CHAPTER I
INTRODUCTION

1.1 Introduction
Most of the countries of the world including India have experienced the colonization era of the European imperialist countries in the past. After being liberated from the colonization era through hard fought battle when majority of the Nations are getting their economy streamlined, they are being caught in a new web called economic colonization i.e. neo colonization and now being termed as globalization. The masters of 19th and 20th century i.e. colonizers were, and in fact are cautious to keep hold on global economy by any means. Despite ideological deterrence by Soviet Union (before disintegration), the tentacles of capitalism kept on growing with renewed vigor all across the world. Current trends in socio economic interconnectivity among different societies and nation state indicate that right throughout 20th century global capitalist powers kept on maneuvering to dominate the newly emerged nation state including India.

Historically it is evident that in 19th century a strong alternative political ideology emerged in the form of Marxism. In fact Adam Smith’s thesis of lessiage faire and free market economy enforced new conditionalities and influenced the bonds of societies in such a fashion that the parameters of socio economic and political justice were determined by economic conditions. It was because of the negative implication of classical liberalism and also because of new Marxian principal that a class of scholars argued in favour of the humane face of liberalism which was termed as positive liberalism. It was only after scientific analysis of socioeconomic relationships by Marx that an alternative ideology emerged particularly with the prospects of democracy and justice. Marx’s interpretation of social relationships were based on most debated postulates of dialectical materialism, theory of class war and surplus value, which exposed the excess of liberalism (practically capitalism). Forced globalization in other sense can be called economic colonization. “What once required war has now been accomplished with words. The nation state which emerged as the central political and economic construct in the post World War-II and post colonial era of the mid twentieth century has become irrelevant as an integral unit. The locals of economic decision making has been transferred from national governments to transnational corporations of the rich nations of North America, Europe and Far-East Asia backed by the
authority of a new World Trade Organization."¹ The concept of territorial conquering has become a matter of past and the same results are being achieved by the new way what we can call economic aggression. The industrialized North had found this weapon to work more effectively according to their wishes and that too at no destruction to local economy caused due to wars. The world’s economy is to be ruled now by a supra national body i.e. WTO.

Following the global restructuring that occurred after the Second World War and the fall of colonialism, the General Agreement on Tariffs and Trade (GATT) was formed as a mechanism to advise on the restructuring of global economics. It acted as an international control on the flow of goods and services across borders. GATT, which was initially a trade agreement, traces its origin through Bretton Woods Conference held in July 1944 laying foundation for three commercial institutions namely International Monetary Fund (IMF), International Bank for Reconstruction and Development (IBRD) and International Trade Organization (ITO). Later on IBRD converted into World Bank and ITO’s place was taken by GATT. Bretton Woods Conference set up the IMF whose responsibility was to maintain a fixed exchange rate system with provisions for dealing with temporary balance of payments problem of member nations and the IBRD was to provide long term capital requirements.²

The GATT a trade pact and an organization was founded to pursue the objective of free trade in order to encourage growth and development of all the member countries. It set out world trade rules to ensure competition in commodity trade through the removal of barriers. In Uruguay round of trade negotiations GATT paved the way to WTO which came into force on 1-1-1995 and sphere of subject matter was comprehensively enlarged. All the signatories to the GATT negotiations in 1994 had been put under obligations to change their national legislation in the fields that Agreement covers to the tune of WTO, the ultimate result of GATT negotiations.³ WTO has centralized economic decision making and economic growth at any cost is the priority of this institution. The whole purpose of the WTO is to expand capital accumulation, primarily to the benefit of richest countries, by removing barriers to international trade.⁴ The present arrangement under WTO is continuation of the past colonial

³. Final Act Embodying the Results of The Uruguay Round of Multilateral Trade Negotiations – Part 1
exploitation on one way or other as the WTO mandate consists of regulating world trade to
the benefits of international banks and transnational corporations.\(^5\)

Ironically, the state in developing countries is gradually becoming an agent of international
institutions such as WB, IMF and WTO so as to police their orders. This ‘unholy trinity’ of
Bretton Woods’s institutions is robbing the natural resources and assets of the developing
countries by hijacking the public health and education and also by subverting the democratic
institutions. It is so because today national government, originally the tool of welfare
economy through democratic participation is being replaced by corporate governance
institutionalized through WB IMF and WTO.\(^6\) WTO cannot be seen in narrow aspect and is
to be analyzed in the context of sweeping changes that are occurring world over in the
economic and political sphere.

1.2 Globalization:

Globalization is a practice which involves economic inter-dependence of countries world­
wide removing all barriers for economic amalgamation as if the whole world is a single
village. Obviously, in this process, the rich nations with their superior financial power,
control the scenario and the poor and the developing nations are forced to integrate
surrendering their economic independence, knowing very well, what they are forced to
accept, is really prejudicial to their own interest. In this process the world financial
institutions like the World Bank, IMF and now the WTO advance the interest of the rich
countries alone.\(^7\) The term globalization does have vast dimensions as in modern life the
people around the globe are more connected to each other than ever before. Information,
technology, goods and services are increasingly available in all parts of the world.
International travel is more frequent. International communication is commonplace. This
phenomenon has been titled globalization.

The history reveals that concept of international trade is found in early stages of civilizations
also. This continued in the form of bilateral or multilateral treaties among nation states. But
the situation changed in the early part of twentieth century when countries were fighting hard

\(^5\) Michel Chossudovsky, (1997), The Globalization of Poverty: Impacts of IMF and World Bank Reforms,
Other India Press. New Delhi Pp35

New Delhi, pp 5.

DemocracyVol. V, No. 1, April, available on http://www.revolutionarydemocracy.org/rdv5n1/pharmacy.htm
last accessed on 4th April 2007.
to emancipate from either colonial rule or fighting for supremacy as a super power. This was the era when majority of the countries got freedom and economically developed countries had shattered their economies due to the world wars. The world economy has been changing fast in the post war period and the changes have been very quick in the 1990’s. The dollar crisis and the rise in oil prices of the 1970’s; the problem of debt trap faced by developing countries during 1980’s; the unification of Germany, the collapse of USSR and the end of cold war, the South-East Asian currency crisis- all these events have a significant impact on the global economy. During past two decades the global economy has been passing through a new phase of transition especially in the field of trade. The world has become a global village and opening up of the economy by most of the countries was an essential feature of the transformation towards trade liberalization. The breakdown of nationalist, socialist and welfare barriers to worldwide capitalist expansion started in 80’s decade.

Science and technology are major determinants of wealth and power. An important tenet of globalization is the free flow of technology across boundaries towards the creation of enhanced income and profits. At the outset of globalization one thing is very clear that the MNCs from developed world are better placed to be in advantageous position. Until India gets builds up a significant presence in the global market it cannot have sufficient benefits of the globalization.

