

A Study on innovative approaches to managing Intellectual Property and commercialization initiatives for broad societal benefit by Academia and Universities

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Abstract

Intellectual property rights (IPRs) are being introduced or strengthened in developing countries such as India as a result of increasing international agreements such as the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) of the World Trade Organization (WTO). The paper focuses on managing intellectual property, and innovation in Universities and collaborating in business environment.

Intellectual property (IP) can be defined as a category of property that includes intangible creations of the human intellect. Intellectual property encompasses two types of rights; industrial property rights (trademarks, patents, designations of origin, industrial designs and models) and copyright.

The main purpose of intellectual property law is to encourage the creation of a large variety of intellectual goods. To achieve this, the law gives people and businesses property rights to the information and intellectual goods they create – usually for a limited period of time. This gives economic incentive for their creation, because it allows people to profit from the information and intellectual goods they create. These economic incentives are expected to stimulate innovation and contribute to the technological progress of countries, which depends on the extent of protection granted to innovators.

The present paper aims at exploring innovative approaches conducted by a web-based survey to managing IP and technology commercialization initiatives for broad societal benefit by academia and research institutions as a channel for transferring knowledge and technology.

Key words: Innovative approaches, Intellectual Property, technology commercialization, academia .

Introduction

Universities and research institutions seeking to collaborate with industry or other organizations need a defined policy for effective intellectual property (IP) management and transfer of knowledge. Intellectual property (IP) plays an essential role in the teaching and research functions of universities.

An IP policy provides structure, predictability, and a beneficial environment in which enterprise and researchers can access and share knowledge, technology and IP.

The intangible nature of intellectual property presents difficulties. Balancing rights so that they are strong enough to encourage the creation of intellectual goods but not so strong that they prevent the goods' wide use is the primary focus of modern intellectual property law

Using a difference-in-differences approach, we study how intellectual property right (IPR) protection affects innovation in India. Gupta, K. (2018). FRAND in India: Emerging developments published a paper and wrote there is an ongoing debate about the intellectual property rights (IPRs) policies of major standard setting organisations (SSOs) and how the licensing disputes related to Standard Essential Patents (SEPs), subject to fair reasonable and non-discriminatory (FRAND) licensing commitments should be resolved.

Innovation: Management, Policy & Practice, journal published a paper presenting, where in increasing expectations have been placed on enhancing government-sponsored research and optimizing the potentials of intellectual property (IP).

Despite variations in research capacity, economic environments, technology and industry relations, these examples suggest that with the right combination of policies, management support, people and partnerships, it is possible to enhance the public mission by careful management of IP and the technology commercialization process.

Intellectual Property Policies for Universities and research institutions seeking to collaborate with industry or other organizations need a defined policy for effective intellectual property (IP) management and transfer of knowledge. Intellectual property (IP) plays an essential role in the teaching and research functions of universities.

Scope and Objectives

To identify ownership of and right to use the IP resulting from the institution's own R&D activities

To evaluate and manage IP for its further development, through commercialization.

To provides a framework and guidelines for cooperation with third parties.

Literature Review

An IP policy provides structure, predictability, and a beneficial environment in which enterprise and researchers can access and share knowledge, technology and IP. IP and applied research, through their R&D activities, universities are primary source of innovations. Many of these inventions are, have their concepts to be proved or laboratory-scale prototypes, which require research and development before their commercialization. By granting universities rights to their own IP derived from publicly-financed research, and allowing them to give their results to companies, governments are realising world over and are trying to accelerate the transformation of inventions into industrial processes and products, and at the same time strengthen collaboration ties amongst universities and industries.

Bhat, S. R. (2018). Innovation and intellectual property rights law—an overview of the Indian law. The present article provides an overview of the various laws dealing with innovation and intellectual property rights in India. In India, the many facets of intellectual property rights are dealt with in particular legislations enacted by the Parliament. These legislations operate within the overarching guarantee of the right to property provided by the Indian Constitution. While providing brief insights into the law of patents, copyrights, trademarks, designs, and remedies for violation of these rights, the article also covers questions relating to the inter-section of these rights in practice. Where appropriate, the article also refers to seminal judicial decisions on these areas of law.

Fang, L. H., Lerner, J., & Chaopeng Wu. (2017). Intellectual Property Rights Protection, Ownership, and Innovation: Evidence from China. This paper depicted Using a difference-in-differences approach, we study how intellectual property right (IPR) protection affects innovation in China in the years around the privatizations of state-owned enterprises (SOEs). Innovation increases after SOE privatizations, and this increase is larger in cities with strong IPR protection. Our results support theoretical arguments that IPR protection strengthens firms' incentives to innovate and that private sector firms are more sensitive to IPR protection than SOEs.

