An Overview of Intellectual Property Management for Academic Driven Start-ups

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Abstract

The academic-driven start-ups emphasize the significance of venture creations and commercialization of innovative ideas of academic students and faculties. The essential components of an academic start-up include access to innovative research or technology, incubator centres, capital funding, facilities and infrastructure provided by academic institutions, awareness of entrepreneurial initiatives, capacity development, and market reach.. Intellectual property management (IPM) plays a significant role in start-ups by safeguarding innovation, technology, and its global commercialization. This article focuses on the introduction of academic start-ups, their key sectors, financial status, and growth, and various government initiatives to support start-ups. This study also gives insight into the role of IPM in academic start-ups, their backgrounds, challenges and future goals of IPM, and the significance of academic start-ups, their limitations, and their strengths.

Keywords: Academic start-ups, innovation, intellectual property management, incubation centres and venture creation.

1. **Introduction**

In recent years, there has been a notable emergence of academic-driven start-ups, supported by the convergence of academic research, entrepreneurial talent, and supportive ecosystem initiatives.[1] To fulfil the business demands and societal issues, these start-ups have brought forth impactful cutting-edge technology, creative solutions, and intellectual property developed within academic institutions.[2] The start-ups often draw on research, technology, or educational innovation to address various challenges and contribute to economic development by creating new industries, generating employment opportunities, and attracting investments both domestically and internationally.

In India, there has been a growing trend of start-ups emerging from academic institutions or focusing on academic-driven solutions.[3] The start-ups in the Ed-Tech sector, for instance, revolutionize education delivery and accessibility, democratizing learning opportunities and improving educational outcomes. Additionally, these can create encouraging conditions for other individuals to pursue innovation and entrepreneurship and support start-ups framework to thrive and grow. With the rise of technology transfer offices (TTOs), incubators, and industry-academia collaborations, the academic-driven start-ups have gained access to mentorship, funding, and commercialization support, enabling them to translate research discoveries into viable business ventures.[4] It also enables the distribution and commercialization of discoveries for the benefit of society by facilitating technology transfer, licensing, and collaboration between inventors, academia, industry, and other stakeholders.

A number of government policies are also dedicated to support higher education institutes to develop new innovative ideas and their commercialization.[5] The national start-up India initiative focused to provide support to the academic start-ups in three stages; first is initiation of faculty, student or institute based innovation-based start-ups, the second is growth of pre-existing start-ups, and third stage is support in regulation, management of IP management of these enterprises.[6] The 'National Student and Faculty Start-up policy 2019' is one of the government

policies in the country which support the creative ideas and IPM managements of their ownership for the free enterprise opportunities and start-ups involving students and faculties.[7]

Furthermore, IP protection is essential for the academic-driven organizations and start-ups to keep their inventions from unauthorized use or replication ensuring they retain exclusive rights to their patents and other intellectual property assets. It also helps start-ups in confidently market their products from a position of leverage in joint ventures and partnerships. Moreover, the IP management provide a framework for safeguarding original works, and elevate hindrances for competitors, maintaining the start-up's economical edge.[8]

The IP protection promotes collaboration of academic institutions and industries and allows transfer of technology for the benefit of society[9]. Hence, an efficient IP asset management promotes economic expansion and encourages innovation in both the academic community and the larger economy. Through a strong intellectual property management strategy, start-ups like Google established its dominance in the search engine market.[10] Similarly, Nvidia by Stanford researchers, became a leader in gaming, and data centres by utilizing patents related to GPU technology.[11] The strategically management of its IP in biopharmaceuticals such as Biocon Limited, established in India, was able to expand into a multinational biopharmaceutical corporation.[12] These examples demonstrate importance of intellectual property management (IPM) strategies for academically motivated start-ups support in protecting innovations, promoting commercialization, and attaining market leadership. The Department of promotion of industry and internal trade (DPIIT) also works as a nodal agency to provide the seed funding to grow incubation centres into start-ups (Figure 1).

