Startups are now being widely recognized as important engines for innovation and growth. The Indian startup ecosystem has evolved dynamically over the last two decades. Some startups were founded in the 2000s, but the ecosystem was still immature as only a few investors were active and the number of support organizations such as incubators and accelerators were limited. The Government of India is taking every possible step towards creating a conducive environment for the country’s startup ecosystem. This paper discusses about the growing startup entrepreneurial ecosystem in India, the support available for nurturing the ecosystem, the role of incubators in the development of startups, the importance of intellectual property (IP) protection and the challenges faced by startups.

Keywords: Entrepreneurs, Startup Ecosystem, Minimum Viable Product, Corporate Social Responsibility, Incubator, Startup, Startups Intellectual Property Protection

India has experienced a phenomenal growth in the startup landscape in the recent years. In today’s world, startups play a significant role in enhancing the economic growth. To nurture innovation and encourage entrepreneurship traits among youth, the Government of India launched the Startup India initiative. Startup India is about creating prosperity in India. Startup India is a flagship initiative of the Government of India, designed along with Make in India, Skill India, Digital India and Ease of Doing Business in India. The Hon’ble Prime Minister, Shri Narendra Modi, launched the Startup India initiative on 16 January 2016. In order to meet the objectives of the initiative, Government of India announced the Action Plan that addresses all aspects of the Startup ecosystem. With this Action Plan, the Government hopes to accelerate spreading of the Startup movement. The Action Plan is based on the following three pillars:

a) Simplification and handholding
b) Funding support and incentives
c) Industry-Academia partnership and incubation

Startup India aims to build a strong ecosystem and help India become a nation of job creator rather than job seeker.

Definition of Startups
A gazette notification was released on 19 February 2019 by the Department for Promotion of Industry and Internal Trade (DPIIT), widening the definition of startups from the earlier definition under ‘Startup India, Standup India’ Scheme. As per the new definition, a ‘Startup’:

a) should be incorporated as a private limited company or registered as a partnership firm or a limited liability partnership
b) shall be considered as a startup up to 10 years from the date of its incorporation
c) the turnover for any of the financial years since its incorporation should be less than INR 100 crores
d) should be working towards innovation/improvement of existing products, services and processes and should have the potential to generate employment/create wealth. An entity formed by splitting up or reconstruction of an existing business shall not be considered a "Startup"
The startup ecosystem consists of various stakeholders, including incubators and accelerators, investors, service providers, educational and research institutions, and big companies (Fig. 1). The startup ecosystem thus brings the parts together (resources, investors, infrastructure, networking, marketing, experts, talent, etc.) which helps in the growth of a startup. The startup ecosystem supports all entrepreneurs. Some startups relocate to new locations just because the ecosystem there is better. The entrepreneurs have to be proactive in order to utilize the benefits of the ecosystem. Besides providing support in terms of capital or funding from investors or other sources, knowledge and experience are the two most valuable things, which an entrepreneur gains from a startup ecosystem.

Growing number of funds, angels, and support organizations such as incubators, accelerators, event platforms and academic programs support the startup ecosystem. Growth in the number of all these components point towards a growth of startup ecosystem. Over the last 5 years or so, India has witnessed remarkable growth in the startup ecosystem. According to the NASSCOM report of 2019, over 1300 startups added in 2019 and India continues to strengthen its position as the 3rd largest startup ecosystem across the world, taking the total number of tech startups to 8900-9300 in the last five years. India also witnessed the addition of 7 Unicorns in 2019 till August, taking the total number of startups with a valuation of over US $1 billion to 26, which is the third highest number of Unicorns in a single country in the world. A Unicorn is a privately owned startup company with a value of over US $1 billion. The robust startup ecosystem of India is at a cumulative valuation of US $ 95-101 billion. It has given rise to 390,000 – 430,000 direct jobs with over 60,000 jobs in 2019 alone. India as one of the youngest nation in the world and huge overall population has one of the largest consumer base in the world. For every unique need of each segment of population, there is an opportunity for new venture.

Overall, the startups have raised about US $7.5 billion in funding in 2018, as against US $4.3 billion in 2017 and US $3.5 billion in 2016, according to the report tabled by Hon’ble Finance Minister, Nirmala Sitharaman. The growth in the number of startups is increasing year on year. India has been very active in building a strong startup ecosystem. Those who wish to work harder; who are not scared of accepting challenges and who are not averse to taking the risk go for startups and the current generation is ready to invest their years into entrepreneurship. Multiple factors are feeding and supporting the startup ecosystem in India, ranging from government funding schemes to a growing number of startup incubators.

