4. United Nations Conference on Trade and Development (UNCTAD)

The UNCTAD Electronic Commerce Branch carries out policy-oriented analytical work on the implications for developing countries of the adoption of e-commerce and Internet technologies. For example, UNCTAD published the "E-commerce and Development Report 2004". This annual Report aims to provide practitioners and policy makers with a better understanding of the options available to them in various sectors of developing-country economies. It is also meant to contribute to the debates at the World Summit on the Information Society and efforts to create an inclusive information society that serves and empowers all people.

5. United Nations Commission on International Trade Law (UNCITRAL)

UNCITRAL is in charge of the modernization and harmonization of rules on international business. In the area of electronic commerce, UNCITRAL issued two Model Laws: UNCITRAL Model Law on Electronic Commerce (1996) and the UNCITRAL Model Law on Electronic Signatures (2001).

6. World Trade Organization (WTO)

The declaration on global electronic commerce adopted by the Second (Geneva) Ministerial Conference on 20[18] May 1998, urged the WTO General Council to establish a comprehensive work programme to examine all trade-related issues arising from global electronic commerce. At the Fourth Ministerial Conference in Doha in 2001, ministers agreed to continue the work program as well as to the moratorium on customs duties.

WTO has discussed on several issues dedicated to electronic commerce: (i) classification of the content of certain electronic transmissions; (ii) development-related issues; (iii) fiscal implications of e-commerce; (iv) relationship (and possible substitution effects) between e-commerce and traditional forms of commerce; (v) imposition of customs duties on electronic transmissions; (vi) competition; and (vii) jurisdiction and applicable law and other legal issues.

[18] Module 1 Intellectual Property in electronic Commerce- Intruduction;Page22

1.4 THE STATUS OF E-COMMERCE

To date, the main point of disagreement has been the classification of digital products delivered over the Internet as goods or as services for the purpose of WTO regimes and rules.[19] Also at issue has been the longevity of the U.S.-initiated customs moratorium on electronic transmissions. The United States believes that the originally temporary moratorium remains in effect, but other countries, such as Pakistan, believe it expired when it was not renewed at the Seattle Ministerial Meeting.[20] These are the basic issues that face countries, businesses, and consumers interested in harmonizing international trade law and e-commerce transactions through the vehicle of the WTO. It is particularly disheartening that continued consideration of the classification debate and broader e-commerce issues was not included on the agenda of Doha Ministerial in 2001.[21]

Products delivered through the Internet in digitized forms, such as the corporation's trade kit as translated into a computer-language compilation, books, music, videos, software, and other newly emerging media are known as e-products which in a rapidly growing digital

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[19] WTO Members Fail to Agree on Rules for E-Commerce Deals; New Meeting Called, 18 *Intl. Trade Rep.* (May 17, 2001) pp. 774.

[20] Daniel Pruzin, Electronic Commerce: U.S. Holds E-commerce Talks with WTO Partners, Covering Nature of Digital Products, *Intl. Trade Daily* (June 13, 2001). However, Pakistan's argument may be weakened by the fact that the Doha Ministerial Declaration provides that the moratorium should continue during the continued study of e-commerce by the work programme. *WTO, Doha WTO Ministerial 2001: Ministerial Declaration* P 34 WT/MIN(01)/DEC/1http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_e.doc. The next report and discussion on the e-commerce issue is scheduled for the Fifth Ministerial Meeting in Mexico in 2003. *WTO, The Doha Declaration Explained* http://www.wto.org/wto/english/thewto_e/minist_e/min01_e/mindecl_e.htm#electronic.

[21] *WTO, Doha WTO Ministerial 2001: Summary of 10 November 2001* http://www.wto.org/wto/english/thewto_e/minist_e/min01_e/min01_10nov_e.htm. A list of six subjects to be addressed was released following the opening session of the Ministerial, and the list did not include e-commerce issues.

market[22] may arguably be developed in strictly computerized forms simply to skirt customs duties and strict international legal standards on physical goods and services. Organization of Economic Cooperation and Development's ("OECD") report refers to physical goods delivered in digital form via e-commerce as "fuzzy products,"[23] which certainly is an apt name considering the legal confusion surrounding their development. The basic need to premise underlying the need to determine the nature of such products rests with the operation of the WTO to encourage, or more precisely not inhibit, free trade.

1.5 INTELLECTUAL PROPERTY

The inventors of machines, the authors of books, or the writers of music somehow usually 'own' their inventions and creations. Consequences flow from this. One cannot just copy or buy a copy of a protected work without consideration of these rights. Equally, original industrial designs of furniture, wallpaper and the like are owned by someone or some organization.

Part from proceeds of such items goes back to the creator as recompense for the time, money, effort and thought he or she put into the creation of the work. This incentive to create has led to the development of industries such as biotechnology or the world-wide

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[22] Stewart A. Baker, Peter Lichtenbaum, Maury D. Shenk & Matthew S. Yeo, E-Products and the WTO, 35 *Int'l. Law.* (2001) pp. 5, 6.

[23] Julia Nielson & Rosemary Morris, E-commerce and Trade: Resolving Dilemmas, *OECD Observer* P 11 (Jan. 1, 2001) (stating that a clear and concise example of a transaction in these products exists).
If a book is ordered online, but is delivered physically, there is general agreement that, for the purposes of international trade rules, it is a good. That makes it subject to the international rules for trade in goods, the GATT (General Agreement on Tariffs and Trade). However, if the book is delivered electronically--downloaded onto the computer--there is no agreement whether this digital product should be treated as a good under the rules, or a service, which would make it subject to a GATS regime.

music industry. Intellectual property[24] encourages creators and innovators to produce more and more original ideas and works.

The outstanding features that most types of "property" share are that the owner of the property is free to use it as she/he wishes, provided the use is not against the law, and to exclude others from so using that item of property.

The term "intellectual property" denotes for types of property that result from creations of the human mind, the intellect. The term intellectual property in the Convention establishing the World Intellectual Property Organization ("WIPO") does not have a more formal definition. The States that drafted the Convention chose to offer a list of the rights as relating to[25]:

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"Literary, artistic and scientific works; performances of performing artists, phonograms, and broadcasts; inventions in all fields of human endeavor; scientific discoveries; industrial designs; trademarks, service marks, and commercial names and designations; protection against unfair competition; and "all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields."

Intellectual property is usually grouped into the following main headings:

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[24] The following list suggests some of the subject matter that is protected as intellectual property under national intellectual property laws and / or various international treaties: Discs; Performances; Broadcasts; Videos; Computer games; Computer programs; Designs for objects; Images; Logos; Trademarks; Integrated circuits; Inventions; Geographical indications of origin for certain types of products; Companies' names; Industrial processes; Chemical formulas; Materials; Perfumes.

[25] (Convention Establishing the World Intellectual Property Organization, Signed at Stockholm on July 14, 1967; Article 2, § viii).

1. Literary, artistic and scientific works e.g., books. Protection of this property is governed by copyright laws[26].

2. Performances, broadcasts e.g., concerts. Protection of this property is governed by laws concerning rights related to copyright or "related rights".

3. Inventions e.g., a new form of jet engine. Protection of inventions is covered by patent laws.

4. Industrial designs e.g., the shape of a soft drinks bottle. Industrial Designs may be protected by specialized laws or under industrial property or copyright laws.

5. Trademarks e.g. Pepsi-Cola â, service marks and commercial names are protected by trademark law.

6. Geographical designations e.g., logos or names for a product with unique geographical origin, such as Champagne. Protection is available under various laws.

7. Protection against unfair competition e.g., false claims against a competitor or imitating a competitor with a view to deceive the customer.

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[26] The term "laws" includes national laws and international agreements: treaties, conventions, and similar intergovernmental instruments. Treaties themselves may receive different treatment within various nations' governments. A separate but related category refers to "soft law", which is developed by way of non-binding recommendations or guidelines for example.

1.6 SIGNIFICANCE OF INTELLECTUAL PROPERTY RIGHTS

Intellectual Property Rights is important for a number of reasons. It is both just and appropriate that the person putting the work and effort into an intellectual creation benefits as a result of this endeavor. By giving protection to intellectual property, such endeavors are encouraged and industries based on such work can grow and bring financial return.

An example of the latter point is the case of high-technology industries. An investment of many years, and R&D expenses (time spent in the laboratory for creating, testing, applying government or agency approval procedures) running into the hundreds of millions of euros (or yen, rands, rupees, dollars) may be necessary before any new technical enhancement reaches the market. Without the IP rights to prevent competitors from also making such a new packet switch or computer chip with video capability, a high-technology company creating a new product would have no incentive to spend the time and efforts needed to develop its technology.

Without patent protection, such a company would face economic losses originating from the "free-riding" of their competitors[27]. Without trademark protection, this company, again, could not build "brand loyalty" that, hopefully, would last beyond the years of protection granted by patents.

Without the protections given within IP laws and treaties, such high-technology firms simply would not commit an effort to experiment, in searching for new information or

[27] Module 1 Intellectual Property in electronic Commerce- Intruduction;Page20

communication products. As you can see from this brief example, without the protections outlined above, the world might well be less technically progressive than it is. If Apple Computers, IBM, Intel, and others did not benefit from intellectual property protection; personal computers may have never been invented.

1.7 INTELLECTUAL PROPERTY AND E-COMMERCE

At least two defining characteristics of commerce are interesting. First, there is the international character of electronic commerce. Any business offering goods or services on the Internet need not target a specific geographical market. The establishment of a commercial Web site can provide even a small business with access to worldwide markets via the Internet. The second characteristic is the horizontal nature of electronic commerce. Both large and small enterprises are finding that some of the traditional lines between business sectors which have been founded on the different physical manifestations for the goods or services offered and the different physical means for their distribution (e.g., books, films, CDs, television, radio and Web broadcasts) are becoming less clear. This is generating new competitive pressures for restructuring within and across industries, confronting businesses with opportunities as well as challenges.