Figure 1: Showing seed fund distribution to the government recognized startups through incubators from DPIIT. [13]

Lately two years, the number of DPIIT-recognized start-ups has increased at a rate of more than 35%, spanning more than 670 districts nationwide and 57 diverse industries (Figure 2).[14]

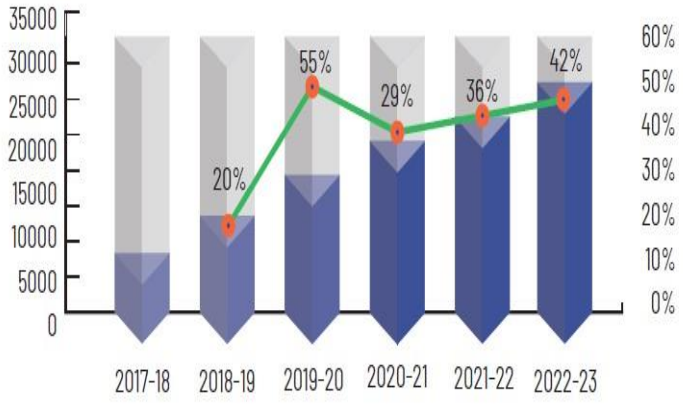

Figure 2: Displaying the number of DPIIT-recognized start-ups and increment in their growth percentage over the years from 2017-23.[14]

2. **Literature Review**

The government initiatives such as Start-up India, incubators, and venture capitalists play integral roles in fostering entrepreneurial endeavours and promoting intellectual property (IP) commercialization within India's startup ecosystem. The background study highlights brief knowledge about startup ecosystem support, academic institutions in promoting Entrepreneurship. IP management and business strategy models, databases on Indian patents developed by patent facilitation centres (PFCs) and Academics and business incubators.

Startup Ecosystem Support: The support for IP management at Institutes of Eminence (IoE) highlightss the significance of IP in India. It emphasizes IP as a critical asset that empowering organizations, particularly academic and research institutes capable of generating diverse forms of IP. The IoEs in India, that are recognized as Institutes of National Importance (INIs), work in prioritizing IP management systems (IPMS). The paper employs an IPM audit model to analyse IP processes, aiming to optimize resource utilization and revenue generation through IP. [15]

The Role of Academic Institutions in Promoting Entrepreneurship: A Case Study of Indian Institutes of Technology (IITs)" (2019) highlights IIT Hyderabad's efforts in fostering innovation and entrepreneurship. It includes initiatives such as establishing the Centre for Innovation and

Entrepreneurship (CIE) and T-Hub, India's largest publicly funded incubator. The programs such as Avishkar and UTSAH stimulate the start-up in academics by facilitating translation of research into market solutions. Additionally, the Entrepreneurship Cell (E-Cell) organizes hackathons and prototyping events. Funding for early-stage startups is primarily sourced from Government of India programs like MIGHTY and BIRAC. Recognizing the role of university-based incubators (UBIs), the study explores their critical support and contribution to entrepreneurial activities among students.[16]

Recently, to enhance development of academic innovations the 'Triple Helix Model' has gain substantial attentions.[17] It describes as a network of connections that promote social and economic development between the government, business, and academics. According to this model the coordination among academic institutes, industries, and government to liberate growth and economic prospects associated with innovation in IP management. The strategic management of intellectual assets crucial for driving business strategy and competitive advantage Cela M., and Co-workers studied and analyse IP management and business strategy which reveals that IPM administers through three groups are follows.[18]

1. Facilitation of Innovation,
2. Optimization and management of portfolio and
3. Intellectual property monetization.

R. Tewari et al, in their book describes about Patent Facilitation Centres (PFC's) which functions as facilitator to assist in financial and techno-legal support in obtaining patents emerges from academic institutions start-up.[19] The book also provides idea about CD-ROM databases on Indian Patents developed by PFC such as Ekaswa-A, B, C: which compiles information on patent applications filed in India and published in the Patent Office Official Journal from January 2005 to June 2008, also the information on patent applications accepted and notified for opposition during the same period and published in the Gazette of India (Part III, Section 2) from January 1995- December 2004.

