

ACADEMIC INSTITUTIONS AND INTELLECTUAL PROPERTY RIGHT (IPR) AWARENESS- A REVIEW

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Abstract:

The term Intellectual property is related to human brain applied for creativity and invention to betterment of existing technology. Intellectual property rights (IPRs) like patents, copyrights, trademarks, industrial design, trade secret etc., plays a significant role in promoting innovation and sustaining economic growth. The literatures reviewed in this study are categorized in to intellectual property and it's rights, importance, creation and management, importance of training and awareness, role of academic institutions, global scenario in IPR, socio economic aspects of IPR, benefits of IPR, published in referred journals. The globalization has made innovation and competence-building important part of every nation's economic growth and future prosperity.

Key words: Awareness, IPR, Copyright, Patent, Faculty, Students

Introduction :

A review literature is a critical and in depth evaluation of previous research. The work is expanding the reasons behind selecting a particular research problem and allowing the idea of pursuing the research topic.

According to Cooper (Cooper, 1988) a literature review uses as its database reports of primary or original scholarship. The types of scholarship may be analytical, empirical, theoretical, critical or methodological in nature. A literature review seeks to explain, summarize, evaluate, clarify and integrate the content of primary reports'. (Bruce, 1994) has identified six elements of a literature review. These elements comprise a list, a search, a survey, a vehicle for learning, a research facilitator and a report.

According to (Bourmer, 1996) there are good reasons for spending time and effort on a review of relevant literature before embarking on a research project. These include

- 1) To identify the gap in the literature
- 2) To identify people working in similar area of research.
- 3) To identify novel or creative works in the subject work area
- 4) To put the work into proper perspective
- 5) To demonstrate the reach of previous work in the specific area
- 6) To gather information and ideas which may be relevant to the project
- 7) To identify methods that could be relevant to project



Intellectual Property

‘Intellectual Property’ is a generic term that probably came into regular use during the twentieth century. This generic label is used to refer to a group of legal regimes, each of which, to different degrees, confers rights of ownership in a particular subject matter. In general, intellectual property is categorized into two branches:

Industrial Property: It protects inventions in result from new solutions to technical problems to be solved in intangible embodiment (rather than a physical object) by research and development.

Copyright: It protects literary and artistic works as well as creations in the field of neighboring rights. (Rady, 2002)

The term Intellectual property is related to human brain applied for creativity and invention to betterment of existing technology. Various efforts in terms of input of manpower, time, energy, skill, money, etc., are considered to be important to invent or create something new. (Narayanan S. , 2010) Therefore, as per law, legal rights or monopoly rights are given to creator or innovator to harvest the economic benefits for their invention or creation . (Sharma, 2014) National security also impinges on a host of issues related to internal security or terrorism wherein appropriate technological systems are required to be developed. (Gupta V. K., 2007)

Intellectual property rights and its importance :

Intellectual property rights (IPRs) like patents, copyrights, trademarks, industrial design, trade secret etc., plays a significant role in promoting innovation and sustaining economic growth. The owner’s right over these properties was accepted and is known as an intellectual property right.

A new set of laws called intellectual property right laws, were enacted to protect these property rights. (Kannan, 2010) They also allow their holders to keep out, for a limited amount of time, other parties from the remuneration arising from the newly acquired knowledge and from the commercial use of innovative products and developments based on such new knowledge, thus motivating others to allot financial and human resources in Research and Development (R& D.). (Zekos, 2008)

Benefits of IPR :

In recognition of the importance of innovation in contributing to a country’s economic development, the World Trade Organization (WTO) has emphasized the role of intellectual property rights (IPR) in ensuring successful innovation and commercialization. (Hudson J & Minea A, 2013) IP is a crucial contributor for knowledge economy and generates monopoly position in return for providing payoffs to innovation. (Latha, 2008)

On the basis of nature of invention and creation of human mind and their applications the intellectual property rights are classified as follows: i) Patent ii) trademark iii) Industrial designs, iv) Layout design of semiconductor integrated circuit v) geographic indications of source vi)copyright and related rights (literary and artistic works, musical work , motion pictures , computer programmes and performing arts and broadcasting work) (Documents/handbook.html).