Within the commercial sphere, issues of intellectual property that have had such relevance in the physical (off-line) world, involving rights in respect of patents, trademarks, industrial designs and copyright, among others, also arise in relation to electronic commerce, but with different aspects to be addressed. Trademarks, for example, which

provide consumers with an accessible symbol associated with the goodwill of an enterprise, are playing an important role in the electronic commercial environment where in-person dealings hardly take place. With respect to patents, the creative business methods that are being developed to conduct commerce over the digital networks raise new questions related to patentability. Further, the shorter life cycles of many of the products and services associated with the Internet and digital technologies call for the timely acquisition and enforcement of such intellectual property rights.

There is a further distinction of particular relevance to intellectual property, especially in the area of copyright and related rights, in respect of commerce on digital networks: as noted, the Internet facilitates both commerce in physical products and commerce in intangible products.

For commerce involving physical products, the Internet functions as a global system facilitating sales, in which the placing of an order and the making of payment can (but does not necessarily have to) take place online, while the goods themselves are delivered separately through a postal or other delivery service.

For commerce involving intangible products, the Internet serves not only as a system to promote sales, but also as a system to deliver the intangible product itself, such as a piece of music or software, a film or a publication. This distribution can take place almost instantaneously and the intangible product e.g., software or music may travel virtually without restriction across national borders. Indeed, this aspect of electronic commerce may

be its most compelling dimension: there is an inherent logic to using the Internet to buy and sell intangible products that need never be more than digital "bits." At the same time, there is a commensurate need for effective intellectual property protection that can address the international dimensions of this commerce.

Already, the largest segment of business-to-consumer electronic commerce involves intangible products that can be delivered directly over the network to the consumer's computer. While these intangible products, by their very nature, are difficult to measure, an increasing amount of the content that is being offered is subject to intellectual property rights.

This commerce in intangible products raises a number of issues for intellectual property, in addition to those that would arise in respect of physical goods. For example, there is a growing role to be played by technological measures in protecting the rights of intellectual property owners. In addition, questions of the scope of rights and how existing law applies, jurisdiction, applicable law, validity of contracts and enforcement become more complex when the products offered have no necessary, physical manifestation.

Chapter 2

2.1 DEFINITION AND MEANING OF COPYRIGHTS:

Copyright law secures for the creator of a creative effort the exclusive right to control who can make copies, or make works derived from the original work. There are a lot of subtleties and international variations but that's the gist of it. If you create something, and it fits the definition of a creative work, you get to control who can make copies of it and how they make copies, with some important exceptions. You can also sell or license this right, or, if you do the work for somebody who hired you to do it, they buy this right in advance28. Copyright is a form of protection provided by the laws to the authors of "original works of authorship," including literary, dramatic, musical, artistic, and certain other intellectual works. This protection is available to both published and unpublished works[29]. Copyright Act generally gives the owner of copyright the exclusive right to do and to authorize others to reproduce the work in copies or phono records; to prepare derivative works based upon the work; to distribute copies or phono records of the work to the public by sale or other transfer of ownership, or by rental, lease, or lending; to perform the work publicly, in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works; to display the work publicly, in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion

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I. [28] A BRIEF INTRODUCTION TO COPYRIGHT- BY BRAD TEMPLETON

[29] www.copyright.gov/circs/circ1.html#wci

picture or other audiovisual work; and in the case of sound recordings*, to perform the work publicly by means of a digital audio transmission[30].

A copyright protects a literary, musical, dramatic, choreographic, pictorial or graphic, audiovisual, or architectural work, or a sound recording, from being reproduced without the permission of the copyright owner[31].

Black's law dictionary defines the copyright as a property right in an original work of authorship (including literary, musical, dramatic, choreographic, pictorial, graphic, sculptural, and architectural works; motion pictures and other audiovisual works; and sound recordings) fixed in any tangible medium of expression, giving the holder the exclusive right to reproduce, adapt, distribute, perform and display the work[32].

We can say that copyright law secures for the creator of a creative effort the exclusive right to control who can make copies, or make works derived from the original work. There are a lot of subtleties and international variations but that's the gist of it. If you create something, and it fits the definition of a creative work, you get to control who can [33]make copies of it and how they make copies, with some important exceptions[34].

The term copyright is extended to all varieties of literary, artistic and musical works. However, these works should satisfy additional criteria, which find their source in the

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[30] ibid

[31] Copyright Basics By Betsy Rosenblatt, Harvard Law School Last Modified: March, 1998

[32] Black's Law Dictionary, Eighth ed., P. No. 361

[33] Ibid., p.117

[34] www.templetons.com/brad/copyright.html

constitutional provision empowering Congress to enact copyright legislation. Article I, section 8, clause 8 of the Constitution gives to Congress the power "to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.[35]"In the United States of American and United Kingdom the provision ensures that federal copyright may not be of perpetual duration, but it also requires that the congressional grant of copyright be to "authors" for their "writings."

2.1.1 The nature of the copyright:

Copyright is a field which is rapidly increasing now-a-days. Originally it was quite backwater of the law, meant for the protection and benefit of the literary men, dramatists, composers of music and artists, together with the businessmen, who published their works. After the end of the nineteenth its scope has gradually increased to deal with a broader range of activity as the entertainment and allied industries have expanded[36]. At the end of the first half of the twentieth century the effect of technology on creative works has been quite drastic. Efficient and rapid photocopying machines were widely used in educational institutions: schools, colleges, universities, libraries and in various other offices. It reduced the sale of the original work to the point where it simply ceases to pay the author, and perhaps more importantly the publishers, also to produce work. It does not threaten the literary work, but the video recorder was now being enthusiastically marketed to the public at large, and the prices of the equipment have been considerably reduced. Recording

[35] **Robert A. Gorman, *Copyright Law*, (Wahington D.C.: Federal Judicial Center, 1961), p. 17**
[36] McFarlane, Gavin, A Practical Introduction to Copyright, second edition, (London: Waterlow Publishers, 1982), p. 1

equipment is called into service in many homes to tape gramophone records or broadcasts off the air. This latter development, known as time-shifting, had a profound effect on the rights position in several areas of the entertainment industry.

We are living in the twenty-first century, and the era in which we are living is known the age of globalization. Now-a-days, the use of computer in every sphere of life has become inevitable. The desk-top computer is now both cheap and commonplace, and almost in all schools computer is being taught as a subject. The protection and ownership of programs has had to be provided for, as well as the effect of storing copyright works such as books in data processing equipment. It is a tribute to the flexibility of the copyright system that it has proved capable of taking these matters in its stride[37].

2.1.2 History of the copyright:

This dissertation is about copyright in Pakistan, my aim is not to trace whether the copyright form existed in classical times. In the seventeenth century a series of Licensing Acts required printed books to be registered with the Stationers' Company, but these lapsed, and the close of the century saw a confused situation in which publishers or booksellers as they then generally called themselves, were hard to find protection for their wares. In eighteenth century, the first copyright legislation was passed by the Great Britain. It was the Copyright Act 1709, known as the Statute of Anne, which granted

[37] *Ibid.*, pp. 1-2

authors the sole right of printing their books for 21 years if already printed, and fourteen years if not then printed[38].

In nineteenth century, the first expansion of Copyright Act 1709 came when the Copyright Act of 1814 extended the author's protection right to 28 years from first publication. After nineteen years the Dramatic Copyright 1833 was a significant step forward and allowed the author of a "tragedy, comedy, play, opera, farce, or any other dramatic piece of entertainment" to have as his own property the sole right of performing[39]. In twentieth century another act came as Copyright 1911 Act a protection which came to appear rather ambiguous, I a form which gave manufacturers no more than a reproduction right against unauthorized copying. Certainly this appears to be expressed intention of the record manufacturers themselves in evidence given to the committee which had been set up to consider the form of the new copyright law[40]. Now coming to Pakistan, Pakistan adopted the Copy right Act 1911 and the Copy right Act 1914 modified to the extent of Pakistan. These Acts of 1911 and 1914 were repealed on promulgation of the Copy right Ordinance 1962. With the passage of time and as per need of the hour the Ordinance was amended from time to time to facilitate and secure the interest of the copyrights holder and after signing of WTO the same was amended in the year 2000 vide Copyright (Amendment) Ordinance 2000, which still holds the field.

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[38] *Ibid.*, p.3
[39] *Ibid.*, p.3
[40] Copyright Committee (1909), Minutes of Evidence, paras 1130-1132.

2.2 WHAT ARE RELATED RIGHTS:

A field of rights related to copyright has rapidly developed over the last 50 years. These related rights grew up around copyrighted works, and provide similar, although often more limited and of shorter duration, rights to performing artists (such as actors and musicians) in their performances; producers of sound recordings (for example, cassette recordings and compact discs) in their recordings; broadcasting organizations in their radio and television programs.

The rights provided by copyright apply to authors, "related rights", also known as "neighboring rights" concern other categories of owners of rights, namely, performers, the producers of phonograms and broadcasting organizations. Related rights differ from copyright in that they belong to owners regarded as intermediaries in the production, recording or diffusion of works. The link with copyright is due to the fact that the three categories of related rights owners are auxiliaries in the intellectual creation process since they lend their assistance to authors in the communication of the latter's works to the public. A musician performs a musical work written by a composer; an actor performs a role in a play written by a playwright; producers of phonograms -- or more commonly "the record industry" -- record and produce songs and music written by authors and composers, played by musicians or sung by performers; broadcasting organizations broadcast works and phonograms on their stations[41].

[41] ibid

The main purpose of related rights is to protect the legal interest of certain persons and entities who contribute to making works available to the public; or who produce subject matter which, while not qualifying as works under copyright system of all countries, contain sufficient creativity or technical and organizational skill to justify recognition of a copyright like property right. The law of related rights deems that the productions, which results from the activities of such persons and entities merits legal protection in themselves as they are related to the protection of works of authorship under copyright. Some laws make clear, however, that the exercise of related rights should leave intact, and in no way affect, the protection of copyright[42].