Academics and business incubators in Start-up ecosystem: Government initiatives like Pradhanmantri Laghu Udhyog Yojana 2016, India Aspiration Fund, Start-up India Learning Programme, and Mudra Yojana, promote startups with financial support and compliance

relaxations.[20] A Rs 10,000 Cr fund of funds disburses Rs 2,500 Cr annually to startups, attracting diverse investors.[21] University incubators and ecosystem players like TiE, NASSCOM, and iSPIRT bolster entrepreneurial maturity. Despite India's innovative potential and talent pool, many startups struggle due to market gaps and business model challenges, highlighting the need for robust market research and strategic planning to enhance their survival and success rates.[22]

3. **Methodology**

The objective of this study is to give a thorough analysis of academically motivated start-ups in India as part of the Start-up India initiative and Ministry of Education's Innovation Cell (MIC), focusing on understanding their landscape, key sectors, and stakeholders influencing the ecosystem.

An extensive literature survey and study of descriptive research designs such as product research, market research, competitor, financial and audience research under Start-up India initiative and MIC was done (Figure 3). The initial target was to understand the landscape of academic-driven start-ups in India. This implicates reviewing literature on entrepreneurship, innovation, and academic-industry collaboration in the Indian context. The goal is to identify key sectors (EdTech, Agritech, and Biotechnology) and stakeholders (academic institutions, incubators, policymakers) influencing the start-up ecosystem. The next step, involves data collection from descriptive study to provide a comprehensive overview of academic-driven start-ups including selection of representative start-ups from different sectors as case studies. These case studies allow for an in-depth examination of start-up experiences, strategies, and challenges faced in leveraging academic research for entrepreneurial ventures.

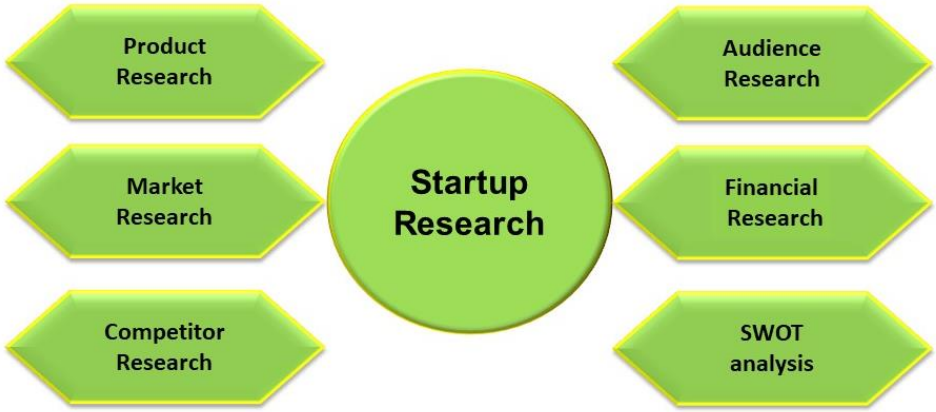

Figure 3: Illustrating the various kinds of research and analytic method essential for public surveys and literature reviews in approach for founding a startup.[23]

The quantitative data gathered through government surveys on funding sources, business models, technological innovations, market strategies, and perceived barriers to growth. In final step the responses are analyzed using statistics and correlation analysis such as SWOT (Strengths, Weaknesses, Opportunities, and Threats) to identify trends and patterns which provide insights into the dynamics of academic-driven startups. This methodology helps in identifying relationships between funding sources and startup growth, as well as regional inequalities in startup ecosystems across India.[23]

4. **Results and Discussion:** Academic start-ups play a vital part in introducing innovative knowledge and technology to the market and support revenue generation.[24] The startups encourage industry development and financial growth in addition to strengthening the economy.[25] A few of the several government policies and initiatives that support academic startups are covered in this section. Further, the role of IPM management, legal framework supporting fundings and promoting awareness has also been discussed, with the significance of academic start-ups including brief knowledge about their strength and weaknesses.