Universities and their faculties, through their teaching activities will generate IP, such as notes, case studies, teaching materials, thesis, learning outcomes, specific software or designs. New technologies and increased usage of web and internet have given greater access to scholarly materials, but also greater conflicts over their ownership and use. Today, universities and colleges need adequate IP policies to deal with the proprietorship / ownership and use & management of learning / teaching materials, access to research information and use of published materials.

Chen, Y., Bharadwaj, A., & Goh, K.-Y. (2017). An Empirical Analysis of Intellectual Property Rights Sharing in Software Development Outsourcing. The paper projected Software development outsourcing (SDO) contracts are plagued with ex post opportunism and underinvestment problems. Property rights theory (PRT) argues that appropriate property rights allocation between vendors and clients can reduce opportunism and incentivize relation-specific investments. We conduct an in-depth content analysis of 171 real SDO contracts and empirically examine how project attributes and contract parties' bargaining power affect the allocation of intellectual property rights (IPR). We find that clients retained more IPR when software development was modularized whereas they shared more IPR with vendors in contracts that incorporated greater use of a vendor's proprietary software. Greater levels of task complexity were associated with more IPR sharing with vendors. We also find that the responsiveness of IPR to project attributes varied across the different types of intellectual assets.

Payumo, J., Gang, Z., Pulumbarit, E., Jones, K., Maredia, K., & Grimes, H. (2012). Managing intellectual property and technology commercialization: In this paper, comparison and analysis of practices, success stories and lessons learned from public research universities in developing Asia. Increasing expectations have been placed on enhancing government-sponsored research and optimizing the potentials of intellectual property (IP) - one of several channels for transferring knowledge and technology - by academic and research institutions for economic development opportunities. This paper presents three case studies from public research universities in developing countries in Asia - China; India; and the Philippines - which offer innovative approaches to managing IP and technology commercialization initiatives for broad societal benefit. Despite variations in research capacity, economic environments, technology and industry relations, these examples suggest that with the right combination of policies, management support, people and partnerships, it is possible to enhance the public mission by careful management of IP and the technology commercialization process. These cases are purposely drawn to acknowledge the effort of the three universities as early examples that IP management and technology commercialization programs can work and can be done by government-funded institutions in developing countries; to share and learn from their success and experiences; and to catalyse similar efforts throughout developing Asia.

Traditionally and historically, universities served the community by hosting students and producing graduates to meet industry needs and business in the area. Nowadays with renewed focus, universities are publishing results of their constant research activities, making the learning outcome and recommendations freely available for all stakeholders. Nowadays, this may be a conflicting view and considered incompatible with industry's need to keep information confidential and protected by IP rights, such as patents. Rapid technological innovation & increased globalization requires universities to be open to commercialisation and international collaboration. In Retrospect ensuring that research results are effectively protected and managed, by making effective use of the IP system.

Identifying, in a structured and policy driven universities, creating IP and bringing finding and research results to the next stage of development have become institutional objectives. It is relevant in this context; an institutional IP policy is a prerequisite for long-term and binding collaboration between academia and business partners.

Research Methodology

Descriptive research was adopted for the study. The data was collected at a single instance, as a snapshot and processed for analysis. Additionally, Quantitative research methods were applied to analyse the data statistically. The quantitative research designs used are correlational in nature. Statistics derived from this quantitative research was used to establish the existence associative or causal relationships between variables

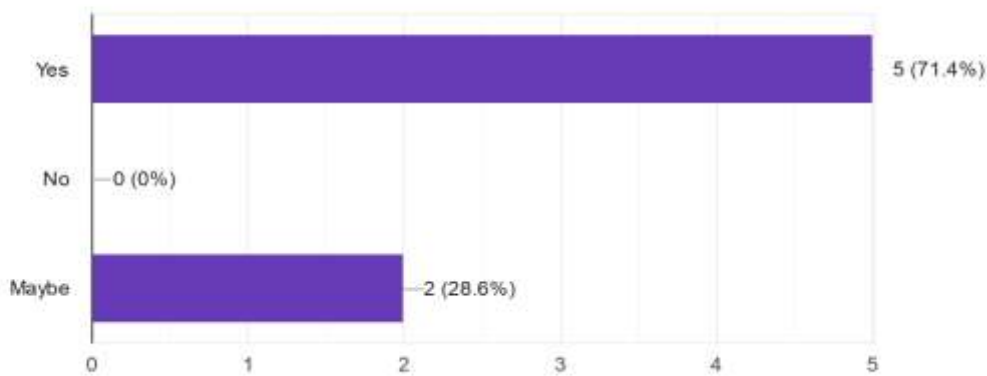
The sampling method used was Purposive sampling.