Related rights are usually given to performers, producers of phonograms and broadcasting organizations. The rights of performers are recognized because their creative intervention is necessary to give life to, e.g., motion pictures, dramatic or musical work etc. The rights of producers of phonograms are recognized because their creative, financial and organizational sources are necessary to make sound recordings available to public in the form of public phonogram. Likewise, the rights of broadcasting organizations are recognized because of their role in making works available to the public, and in light of their justified interest in controlling the transmission and retransmission of their broadcast[43].

[42] Understanding Copyright and related rights by World Intellectual Property Organization
[43] ibid

2.3 DIGITIZATION:

Digitization is the process of converting information into a digital format . In this format, information is organized into discrete units of data (called bit s) that can be separately addressed (usually in multiple-bit groups called byte s). This is the binary data that computers and many devices with computing capacity (such as digital camera s and digital hearing aid s) can process[44].

Text and images can be digitized similarly: a scanner captures an image (which may be an image of text) and converts it to an image file, such as a bitmap . An optical character recognition **(OCR)** program analyzes a text image for light and dark areas in order to identify each alphabetic letter or numeric digit, and converts each character into an ASCII code[45].

Audio and video digitization uses one of many analog-to-digital conversion processes in which a continuously variable (analog) signal is changed, without altering its essential content, into a multi-level (digital) signal. The process of sampling measures the amplitude (signal strength) of an analog waveform at evenly spaced time markers and represents the samples as numerical values for input as digital data[46].

Digitizing information makes it easier to preserve, access, and share. For example, an original historical document may only be accessible to people who visit its physical location, but if the document content is digitized, it can be made available to people

[44] Whatis.techtarget.com
[45] ibid
[46] ibid

worldwide. There is a growing trend towards digitization of historically and culturally significant data[47].

According to an article in *The Guardian* in March 2007, if all spoken language since the dawn of time were digitized, it would consume five exabytes of storage space. Total digital information, in 2006 was estimated at 161 billion exabytes. Email alone made up six exabytes of that figure. There are many interdependent and interacting factors to be weighed in selecting materials to digitize. The specific choices that result from the selection process will reflect subjective judgments, any of which may change over time. Nuanced assessments, ambiguity, and shades of gray are all to be expected[48].

Questions concerning copyright, however, are far more clear-cut. Simply stated, if a proposed digitizing project involves materials in the public domain, the work can proceed. If the source materials are protected by copyright but rights are held by the institution or appropriate permissions can be secured, the work can move ahead. If permissions are not forthcoming for copyrighted sources, however, the materials cannot be reproduced and the focus of the project must change. Copyright assessments thus play a defining role with regard to digitizing projects. Since the impact of copyright is so decisive, we have given it pride of place in this discussion.

Copyright issues in the digital environment are still very much in flux and have provoked ongoing international discussion. While the broad thrust of digital technology is toward

[47] ibid
[48] ibid

enhanced access, diminished costs, and more versatile capabilities, it is far less clear that copyright law will likewise encourage wider use. The legal strictures applicable to a particular project will vary depending on the country in which the project is based, the country in which the source materials were produced, and prevailing international agreements. Different kinds of materials, moreover, usually pose different types of rights-management issues. The performance rights associated with musical scores, for example, or exhibition rights for films, differ from rights for nonperformance materials such as electronic journals or documentary photographs. To complicate matters, all these rights are susceptible to change over time.

Digital projects must be undertaken with a full understanding of ownership rights, difficult as they often are to ascertain, and with full recognition that permissions are essential to convert materials that are not in the public domain. Rights that must be negotiated with the copyright holder often entail fees. The institution hosting a project may also have policies and procedures that inform intellectual property negotiations. The general counsel or legal office of most institutions can provide guidance. The Internet site IFLA: Copyright and Intellectual Property Resources is a good resource for maintaining current awareness. It includes articles, reports and white papers, discussions, and information about organizations related to copyright issues, intellectual property in general, and electronic distribution of intellectual property.

2.4 WIPO INTERNET TREATIES:

The World Property Organization (WIPO) in 1996 concluded two treaties in Geneva:

(1) The WIPO Copyright Treaty (WCT), deals with protection for authors of literary and artistic works, such as writings and computer programs; original databases; musical works; audiovisual works; works of fine art and photographs; and

(2) The WIPO Performances and Phonograms Treaty (WPPT), protects certain 'related rights' (that is, rights related to copyright): in the WPPT, these are rights of performers and producers of phonograms.

The purpose of the two treaties is to update and supplement the major existing WIPO treaties on copyright and related rights, primarily in order to respond to developments in technology and in the marketplace. Since the Berne and Rome Conventions were adopted or lastly revised more than a quarter century ago, new types of works, new markets, and new methods of use and dissemination have evolved. Among other things, both the WCT and the WPPT address the challenges posed by today's digital technologies, in particular the dissemination of protected material over digital networks such as the Internet. For this reason, they have sometimes been referred to as the 'Internet treaties.'[49]

"Both treaties require countries to provide a framework of basic rights, allowing creators to control and/or be compensated for the various ways in which their creations are used and

[49] Copyright (WCT), WIPO Copyright Treaty, 20-12-1996

enjoyed by others. Most importantly, the treaties ensure that the owners of those rights will continue to be adequately and effectively protected when their works are disseminated through new technologies and communications systems such as the Internet. The treaties thus clarify that existing rights continue to apply in the digital environment. They also create new online rights. To maintain a fair balance of interests between the owners of rights and the general public, the treaties further clarify that countries have reasonable flexibility in establishing exceptions or limitations to rights in the digital environment. Countries may, in appropriate circumstances, grant exceptions for uses deemed to be in the public interest, such as for non-profit educational and research purposes[50].

The treaties also require countries to provide not only the rights themselves, but also two types of technological adjuncts to the rights. These are intended to ensure that right holders can effectively use technology to protect their rights and to license their works online. The first, known as the 'anti-circumvention' provision, tackles the problem of 'hacking': it requires countries to provide adequate legal protection and effective remedies against the circumvention of technological measures (such as encryption) used by right holders to protect their rights. The second type of technological adjuncts safeguards the reliability and integrity of the online marketplace by requiring countries to prohibit the deliberate alteration or deletion of electronic 'rights management information': that is, information which accompanies any protected material, and which identifies the work, its creators, performer, or owner, and the terms and conditions for its use.[51]

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[50] ibid
[51] ibid

The WIPO Internet Treaties update and supplement the existing international treaties on copyright and related rights, namely, the Berne Convention for the Protection of Literary and Artistic Works and the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations.

The Internet Treaties respond to challenges posed by digital technologies and, in particular, the dissemination of protected material, including music and published text, over the Internet. Their contents can be divided into three parts:

1. incorporation of certain provisions of the Agreement on Trade-Related Aspects of Intellectual Property Rights) (TRIPS Agreement) not previously included expressly in WIPO treaties (e.g., protection of computer programs and original databases as literary works under copyright law);

2. updates not specific to digital technologies (e.g., generalizing the right of communication to the public); and
3. provisions specifically addressing the impact of digital technologies.

Although the treaties establish benchmarks for the signatories to meet and thereby afford flexibility in implementation, these treaties go deep in international harmonization of digital intellectual property rights.

Some critics claim that the treaties were drafted with a bias favoring rights-holders. Others say anti-circumvention provisions may dampen technological innovation by criminalizing

the development of tools that might possibly be used to circumvent digital rights management (DRM) controls[52].

2.5. SOFTWARE PROTECTION IN PAKISTAN

In Pakistan, computer programs are excluded from patent protection under the patent laws. Protection under the copyright laws is the only safeguard available for the computer software industry[53]. Copyright protection is only available for `works' which fit within one of the categories of works or subject matters specified in the law of Pakistan related with copyright protection[54]. Section 10 of the said law provides that copyright subsists, inter alia, in original, literary, dramatic, musical and artistic works[55].As regard to the computer programmes, the definition of `literary work' is amended in the Copyright (Amendment) Act, 1992 ("the Amendment Act") by addition of Section 2(p) vide Copyright (Amendment) Ordinance 2000 ,which defines literary work to include work, inter alia, compilations of Data and computer programs, "that is to say programs recorded on any disc, tape, perforated media or other information storage devices, which, if fed into or located in a computer or computer based equipment is capable of reproducing any information"[56].

Pursuant to the restrictions imposed under Section 56 of the Ordinance, even the purchasers of computer programs may not copy, adapt or make copies of adaption of the

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[52] ibid
[53] Patent Ordinance, 2000
[54] Copyright Ordinance, 1962
[55] S.10 of Copyright Ordinance, 1962
[56] S.2(p) of Copyright Ordinance, 1962

programs in connection with their use by themselves or their employees. The unauthorized use of a computer program in a computer is also infringement of the copyright. Accordingly, if a duplicate of a computer program is acquired by someone who has no license to use it, the copyright owner has the right to prevent him using it. Section 56 also restricts rental of computer programs to un-authorized users. Intention to copy computer programs is not an essential ingredient of infringement; nor is it essential that the copying be in the same medium. Thus, a computer program stored on diskettes (or any other magnetic media) can be infringed by copying the same on paper, or taking a print-out of the same[57].

In the event of infringement, liability of infringement falls upon the person who, without the consent of the owner of the computer program does any of the restricted acts; or authorizes any other person to do any such acts; or commits any acts of infringement.