1.2.1 Globalization: A strategy of economic dominance

The concept of globalization can be traced to the phenomenon of nation states. In the distant past, there were just human communities. For much of human history, most people remained confined to their communities, villages or local areas. With developments in communication and economic activity, it has progressively become easier to move from the local to the regional and then from the regional to the national level, and finally across nations. Globalization is the new phenomenon that has come to dominate the world since the nineties of the last century. The frontiers of the state with increased reliance on the market economy and renewed faith in the private capital and resources, a process of structural adjustment spurred by the studies and influences of the World Bank and other International organizations have started in many of the developing countries. Also globalization has brought in new opportunities to developing countries. Greater access to developed country markets and

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technology transfer hold out promise improved productivity and higher living standard. But globalization has also thrown up new challenges like growing inequality across and within nations, volatility in financial market and environmental deteriorations. The impact of globalization as it becomes evident in economic sphere has not left social and political sphere untouched. In the economic sphere as there is greater emphasis on privatization and opening of economy for foreign capital, in political sphere too, world trade organization is projected as a model. The origin of multilateralism in the trade policy can be traced as concern in the international community about the disorderly state of affairs that prevailed in the two decades spanning the period between two world wars. These decades were characterized by repeated failures of international initiatives to bring some orderliness to international trade and monetary relations; competitive resort to unilateral exchange rate and trade and tariff policies leading to mutual impoverishment and general instability; and finally the traumatic experience of the great depression. The outbreak of the Second World War provided the immediate trigger for the negotiations about the post war international order.

The implications of globalization for a national economy are many. Globalization has intensified interdependence and competition between economies in the world market. As a result domestic economic developments are not determined entirely by domestic policies and market conditions. Rather they are influenced by both domestic and international policies and economic conditions. Therefore possible actions and reactions of policies and developments in the rest of the world cannot be ignored.

The thrust of the New Economic Order which the US and its allies desiderated was conquest by trade using the blessings of liberalization, privatization and globalization as the magic catchwords. Scientific and technological research along with information technology works as tools of globalization. But if we take into account the benefits of growing free trade in the era of globalization as a powerful engine of overall economic growth, it would almost have been suicidal even to withdraw from world scenario emerging today. It is no exaggeration to say that majority of the developing countries are still grappling with problems of implementation of the various agreements covered under the preview of WTO and are unable to understand their full ramifications on their economies.

Whether countries irrespective of its level of development are now better integrated in the global economy or not will remain open until there is an effective implementation of the

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10 Chandershekaran Balakrishan, “Impact of Globalization on Developing Countries and India” available on http://economics.about.com/cs/questions/a/bala.htm last accessed on 5th October 2006.
12 People's Commission on GATT, Report, Supra note 1. pp 13
WTO agreements. A number of developing countries participated actively in the Uruguay Round and contributed to the successful outcome of the negotiations, though only a few of them were considered as major players. Most developing countries were put under pressure to participate in the negotiations because there was no alternative to these countries when there was a package deal clause in the final Text.\(^{13}\)

However in the era of globalization the pace of dissemination of technology has developed unprecedently and as a result the tightening of Intellectual Property Rights especially Patent Laws are targeted to achieve this goal. Trade Related Aspects of Intellectual Property Rights (TRIPs) which was the late inclusion in the negotiations only in eighth round at Uruguay and now forms an important agreement in WTO, is the most contentious area and largely debated all around the world because of its far reaching ramifications especially in the area of patents. The meaning of globalization is so vague and ambiguous that its interpretation varies at every level. Its sphere cannot be restricted to only economic arena but political and social arena has not remained untouched rather. In this sense the term globalization implies the totality of various processes through which the nation-states are becoming increasingly interdependent and lesser autonomous. To its utmost reality it is concrete manifestation of market forces in the name of liberalization proposed, authenticated and carried by western capitalist world, mainly US. Therefore it is very clear that the process of globalization is having ideological component as it involves the free mobility of capital without any control of state or society.\(^{14}\)

The thesis of globalization incorporates deregulation of capital as the main instrument of economic growth and thus advocates the promotion of idea of a world which is borderless and firms which are stateless.\(^{15}\) In the new era of globalization, foreign capital has penetrated more widely than ever before and led to erosion of national sovereignty at the centers of capitalism.\(^{16}\) The process of globalization has produced much that is new in the world’s economy and politics, but it has not changed the basic ways capitalism operates. Nor has it aided the cause of either peace or prosperity.\(^{17}\)

\(^{13}\) Clause 4. Final Act Uruguay Round, supra note 3
\(^{15}\) Quoted by Claire Turenne Sjolander, “The Rhetoric of the Globalization: What is in a Wor(l)d?” International Journal Vol. LI. No.4, 1996, pp609,
\(^{17}\) ibid pp39
1.3 Conceptualization of Intellectual Property

Intellectual property is inchoate property when manifested in a legally recognizable way. Property right was, till the deletion of Article 19(1) (f) of the Constitution of India, a fundamental right for citizens, but now under Article 300-A it is separately notified as a Constitutional right ensuring that no person can be deprived of his property save by the authority of law. Intellectual property like any other form of property is an asset. Just like any other personal property the intellectual property can also be bought, sold, licensed, exchanged or surrendered. Intellectual property owner has also the right to prevent the unauthorized use or sale of the property. The most distinguishing feature between intellectual property and other form of property is that it is intangible, that it is difficult to define or identify by applying physical parameters. Intellectual property must be expressed in some apparent way for enabling it to be protected. Unlike a physical object, an intellectual property cannot be protected against other person's use of them by simply having possession of the object. Hence the necessity of enacting intellectual property is felt in the form of laws distinct from conventional laws protecting personal property. Man's creative activities with his talent, knowledge and skill in inventive field is his innovation and to promote the innovation and to utilize it as a tool of productivity growth an economic regime is required which promotes these type of capabilities. Therefore it requires a specific degree of protection for the nurture of human talent because of the reason that the cost and benefit must be brought to bear on those who create them. Unlike material or tangible property, the concept of intellectual property requires a little understanding. Material property in the shape of goods and immovable property has always been recognized as a fit subject for enjoying the protection of law. This has not been always recognized in the case of intellectual property. Intellectual property in a broad sense comprises literary and artistic works and industrial inventions resulting from original thoughts and ideas. It cannot be denied that both materials as well as intellectual property are generally the result of considerable efforts and hence, it is but proper that society and the law should extend reasonable protection to them. Incorporeal property is the creation of the developed system of law. It includes all those valuable interests in respect of non-material things which the law has marked out for special protection, e.g. trademarks, copyrights, patents, designs, goodwill etc.

Intellectual Property Rights are the spark plug assets that bring the sleepy monetary, fixed and intangible asset investment engine to thunderous and profitable life. It is property derived from the mind and protected by the law. The IPR are legal instruments which confer protection on processes or products of research and development efforts and formally assure the allocation of benefits to the innovator in return for full disclosure to society. In the past there has been ambiguity in the use of the terms ‘Intellectual Property’ and ‘Industrial Property’. ‘Conceived in narrow frame work intellectual property involved mainly the copyrights and related rights. On the other hand Industrial property covered patents, utility models, inventor’s certificate, trademarks and similar other rights. The Paris Convention for the Protection of Industrial Property 1883, popularly known as Paris Convention in Art.1 (2) also covered all these categories. But under the Eighth Round of General Agreement on Tariffs and Trade (Uruguay Round) finally resulting into WTO, the industrialized countries insisted upon a comprehensive meaning of the term Intellectual property so as to include industrial property and counterfeits also. Not only this field has been enhanced and TRIPs covering now a broader aspect includes patents, copyrights, trademarks, utility models, integrated circuits and geographical indications etc.