Data Collection and Data Analysis

The data was collected from seven universities in Pune. Primary data was collected from Universities using the questionnaire method. The questionnaire was framed and checked whether it was understood by the respondents in the Universities. To aid in the statistical analysis of the data collected, most of the questions were close ended.

Are the employees in University/colleges aware of the definition of Intellectual Property management.

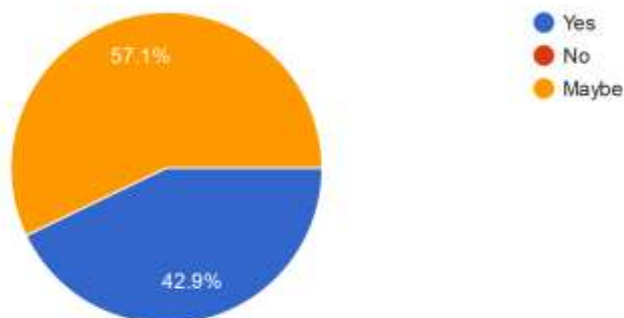
7 responses



Majority of the Universities / colleges, 72% of the employees are aware of the definition of Intellectual Property Management and 28% were not aware of Intellectual Property.

Does the University foster an innovation-minded culture and are employees made aware about IP

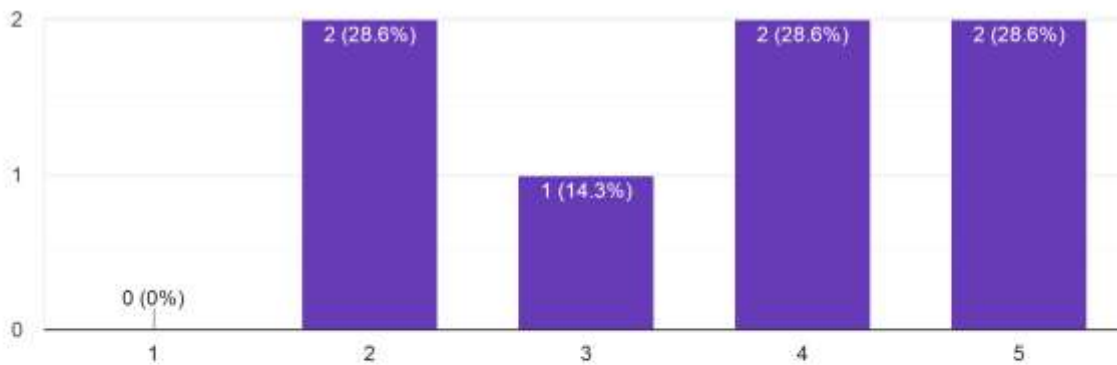
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More than half of the Universities/colleges foster innovation in their campus and employees were aware about Intellectual Property.

Does the university implement and effectively use consistent IP processes, such as invention disclosure and patent marking?

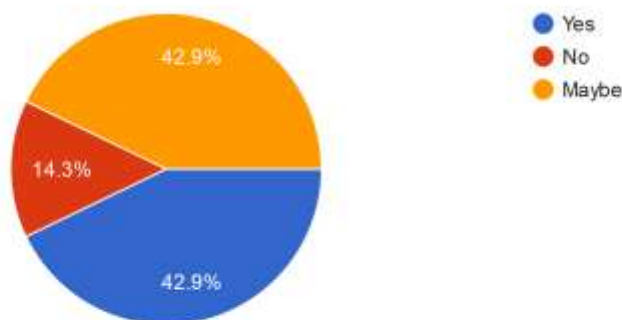
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The universities/colleges, more than 50% strongly believe that they implement and effectively use consistent IP processes, such as invention disclosure and patent marking. A third of universities feel they are not effectively implementing IP processes.

Does the university employment contracts include proper non-disclosure and IP assignment clauses?

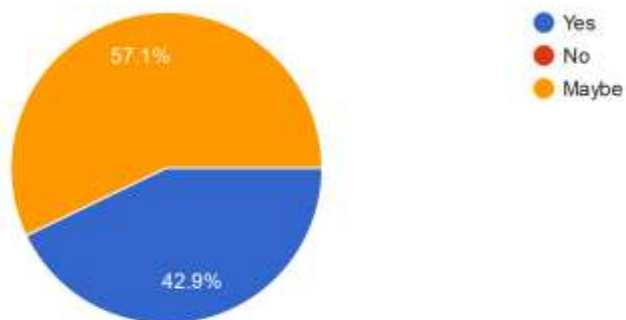
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Majority of universities 43% have in employment contracts proper, non-disclosure and IP assignment clauses and an equal number of universities do not have it in their employment contract.