There are two remedies for breach of copyright in Pakistan; civil proceedings and criminal proceedings. Accordingly, a person whose copyright has been infringed is able to sue for damages, claim an injunction, an account of the profits gained by the defendants as a result of the infringement, delivery up of infringing articles etc. Recently added section 74(3) of the Ordinance provides that all offences under the Ordinance are cognizable and non-bail able[58]. Section 59 of the Ordinance provides that an action may be brought by the original owner of the copyright, which, inter alia, include the person to whom an exclusive license

[57] S.56 of Copyright Ordinance, 1962
[58] S.74(3) of Copyright Ordinance, 1962

has been granted[59]. Amended Section 65 of the Ordinance provides that every suit or other civil proceedings regarding infringement, at the discretion of the applicant, should be instituted and tried in the Court of the District Judge[60]. Section 66 of the Ordinance, as amended by the Amendment Act, provides that any person who knowingly infringes or abets the infringement of the copyright in a work (defined to include computer programs), or any other right conferred by the Ordinance shall be punishable with imprisonment which may extend to 3 years, or with fine which may extent to one hundred thousand rupees (one US dollars nearly equals twenty five rupees), or with both[61]. Additionally, Section 70B of the Ordinance provides that where any person convicted for an offence punishable under, inter alia, Section 66, is again convicted for the same offence, he shall in such event be imposed with a fine (beside the imprisonment which may extent to 3 years) up to rupees two hundred thousand[62]. Recently amended Section 74(1) of the Ordinance now gives additional powers to police to seize infringing copies of the work. The section empowers any police officer, if he is satisfied that an offence in respect of infringement in any work has been, is being, or is likely to be committed, to seize without warrant all copies of the work and all plates and recording equipments used for the purposes of making infringed copies of the work, wherever found, and all copies, plates and recording equipments so seized shall, as soon as possible, be produced before a Magistrate[63].

Section 71 of the Ordinance provides that where an offence under the Ordinance is committed by a company, every person who at the time was in charge of, and was

[59] S.59 of Copyright Ordinance, 1962
[60] S.65 of Copyright Ordinance, 1962
[61] S.66 of Copyright Ordinance, 1962
[62] S.70B of Copyright Ordinance, 1962
[63] S.74(1) of Copyright Ordinance, 1962

responsible to the company for the conduct of the business of the company as well as the company is deemed to be guilty of such offence and is liable to be proceeded against and punished accordingly. Except in the circumstances, the accused proves that the offence was committed without his knowledge or that he exercised due diligence to prevent the commission of such offence, he is deemed guilty[64].

2.6 WHAT ARE THE EXCEPTION & LIMITATION TO COPY RIGHTS & RELATED RIGHTS IN THE DIGITAL ENVIRONMENTS PLACED BY THE I.P LAWS OF PAKISTAN?

Several categories of material generally, are not eligible for the protection of copyright. These are:

- Works that have not been fixed in a tangible form of ideas, procedures, methods, systems, processes, concepts, principles, discoveries, or devices, as distinguished from a description, explanation, or illustration.

- Works consisting entirely of information that is common property and containing no original authorship (for example: standard calendars, height and weight charts, tape measures and rulers, and lists or tables taken from public documents or other common sources).

The act of a person shall not fall in the domain of infringement of copyright, when he is fairly dealing with a literary, dramatic, musical or artistic work for the purpose of

[64] S.71 of Copyright Ordinance, 1962

research or private study & criticism or review, whether of that work or of any other work. A fair dealing with a literary, dramatic, musical or artistic work for the purpose of reporting current events in a newspaper, magazine or similar periodical, or by broadcast or in a cinematographic work or by means of photographs is also not infringement of copyrights[65].

The following acts are also exceptions to the violation of copyrights;

(i) the reproduction of a literary, dramatic, musical or artistic work for the propose of a judicial proceeding or for the purpose of a report of a judicial proceeding;

(ii) the publication in a newspaper of a report of an address of political nature delivered at a public meeting unless the report is prohibited by conspicuous written or printed notice affixed before and maintained during the lecture at or about the main entrance of the building in which the lecture is given and, except whilst the building is being used for public worship, in a position near the lecture; but nothing in this clause shall affect the provisions as to newspaper summaries;

(iii) the reproduction of any literary, dramatic, or musical work in the certified copy made or supplied in accordance with any law for the time being in force;

[65] S.57 of Copyrights Ordinance

(iv) the reading or recitation in public of any reasonable extract from a published literary or dramatic work;

(v) the publication in a collection, mainly composed of non-copyright matter, *bona fide* intended for the use of educational institutions and so described in the title and in any advertisement issued by or on behalf of the publisher, of short passages from published, literary or dramatic works, not themselves published for the use of educational institutions, in which copyright subsists, but not more than two such passages from works of the same author are published by the same publisher during any period of five years;

(vi) the reproduction or adaptation of a literary, dramatic, musical or artistic work in the course and for the sole purpose of instruction whether at an educational institution or elsewhere where the reproduction or adaptation is made by a teacher or a pupil otherwise than by the use of a painting process; or as part of the questions to be answered in an examination; or in answers to such questions;

(vii) the performance, in the course of the activities of an educational institution, of a literary dramatic or musical work by the staff and students of the institution, or of a cinematographic work or a record, if

the audience is limited to such staff and students, the parents and guardians of the students and persons directly connected with the activities of the institution;

(viii) the making of records in respect of any literary, dramatic or musical work, if records recording the work have previously been made by or with the license or consent of, the owner of the copyright in the work; and the person making the records has given the prescribed notice of his intention to make the records, and has paid in the prescribed manner to the owner of the copyright in the work royalties in respect of all such records to be made by him, at the rate fixed by the Board in this behalf but in making the records such person shall not make any alterations in, or omissions from, the work, unless records recording the work subject to similar alterations and omissions have been previously made by, or with the licence or consent of the owner of the copyright, or unless such alterations and omissions are reasonably necessary for the adaptation of the work to the records in question;

(ix) the causing of a recording embodied in a record to be heard in public utilizing the record at any premises where persons reside, as part of the amenities provided exclusively or mainly for residents therein, or as part of the activities of a club, society or other organization which is not established or conducted for profit ;

(x) the performance of a literary, dramatic or musical work by an amateur club or society, if the performance is given to a non-paying audience, or for the benefit of a religious, charitable or educational institution;

(xi) the reproduction in a newspaper, magazine or other periodical of an article on current economic, political, social or religious topics, unless the owner of copyright of such article has expressly reserved to himself the right of such reproduction;

(xii) the publication in a newspaper, magazine or other periodical of a report of a lecture delivered to public;

(xiii) the making of not more than three copies of a book (including a pamphlet, sheet of music, map, chart or plan) by or under the direction of the person in charge of a public library or a non-profit library available for use by the public free of charge or a library attached to an educational institution for the use of such library if such book is not available for sale;

(xiv) the reproduction, for the purpose of research or private study or with a view to publication, of an unpublished literary, dramatic or musical work kept in a library, museum or other institution to which the public

has access but where the identity of the author of any such work, or in the case of a work of joint authorship, of any of the authors, is known to the library, museum or other institution, as the case may be, the provision of this clause shall apply only if such reproduction is made at a time more than fifty years from the date of the death of the author or, in the case of a work of joint authorship, from the death of the author whose identity is known, or, if the identity of more authors than one is known, from the death of such one of those authors who dies last;

(xv) the reproduction or publication of any matter which has been published in any official Gazette, or the report of any committee, commission, council, board or other like body appointed by the Government unless the reproduction or publication of such matter or report is prohibited by the Government any judgment or order of a court, tribunal or other judicial authority, unless the reproduction or publication of such judgment or order is prohibited by the court, tribunal or other judicial authority, as the case may be;

(xvi) the making or publishing of a painting, drawing, engraving or photograph or an architectural work of art;

(xvii) the making or publishing of a painting, drawing, engraving or photograph of a sculpture or other artistic work if such work is

permanently situate in a public place or any premises to which the public has access;

(xviii) the inclusion in a cinematographic work of any artistic work permanently situate in a public place or any premises to which the public has access; or any other artistic work, if such inclusion is only by way of background or is otherwise incidental to the principal matters represented in the work;

(xix) the use by the author of an artistic work, where the author of such work is not the owner of the copyright therein, of any mould, cast, sketch, plan, model or study made by him for the purpose of the work, provided that he does not thereby repeat or imitate the main design of the work;

(xx) the making of an object of any description in three dimensions of an artistic work in two dimensions, if the object would not appear, to persons who are not experts in relation to objects of that description to be a reproduction of the artistic work;

(xxi) the reconstruction of a building or structure in accordance with the architectural drawings or plans by reference to which the building or structure was originally constructed provided that the original construction was made with the consent and license of the owner of the copyrights in such drawings or plans;

After the promulgation of the IPO Ordinance 2005, incorporation of PIPO all the registries of trademark, copy right, patent, etc have been given under its control. As far as the registration of software and digital data is concerned it has not been specifically mentioned in the Copyright Act1962, however, being the signatory of the WTO and almost all the conventions now being regulated by WIPO, as per amendment made in the Copyright software and digital data/ compilation is deemed to mean / include as literary work. The IPO makes sure that the below treaties are well defined in the IP laws of the country and to make sure that the same are also implemented. It is pertinent to note here that Pakistan is not a member of WCT or WPPT agreement however, as clearly defined in the Article 10 of the TRIPS agreement the inclusion of computer programs and the compilation of Data as literary works defined in Bernes convention; further the Article 11 defines the rental rights of the software's/ computer programs as well as other works. The developing countries which include Pakistan were to promulgate the amendments until 2005 which Pakistan has done.

In the end, I would like to add that in line of the rapid changes in the Cyber space, Pakistan has tried to bring in the ambit of Copyright Ordinance the new technologies of data storage and also the software by making them part of the 'literary works'. In this regard further it may be added that infringements of Rights under this Ordinance are deemed offences (section 66 of the Ordinance 2000) hence one has both the rights against infringements by way of civil suit as well as lodging a criminal complaint.