The 21st century will be a century of knowledge, indeed a century of the mind. Country’s advancement and development will depend upon its technological base and means to utilize and integrate the knowledge based innovations and ability to convert knowledge into wealth and social good through the process of innovation will determine the future of that nation. In this context, protection and exploitation of intellectual property (IP) are going to become critically important all around the world. Exponential growth of scientific knowledge, increasing demands for new forms of intellectual property protection as well as access to IP related information, increasing dominance of the new knowledge economy over the old ‘brick and mortar’ economy, complexities linked to IP in traditional knowledge, community knowledge and animate objects, will pose a challenge in setting a new 21st century IP agenda. Intellectual property protection is going to be an important and effective policy

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mechanism, relevant to a wide range of socio-economic, technological and political concerns. Particularly in countries such as India, it is to be seen as how does the development of skills and competence is managed in the field of IPR to catch up with technological superiority of the industrial north.

1.3.1 Knowledge as Intellectual Property

Long ago economist Alfred Marshall has mentioned that “Knowledge is our most powerful engine of production... The distinction between public and private property in knowledge and organization is of great and growing importance: in some respects of more importance than that between public and private property in material things.” (Principle of Economics, 8th ed. 1920). TRIPS has for the first time, brought the domain of ideas, knowledge and innovation into the arena of global trade. Intellectual property cannot be said a new phenomenon totally as if we go through the history there are so many circumstances where creator of the product has been in practice creating bond with the created product by engraving their names on the product. However nothing is known about the legality of that kind of protection but the practice really shows the human desire to create intimate bond with the product he had created. Intellectual property has become the most demanded and crucial subject in the present scenario as never before. Those who undertake scientific and technological research, those who create and interpret works of learning, culture, entertainment and information, those who devise the marketing of products and services - all look to legal protection against competitors, as a way of sustaining the value of their skill and labour or their investment in what is distinctively theirs. It is universally accepted fact that human beings are the intellectually the most developed species of the animal kingdom and it is only the ingenuity of human beings applying resources that has taken the world to a modern height of development in science, technology and information. The human beings had also realized this factor and with the passage the instinct of possessiveness along with tangible property expanded for intangible property also. Morally a person is said to have a

24 P.M Bakshi, Former Director ILI in his welcome address at WIPO ASIAN Regional Colloquium on The Judiciary and Intellectual Property System at New Delhi, September 9-11 1992. WIPO Geneva: Pp1
natural right over anything produced out of his brain; alternatively the society is obliged to reward persons to the extent that they have produced something useful for it.\textsuperscript{26}

One of the concerns of the developing world is that the process of globalization is threatening the appropriation of elements of the collective knowledge of societies into proprietary knowledge for the commercial profit of a few.\textsuperscript{27} TRIPS Agreement recognizes the IPRs as private rights and adopts the principle of national treatment.

Firstly and most importantly the knowledge intensity of production has increased and simultaneously so has the science content of knowledge. These twin developments have had several important ramifications which impinge critically on the issue of IPRs. Thus as knowledge intensity has grown the individual inventor has been replaced by the corporate entity.\textsuperscript{28} Privatization of R&D and strengthening of IPR is understood to be the path of technology in the era of globalization. As a result there is a tendency to tighten all the forms of IPRs viz. patents, copyrights, trademarks etc. However when it comes to the patents, which have great consequences on day to day life of the people, it is happening at a great pace. The developing countries way back from the colonial days have favoured the protectionist measures in industrial sector to strengthen the indigenous industry. The race for the development has resulted in a strong demand for technology bearing the allure of western prosperity.\textsuperscript{29}

Knowledge has never been commoditized to the extent witnessed in the present era through the medium of patents. The patent is the most potent form of intellectual property rights, through which property rights are exercised over ideas and the results thereof. By empowering the holder of such rights to exclude others from using, selling and making the patented subject matter, it enables control and monopoly over the patented matter. First confined within borders of a Nation, these rights and the accompanying control and monopoly is now being spread their limb across the world.

The concept of private property is of course basic to the capitalist system. But the concept of private property in knowledge is not of essence for the functioning of capitalism. Nor indeed has knowledge been thus far rampantly abused, by making knowledge an instrument of state-backed monopolies. It is interesting to note that while the capitalist system swears by


\textsuperscript{29} W.R. Cornish, (2001) supra note 25  pp 25
competition the credo of IPRs tends only to foster monopolies, it restricts competition, it restrains productions, and thereby it tends to contract overall trade. This in fact is clearly contrary to the objectives of the GATT, which is intended to increase trade. However the dissonance of IPR with free trade is not an issue which has even been raised. \(^{30}\)

### 1.3.2 Intellectual Property and Trade

In the last several years, intellectual property (IP) assets have become an increasingly essential ingredient of economic vitality. Where once raw materials and other tangible goods were the main drivers of the economy, today economic success depends more and more on intangible, information-based assets, such as the creativity of employees and the knowledge gained from research. As a result, intellectual property-based industries, such as biotechnology and motion pictures, now represent the largest single sector of the U.S. economy. In fact, IP industries export more American value to the world than the automobile, automobile parts, agricultural, and aircraft industries combined. TRIPS reflects the views of the industrialized countries that patents are a fundamental right comparable to the right of physical property, whereas India and other developing countries see it “fundamentally as an economic policy question”. \(^{31}\)

Intellectual property rights forms a major area of WTO agreements. It was felt that ideas and knowledge are an increasingly important part of trade. Most of the value of new medicines and other high technology products lies in the amount of invention, innovation, research, design and testing involved.

The most significant restriction that IPR achieve is by the prefix ‘trade related’ since most of the innovation of public domain is for domestic or public use not for international trade and MNCs innovating only for increasing their global share in the markets. Thus TRIPs will only enforce the rights of the MNCs to monopolize all production at the cost of the citizens. \(^{32}\) The WTO’s Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) introduced intellectual property rules into the multilateral trading system for the first time. The World Trade Organization (WTO) is the only most powerful legislative and judicial body which makes an economic relationship between trade and nations with its free trade agenda.

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\(^{30}\) Arun Ghosh, (1994) *supra note* 23


The adoption of the TRIPs Agreement has raised considerably controversy, particularly in the North-South context. Though developing countries had little option but to accept the said Agreement as part of the Uruguay Round, they have remained unconvinced about the balance of costs and benefits that the Agreement was supposed to reach.33

The specific characteristic of capitalism as a system is that it is based on private ownership of the means of production, an ownership which by definition is that of a privileged minority. Capitalists have powerful authority in shaping the market which they regulate for their profit. It commands the decisive investment in the dominant sectors of economy i.e. FDI, International trade and high tech R&D and mergers.34 The WTO, IMF and Triad Consisting of US, EU and Japan have been successful in expanding collective economic imperialism.35 The intellectual property as being tightened and expanded of course will help their motive. In fact developed world have strategy to exert influence in the Middle East and Asia and to ensure subordination of newly emerged nations such as India, Brazil, Mexico and South Korea etc.