Economic health of nations and the competitiveness of firms are determined largely by the ability to develop, from scientific and technological innovations. They are legal instruments that have been used by governments for industrial development and economic growth. (Narayanan S. S., 2010)

Financial incentives have also been served as a boost to help in excavation of inventions and creations in a company. Therefore, most companies have financial incentives or career boost as part of their inventor incentive mechanism. These incentives are generally spread across various steps ranging from filing, protecting to licensing. (Kankanala, 2012)

An Indian perspective on IPR :

The development of any entity or organization directly depends on IPR and its policy framework. (Jajpura, 2015) In this context, certain parameters were taken into consideration for a better understanding of how institutions deploy their core resources and competencies towards IP creation and management. The objectives of the study were assessment and identification of issues in creation of IP in technical institutions, and finding appropriate measures to address these issues. (Sinha, Babita, Joshi, Himanshu & Ghosh, P.K, 2009)

In an agrarian country like India, the process of IP awareness can be catalyzed only by educating all the stakeholders like policy makers farmers, academia, industry researchers and consumers about the importance of IPR and technology management. (Samuel, Manoj P , Sastry, Kalpana. R& Venkattakumar, R, 2014)

Literature Review relevant to Awareness of Intellectual Property Right :

The literatures reviewed in this study are mostly related to IPR awareness, infringements, protection, Training, patent, copyright and social issues, published in referred journals.

The Fig. 1 illustrates the important aspects to review the literature relevant to IP awareness in coming sections.

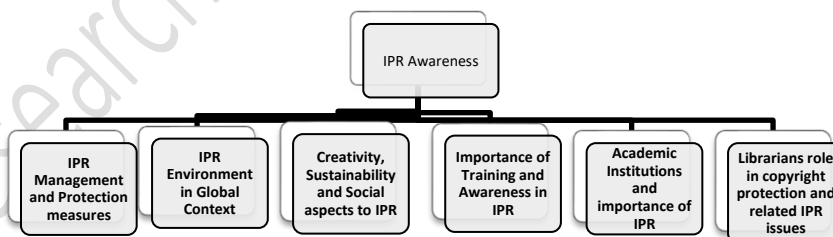


Fig. 1 Classification of literature on of Intellectual Property Right Awareness in Academic institutions

Descriptive analysis of the data

1.7.1 Research Methodology

The major observations, results, and the discussion based on the literature are presented in this section Literature classification scheme is represented in Fig. 1 and the items included in

each component of literature review is discussed below

- Content 1: Issues in creation, Management and Protection of IPR: Includes papers on Introduction/ IP creation/ varietal/ IP Management/ protection and infringements.
- Content 2: IPR Environment in Global Context: IPR issues in Global perspective, awareness and Resources issues are discussed.
- Content 3: Creativity, Sustainability and Social aspects to IPR: HR Issues/ competitiveness/ IT/ socio-economic development R&D Issues.
- Content 4: Importance of Training and Awareness in IPR : Training and awareness improves the IPR and economics.
- Content 5: Academic Institutions and importance of IPR : *Role played by academic institutions are very important as creativity and innovation begins from Academics*
- Content 6: Librarians role in copyright protection and related IPR issues

Issues in creation, Management and Protection of IPR :

The Intellectual property rights (IPR) are intangible property in nature and gives exclusive rights to inventor or creator for their valuable invention or creation.