Does the university have consistent and safe, secure and reliable portfolio management processes?

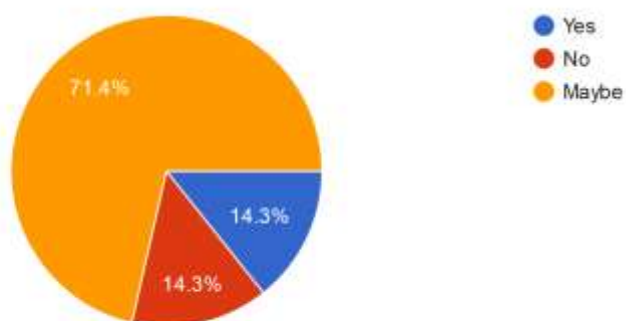
7 responses



More than 50% Universities felt that they needed to have a better and safe, reliable portfolio management processes and 42% universities felt they did not.

Does the university/college have a planned filing strategy to maximize value of the IP?

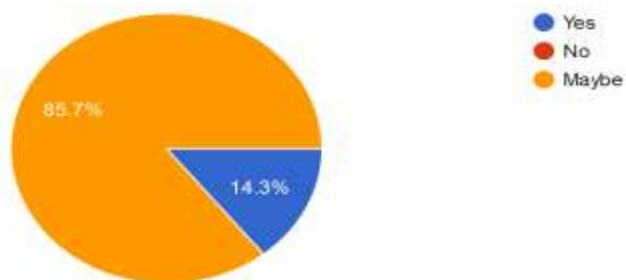
7 responses



Majority of Universities ,71% have a moderately planned filing strategy to maximize value of the IP and others need to have a better policy.

Does the university/college regularly review its' IP portfolio to recognize "crown jewels"?

7 responses



Majority of Universities recognise the need to review its IP portfolio as crown jewels.

Conclusions

Majority of the Universities / colleges, 72% of the employees are aware of the definition of Intellectual Property Management and 28% were not aware of Intellectual Property.

More than half of the Universities/colleges foster innovation in their campus and employees were aware about Intellectual Property.

The universities/colleges, more than 50% strongly believe that they implement and effectively use consistent IP processes, such as invention disclosure and patent marking. A third of universities feel they are not effectively implementing IP processes.

Employees should know how to avoid unintentional loss of IP. Incentive programs can be a great way to motivate and reward employees to disclose the IP they create and an internal representative should have a clear mandate to devote the necessary resources and time to manage IP.

The universities/colleges, more than 50% strongly believe that they implement and effectively use consistent IP processes, such as invention disclosure and patent marking. A third of universities feel they are not effectively implementing IP processes.

Ensure the university/college's portfolio is always due-diligence ready, while tracking the cost of each application and recording all assignments at filing.

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Majority of Universities ,71% have a moderately planned filing strategy to maximize value of the IP and others need to have a better policy.

The university/college should proactively watch the IP filings of their competitors and find new competitors using the IP databases. This can provide valuable industry intelligence in determining their directions. It will also help define the best filing strategy (jurisdictions).

The university/college should establish contingency plans ahead of time, such as planning for design-around or building in potential licensing fees in the pricing.

An IP check-in gate in the product development processes can ensure a decision is made on what needs to be protected, including patents, trade secrets, industrial designs and trademarks.

Ensure the university/college's portfolio is always due-diligence ready, while tracking the cost of each application and recording all assignments at filing.

Finding and Recommendation

- Institutional IP policy is a formally-adopted document, which:
- clarifies the ownership of and right to use the IP resulting from the institution's own or collaborative R&D activities;
- sets out the rules of the institution on how to accurately identify, evaluate, protect and manage IP for its further development, usually through some form of commercialization; and
- provides a transparent framework for cooperation with third parties and provides guidelines on the sharing of economic benefits arising from the commercialization of IP.
- Without a formal document regulating the ownership and use of IP rights, the different stakeholders in a university/PRI (professors, researchers, students, visiting researchers, etc.) and commercialization partners (industrial sponsors, consultants, non-profit organizations, SMEs, or governments) would have no guidance on how to make decisions concerning IP.
- Patents, trade secrets, industrial design and defensive publication should all be taken into consideration when evaluating a new invention to file. Create a revenue source by divesting assets which are no longer core to the business.

Main goals of an IP policy:

- Provide legal certainty.
- Promote scientific research and technological development.
- Encourage researchers to consider the possible opportunities for exploiting an invention so as to increase the potential flow of benefits to society.
- Provide an environment that supports and encourages innovation and development.
- Balance the various conflicting interests of universities, industry and society.
- Ensure compliance with applicable national laws and regulations.

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