Prior to the formation of WTO almost every country had legislations regarding these aspects of intellectual property according to their own understandings but intersection of TRIPS in WTO has now harmonized these laws among all the member countries. The role of the Intellectual property in the industrial and economic development of a country is no doubt significant. The prosperity and self reliance achieved by majority of the industrialized nations is the result of the exploitation of their intellectual property. Indian laws on intellectual property rights were almost at par with the conditionalities of the TRIPs except the laws regarding patents. Indian Patent Act of 1970 fell short in many terms with the new patent regime under the TRIPs and therefore required amendments to bring it in conformity with the TRIPs.

1.4 Patents:

A patent is the monopoly granted by the State to an inventor for a fixed period in exchange for the disclosure of the invention so that others may profit from the invention. The disclosure of an invention is considered of vital importance in any patent granting procedure. The grant of a patent carries with it both positive and negative right. The right of ownership in a patent is a negative right – the negative right to exclude others from making, using or

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35 ibid pp53.
selling the patented invention. The positive right enables the inventor to make, use or sell the invention in broad sense it can be called commercial exploitation of his property.

1.4.1 Definition:

A patent as a part of Intellectual property has the credential of personal property like any other movable property. A patent is a government grant given to inventor assuring him the sole right to make use and sell his invention for a stipulated period of time. A patent according to United Nation’s Charter is "A statutory privilege granted by the government to the inventor for a fixed term of years, to exclude others from manufacturing, using or selling a patented product or utilizing a patented process." According to The new encyclopedia of Britannica, patent is a government grant of the exclusive right to make, use or sell an invention, usually for a limited period. Patents are granted to new and useful machines, manufactured products and industrial processes and to significant improvements of existing ones. New chemical compounds, food, and medicinal products as well as the processes for producing them, plants and animals forms developed through genetic engineering can be the subject matter of patents. Therefore it can be analyzed that the grant of a patent effectively gives the inventor a monopoly for specified time to work his invention and to exclude others from imitating the invention or any exploitation of the invention. However specific conditions of eligibility viz. novelty, utility and inventiveness must be met for the grant of patents, in other sense there must not be any obviousness. Before any patent right is granted to an inventor he discloses his invention to the public in detail and these details are available for public inspection and are sufficiently comprehensive so that a person of ordinary prudence in the same field may understand the invention. The basic purpose of any patent system that grants a temporary monopoly or exclusive rights to patent holder is to stimulate investment in research and development. Patents frequently gave rise to conflicts between the vested interests of those who had already acquired a position in the market.

In common with other intellectual property rights, a patent is a form of personal property that may be assigned, licensed, or charged by way of mortgage. The patent rights can be granted either to the product or to process by which the result has been achieved or to the both product and process. Under the product patent the inventor has all the rights to exclude others from making the same product however in process patent the product can be manufactured.

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through a new process for the patented period. It was for the National governments to decide the fields of technologies to be made patentable and to keep certain technologies out of the purview of patents e.g. space and defence technology etc. The term of the patents was supposed to be enough to give the inventor a reasonable opportunity to exploit the invention. This was sensible because socio-economic costs and benefits from patents vary according to the types of innovation and the stage of development of particular country. With the ever increasing scope of commerce and trade in international arena the industrialized countries of the west has made efforts to harmonize patents laws internationally. In general inventors must apply for patents in each country where they wish to manufacture, use and sell their inventions. The first effort to ease multinational patent differences was the International Convention for Protection of Industrial property, originally adopted in Paris in 1883 and amended several times since. The Patent Cooperation Treaty of 1970 simplifies the filing procedure of applications in different countries by providing among other things centralized filing procedure and a standardized application format.39

1.4.2 Rationale of patent regime

Patents are generally considered as a monopolistic right in the favour of the inventors. Since invention is the property of the inventor there is no substantial principle of classic jurisprudence that requires that property rights be limited temporarily. Neither have they needed to be so limited if the inventor and his successor’s title choose to keep secret details of the invention or how it works. However, such a property right, protected only by the law of confidence, is very vulnerable. Details of the invention might be disclosed in breach of confidence and eventually there may be those who, having acquired the details in good faith unaware of their confidential nature, are free in law and equity to put the invention to work.40 Patent law, evolving primarily around machines and chemical processes, has had to absorb the emergence of electrical engineering, computer construction, atomic energy, microbiological production techniques and now biotechnology.41

What a patent system implies is to grant the inventor a security in the form of patent right for limited period of time in return to his disclosure of the invention and ultimately abandon his property right in it after the expiration of the patent period. The law recognizes a great balance between inventor and the society at large. Since an inventor takes risk and involves time and capital in carrying out advances in technology which benefits the society at large

39 New Encyclopedia Britannica (2005) supra note 37
40 D Bainbridge, (2002) , supra note 38 , pp 313
41 W.R Cornish, (2001) , supra note 25 , pp27
and the society must assure him a certain period of exclusive right over the market for the product he has developed to ensure that inventor gets some return from the investment he has made. Although full disclosure is required so that a person skilled in the art will be able to work the invention, that person does not necessarily need to be taught how it works by the disclosure. However, the holding back of the part of the invention runs counter to the whole rationale of patent law and such application will be rejected, or the applicant will be asked to modify and enlarge his disclosure accordingly. After the expiry of the patent period the invention falls into the public domain and anyone is free to make use of it. Without a patent system, inventors and their employers would attempt to keep the details of the invention secret, relying on the law of confidence for the protection. The invention is very costly and lengthy process and the interval between invention and commercialization of invention is very lengthy. Economist also had different views regarding grant of patent rights and goodness and badness of such laws. In the early stages of the industrialization theorists such as Adam Smith and Jermy Bentham claimed that patents were necessary to encourage inventions at no social cost but later commentators were more skeptical. Calling patent system a “huge mistake” R.W.Taussing and A.C.Pigoue thought that patents neither gave very much to nor take very much from public. Therefore the difference of opinion among the theorists had been there at large regarding the grant of monopolistic rights in the form of patents. The real theory that marks the modern day context is that it has capitalized the knowledge. The ingenuity of a person is triggered with the tool of the patents. That is how the western world viewed the concept of intellectual property.

Dutton while justifying the patent system made certain suggestions and his idea include;

- The contract theory. – The grant of a patent is in the form of a contract between the inventor and State. Since the inventor is making a full disclosure of the invention the State is giving him a protection by granting patent rights.
- The reward theory—Patents are in the form of reward to the inventor for making useful invention to be used by society at large and inventor must receive sufficient recompense for their ingenuity.
- The incentive theory.—Patents will work as incentive to make new inventions and to invest the necessary time and capital.