Institutions must actively involve students by informing them of the possibilities and the need for IP creation through regular workshops and interactions. (Ghosh,Shefalika Samaddar& Chaudhary, Banshi D, 2008)

The core of long-term economic growth and development are the capabilities of public and private agents to learn and expand knowledge base. (Lundvall B.A & Johnson B., 1994)

IP creation is not only enhance the science and technology system (universities, research organizations, firms' in-house R&D) but also for a region's organizational, institutional and policy-learning capabilities. (Gregersen,B &Johnson B, 2001) The globalization has made innovation and competence-building important part of every nation's economic growth and future prosperity. (Lagendijk)

In recent times geographical indication (GI) has emerged as most important instrument of intellectual property protection and ensuring the quality of their GI-protected products. (Chaturvedi, 2003) In one of the study TRIPS , trade secrets, methods and practices to be followed for protection of trade secrets in India and abroad were discussed. (Nair, 2002)

IPR Environment in Global Context :

A study analyzed the patenting activity of Public Research Organizations (PROs) in Southern European countries, and found they are more concerned about intellectual property protection, technology transfer and regional development. (Cesaroni, Fabrizio & Piccaluga, Andrea, 2005).

Components and measures for IP awareness are discussed and studied by a survey in UK industry. This addressed three main issues of: IP knowledge and understanding, IP management practices and Awareness and use of IP information and advice. The survey type study showed the importance of promoting IP awareness to firms irrespective of the size of the firm, is vital to the system's success. (Pitkethly, 2012)



Various international treaties and national laws have been set in place to ensure IP owners of their rights. The data corroborated, that public education and awareness campaigns, and training programs are essential to the success of such a law. (Mulki, 2008)

Creativity, Sustainability and Social aspects to IPR :

Sustainability, personal skills, social aspects related to technology, management and entrepreneurship are of increasing concern for engineers and engineering education. It includes a discussion on how to integrate sustainability and entrepreneurship and to incorporate it pragmatically in the key elements of a business plan. (Bonnwr, Hans, Quist, Jaco, Hoogwater, Daan, Spaans, Johan & Wehrmann, Caroline, 2006)

Torrance Tests of Creative Thinking (TTCT) were used to measure changes in people's creativity. Research data indicated that the students, after completing the curriculum program, has significantly improved their creativity. (Chen, Chi-kuang, Jiang, Bernard C. & Hsu, Kuang-yiao, 2005).

Skills development was a key aspect of the UK Government's strategy which has led to changes in Higher Education and increasing recognition of the need to enhance students' employability. Which may be achieved through cooperative, inclusive, transparent and centrally coordinated approaches to skills assessment, monitoring and development. (Markes, 2006)

A study discussed about the role of copyright and intellectual property in cultural and economic development of countries, especially developing countries. WIPO Internet Treaties for the protection of copyright and related rights in the digital age are also discussed. (Alikhan, 2002)

Importance of Training and Awareness in IPR :

Training helps in spreading IP knowledge and awareness among employees, but the skill for patent searching and freedom to operate is taught to only personnel in R & D or engineering department . (Kankanala, 2012)

As suggested by (Brahmi, P., Saxena, S & Dhillon, B.S, 2004) found that there was a need to create awareness among the scientists, policy makers and breeders as well as farmers, village communities and private sector.

The study conducted to know the level of IP Awareness among Faculty members of Health sciences about copyright, fair use, and related precepts for teaching and research purposes, Most respondents themselves reported at least a limited familiarity with copyright law and fair use. (Smith, K.H, Tobia, R.C, Plutchak, T.S, Howell, L.M, Pfeiffer, S.J. & Fitts. M.S, 2006)

Results of web-based survey conducted showed a significant lack of awareness of copyright and intellectual property issues. They also found gap between the general copyright and intellectual property competencies they assess and the level of awareness about more specific items. (Boustany, J., & Mahe, A, 2015)

Academic Institutions and importance of IPR :

Academic institutions are considered as the powerhouse of knowledge. There has been a rise in the academic research outputs mainly in the form of research papers and commercial yield in the form of protection of innovation and wealth creation. One of the first academic technical institutions in India to advocate and develop its own explicit IPR Policy and document was IIT Delhi in 1994. (Indian Institute of Delhi, 2008).