Chapter 3

3.1 WHAT IS TRADEMARK?

In today's world due to the flourishing media, people have an idea of branded items and would prefer to buy them as every company has a unique sign or name which is acceptable all over. In Pakistan in electronic goods there are well established names like Waves, Dawlance, in clothing's Amir Adnan, Junaid Jamshed, Lawrencepur are world renowned names. These names and marks are known as trade marks or service marks. A trademark or service mark is a unique sign of some kind which is used by an individual, business organization or other legal entity to distinctively classify the source of its products and/or services to consumers, and to differentiate its products or services from other entities these names or logos or mark has an inbuilt reputation and quality. A trademark is a type of intellectual property, and typically comprises a name, word, phrase, logo, symbol, design, image, or a combination of these elements. There is also a variety of non-conventional trademarks comprising marks which do not fall into these standard categories.

These words, phrase, logo or other graphical symbol are used by a manufacturer or seller to distinguish its products or products from those others. The main purpose of a trademark is to designate the source of goods or services. In effect, the trademark is the commercial substitute for one's signature[66].

[66] Black's Law Dictionary, Eighth ed., P. No. 1530

The owner of a registered trademark has the right to commence legal proceedings for trademark infringement to prevent unlawful use of their trademark. However, registration is not obligatory. The owner of a common law trademark may also file suit, but an unregistered mark may be protect able only within the geographical region within which it has been used or in geographical areas into which it may be reasonably expected to increase.

3.1.1 History:

Trademark law is primarily derived from the English common law relating to goodwill and the tort of passing off, which has been recognized in England since at least 1585. In the mid-19th century the Parliament of the United Kingdom recognized an increased use of standard marks as badges of origin. After appointing a select committee to investigate that business practice the Parliament passed the *Merchandise Marks Act* in 1862. The Act met with much criticism including that it confused the public and attorneys who were used to the common law approach. In response the Parliament passed the Trade Mark Registration Act in 1875 which is widely recognized as the first system of trademark registration[67].

The system of registration of trademarks is now used throughout the world and has been incorporated into international law by, among other things, the Madrid Protocol. Now in the E- environment the trade name can be used to identify ones good and services and they are called domain name;

[67] www.ipo.gov.uk

3.2 DOMAIN NAME

A domain name is the user-friendly form of an Internet Protocol (IP) address. Each computer that is connected to the Internet has its own unique address. This unique IP address is a string of numbers that can be difficult to remember. The computer's IP address is therefore designated by a string of letters that is easier to remember. For example, the domain name "www.icann.org" is easier to remember than its corresponding IP address, 192.0.34.65. The Domain Name System (DNS), which is essentially a global addressing system, allows Internet users around the world to go to a specific website address by entering its corresponding domain name. DNS does this by locating and translating domain names into IP addresses[68].

The words and characters that website owners designate for their registered internet addresses. All domain names have at least two levels. The first level domain name identifies the registered category as e.g., a commercial site (.com). The second level domain name is the unique identifier for the user in a particular category. A second level domain name may be protected under trademark law, but first level domain names are not[69].

In *Pitman Training Ltd v Nominet (UK),*[70] considered below, the Vice Chancellor (Sir Richard Scott) began his judgment with the following description:

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[68] www.inta.org/index

[69] Black's Law Dictionary, Eighth ed., P. No. 522

[70] The full judgement is set out on Nominet's website, at www.nic.uk/Referencedocuments/CaseLaw/ThePitmanCase.html.

The Internet is a network of computer networks. A computer which is attached to an appropriate network can use appropriate software to communicate the exchange information quickly with any other computer on the network. In order to receive or to make available information on the Internet a domain name is needed. A domain name can be likened to an address. It identifies a particular Internet site. A particular domain name will only be allocated to one company or individual. It repr4esents that company's computer site and is the means by which that company's customers can find it on the Internet. Electronic messages (e-mail) addresses, which will include the domain names of the addressees. A web site address, too, will include the main name of the owner of that web site. A web site is a series of files on a computer on the internet that can be accessed by anyone via the Internet.

A domain name is an alias for an Internet Protocol (IP) address. An IP address points an Internet user's computer to the website he/she wants to view. Instead of having to remember a long number (e.g., 64.244.180.150), an Internet user can just type in an easy-to-remember "domain name" (i.e., inta.org). The name portion of the domain name (inta) is called a second-level name and is chosen by the domain name applicant. This name must be unique. The end portion of the domain name (.org) is called a top-level domain (TLD)[71].

The current generic top-level domains include: .com (commercial user), .org (nonprofit organization), .edu (educational organizations), .net (Internet infrastructure organizations), .int (international organization), .mil (military organization), .gov (government agency), .coop (cooperative), .aero (air-transport industry), .info (unrestricted use), .museum

[71] ibid

(museum community), .name (individuals) and .biz (business). While some of these were intended for certain ventures (e.g., .com for commercial users, .org for non-profit organizations), those limitations were not followed. Others, e.g., .mil for authorized military users, and .gov for government users have remained exclusive. In addition to these generic top-level domains, there are about 250 country code top-level domains (ccTLDs)[72].

gTLD:

A gTLD is a generic top-level domain. The gTLD of an Internet address appears to the right of the "dot" in the address. GTLDs include the familiar .com, .net, and .org as well as many newer gTLDs that focus on particular business or interest groups, such as .aero (for the aviation community), .biz (for business purposes), .coop (for cooperatives), .info (unrestricted), .museum (for museums), .name (for personal names) and .pro (for professionals)[73].

ccTLD:

A ccTLD is a country-code top-level domain, for example .PK for Pakistan and .ca for Canada. These ccTLDs are administered by nationally designated registration authorities. There are currently over 250 ccTLDs, as recorded by the Internet Corporation for Assigned Names and Numbers (ICANN).

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[72] ibid
[73] ibid

3.3 THE DOMAIN NAME ALLOCATION SYSTEM:

Accordingly, in 1998, allocation of domain names was granted to the Internet Corporation for Assigned Names and Numbers (ICANN), a not-for-profit corporation incorporated in the US, on a more formal basis than previously. Although the first-come fir-served principle is retained as a basis, there is recognition that some companies might have the right to a particular domain name, even if someone else has registered it first. There is therefore provision for reallocation of domain names, and a dispute resolution procedure.

Domain names within countries outside the US continue to be allocated as before; those in the UK continue to be allocated by Nominet (UK) Ltd. In Pakistan it is dealt with by PKNIC .The allocation has been put on a formal basis, however, and there are also dispute resolution procedures. As we will see, the dispute resolution procedures are influenced by the trade mark and related laws of the countries concerned a although, for both ICANN and Nominet, except possibly for cyber squatting cases,74 trade mark owners are generally less well protected than they are by the courts.

In Pakistan Domain Name dispute resolution Centre (DNDRC) is the organization which handles the disputes in relation to domain name under UDRP.

Relationships between the parties:

Usually there will, of course, be a contract between the applicant and the ISP. The ISP will then make an arrangement with ICANN or, in the UK, Nominet. In pre-ICANN times,

[74] Some of the legal difficulties in pursuing cybersquatters through the courts are considered in section 3.7.4.

when top-level domain names were allocated by IANA, there was probably no contract between the applicant and Nominet's precursor (the UK Naming Committee). In Diane Wraith v Nominet UK,75 Nominet suspended the domain name psinet.co.uk, registered by Diane Wrath's company, Psinet Ltd, following a complain by PSINet (UK) Ltd. Diane Wraith sued for breach of contract. The domain name had, however, been registered, not by Nominet, but in 1995 by its precursor, the UK Naming Committee. In the Dewsbury Country Court, His Honour Judge Hickinbottom decided that Ms Wraith had no cause of action: the Naming Committee had affected the registration without charging a fee and no consideration had thus moved from Ms Wraith; therefore, there was no contract between Ms Wrath and the Naming Committee and, consequently, no contract between Ms Wraith and Nominet UK. No doubt, she had a contract with her ISP (Demon) for hosting services because she had paid a £200 fee at the time of registration, but that gave her no cause of action against the Naming Committee, as a third party.

3.4 WHAT PROTECTION IS AVAILABLE UNDER TRADEMARK ORDINANCE, 2001 IN PAKISTAN?

Grounds for refusal of registration:

Trademark Ordinance, 2001 prohibits the registration of marks, which are devoid of any distinctive character; or trade marks, which consist exclusively of marks or indications which may serve, in trade, to designate the kind, quality, quantity, intended purpose, value,

[75] A country court case, not fully reported, but summarized at www.nic.uk/ReferenceDocuments/CaseLaw/DianeWraith-v-NominetUK.html.

geographical origin, the time of production of goods or of rendering of services, or other characteristics of goods or services; and trade mark, which consist exclusively of marks or indications which have become customary in the current language or in the bona fide and established practices of the trade[76].

A mark shall not be registered as a trade mark if it consists exclusively of the shape, which results from the nature of the goods themselves; or the shape of goods, which is necessary to obtain a technical result; or the shape which gives substantial value to the goods[77].

No trade mark nor any part thereof in respect of any goods or services shall be registered which consists of, or contains, any scandalous design, or any matter the use of which would by reasons of its being likely to deceive or to cause confusion or otherwise, be disentitled to protection in a High Court or a District Court; or be likely to hurt the religious susceptibilities of any class of citizens of Pakistan, per se, or in terms of goods or services it is intended to be so registered; or be contrary to any law, for the time being in force, or morality[78].

A trade mark shall not be registered if or to the extent that the application is made in bad faith[79].

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[76] S.14 of Trademark Ordinance, 2001
[77] ibid
[78] ibid
[79] ibid

Other grounds for refusal of registration:

A trade mark shall not be registered if it is identical with an earlier trade mark and the goods or services, for which the trade mark is applied for, are identical with the goods or services for which the earlier trade mark is registered[80].

A trade mark shall not be registered because it is identical with an earlier trade mark and is to be registered for goods or services similar to those for which the earlier trade mark is registered; or if it is similar to an earlier trade mark and is to be registered for goods or services identical with or similar to those for which the earlier trade mark is registered, and there exists a likelihood of confusion on the part of the public which includes the likelihood of association with the earlier trade mark[81].