42 D. Bainbridge (2002) supra note 38 pp 310
44 David Vaver (1994) supra note 26 pp 250
45 S Cheung, “Property Rights and Inventor” Research in Law and Economics, Jai Press Greenwitch Connecticut, USA quoted by David Vaver supra note 26 pp250
46 D. Bainbridge (2002) supra note 38 pp315
The natural law/moral right theory.—Every individual has a moral right of property on their own ideas and this right should be protected from being usurped or stolen by others.

Therefore analyzing the different thoughts by different persons in this field it can be easily understood that no doubt the patents are necessary to regard the efforts of the inventor and usefulness for the society in industrial sector is compensated in the form of limited rights to the proprietor. A patent therefore, does not necessarily reveal a mechanism for earn monetary benefit but a economic system whereby any person can take a risk by making input in the field of research and development and creating something new on the assurance that his innovation will get him a limited security for fixed period of time by making commercial exploitation. Because after the expiration of the monopolistic period it becomes the property of the public at large. When system regarding patents had not developed the pace of the society had not stopped and progressive instinct of the society had carried on and reached at a stage where knowledge has become a commodity. History shows that societies around have lived and evolved technologically without a patent system, i.e. without a system of private property rights whereby owners have the right to exclude others from using their technical creations. For thousands of years governments have relied on public awards to promote and encourage invention. In technological fields where the award did not reach or were not granted, economic interests in inventions have been protected through trade secrets.47

1.4.3 Internationalization of patent regime.

A number of bilateral and multilateral negotiations were held to harmonise the patent laws at international level. Untill 1995 when WTO came into existence after final shape given to the Treaty at Marrakesh at Morocco, The World Intellectual Property Organisation (WIPO), based in Geneva and estd in 1974 following a World Intellectual Property Convention at Stockholm in 1967, was agency to look after such issues. There have been several international conventions on patents rights between the Paris 1883 and Stockholm 1967, at Brussels 1900, Washington 1911, Hague 1925 London1934, and Lisbon 1958 and nearly all the issues relating to IPRs covered by the Marrakesh Agreement had been covered by those.48

For several Years preceding Uruguay Round negotiations the western technology frontiers had been complaining about the piracy of their IP by China and East Asian countries. In 1988 IBM induced the US Govt to put Brazil on Super 301 hit list, following allegations over a

national informatics law that was designed to protect the national computer industry, the threat was withdrawn only after Brazil agreed to amend that legislation. In 1987 and 1988 similar disputes with South Korea and Thailand on software protection were resolved after the offending legislation were amended.  

In the United States the omnibus Trade and Competitiveness Act of 1988 allows the US trade representative to impose trade sanctions against the countries that do not provide adequate IPR protection. One of the main reasons for TRIPs being intersected in the WTO is pressure from an America haunted by trade deficit and alluring example of rapidly industrializing states of Pacific Rim and more generally from the extraordinary shifts in political organization and allegiances across the world.

The main aim is to impose the conditionalities of WTO and to change the Patent laws of the developing countries as MNCs of industrialized countries need more markets and are eyeing Asia which is the largest continent of the world where 60% of the world population lives. With a high rate of population growth in this part it is expected that the need of market will tremendously increase in the third world countries including India in the future. During earlier rounds of trade negotiations and in the Uruguay Round of negotiation the developing countries actively opposed the inclusion of the IPRs in GATT on the grounds that this would lead to higher prices and be detrimental to the development of their domestic, infant hi-tech industries. Developed countries on the other hand pointed out that stronger IPR protection would serve to stimulate research, which would in long run be beneficial to both firms and consumers in LDCs. There are a number of facets to the origins of the apprehensions about global trade negotiations, some being stated explicitly while the others are more implicit in nature. The most important and often cited reason is the unequal bargaining strength of trading nations, based on their share in world trade, with larger developed nations more able to influence terms of agreement than smaller less developed countries. Developed countries first linked intellectual property rights with the development of trade, investment and services during the GATT negotiations. TRIPS had no caveats and no member country could

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withdraw from it. The only concession given to developing countries and LDCs was an initial
discretion in implementing the provisions, which were to be progressively eliminated. 54
The basic thrust of the developed world for stricter patent regime at international level can be
attributed to the following reasons:

1.4.3.1 Economic recession in Northern countries.
The industrialized countries of the world nearly have monopolistic technological
infrastructure and surplus of capitals. Because of smaller markets and sophisticated
technology there is over production, decline in productive investment. Since the imitation of
technology is much easier and the developing and some least developed countries had
managed to resort to reverse engineering and fulfilling the needs of the local markets at
comparative low cost and hampering the import from industrialized countries. The
intersection of IPRs in GATT negotiation was very largely the work of collective efforts of
pharmaceutical and recording and information industries in European Community and Japan.
It is globalization of national economic system. Surplus of capital and production without
outlet in the form of market led the stagnation at industrialized north. Therefore the
requirement was maximum worldwide financial openness and highest return. Globalization
developed as a natural process but in economic sphere it is a strategic process. In 1947 when
GATT was formulated US controlled half of the world trade and its share in world trade had
come to less than 15 percent at the time of signing of the Uruguay Round. 55 But US trade
deficit increased year by year and went from $100 billion in 1989, to $ 500 billion in 2002. 56
The majority of the developing countries have witnessed a vast development in the economic
structure especially in industrial development. In early 1970s the developed world was the
major transeree of technology to third world but by 1980s the developing theory seemed to
be in retreat largely as a result of the economic successes of several third world countries in
Latin America and Asia. These countries had successfully adapted foreign technology to
local factor endowments by pursuing a technology following strategy rather than catching up
strategy. 57 USA had threatened many developing countries to invoke Super and Special 301
provisions of Trade and Competitiveness Act, 1988, which permits the US trade
representative to initiate retaliatory action against the countries which restrict US commerce
and fail to provide effective protection to IPRs. A report by the US International Trade

55 The Tribune April 17, 1994.
Vol.2 No. 8 pp18
The US International Trade Commission (ITC) that was declassified in 1988 came up with estimated losses to US intellectual property industries based on a survey of the sector's 431 largest companies. Worldwide losses due to inadequate protection in IPR cost these companies $23.8 billion in 1986. The loss of the licensing revenue of 104 among surveyed companies amounted to $3.1 billion in 1986. During the post-war period ranging from 1945-1990 despite serious conflicts between different parts of the world, nevertheless there was generalized economic development in some way more rapid in the east and south, giving rise to the idea that it was possible to catch up with developed world.

Developing countries have been expanding their share of world markets. Collectively, they accounted for about one-quarter of global manufactured exports in 2003, double the share in 1980. India and Brazil criticized the efforts to bring the IPRs into the GATT. Third World delegation was of the opinion that it would increase the tension in the world trade. The EEC had also threatened many developing countries with invoking sanctions. All this was out of frustration, developing over the firms and governments of the developed world over economic recession. It was a calculated design and move of these countries to put the brakes on the speed of development in the third world. Industrialization is the fastest means of economic development and IPRs at international level clearly will favour the pioneers. Developed world having surplus capitals and a large R&D infrastructure have maintained their supremacy over the technology, markets and will succeed in coming out of the economic recession by making the third world under pressure to accept new patent regime under TRIPs.