4.1.Government contributions for Startups: There are several initiatives, policies and programmes to enable development and evolution of academic driven start-ups, namely, Start-up India initiative, National Intellectual Property (IPM), Start-up intellectual property protection (SIPP), Technology Business Incubators (TBIs), technology incubation centres (TIC), Intellectual Property Facilitation Centres (IPFCs), Patent Facilitation Centres (PFCs), Start-ups Intellectual Property Protection (SIPP) Scheme and Scheme for Promotion of Academic and Research Collaboration (SPARC) and National Intellectual Property Management Programme (NIPAM).

a) **Start-up India Initiative**: This scheme was started by Indian Government (GoI), to encourage and support start-ups, including those originating from academic institutions, to

manage their intellectual property effectively. It helps fast-track examination of patent applications; provide financial assistance for patent filing fees, and subsidies for IP training. Through networking, the program encourages women to start their own businesses. As per the latest Start-up India national report, the number of women-led startups has increased by 4% in last five years as shown in figure 4.[5, 14]

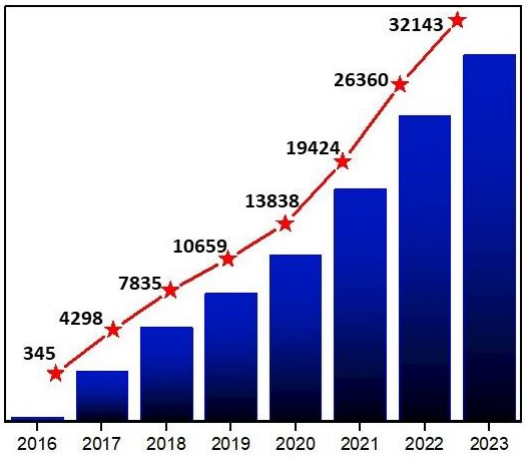

Figure 4: Depicting the progress in the number of women-led start-up in India between year 2016-2023 because of different government policies.[14]

b) **National Intellectual Property Management (NIPAM) Program**: Department of Science and Technology (DST) started this programme to build awareness and capacity in IPM management across academic and research institutions. The programme offers training, workshops, and resources to researchers, faculty, and startups to strengthen their understanding of IPM and its commercialization. It has achieved a record for the awareness of more than one million students and continuing.

c) **Patent Facilitation Centres (PFCs)**: These centres were established by Department of Science and Technology (DST) at Technology Information Forecasting and Assessment Council (TIFAC) for in-house support startups and small businesses in drafting patent specifications, filing patent applications, and navigating the patenting process. It includes workshops, seminars, and advisory services, understanding of patent law and procedures.

d) **Academia-Incubator centres:** The innovation cell includes faculties and students, and they work to promote innovative ideas of students. These centres assist in creating business

ventures by using these particular ideas, providing commercial exposure to the students. Space technology incubation centres (STIC), established by ISRO in the various (North, South, East, West and North-East) regions of country is a brilliant example of the programme.[26] The incubator programme support developing a premature intellectual property to a successful business endeavour. Their aim is to provide access to research facilities, industry networks, and funding opportunities, as well as support services for IP management and commercialization.

e) **Start-ups Intellectual Property Protection (SIPP):** This scheme was initiated by intellectual property India (IP India) to protect intellectual property management such as patent, trademark and design protection for interested start-ups, in India and abroad. This also helps start-ups to financially secure their IP assets.[6]

f) **KAPILA Scheme:** It is abbreviation of 'Kalam Programme for Intellectual Property Literacy and Awareness', launched by MIC and executed by AICTE, Ministry of Education Innovation Cell.[27] The scheme Gives funds for of the academic institutes to file patent applications and also generate awareness for securing IP and significance of IP filing, specifically focusing to the academic institutions and universities. With this scheme a funding support 5600 INR per application is given for patent filing, it also provides courses on intellectual property right for undergraduate to doctorate students, and facilitate the patents for revenue generation. Under the scheme 40 applications per institute can be aided financially for patenting the inventions, and to encourage the students towards intellectual property management.