A trade mark which is identical with or similar to an earlier trade mark; and is to be registered for goods or services which are not similar to those for which the earlier trade mark is registered shall not be registered if, or to the extent that, the earlier trade mark has a reputation in Pakistan and the use of the later mark without due cause would take unfair advantage of, or be detrimental to, the distinctive character or the repute of the earlier trade mark[82].

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[80] S.17 of Trademark Ordinance, 2001
[81] ibid
[82] ibid

A trade mark shall not be registered if, or to the extent that, its use in Pakistan is liable to be prevented by virtue of any law, in particular, the law of passing off, protecting an unregistered trade mark or other mark used in the course of trade[83].

Where separate applications are made by different persons to be registered as proprietors respectively of trade marks which are identical or nearly resemble each other, in respect of the same goods or description of goods, the Registrar, if thinks fit, may refuse to register any of them until their rights have been determined by the High Court or a District Court[84].

***Grounds of opposition*:**

The registration of a trade mark may be opposed on any of the grounds on which an application for the registration of a trade mark may be rejected under this Ordinance except the ground that the trade mark cannot be represented graphically[85].

The registration of a trade mark may be opposed on the ground that the applicant does not intend to use, or authorize the use of, the trade mark in Pakistan; or to assign the trade mark to a body corporate for use by the body corporate in Pakistan in relation to goods, services or both specified in the application[86].

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[83] ibid
[84] ibid
[85] S.29 of Trademark Ordinance, 2001
[86] ibid

The registration of a trade mark may be opposed on any of the following grounds that the applicant is not the proprietor of the trade mark; or the application, or a document filed in support of the application, was amended contrary to the provisions of this Ordinance; or the Registrar accepted the application for registration on the basis of evidence or representations that were false in material particulars; or the pre-acceptance advertisement of the application under exceptional circumstances is without sufficient cause or reason[87].

The registration of trade mark in respect of particular goods or services may be opposed on the grounds that it is substantially identical with, or deceptively similar to, a well known trade mark, or a trade mark that, before the priority date for the registration of the first-mentioned trade mark in respect of those goods or services, had acquired a reputation in Pakistan; and because of the reputation of that other trade mark, the use of the first-mentioned trade mark would cause dilution or would be likely to deceive or cause confusion[88].

The registration of a trade mark in respect of particular goods may be opposed on the ground that the trade mark contains or consists of a mark that is a geographical indication for goods originating in a country, or in a region or locality in a country, other than the country in which the relevant goods originated; or a region or locality in the country in which the relevant goods originated other than the region or locality in which the relevant goods originated[89].

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[87] ibid
[88] ibid
[89] ibid

***Rights conferred by registration*:**

A registered trade mark shall be a personal property. The proprietor of a registered trade mark shall have exclusive rights in the trade mark which are infringed by use of the trade mark in Pakistan without his consent.Without prejudice to the rights of the proprietor of a registered trade mark to obtain any relief under any other law for the time being in force, the proprietor shall also have the right to obtain relief under this Ordinance if the trade mark is infringed. The rights of the proprietor shall have effect from the date of registration. But no infringement proceedings shall begin before the date on which the trade mark is in fact registered[90].

***Infringement of registered trade mark*:**

Under this Ordinance, infringement of trademark will take place when a person uses in the course of trade a mark which is identical with the trade mark in relation to goods or services which are identical with those for which it is registered. A person shall infringe a registered trade mark if such person uses in the course of trade a mark where because the mark is identical with the trade mark and is used in relation to goods or services similar to the goods or services for which the trade mark is registered; or the mark is deceptively similar to the trade mark and is used in relation to goods or services identical with or similar to the goods or services for which the trade mark is registered; or there exists a

[90] S.39 of Trademark Ordinance, 2001

likelihood of confusion on the part of public, which includes the likelihood of association with the trade mark[91].

A person shall also be deemed to infringe a registered trade mark if the person uses in the course of trade a mark which is identical with, or deceptively similar to, the trade mark in relation to goods of the same description as that of goods in respect of which the trade mark is registered; or services that are closely related to goods in respect of which the trade mark is registered; or services of the same description as that of services in respect of which the trade mark is registered; or goods that are closely related to services in respect of which the trade mark is registered[92].

Section 40 of Trademark Ordinance, 2001 states that;

"*A person shall infringe a registered trade mark if the person uses in the course of trade a mark which is identical with or deceptively similar to the trade mark; and is used in relation to goods or services which are not similar to those for which the trade mark is registered. Where the trade mark is a well known trade mark, or has a reputation in Pakistan, and the use of the mark, being without due cause, takes unfair advantage of, or is detrimental to, the distinctive character or the repute of the trade mark. A person shall infringe a registered trade mark if the person uses such registered trade mark as his trade name or part of his trade name*".

[91] S.40 of Trademark Ordinance, 2001
[92] ibid

A person shall infringe a registered trade mark if the person uses such registered trade mark as his domain name or part of his domain name or obtains such domain name without the consent of the proprietor of the registered trade mark, with the intention of selling such domain name to another including the proprietor of the registered trade mark[93].

A person who applies a registered trade mark to material intended to be used for labeling or packaging goods shall be treated as a party to any use of the material which infringes the registered trade mark if when he applied the mark he knew or had reason to believe that the application of the mark was not duly authorized by the proprietor or a licensee[94].

In all legal proceedings, a person who sells or offers or exposes goods for sale, or puts them on the market or has in possession for sale or any purpose of trade or manufacture any goods bearing a mark which infringes a registered trade mark shall be treated as a party to infringement of a registered trade mark, unless he proves that having taken all reasonable precautions, he had no reasons to suspect the genuineness of the mark; and on demand made by tribunal, he gave all the information in his power with respect to the persons from whom he obtained such goods; or he had otherwise acted innocently[95].

Registration to be prima facie evidence of validity:

In all legal proceedings relating to a trade mark registered under this Ordinance the fact that a person is registered as proprietor thereof shall be *prima facie* evidence of the validity

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[93] ibid
[94] ibid
[95] ibid

of the original registration of the trade mark and of all subsequent assignments and transmissions thereof[96].

***Revocation of registration*:**

The registration of a trade mark may be revoked when within the period of five years following the date of completion of registration procedure it has not been put to *bona fide* use in Pakistan by the proprietor or by an authorized user thereof, in relation to the goods or services for which it is registered and there are no proper reasons for its non-use; or the *bona fide* use has been suspended for an uninterrupted period of five years and there are no proper reasons for its non-use; or in consequence of acts or inactivity of the proprietor, it has become the common name in the trade for a product or service for which it is registered; or in consequence of the use made of it by the proprietor or with his consent in relation to the goods or services for which it is registered, it is liable to mislead the public, particularly as to the nature, quality or geographical origin of those goods or services[97].

An application for revocation may be made by an interested party to the Registrar, except a proceedings concerning the trade mark in question are pending in the High Court or a District Court, the application shall be made to the High Court or, as the case may be, the District Court; and in case the application is made to the Registrar, he may at any stage of the proceedings refer the application to the High Court or a District Court. Where grounds for revocation exist in respect of only some of the goods or services for which the trade

[96] S.43 of Trademark Ordinance, 2001
[97] S.73 of Trademark Ordinance, 2001

marks is registered, revocation shall relate to those goods or services only. Where the registration of a trade mark is revoked to any extent, the rights of the proprietor shall be deemed to have ceased to that extent as from the date of the application for revocation; or if the Registrar, the High Court or a District Court is satisfied that the grounds for revocation existed at an earlier date, that date[98].

Where the registration of a trade mark is revoked or declared invalid on the ground that the registration was secured in bad faith, the applicant shall be barred from apply for registration of the identical or similar trade mark for two years from the date of revocation or invalidation, whatever the case may be[99].

As clearly mentioned above incase of registration of Domain Name, the trademark ordinance 2002 clearly spells out the way it is handled in rest of the world and in the rules the process of registration of domain name is clearly defined. However, due to the work load the process of getting the same registered for protection as a trade mark is very time consuming as is the case of registration of trade mark.

[98] ibid
[99] ibid

Chapter 4

4.1 MEANING OF "PATENT:

The word "Patent" is used as a monopoly right in respect of any invention[100]. It is also defined as a grant made by a government that, confers upon the creator of an invention, the sole right to make, use, and sell that invention for a set period of time. It is "a legal document granted by the government giving an inventor the exclusive right to make use and sell an invention for a specified number of years"[101].

Patent means a right to exclude others from making, using, marketing, selling, offering for sale, or importing an invention for a specified period. The governmental grant of a right, privilige, or authority is also termed as patent[102].

We can say that a patent is an exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem.

The Patent can be granted in respect of a new invention that has not been obvious to a person prior to the date of application for patent and not of discovery. It should involve an inventive step which is capable of industrial application[103].

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[100] Laws of Trade Mark, Copyright, Patents and Designs. Salil K. Roy Chowdhury. 2nd Edition 1999. Kamal Law House Calcutta

[101] Microsoft ® Encarta ® Encylopedia 2005©. 1993-2004 Microsoft Corporation.

[102] Black's Law Dictionary, Eighth ed., P. No. 1156

[103] Patents Amendment Ordinance 2002., Sections 9 & 10

A patent only gives an inventor the right to prevent others from using the patented invention. It says nothing about whether the product is safe for consumers and whether it can be supplied. Patented pharmaceuticals still have to go through rigorous testing and approval before they can be put on the market.

At the time of independence, the Patents and Designs Act, 1911 was in force which was amended from time to time. Since Pakistan is among one of the around 150 member countries[104] in the world who have signed the 1994 agreement on TRIPS, the Patents and Designs Act, 1911 was repealed by an Ordinance promulgated by the President of Pakistan on 2nd December 2000, which was further amended on 26 October 2002 and called as Patents Amendment Ordinance 2002[105], in accordance with the TRIPS agreement obligations.