Entrepreneurs and startup owners face several challenges like pitching an idea to investor and converting an idea to enterprise etc. Startup ecosystem gives new opportunities to display ideas, generate funding and finding the right partner(s) for the collaborations. Thus, accommodative government policy, institutional support, access to capital, access to markets, entrepreneurial culture, and availability of relevant talent are some of the key ingredients for a successful startup ecosystem in a country.

**Stages of Startup Lifecycle**

Before becoming a large company, a startup goes through a series of stages. For every entrepreneur understanding the lifecycle of a startup is very much important. The sequence of activities and stages might vary among different startups.

**Idea**

Finding the right idea is the very first step in a startup journey. This is the stage where the birth of a new startup takes place. During this stage, the key focus of a startup is in understanding the needs, identifying the problems and the extensive market research by an entrepreneur who subsequently organizes a series of activities, mobilizes resources and creates competence using their networks in an
environment in order to create value. The value proposition is important at the early stage of the company because it sets some of the foundations for future business development. The value proposition should quickly and clearly outline what customer will get if they purchase a particular product or service, and why it is different from competitors. The value proposition is the promise that the entrepreneurs make to their customers, that specific problem solutions will be offered and certain needs will be satisfied. Value proposition for any startup defines the business model of the startup company, how the company will generate profit and revenues and how customers will experience the value of the product. Investors are always interested in the value propositions of the startups they are willing to invest. At this stage, startup should be sure of a Problem/Solution fit. This is followed by the execution and validation of the idea.

Minimum Viable Product (MVP)

This stage refers to the initial stage of creating the first workable (and saleable) version of the new idea or product. The viability of the product is proved by developing a MVP. MVP is the product that has only the essential features that make the product work. According to the author of the Lean Startup methodology Eric Ries, the MVP is defined as, ‘A Minimum Viable Product is that version of a new product which allows a team to collect the maximum amount of validated learning about customers with the least effort’. The market’s reaction to the MVP makes it possible to understand the strengths and weaknesses of the solution. This is important to establish the Product-Market fit.

Scaling

After the establishment of Product-Market fit, the growing or scaling stage of a startup starts. Scalability is the ability of a startup to grow. Premature scaling may even cause business to fail. In 2011, the Startup Genome Report surveyed about 3200 startups and found that 74% of startups failed due to premature scaling. So defining the right time for scaling can be a key point for a startup. In this stage, the focus is on growing of the customer base, products, and the company itself. Venture capital funds are very active at this stage. A lot of planning and thought goes into scaling a startup. Scaling allows revenue to grow without the increase in expenses resulting from hiring more people or deploying more resources. Thus, creating an environment that embraces continuous improvement and constantly looks for ways to grow is very important for scaling.

Maturity

At maturity, the final stage in the startup lifecycle, a startup should be earning consistent revenue through stable streams year after year. During this stage, business owners are often less directly involved with the day-to-day operations of a business, with these responsibilities charged to an entire hierarchy of management and employees.

Challenges Faced by Startups

For a sustained economic growth, innovation is of prime importance. To get an edge over large companies, it is essential for the startups to keep innovating. However, there are number of challenges before every startup, starting from the stage of incorporation through the stages of raising capital, hiring resources, scaling up etc. If not taken care of, these challenges could have serious consequences.

Funds

‘Funding’ refers to the money required to start and run a business. Collecting money to launch a startup and keep it running is the first and the most common challenge for any startup. It is really a daunting challenge to fund one’s own business, as one has to spend money to make money. Obtaining funds from investors or bootstrapping are the two major options for financing. As the business grows, the requirement for funds also increases. For the success of a startup, proper management of finances is very critical. Most startups do raise funding, especially as they grow larger and scale their operations. Generally, the funding is raised at different stages such as pre-seed, seed and series (A, B, C and so forth), depending on the progress they have made in developing their products or services. Funding is required for many purposes like prototype creation, product development, team hiring and working capital etc. Thus, a detailed financial and business plan is very important before approaching any investor.

Team

In building a strong and sustainable business, especially for startups, getting the right team is the first and extremely important step. The team plays a key role in understanding and executing the company / founder’s vision. However, due to the risk associated with a
 startup, joining a startup is not always a choice for a job seeker. Therefore, finding a right talent is always challenging for startups. A 2018 report by CB Insights zeroed in on the top 20 reasons for startup failure. Not having the right team is the 3rd main reason for most of the startup failure. Building a right team lays down the stepping-stone to success for any startup.

**Competition and Taking Product from Lab to Market**

Identifying the product based on market need is yet one of the important challenges before a startup. Due to the competitive landscape, it is always challenging for a startup to stay ahead of competition. Lack of proper mentoring is yet another challenge, which could bring a potentially good idea to an end.