4.2. IP management Framework for Academic start-ups: It comprises an approach for managing and capitalizing the intellectual property assets within the organizations**.** The first step involves identifying IP assets by reviewing the research outputs including patented and non-patented literature such as scientific articles, chapters or journals, collaboration with researchers to identify potential IP assets. The utilization of technology transfer offices to rationalise IP management and protecting the non-patentable assets like copyright and trademark, evaluation of commercial potential based on market demand and competition. Secondly, the IP protection strategy includes patenting novel and innovative inventions, providing exclusive management for commercialization. The grant for additional ownership management, such as the authority to

legally govern intellectual property assets, agreements, and licenses that allow use in exchange for terms and compensation.[28]

Challenges in IP Management: IP management for academic startups can present several challenges due to the nature of academic research and the subsequent transition to commercialization. Addressing these challenges often requires a combination of legal expertise, strategic planning, collaboration with industry partners and access to funding, and support from academic institutions or incubators that specialize in supporting startup ventures. The main obstacle for academic start-ups is particularly in determining ownership when multiple researchers or institutions are involved. The memorandum of agreements and policies are essential to establish ownership management and ensure proper protection of intellectual property assets. Further the limitations in financial resources, which can impede academic startups' ability to secure and enforce intellectual property management. Processes such as patent filing, maintenance, and legal defence can be costly and time-consuming, straining the limited budgets and delaying commercialization efforts. As per the national report 2022 of Start-up India Initiative, the quantitative feedback data on awareness in various startup state policies and programmes reveals that 57% startups were aware about them, and only 48% of them have knowledge of various financial support provided to them (Figure 5).

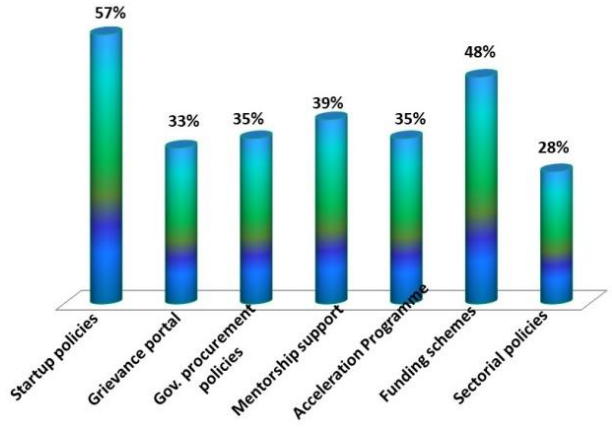

Figure 5: The percentage data of quantitative feedback collected from various startups exhibiting their awareness on state strategies and platforms.

Additionally, the lack experience in commercializing their inventions, including crucial aspects like market analysis, product development, and forming strategic partnerships in academic

startups can create barrier in successful transition of innovations from the lab to the market. The industrial collaboration of partners or investors is vital for scaling up academic startups, it can introduce challenges related to intellectual property ownership, control, and decision-making. Finding the right partners and negotiating mutually beneficial agreements can be complex and time-consuming. Further, the financial hurdles for academic startups encompass various costs associated with managing intellectual property management, including patenting, enforcement, licensing fees, market entry, valuation, sustaining partnerships, and regulatory compliance. To overcome these challenges, startups often explore alternative funding sources and cost-effective strategies for IP management and commercialization. (example of IPM in academic institutions such as IIT Delhi is given in appendices Table 1)

Future Prospects and Goals: To enhance IP management in academic-driven startups in India, sufficient number of training programs and IPM consulting agencies must be established within academic institutions. These initiatives can give the researchers guidance on IPM fundamentals, patent drafting, and commercialization strategies. Additionally, facilitations for innovation and technology transfer collaboration and creating open-access platforms can be promoted more. For technology commercialization and entrepreneurship the collaborations between business and academia can be enhanced more to foster a suitable environment for startups. Furthermore, the opportunities for improving IP management include establishing clear IP policies and processes, encouraging collaborative research agreements, and strengthening technology transfer offices. Access to funding, resources, and networking opportunities should be facilitated to support startups in investing in IP protection and leveraging external expertise. Legal and advisory support from IP experts can also aid startups in navigating the complexities of IP law and making informed decisions regarding their IP management strategies.