### 1.4.3.2 Monopolistic Approach

The developed countries are technologically generation next to the developing and least developed countries. They did enjoy almost monopoly over the world market for a long time. Companies from rich countries hold 97 per cent of patents worldwide and 80 per cent of patents in developing countries. Overseas profits are today the principal source of profits for majority of the TNCs. The movement for internationalization has little to do with abstract

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notion of competitiveness. The developing countries and least developed countries started to have their own industrial infrastructure in mid twentieth century after being liberated from colonial bondage. With the passage of time majority of the Asian and Latin American countries not only had achieved self reliance in technological sector but started to threaten the world market with indigenous and reverse technology. The government of the majority of the industrialized countries runs to the dictates of the multinational giants of those countries. The TRIPs proposal being made part of the trade negotiation basically reflects the fear of the developed countries firms as well as governments that the new technological breakthrough in electronics information and technology, these being highly human capital or skill intensive would be copied or simulated and eventually mastered by the developing countries at least by those having a variegated structure of higher education and hence an edge in skill formation.\[^{62}\] Industrialized countries being afraid of weakening the patent monopoly by technological transformation which give the developing countries a chance to have open access to new technology therefore were looking for a stricter IPR regime. However, if US statistics are analyzed, it becomes apparent that private industries are responsible for only 52 percent of research and development. The remaining work is undertaken by publicly funded institutions and universities.\[^{63}\]

The emergence of TRIPs in the WTO has resulted in changes in India's policies on patents. TRIPs came into being as a result of the activities of firms in the US, EU and Japan. Criticism against India's patent policy emerged particularly in 1980s from foreign firms who accused India of piracy. The pharmaceutical Manufacturers Association, an association representing US based pharmaceutical companies, has been most vocal on the issue pointing out that “Based on the refusal of the government to provide pharmaceutical patent protection, India has become a heaven for bulk pharmaceutical manufacturers who pirate the intellectual property of the world’s research based pharmaceutical industry.”\[^{64}\]

The US began in the late 1980s and 1990s to exert pressure on developing countries to increase patent protection; India was one of the main targets of US policy.\[^{65}\] The US goal in the final round of trade negotiation at Uruguay may be formally described as to legitimize the

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\[^{65}\] Anitha Ramanna, (2002) ibid pp2074
linkage between IPR issues and the global trading system or putting it more plainly to make trade sanctions a powerful weapon to bring erring countries in the line with the US viewpoints on TRIPs. Thus prefixing the word trade with the Intellectual property and making the norms uniform for the member countries irrespective of the level of industrial development, the powerful trio of US, EU and Japan has made an attempt to retain global supremacy over technology.

The Asian tigers were coming of age. The recession in US and Western Europe resulted in lay-offs and growing unrest. India was considered the biggest offender of the GATT with above 250 percent of tariffs. The labour intensive industries were producing cheap goods. Comparatively the textile was very cheaper in India Pak and Bangladesh than American and British ones. To protect their own industry western Nations and Japan imposed quotas on importation from developing countries through notorious Multi Fibre Agreement (MFA).

Now with the advent of TRIPs, an offensive has been launched not to reinforce competition, but on contrary, to strengthen the power of technological monopolies at the expense, of course, of developing countries for whom the possibilities of acquiring technology they need in order to progress become even more uncertain. American Global strategy is to exert influence in the Middle East and central Asia and to ensure the subordination of great nations ‘India and Brazil’.

The postwar takeoff allowed for massive economic, political and social transformations in all the regions of the world. With the advent of industrialization after socialist revolution in Russia and China, Capitalism organized under five monopolies system, technological, global financial resources flow, natural resources, media communication and weapons of mass destructions. These five monopolies define the framework within which the law of globalised value operates.

1.4.3.3 Third World market control.

In all modern economies, markets are critical and ubiquitous institutions nearly all aspects of production and distribution involve buying and selling, the activities that define the markets.

The third world countries are no doubt full of natural resources but weak Research and Development infrastructure have left these countries to watch the exploitation of these resources by the technology giants of industrialized North. The new patent regime under TRIPs agreement has made imitation to nullity and ultimately the title holder will exploit their technology single handedly resulting in difficulty to obtain protected technology and even if obtained, it will be at very high price as royalties will be very high, thereby increasing cost of production. The third world is densely populated and majority of the world population resides in these parts of the world. The idea of the developed world is very clear as first restrict the third world from imitating technology and then after having monopoly over the technology, exploit the third world market. Developed countries were in search of huge markets for their products and it would be possible only when the developing countries will be debarred from reverse engineering and fulfilling the requirements of local markets. Treating the importation at par with the working of the patent will render the markets of third world subservient to imports from developed countries. IPRs are the foundation for the market dominance and continuing profitability of leading corporations. Business seeks profit and one way to make more profit is to find ways to deny new entrants into their market. The idea is to keep prices and profit high. Monopolization of production thus becomes a tendency of capitalist production.

The industry in the US and Europe is becoming more international and seeking new global markets. The technologies especially pharmaceutical sector requirements compel the industry to replicate many test procedures including clinical trials in order to market new products in different countries. This raises not only their financial cost but also the time cost by shortening the effective life span of new drug in the face of limited patent period. To overcome this problem, the governments of three giant pharmaceutical markets (US, EU and Japan) had jointly initiated a move towards harmonization of drug quality through the International Conference on Harmonization from late 1980s.

Overseas profits are today the principal source of profits for majority of the TNCs. The movement for internationalization has little to do with abstract notion of competitiveness.


The US, EU and Japan as Samir Amin called it Triad has their ultimate goal to dismantle and make middle east and central Asia subordinate. WTO opening the concept of free trade among member countries after including TRIPs also as an part of the package has paved the way for the industrialized countries to have dominance over the third world market either by way of direct having access through direct investment or by way of importation.

1.5 Significance of the study:

IPRs are playing an increasingly more important role in the economic development of countries. Further technological advancement necessitates the protection of exclusive exploitation rights, which IPRs ensures. The countries are providing patents for long time and legislations vary from country to country. India had witnessed in past the British made laws on patents in the form of Act of 1911 and went for repealing the old and forming its own Patents Act of 1970 which was more conducive to indigenous development. The pressure from developed world had made many developing countries including India to accept the TRIPs agreement in course to harmonization of the patent regime. The compliance of the TRIPs norms was the priority and India had conformed to the norms. The loud hue and cry had been witnessed throughout world since the negotiations were going on in Uruguay Round and TRIPs was being intersected in the talks. The one segment where defends the new patent regime, the other remained still a critique. The present study is to focus on the compatibility of the Amended Indian Patent Act with the norms provided by TRIPs Agreement and what effects it has on the Indian economy and future options. The TRIPs has made the IPRs the hot debated topic for last two decades and lot of studies, seminars and discussions are being organized to promote the topic. In India also majority of the institutions had included IPRs as a regular course and separate diploma in subject. Keeping in the view the growing importance of the subject the present topic has been opted for the study.