The University Grants Commission has drafted guidelines for creation of awareness and management of IPR in the university system in India. These policy frame work and guidelines provide broad insights to the academic and technical institutes in addressing IPR issues, however, there are no explicit considerations of the nature of IP ownership between researchers and the faculty. (www.UGC.org)(Gupta V. , 2006) discussed several practical features of the management of intellectual property rights (IPR) from the point of view of R&D scientists of such publicly funded R&D institute. The capacity building in IP management is a natural course of action, which needs to be emphasized for technical institutions and publicly funded institutions. (Saha R. , 2005)

The most appropriate ownership model for universities, it is expected that revenue generated from the university IP could be used to fund new research work at the universities. (Ramli, Raslibah & Zainol, Zinatul Ashiqin, 2014)

The purpose of this study was to determine the level of knowledge, among university professors, about copyright problems related to e-learning activities. Thus the conclusion indicates that the law was reformed without any discussion with those truly engaged in online teaching. (Carlos Fernandez-Molina, J, Muriel,E., Viver-Gracia, J., Riera, P., & Martin, O, 2011).

Librarians role in copyright protection and related IPR issues :

The librarian-interview results indicate that students' problematic behaviors included systematic downloading, distribution to unauthorized users, and going beyond the purpose and character of academic use. (wu, H.C., Chou, C., Ke, H.R., & Wang, M.H, 2010)

Librarians are duty bound to university students and staff work with information on different tasks. Discussed copyright literacy of Czech students of library and information faculties and their attitudes toward this topic. This research identified the importance of the copyright topic for librarians (89.9%) and its inclusion in the LIS curriculum (61.3%). (Kovarova, 2019)

The objective was to identify the main differences and similarities in knowledge of the basic matters of copyright literacy among faculty, students, and librarians. The results indicated that essential mistakes and misunderstandings are shared by all three sectors. (Fernandez-Molina, J.C & Muriel-Torrado,E., 2018)

IPR Issues in Engineering Faculties of University and affiliated colleges:

The proposed work will involve extensive research on the awareness study of IPR among the engineering faculties including the Librarians of Engineering Colleges affiliated to

RTM Nagpur University, Nagpur. There are Engineering colleges affiliated to Universities consists of number of departments like Civil engineering, Mechanical engineering, Electrical, Electronics and Telecommunication Engineering etc.

An investigation into the attitudes of the users towards information use would reveal how far the users are psychologically favourable to the process of use of information sources on IPR. Professionals without copyrights awareness could not claim remuneration. The development of a vibrant IPR culture in knowledge creation, application and dissemination, all of which are connected with market demand and rewards. So, users are required to be motivated and educated to achieve the desired objectives related to IPR.

Now the faculties are more aware about IP environment and large number of patents and copyright is being produced by the faculties affiliated colleges.

Research Gap Identified :

The literature on awareness of faculty of engineering colleges are now available to some extent. But the studies are few in India and dealt in isolation. So many engineering colleges are affiliated to many universities and by conducting the awareness study of IPR elements among different faculties will generate valuable information to know the IPR knowledge and awareness for the better management and protection of IPR from the faculties. After the literature review and research gap identification the areas for further research is contemplated to achieve IPR management.

Future areas of research :

From the literature it is observed that the creation of IPR and its management is both complex and interesting issue to all the stake holders and need to be addressed on priority. Herein, the few issues within the IPR and its management are identified, which may require further research exploration.

1. Socio economic aspects of IPR Awareness.
2. Copyright in the digital era and extent of infringements by Libraries of Academic institutions especially engineering colleges.
3. IP courses at engineering colleges will aid growth and focuses on the economic and strategic aspects related to IPR.

Conclusion :

In this chapter an attempt is being made to review the literature on IPR and related issues like creation, maintenance and protection of it discussed in detail. It is felt that that further research is needed in studying a mission based on Copyright in the digital era and extent of infringements by Libraries of Academic institutions especially Engineering colleges. IP course curriculum will aid growth and focuses on the economic and strategic aspects related to IPR and Socio economic aspects of IPR Awareness in Engineering colleges. Librarians often act as copyright experts at their institutions and thus must have an awareness of copyright law and practices. So IPR awareness and its management are addressed earnestly.

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