4.2 IMPORTANCE OF PATENT IN ELECTRONIC COMMERCE:

Introduction:

On July 23rd, 1998, the U.S. Court of Appeals for the Federal Circuit ruled in the State Street Bank & Trust Co. v. Signature Financial Group Inc. that business methods are

[104] Understanding the WTO. Written and Published By World Trade Organization, Information and Media Relation Division. 3rd Edition, 2005. Geneva Switzerland

[105] Patents Ordinance, 2000 (Ordinance No. LXI of 2000). Gazette of Pakistan, Extraordinary, 2nd December 2000. F. No. 2(1)/2000-Pub.

patentable[106]. Soon thereafter, many Internet firms claimed that their patents cover many current and emerging electronic commerce processes.

In its Framework for Global Electronic Commerce, the United States government has already proclaimed that "the private sector should lead.[107]" However if the patentability of business processes embedded in Internet technology is sustained, this could result in a chilling effect upon electronic commerce because patent holders could exert legal powers of restraint upon their competition by prohibiting the competition from using patented business methods, or by charging licensing fees.

This paper will examine the evolution of patent law, the blurring of the boundaries between business method and technology innovation as exemplified by electronic commerce technology, and how these two worlds of law and technology have collided.

Patent Law Basics:

Under Article I, §8 of the Constitution, Congress has enacted laws to protect inventors' discoveries ("Congress shall have power ... to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries")[108]. These patent laws, which are contained primarily in Title 35 of the United States Code, grant the inventors the right for a limited period of time (currently between fourteen and twenty years, depending upon the patent type) to

[106] U.S. Federal Circular, July 23, 1998
[107] www.ecommerce.gov
[108] http://www.law.cornell.edu/constitution/constitution.articlei.html#science and useful arts

prohibit others from using producing or using the intellectual property covered by the patent.

The government intends that the patent system promotes technological innovation by providing sufficient economic incentive for research and development which result in new innovations that are protected for a limited time from intellectual theft by others. In exchange for the legal protection, the patent-holder must disclose enough information about the patent to allow others to use the patented invention after the patent had expired, and also to allow others to learn from the patent's to allow additional innovations.

In order to be patentable, an invention must pass four tests. However, not all "inventions" can be covered by patent protection, because the patent laws exclude "laws of nature, natural phenomena, and abstract ideas.[109]"

1. The invention must fall into one of the five "statutory classes" of things that are patentable:

- processes,
- machines,
- manufactures (that is, objects made by humans or machines),
- compositions of matter, and
- new uses of any of the above.

[109] § 101 - 103 of Title 35, http://www.law.cornell.edu/uscode/35/

2. The invention must be "useful". One aspect of the "utility" test is that the invention cannot be a mere theoretical phenomenon, and possesses utilitarian or commercial value.

3. The invention must be "novel", that is, it must be something that no one did before, and is the first embodiment of the idea in a useful thing or process.

4. "The invention must be "unobvious" to "a person having ordinary skill in the art to which said subject matter pertains". This definition requires that a person who is reasonably skilled in the pertinent art, given what already exists in the particular area of the invention, could not have obviously arrived at the same invention. However this last test is often the most difficult hurdle for a new invention since the determination whether the differences between the new invention and the prior art are "obvious" is a very subjective process. This test is the one on which many patentability disputes hinge.

The committee reports accompanying the 1952 Act indicate that Congress intended statutory subject matter to "include anything under the sun that is made by man.[110]" Thus the Supreme Court, in the Diamond v. Chakrabarty case, abided by the 1952 act's supplemental information, and reaffirmed that the act covers "anything under the sun that is made by man.[111]"

[110] H. R. Rep. No. 1923, 82d Congress, 2d Session, 6 (1952)
[111] 447 U.S. 303 (1980)

The patent laws allow for design and plant patents, but this paper will focus upon utility patents. A utility patent's lifetime is twenty years from the effective filing date. However maintenance fees must be paid at 3.5 years, 7.5 years, and 11.5 years after the patent issue date. There are four type of utility patents (see § 101 of Title 35), or areas where a patent can be granted:

1. machines
2. man-made products
3. compositions of matter
4. processing methods

Evolution of Patent Law as applied to Software:

Though computer software became increasingly important to the business world, it took a few decades before a case that involved computer software came before the legal system. It was a torturous path that led to the State Street Bank & Trust Co. v. Signature Financial Group Inc. decision that business methods are patentable[112]. In the beginning, it wasn't even clear that computer software could be covered by patent law.

In the 1972 Gottschalk v. Benson case, the patent suit focused upon a computer program algorithm that converts binary-coded decimal numbers to pure binary[113]. According to the Supreme Court, the Patent Act does not cover a mathematical algorithm, and thus does not provide legal protection to the computer software. However the Supreme Court did not

[112] US Federal Circular, July 23, 1998
[113] 409 U.S. 63, (1972)

define the term "algorithm". Subsequent to this court decision, the Patent and Trademark Office (PTO) rejected patent applications if they contained the word "algorithm", or the examiner used a broad definition of "mathematical algorithm".

In the 1978 Parker v. Flook case, the patent suit focused upon a patent that incorporated an alarm-generating computer algorithm[114]. The Supreme Court of Pakistan decided that other than the algorithm, which is not patentable, the patent had no significant innovation. Thus the court maintained its position that an algorithm is not covered by the 1952 Patent Act.

In the 1981 Diamond v. Diehr case, the Supreme Court addressed the issue of whether a process employing a mathematical algorithm is patentable[115]. The Supreme Court found that the invention incorporated a mathematical algorithm, but also found that other portions of the patent, which covered the entire process of molding rubber, were innovative, and thus eligible for patent protection. The Supreme Court still maintained that the Patent Act did not cover a mathematical algorithm.

In the 1994 Alappat case, the Court of Appeals for the Federal Circuit, which provided legal review for patent law, ruled that the PTO could not deny a patent solely because it contained a computer algorithm[116]. The PTO used the Freeman-Walter-Abele criteria to identify patentable algorithms i.e. those algorithms that manipulated more than abstract ideas. This test had two primary components, the mathematical algorithm test, and the

[114] 437 U.S. 584 (1978)
[115] 450 U.S. 175, 182 (1981)
[116] 92-1381, Court of Appeals for the Federal Circuit

physical transformation test, which could exclude a patent application from legal protection.

The patent application is reviewed to determine whether it directly or indirectly incorporates a mathematical algorithm. A mathematical algorithm cannot be patented because it is considered to be an expression of natural laws that are "merely abstract ideas constituting disembodied concepts or truths that are not "useful."[117] If such an algorithm is identified, then the patent application is reviewed to determine whether the algorithm either contributes to the physical transformation of the final product, or is incorporated into a process that contributes to the development of the final product. A patent application has to fail both tests of the Freeman-Walter-Abele criteria to be disqualified from patent protection.

In the 1996 "State Street Bank and Trust Co. v. Signature Financial Group" case, the Circuit of Appeals for the Federal Circuit judged a landmark case in which it extended legal protection to business methods embedded in software. The court concluded that the question of statutory subject matter "should not focus on which of the four categories of subject matter a claim is directed to --process, machine, manufacture, or composition of matter-- but rather on the essential characteristics of the subject matter, in particular, its practical utility" which is further defined as producing "useful, concrete, and tangible result."[118] These results can be measured in numerical terms such as "as price, profit,

[117] ibid
[118] 96-1327, Court of Appeals for the Federal Circuit

percentage, cost, or loss.[119]" The court stated that "Since the 1952 Patent Act, business methods have been, and should have been, subject to the same legal requirements for patentability as applied to any other process or method."[120]

The primary business significance of the court's decision can be categorized:

1. Expands patent protection scope. If a software application provides a "useful, concrete, and tangible result", then the software qualifies for patent protection.

2. Eliminates the business method exception. Previously patent lawyers and patent examiner have had always considered that business methods were not patentable. The court's judgment explicitly recognized the patentability of business methods.

This court judgment stirred great interest in the business community because for the first time, the legal system had definitively recognized that software-based business methods could be patented. The remainder of this paper examines the burgeoning rise in Internet software patents, the Internet community's response to the State Street Bank v. Signature Financial Group decision, and the implications for electronic commerce.

Internet Software Patents:

In March 1998, the US Patent and Trademark Office granted Open Market three patents that covered its electronic commerce products known as Live commerce internet catalog

[119] ibid
[120] ibid

software, Transact 4 internet commerce software, and Folio information management products[121]. The three patents were:

1. Internet Server Access Control and Monitoring Systems (No. 5,708,780) covers the monitoring and analysis of the customers' web site usage patterns as they browse through the website. Session identifiers known as cookies allow businesses to understand the customers' buying patterns, and thus allow them to customize the web browsing experience. This patent also includes the functionality to limit web site access based upon cookie-based customer identification.

2. Network Sales System (No. 5,715,314) covers the use of the "electronic shopping cart" metaphor in which merchants provide customers a mechanism for accumulating items for purchase before checking out and paying. This patent also includes the transmission of payment and purchasing information through a universal resource locator (URL).

3. Digital Active Advertising (No. 5,724,424) covers the secure, real-time payment using credit and debit cards over the Internet. Its December 16th, 1993 filing date marks this patent as one of the earliest known Internet payment patents.

The business methods and technologies documented in these three patents are very widely used in many competing Website products such as IBM's Net.Commerce, Microsoft's Site Server, and Netscape's Commerce server. If these patents are sustained, then under current

[121] "Floodgates open for patent cases", Beth Lipton, CNET News.Com, Aug 28, 1998

patent law as indicated by the State Street Bank v. Signature Financial Group decision, Open Market can exclude its competition from using the technologies covered under these patents. Patents have a two to three year gestation/examination period before they are awarded. Thus patent application filed between 1995 and 1996 applications have now completed patent review and approval, and are finally being released.