4.3.1. Significance of Academic start-ups: The academic driven startups allow a vast network of research ecosystems (students and faculties) that exists within higher education institutes, an opportunity to grow within the system itself before aspiring entrepreneurs may provide funding to transform them into enterprises. These include:

- Agritech Innovations: the start-ups like *AgroStar* and *CropIn* are involving academic research and technology to improve agricultural productivity and efficiency through data analytics, AI, and IoT.
- Healthcare and Biotechnology: Companies focusing on innovations like tissue engineering and personalized medicine such as *Pandorum Technologies* and *Mitra Biotech* are implying academic research in genetic engineering and healthcare.
- EdTech Platforms: Some educational startups like *Byju's* and *Unacademy* have altered the education sector in India. These startups have provided online learning solutions, often integrating academic research in schooling and adaptive learning.
- Sustainable energy Solutions: There are some academic-driven startups working for the production renewable energy, such as *ReNew Power*, is helping to create sustainable energy using renewable sources such as solar, wind, and water.
- Artificial Intelligence and Data Analytics: the enterprises such as *SigTuple* and *Mad Street Den* are exploring academic expertise in analysing data and generating artificial intelligence for several community uses in healthcare diagnostics and retail, respectively.
- Space Technology: *TeamIndus* (now part of Bellatrix Aerospace) work as a start-up which has emerged from academic backgrounds, focusing on satellite technology and space exploration.
- Social Enterprises: the academic-driven startups in social sectors, such as *Agastya International Foundation*, focus on education and scientific literacy among underprivileged communities, using academic insights in education research.
- Fintech: a Few startups like *MobiKwik* and *Razorpay* are leveraging academic research in finance and technology to provide innovative payment solutions and financial services.

(A comparative study of start up's in different sectors and their market value from 2022-24 is given in Table 2 appendices)

4.3.2. The strength and weakness of academic driven startups: The startup India is the primary mission of the government which solely aimed to form a robust environment for nurturing innovation. It's prime focus is sustainable development of country's economy by reducing the unemployment and generates a large number of opportunities. The strengths of

academic start-ups involve the new and innovative research ideas developed by students, faculties and the accessible resources, infrastructure available in academic institutions as shown in figure 6. Further, on an academic level, the research ideas for the complete and proper use of the funds are well established. The intellectual ideas that are formed in academics are raw, and they serve a long-term goal. The research and development funding required for these technical innovations is much less than what is needed at the industrial level; therefore, the seed money is easily available for them.

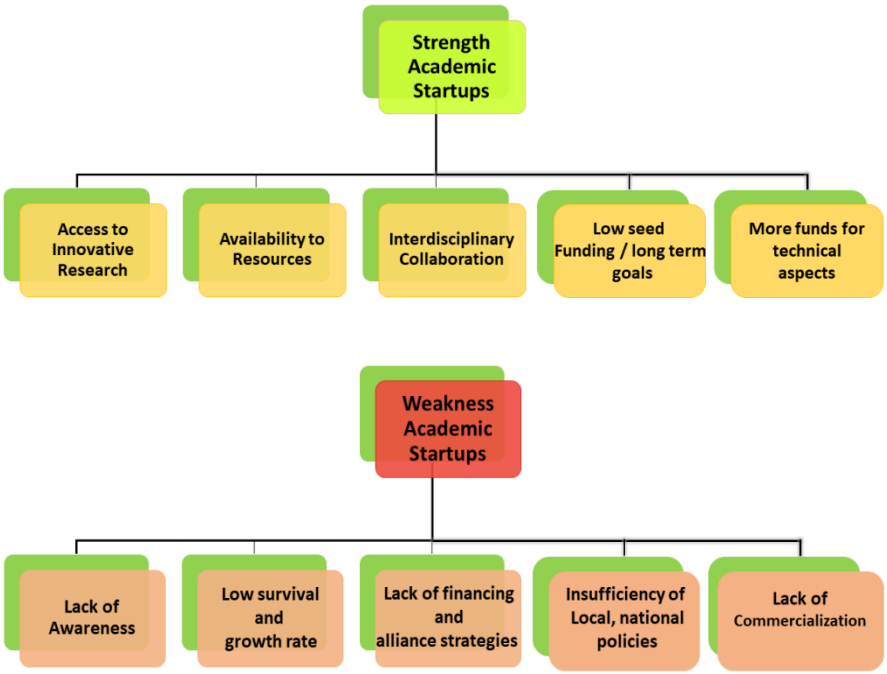

Figure 6: Presenting the different aspects of strengths and weaknesses existed in various academic driven start-ups.