1.6 Statement of the problem

India is the founder member of the GATT along with 23 other member countries and became the member of the WTO the ultimate outcome of this agreement, by virtue of being a signatory to the final Agreement signed in April 1994. TRIPs is one of the Agreement covered under the umbrella WTO treaty. The domestic laws regarding these agreements had to be made compatible with the norms set by the WTO Agreements. The most contentious area among these is regarding the law on patents enshrined in the TRIPS Agreement. All the national governments had their patents laws according to suitability of their respective

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74 Samir Amin, (2000) supra note 69 pp 15
economies and stages of development. The compliance of the norms set by TRIPS was necessary being signatory to the WTO. The basic instinct of the proposed research has been derived from the ongoing stream of transformations definitely designed on the principles of ‘neo-liberalism’. All the tools and diagnoses prescribed under the shadow of ‘neo-liberalism’ such as free market, open competition and patent regime have in fact strangulated the path of equitable development. New mechanism of integrating global society has rendered humanity simply incapable of creating a more humane, egalitarian and democratic social order.

Keeping this theoretical framework in mind the present study is proposed for thorough investigation. The main purpose of the research is to examine whether the development of patent regime promotes individual creativity for the benefit of the common cause of the people or has emerged as the development of the capitalism. The harmonization of patent regime at international level commoditize the knowledge for the profit rather than promoting causes of development of quality of life or living being of the society. Ironically, the knowledge, at current stage of modernization, has gradually been used as tool of hegemony and exploitation by the dominating powers and the new patent regime has been designed to suit the interests of these powers. The current trends and the patterns in the development have been suggesting that new patent system is unlikely to lead the global society to prosperity.

In the recent past no other subject triggered so much controversy in India as intellectual property, specially the patent. The expertise in the fields had felt a severe need to critically analyze the provisions of TRIPs agreement. The Eighth round of Trade Negotiation known as Uruguay Round during which GATT gave way to the WTO at Marrakesh in Morocco in April, 1994 is by far the longest and most discussed negotiation in the annals of economic history. It was because the talks were different from the earlier discussions since the issue of intellectual property rights along with other new issues viz. Trade Related Investment Measures (TRIMs), General Agreement on Trade in Services (GATS) etc. came for the first time in the trade discussions. Not only this but the draft known as Dunkel Draft was presented by then Director General Sir Aurthor Dunkel was presented as a package deal on the basis of leave it or accept it. An early major controversy was cropped up on the proposal to include the IPRs in the negotiation as vast majority of negotiating countries were not prepared to discuss this sensitive issues along with trade negotiations. The patents laws were the main area of confrontations among the member countries. The laws governing intellectual property are an integral part of the economic life of a country as it regulates the situations affecting

75 Dr. V. N Vishwanathan (1994) Dunkel Draft Its Implications for India, Academic India Publishers New Delhi pp 2
industry, technology, trade and investment. At international level the IPRs have been covered by separate international conventions. As these conventions did not have universal coverage, majority of the countries had enacted their own national legislation on IPRs. The United States, European Economic Countries and many other industrialized countries were of the opinion that the IPR protections given by developing countries was not appropriate and so many times the threat of sanctions was also given to the countries which were not giving appropriate protection to IPRs by these developed trade giants. The profound changes introduced by the Agreement in the traditional standards of intellectual property rights will influence competition in the world economy, as well as the generation and diffusion of technological innovations, and, ultimately, the technological development prospects of developing countries. The impact of the changes can thus be far-reaching, though at this early stage it is difficult to assess the full implications of the Agreement. To a country like India becoming a member of WTO should not be seen in a narrow framework as it is a package deal. The impacts of the IPRs and implementations of these laws should be seen in the context of the TRIMs and GATS, Agreement on Agriculture (AOA) and so many other agreements under WTO. How does National governments justify and deal with these laws in international scenario is to be seen. How long the canopy treaty subsists in the present character depends upon the fair play game of the developed world. The fear of being isolated in world trade had made majority of the developing countries to be ready to sign the Agreement as it was presented on the accept it or leave it basis. The irony of the fact is that the member countries will have to change their national laws on the subjects enshrined in WTO to accommodate its dictates irrespective of the level of the development of the member nation. It is worth noting that several developed countries economists had also questioned the relevance of strong patent regime for least developed countries. Noted economists Penrose and Greer had suggested that L.D.C's should be exempted from international patent arrangements. Bifani commenting on Uruguay Round Negotiations had stated, “It is somewhat ironical that liberalization of international trade will be now pursued through the growing global monopolization of one of the most important factors of production that is knowledge, a process facilitated by the absence of international agreed antitrust rules. The countries differ from each other in many respect viz. development, population, geographical topography and stage of development in technology etc. Harmonization and uniform patent

76 D M. Nachane (1995) supra note 28, pp259
protection to all the member countries didn’t seem justifiable. During the period when Uruguay Round of GATT Negotiation was going on, the issues relating to the inclusion of IPRs had cropped up to unprecedented level and intelligentsia all over the world was curious to formulate the viable laws protecting not only the rights of the owner or inventor but also that of users alike so that the meaningful utility of new technology could be assured at primary level of socio-economic development. So is now after the compliance of the TRIPs regime as transitional period is over and finally the Act of 1970 has been amended to give way to the TRIPs conditionality.

The patent systems in different countries developed at different times. The provisions in different national systems were according to the social and economic conditions of the respective countries. Therefore a lot of dissimilarities existed among the provisions of the patent systems of different countries. Due to intense globalization of trade with the help of communication and information technology, there was felt a need for internalization of patent system. The inventors are willing to protect the invention not only in his country but also in the countries of his interest. The industrialized countries and MNCs of these countries were reluctant to transfer technology from those countries where there was no protection or weak protection for their product and services. In the global forum for discussion on patent, the world is divided into two blocks, the developed nations and the developing nation. The interests of both the blocks are different and so is their priority.

India’s patent system is more than 150 years old. Since becoming a member of WTO, India adopted to become contracting party to Paris Convention on September 07, 1998 which came into force on December 07, 1998. India also joined the Patent Cooperation Treaty. PCT came into force on December 07, 1998. India became contracting party to Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure on September 17, 2001 which came into force on December 17, 2001. India became a party to the TRIPS Agreement in April 1994. TRIPS came into effect January 1, 1995. For developing countries, like India, the deadline for complying with TRIPS was the year 2000. India amended its patent law and become TRIPS compliant. Further it amended its act in the year 2005 to allow product patent for foods, drugs and other chemical substances.

1.7 Research questions

In the light of the problems mentioned above the objective of the study will be to examine and evaluate the following issues mainly---
1. Whether the historical development of the intellectual property regime in India corresponds with the development of capitalism?
2. Whether the protection of individual creativity under intellectual property benefits the cause of society?
3. Whether the Intellectual property regime commoditize the knowledge for maximizing the private profits?
4. Whether the commoditization of knowledge will promote biodiversity, traditional knowledge and folklore?
5. Whether the dispute mechanism prescribed under new regime is efficient enough to realize the objectives?
6. Whether patent regime is exploitative of labour (intellectual as well as physical)?
7. Whether the Indian option to integrate patent regime with compliance with WTO is beneficial or useful to Indian economy?
8. Whether there is a possibility of the expansion or dilution of the subject matter falling within the purview of patentability?
9. Whether the Indian government managed to protect the Indian interests in mega negotiation?