Other companies that have also pursued patents for their software technologies include:

1. Netcentives that received a patent for its online reward program
2. Cybergold that received a patent for online brokerage patent
3. Priceline that received a patent for reverse auction

However some of these patents raise some key questions on whether the patent protection could stifle the growth of Internet commerce because these patents claim to cover basic transactional processes that are already commonly known and used in the business world. For example, the "shopping-cart" metaphor that was patented by Open Market is commonly used in the retail industry.

The Internet community is beginning to question whether the PTO is equipped to properly understand and evaluate the "novelty" of Internet patents. Professor Pamela Samuelson, of the University of California at Berkeley, has also noted that there is insufficient patent case law to help the PTO apply sound judgment to Internet software patents, and also that the PTO lacks the necessary technical and business expertise to truly judge what's novel in Internet software patent applications. Robert Sachs, an intellectual property lawyer, added

"the Patent Office really is not equipped to handle these patents. Examiners simply do not have sufficient expertise to evaluate patents which cover Internet business models. Either they don't realize that what is being patented is simply some old idea being done on the Net (e.g. Priceline's reverse auction), or they don't have access to resources that would evidence this.[122]" Otherwise the PTO could also grant Compton a very wide-ranging multi-media patent that did not adequately recognize prior art[123].

Furthermore the patent application process takes a very long time, especially in light of the Internet's rapid pace of innovation. An innovation might be obsolete by the time that the patent application is granted. To facilitate the patent process, the government might have to consider tradeoffs that will allow speedier patent review and approval process in return for a shorter patent validity period[124].

However a key question remains: what is the innovation that should be covered by patent protection? Should the patent, by protecting technological innovation, also inadvertently protect business models that could lead to business models? This is a particularly thorny issue when the software technologies and the business models are so intertwined. Technological innovation can lead to business innovation because Internet companies are inventing new software-based ways of conducting electronic business[125].

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[122] "Floodgates open for patent cases", Beth Lipton, CNET News.Com, Aug 28, 1998
[123] "Patently Absurd", Simson L. Garfinkel, Wired, July 1994.
[124] How Could Software Patent Law Impact Electronic Commerce? By Mark Lee on http://cyber.law.harvard.edu/fallsem98/final_papers/Lee.html
[125] ibid

An alternate legal means to protect these integrated software-based business innovations is to consider modifying existing patent law such that the government do not grant patents upon business models, but rather grant them only for expressions of those business models. In other words, it might be worthwhile to consider blending some characteristics of copyright law with patent law to allow for patentability of specific expressions of a business model. Given that the Internet business models and Internet software technologies have blended to create this legal and business conundrum, it seems only appropriate to blend existing intellectual property law to resolve the situation[126].

This idea could easily apply to Priceline.com's patent for reverse auction. The concept of "reverse auction" has long existed, and could well be considered "prior art". Under this proposal, Priceline.com can only hold a patent for its implementation of "reverse auction" over the Internet, and cannot prohibit other companies from undertaking different implementations of the business model of "reverse auction."[127]

Even though the US government has already decreed that "the private sector should lead" in electronic commerce, it would have to address the potential stifling impacts that software patent laws could have on electronic commerce. If the holders of these Internet software patents could monopolize the commonly available electronic commerce transactional processes, these patents could undermine the growth of electronic commerce. The private sector is beginning to perceive this as a sleeper legal issue that could engender time-consuming and wasteful litigation that would slow electronic commerce. Though it is

[126] ibid
[127] ibid

not clear what path the government should take, it should review the existing patent legislation to determine how the laws can appropriately reflect the needs of electronic commerce, and the speed of Internet innovation. The review should incorporate an economic analysis of patent protection upon software innovation. As Professor Samuelson indicated, "We'll find out over the next decade or so whether or not patenting software really does promote innovation".[128]

4.3 BUSINESS METHOD PATENTS

Business method patents are a group of patents which reveal and claim new methods of doing business. This includes new types of e-commerce, insurance, banking, tax compliance etc. There is a continued debate as to what extent such patents should be granted, particularly for inventions that are essentially legal or contractual in nature as opposed to technological in nature. Nonetheless, they have become important assets for both independent inventors and major corporations.

Background:

Any invention which passes the test of patentability is entitled for patent protection: patentable subject matter, novelty, inventive step or non-obviousness, and industrial applicability (or utility).

A business method can be defined as "a method of operating any feature of an economic enterprise".

[128] "Floodgates open for patent cases", Beth Lipton, CNET News.Com, Aug 28, 1998

Legal situation:

The legal situation of business method patents as to whether business methods are allowed as patentable depends on the jurisdiction. The World Trade Organization's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) does not specifically address business method patents.

The United States, Australia, Japan and Singapore are considered "safe havens" for business method patents. The situation in Canada, Korea and Taiwan is not clear. Patent protection for business method patents in Israel, China, India, Mexico, and most of Europe is difficult.

History:

Since the inception of US Patent system in 1970, patents have been granted on doing business methods. The invention "Detecting Counterfeit Notes" by Jacob Perkins of Massachusetts was awarded the first financial patent on March 19, 1799.

Classification:

Methods of doing business that involve the use of a computer are classified in Class 705 ("data processing: financial, business practice, management or cost/price determination"). Class 705 includes sub-categories for industries such as health care, insurance, electronic shopping, inventory management, accounting, and finance.

Delays in examination:

Noteworthy delays in examining business method patents have been experienced by the USPTO (United States Patent Office). Projected delays of up to 14 years have been reported. The delays are due to a combination of the step change in business method filings as of the State Street Bank decision and the difficulty in hiring qualified examiners with financial services backgrounds (e.g. insurance and banking). It has also been reported, however, that inventors can get their patent applications examined in as little as six months, if they submit a Petition to make special. A petition to make special is a procedure for getting particular patents examined early.

Classification:

In the 8th edition of the International Patent Classification (IPC), which will enter into force on January 1, 2006, a special subclass has been formed for business methods: "G06Q". In the previous editions, business methods were classified in "G06F17/60". This is purely a classification matter and will not change the patent laws however.

4.4 WHETHER THERE IS ANY PROTECTION TO BUSINESS METHODS PATENTS IN IP'S LAW OF PAKISTAN?

It is evident from the above-mentioned discussion that business method patents have been provided enough protection under various jurisdictions such as USA, Japan and Singapore. But most of the EU Countries and other countries are not to sure to agree to Business Method patents as this is still ambiguous. Pakistan after joining The World Trade Organization, amended its IP laws with regard to Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). It is pertinent to not that TRIPS does not specifically address business method patents, hence the Patent Law specifically does not mention business methods. Moreover, under The patent Ordinance restriction mentioned in Section 7(2), Chapter III of the ordinance defies registration of any mathematical method, a literary work, a method playing a game or doing business and presentation of information.

CHAPTER 5

CONCLUSION

The business world is changing, sitting in your office or home you can get information about a product along with its price, mode of payment, specification, time of delivery, warranty etc. on your computer and if you want to buy you can place an order on the computer. In this perspective, therefore, the issues of IP's security and possible safeguard against infringements on Internet have become very important.

Here we have gone through the facts and data collected and have analyzed what Pakistan has done after becoming member of ICANN, WIPO and WTO has implemented the latest changes and has either amended or promulgated, Patents Ordinance 2000, Trade Mark Ordinance ; thus has domiciled the international laws and has to a lot of extent secured the interest of the public at large, while addressing the policies and bye laws of the international organization as the dead line for amending the local laws in line of the TRIPS agreement for the developing countries was 2005.

In my research we have gone through the international treaties ,conventions and agreements which protects the interest of IP's and have discussed all the IP's rights which are involved in the internet.

- With regard to Copyrights though we are members of Bernes convention but have not signed the WPPT and WCT treaties which are the bible for the protection of the copy rights with regard to the computer programs, compilation of data as well as the rights of performers and producers of phonogram.

- However, in the case of copyrights the issue is still a gray area. Pakistan, having been ruled by Great Britain for years has English as a second language as well as one of the official languages. Thus to a great effect it has helped Pakistan to secure contract to prepare software in Pakistan and also due to Software as a right protected by IP laws of the country. Furthermore, we should have copyrights with regard to the software's on the internet originating from Pakistan or vice versa.

- Other than above though IPO is active to save guard the rights of Copyright of the performers, producers, artist and all those related with it. Though the infringements is taking place with regard to moves audios and videos; we should also sign the WPPT and WCT contract so that the we should not only act as a policeman to the protection of the copy rights infringement of other countries but make sure that rights of our authors, performers etc are protected in the Pakistan and abroad.

- Now coming to the trademark we are addressing the needs in line of the international norms though the system in place is quite slow. Moreover on registration of Trademark mark or service mark should also automatically register the same as domain name without asking for separate application or the registration

of domain name is made swift than the registration of trade make in different categories as laid down in the trade mark rules.

- In respect of patent, it may be said that though in TRIPS agreement the software is also register able under patent laws however, this issue is yet to be addressed even by the developed countries and so have we to accept the same.

- In the end I would also add that we lack public awareness and all the players in the field of IP especially were there work is exploited through internet as well as to make them understand the value of their work and protect their property. Furthermore we have seen the application of the treaties, convention signed by Pakistan has been adduced in the law prevalent in the country however we have to take more steps to safe guard the interest of work initiated / originating in Pakistan and internationally.

ABBREVIATIONS

- World Trade Organization (WTO)
- United Nations Commission on International Trade Law (UNCITRAL)
- United Nations Conference on Trade and Development (UNCTAD)
- Organization for Economic Co-operation and Development (OECD)
- International Telecommunication Union (ITU)
- World Intellectual Property Organization (WIPO)
- Internet Protocol (IP)
- Multipurpose Platforms (MPPs)
- Information and Communication Technology (ICT)
- World Summit on the Information Society (WSIS)
- Patent and Trademark Office (PTO)
- The WIPO Performances and Phonograms Treaty (WPPT)
- Trade-Related Aspects of Intellectual Property Rights (TRIPS)
- European Union (EU)
- International Patent Classification (IPC)
- Patent and Trademark Office (PTO)

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