The academia-driven start-ups in India often face significant challenges that can hinder their growth and success. Mostly these are frequently struggle with translating academic research into commercially viable products or services and also encountering difficulties in navigating market demands and commercialization processes. The other hurdle is insufficient market knowledge, lack essential business skills and industry experience, which impacts their ability to scale effectively and secure necessary funding. Moreover, these weaknesses require academia-driven start-ups to collaborate closely with industry mentors, acquire business insight, and adapt quickly

to market dynamics to thrive. (A business model study of Ed-Tech start-ups (Byju's and Unacademy's) and their success and failures are given in Table 3 appendices)

5. **Conclusion**

In conclusion, effective management of intellectual property is crucial for academic-driven start-ups to translate research innovations into commercial success. By implementing tailored training programs, establishing IP management companies, fostering cross-disciplinary collaboration, strengthening industry-academia partnerships, advocating for policy reforms, facilitating international collaboration, and developing standardized evaluation metrics, India can create an enabling environment for start-ups to protect, manage, and benefit from their intellectual property effectively. With these initiatives, academic-driven start-ups can drive innovation, entrepreneurship, and economic growth, contributing to India's position as a global leader in research and technology development. There is an immense need of comprehensive policies and practices to support start-ups for protecting, managing, and leveraging their intellectual property effectively. Additionally, the research is essential to evaluate the impact of the government and non-government initiatives on start-up success, economic growth, and societal benefit, informing future policy development and best practices in IPM. The main goal of intellectual property management is to support the implementation and commercialization of novel, innovative, and economically beneficial intellectual property ideas related to the research performed by different academic institutions for revenue generation through industries.

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Appendices

1. The Intellectual Property (IP) management practices at IIT Delhi are described in table 1:

Table 1: Illustrates IIT Delhi's IP management administration process

Foundation for Innovation and Technology Transfer (FITT):	- Organizing IP awareness programs and coordinating IPM Standing Committee meetings. - Managing IP registrations and reviewing IP cases. - Assisting faculty, students, and staff in IPM application activities. - Coordinating with inventors for IP commercialization.
Industrial R&D Unit (IRD):	- Managing financial aspects of IP registrations and maintenance. - Administering IP transfers under FITT's guidance. - Signing IPM documents, with Dean (R&D) or Lead Inventor as competent authorities.
External IP Management Context:	- The Rajiv Gandhi National Institute of Intellectual Property Management at Nagpur serves as a center of excellence for IP training, research, and policy analysis in India.
IP Management Activities:	- Activities encompass innovation support, portfolio management, and IP exploitation, crucial for enhancing productivity and ensuring equitable outcomes.

2.In start-up frame work the unicorn start-up plays a vital role to boost the economy of a country, these are major player in reshaping the market and open up new opportunities, a few examples of these unicorn start-ups, related market sector and their entry values ($ billion) since January 2022 to May 2024 is listed in table 2.