1.8 Hypothesis:
1. The historical development of the intellectual property regime in India does not correspond with the development of capitalism.
2. The protection of individual creativity under intellectual property does not benefit the cause of society.
3. The Intellectual property regime commodities the knowledge for maximizing the private profits.
4. The commoditization of knowledge will hamper the promotion of bio-diversity, traditional knowledge and folklore.
5. The dispute mechanism prescribed under new regime is not efficient enough to realize the objectives of fair play under this mega negotiation.
6. The patent regime is exploitative of labour (intellectual as well as physical) in modern context.
7. The Indian option to integrate patent regime with compliance with WTO is not beneficial or useful to Indian economy.
8. There is a possibility of the expansion or dilution of the subject matter falling within the purview of patentability.

9. The Indian government could have bargained more flexibility in favour of developing countries.

Though the rationale of the patent system is to provide incentive for innovation and dissemination of technology, it has also a wide social and economic impact due to the monopolistic nature of the patent. There should be right balance between the patent right holder and the interest of the public at large. This social impact will depend upon the social condition and economic situation of the country. A patent system which is effective in development of the economy of the developed country may not be effective for developing country. So the effort to harmonize the patent system may bring grave consequence for the countries at initial stage of its development. Upon this framework of mind hypothetically it can be said that—"Regarding harmonization of the patent system at international level it is not necessarily be advantageous for India and other developing countries as to the developed countries."

1.9 Methodology and sources:

The methodology adopted in present study keeping in view the research problem and research questions will be essentially doctrinal and analytical and warrants use of secondary data. Since the resources for research data is secondary the research card method has been used. The data sources for the present study include the National and International Enacted laws, case laws administrative decisions and Conventions. Further the secondary sources includes the books published by different authors, research papers and articles, editorials and commentaries published in various magazines, journals and news papers and websites/internet. A large number of documents relating to the provisions of patent laws of different countries were studied and reviewed. The different international treaties in the field of intellectual properties were studied. The efforts taken in the direction of harmonization have been studied from various books and online publications. The opinion expressed by eminent experts and economists are also reviewed.

The historical, comparative and analytical approach has been applied to the existing empirical laws for its interpretations and theory building has been made on the basis of the primary as well as secondary data. There is a plethora of literature available on this subject. Keeping in view the nature of the problem the tools of primary data collection such as questionnaire and interview schedule could not be applied. Since problem pertains mainly to
the institutions of decision making and their far sighted implications for people of different section of society, commentaries made by scholars, experts social activists have been thoroughly investigated so as to arrive at logical conclusions. The conclusion of the present study shall be made after examining concepts and ideas of different scholarly work on this issue expressed in available resources and the views shall be cited, all citations shall be contained in the footnotes as references. Informal views and quotations of the experts shall be taken into consideration but reference will not be given to those arguments.

1.10 Limitations-
It is clear that no study can be free from limitations. It is honestly acknowledged that since the problem is having multiple dimensions of society it is always challenging to inter relate the various factors influencing the interstate relations. However the present study is confined to Indian context but reference to the developing countries and least developed countries has been made only wherever it is necessary. Since patent is only one aspect of the intellectual property rights as enshrined in the TRIPs of WTO, the subject matter has been chosen keeping in view the relevance and implications on the patent laws under Indian Patent Act 1970 which was considered as model piece of legislation by majority of the developing countries. The present work however is confined to the study of patents but attempt has also been made to critically analyze the issues which have been ignored by the TRIPs regime. Since the present study is mainly focused on the patent regime, the other provisions of the WTO agreements have been discussed only in the context that it is an agreement signed as a package deal. The other agreements which directly or indirectly affect the working of the patents has also been consulted and discussed only in reference to implications.

1.11 Scheme of the Study:
The present research has been divided into seven chapters and brief sketch of the contents of the each chapter is as follows;

CHAPTER I: INTRODUCTION
Chapter one provides the context in which the study is set, the focus and objectives of the study, its significance and other preliminary issues. The chapter one is basically introductory in nature and lays emphasis on the term globalization, intellectual property especially the patents. It deals with definitions of IPR, patents and rationale of the patent regime and reasons for the internationalization of the patent regime. The chapter also draws outline of the perusal of the problem, objective and scope of the study, methodology adopted for the present study and scheme of the chapters.
CHAPTER II: HISTORICAL EVOLUTION OF PATENT REGIME IN INDIA.
The second chapter discusses the historical evolution of patent laws in India before the enactment of the National legislation in the year 1970 and working of the Indian Patent Act of 1970. The chapter also highlights the provisions which were made in the Act only to strength indigenous industry of the nation and how it was a balanced legislation in favour of patentee and public together.

CHAPTER III: POST WTO PATENT REGIME AND COMPLIANCE OF TRIPS
The third chapter comprises of the new patent regime in India under WTO. Comparative study of pre WTO and post WTO has been made. All the provisions where changes were required to give way to the provision of the new patent regime enshrined in TRIPS has been discussed. This chapter also elaborates the transitional period which was given to developing countries to tune their national laws in conformity with the WTO. India changed the Patent Act of 1970 in a faced manner by making three amendments in 1999, 2002 and finally in 2005 to make our laws TRIPs compliant. This chapter has critically analyzed the provisions of the TRIPS compliant patent regime in India.

CHAPTER IV: PATENT DISPUTE RESOLUTION SYSTEM
The WTO has made the provisions for the dispute settlement among member countries and it makes the WTO more effective treaty for sake of sanction and implementation of the provision of the WTO Agreements. In this chapter the comparative study of the dispute mechanism in the field of patents available under IPA 1970- and WTO has been made.

CHAPTER V: NEW PATENT REGIME AND IMPLICATION ON INDIAN ECONOMY
The fifth chapter reflects the impacts of the new patent regime on the economic development of India. Since India is basically an agrarian economy and still in the face of development the Agriculture, Pharmaceutical and Bio-technological sector are the most crucial sectors to be discussed after introduction of product patent regime in India. The impact of harmonization of patent laws at international level on transfer of technology, Research and Development has been discussed in particular detail.

CHAPTER VI: TRIPS REGIME AND POLICY IMPLICATIONS
The sixth chapter throws light on the political economics of new patent regime. Detailed study about the administrative and constitutional conflict has been made. The role of the Indian polity and attitude of the government and opposition during the Negotiations and signing of the treaty and after implementation has been discussed and erosion of independent welfare policy making has been evaluated.
CHAPTER VII: CONCLUSIONS AND SUGGESTIONS

The seventh and last chapter sum up the entire study and lays down the emphasis on the conclusion drawn on the basis of present study and suggestions has been made keeping in the mind the present study.