Table 2(source Forbes India, Unicorns in India: List of start-up companies with unicorn status in 2024**)**

S.N.	Company	Sector	Market Turnover ($B)	Entry Year
1	Porter (New)	Logistics	1	May-24
2	Perfios	Fintech	1	Mar-24
3	Krutrim	Enterprise applications	1	Jan-24
4	InCred Finance	NBFC	1.04	Nov-23
5	Zepto	Quick commerce	1.4	Aug-23
6	Molbio Diagnostics	Healthtech	1.53	Sep-22
7	ShIPMocket	Aggregator	1.23	Aug-22
8	OneCard	Fintech	1.3	Jul-22
9	Leadsquared	SaaS	1	Jun-22
10	Purplle	E-Commerce	1.1	Jun-22
11	PhysicsWallah	Edtech	1.1	Jun-22
12	Open Financial Technologies	Fintech	1	May-22
13	Games24x7	Gaming	2.5	Mar-22
14	Oxyzo Financial Services	Fintech	1	Mar-22
15	Amagi Media Labs	SaaS	1	Mar-22
16	CredAvenue	Marketplace	1.3	Mar-22
17	Hasura	SaaS	1	Feb-22
18	Uniphore Software Systems	SaaS	2.5	Feb-22
19	XpressBees Logistics	Logistics Services	1.2	Feb-22
20	LivSpace	Interior Design	1.2	Feb-22
21	ElasticRun	Logistics Services	1.4	Feb-22
22	Polygon	Web3 Infrastructure	10	Feb-22
23	DealShare	E-Commerce	1.62	Jan-22
24	DarwinBox	SaaS	1	Jan-22

Table 3: Academic start-up, Unacademy and Byju's comparative study of business model

	Unacademy	Byjus
Establish	• 2010: Unacademy started as educational youtube channel by Gaurav Munjal. Later joined by Roman saini • 2015: Started online education portal launched as unacademy.com	• Byjus started teaching locally for CAT student in year 2003 • In 2015, BYJU's finally launched The Learning App • Google Play India rating awarded "Best Self Improvement app award" to Byju's in year 2016 • Byju's focused on Kids and connectivity with their Parent to regulate performance of kid's learning that became a business case at Harvard Business School in year 2017 • In year 2018, Byju's became world's most valuable ed-tech company with15 million users and 900,000 paid users 2019
Founder and Co-founder	• Gaurav Munjal • Roman Saini • Hemant Singh • Sachin Gupta	• Byju Raveendran
Industry type	• Offers online courses for Competitive exams like UPSC, PSC, SSC, Bank, GATE exams	• Provides School Level Courses
Investment Partner	• Vijay Shekhar Sharma • Kunal Shah • Binny Bansal • SAIF Partners • Nexus Venture Partners • Blume Ventures	• 2013 Aarin Capital • 2015 Sequoia Capital, InnoVen Capital • 2016 Lightspeed Venture Partners, Sequoia Capital, Innoven Capital, Sofina Group, Aarin Capital, Times Internet, Chan Zuckerberg Initiative, International Finance Corporation • 2017 Verlinvest, Tencent • 2018 General Atlantic, Naspers, Canada Pension Plan Investment Board • 2019 General Atlantic, Tencent, Qatar Investment Authority, and

		Owl Ventures • 2020 Bond, DST Global, General Atlantic, Silver Lake, Tiger Global, Owl Ventures • 2021 B-Capital Group, Baron Capital, Arison Investments, XN Exponent Holding,
Business Structure	• Unacademy educator earns money but not like monthly salary • Paid only if you achieve a milestone like there are milestones for 500 views and then 1000 views and so on.	• BYJU's business model relied upon new and innovative sales approach. The sales associates of Byju's visited regularly to their potential customers home across India for career counseling. • celebrities were approached to advertise and lure the targeted audience. • In November 2017, Bollywood star Shah Rukh Khan is seen demonstrating mathematical theorem in the BYJU's advertisement.
Revenue Model	• Unacademy Plus premium version of Unacademy where fee is to be paid to get access to content while Unacademy is a basic version and shall be free always. Fee levied via Unacademy Plus will be distributed among educators. • It helps sustain Unacademy as a consumer internet company.	• BYJU's recruited an aggressive sales team to achieve targeted goal by sales and profitability. • Convincing Parents to switch from rote learning to creative visual learning to enhance cognition of their children.
Source:	• https://www.slideshare.net/slideshow/case-study-on-unacademy-startup-success-story/231906114#9	• The Unusual Case of BYJU's : Creating One of the World's Most Valued Educational Technology Companies from India 1 (Thomason Rajan)

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