**Fundraising for Startups**

Fundraising is important for every startup from growth stage to scale-up the business from a limited set of users, to greater customers. In the past few years, the Indian government has introduced several funding schemes to support startups and boost the startup ecosystem in the country. The Indian Government has introduced over 50 startup schemes to help boost entrepreneurship and the startup mission in India. Government has created an entire ministry dedicated to helping new businesses and has taken several initiatives for promoting startups in India. Through this paper, we have tried to compile some funding schemes by the Ministry of Science & Technology, which are shown below (Fig. 2a & 2b). Details for each scheme can be viewed on the respective website.

A very exciting and never-seen-before startup ecosystem is emerging in India. Raising money for a startup is not easy. Startup funding pays for incorporation, business licenses, insurance, facilities, equipment, marketing collateral and the hiring of necessary talent. Fundraising rounds don’t have hard rules around types of investors, stage, etc., but are general indicators of where a startup is at in its lifecycle and what its capital needs are. Earlier, there were not many fundraising options, but recently, there has been a wave of funding available in different

![Fig. 2a — Funding departments of Ministry of Science & Technology](image)

![Fig. 2b — Funding Schemes from various departments](image)
Various stages of funding from self-funding to IPO are:

a) Pre-Seed funding
b) Seed funding
c) Series A funding
d) Series B funding
e) Series C funding
f) IPO: Stock market launch

**Pre-Seed Funding**

This stage is also known as self-funding or bootstrapping stage. It also gives the freedom of being your own boss. Self-funds or funds from family and friends can be used to support the startup. At this stage, startups are involved in developing a prototype or proof-of-concept. A Pre-Seed round is a pre-institutional seed round that either has no institutional investors or is a very low amount.

**Seed Funding**

The initial capital raised by any startup is called Seed Funding or a Seed Investment. This is the earliest stage of raising the capital for startup. In this system of funding, in exchange of the investment, a stake in the company is offered to the investors. Seed funding is required for various purposes like acquiring office space and other infrastructural facilities, hiring key personnel, development of a product or service and marketing, it is thus essential for the growth of the business. Most startups will fail at an early stage without such investment. Seed funding investments can range from anywhere between US $ 10,000 to US $ 2 million.

**Series A Funding**

It is the first venture capital funding for a startup and is one of the important milestone for a startup. In series A funding, startups should have a strategy for developing business models and generating revenues. To acquire this funding, startups should not only just have an idea but also demonstrate Minimum Viable Product (MVP). Typically, Series A rounds can collect US $ 2 million to US $ 15 million. Typically, Round A investors are venture capital firms.

**Series B Funding**

It is the second stage of venture capital financing for a startup. In series B funding, startups already found their product/market fit and needs help in expanding. This funding is required by the companies to scale up in order to meet the growing demands, to face competitors and to have market share. Estimated capital raised in a Series B round tends to be somewhere between US $ 7 million and US $ 10 million.

**Series C Funding**

In this stage, startups search for more funding to help build new products or services, reach new markets, buy out businesses. It is the last stage in a company’s growth cycle before an initial public offer. At this point, companies hold a value of at least US $ 100 million and receive upward of US $ 50 million in funding.

**Initial Public Offering (IPO)**

It is the process of offering corporate shares to the general public for the first time. When a startup decides to raise funds from the public including institutional investors as well as individuals, by selling its shares, it is known as an IPO (Initial Public Offering). Typically, this stage of growth will occur when a company has reached a private valuation of approximately US $ 1 billion, also known as unicorn status.

Usually, a company starts with a seed round and then continues with A, B, and C funding rounds. Availability of sufficient venture capitalists at growth stage of startups in the form of Series A and B rounds of funding ensures optimal growth of not just one startup, but the entire startup ecosystem.

**Startup Incubators**

Entrepreneurship is tough and a long journey. The more the startup grows the more challenges it faces. From awareness and sustainability of businesses to regulations associated with legality and enforceability, the list of challenges is long. Given these challenges and without any guidance and assistance, it can be hard to get started on the entrepreneurial journey. When one is just getting started, incubators can serve as a great platform to give that much-needed support and push to build a solid foundation. Startup accelerators and incubators are organizations that help startups attain success. Startup incubators assist new startups in their initial phase of development by providing various services. Incubators share both tangible and intangible resources such as equipment, office space, services such as accounting, computing and legal services. To reduce the financial burdens and resource issue, they assist startups in raising startup capital and perform various networking activities. According to NASSCOM, Bengaluru, followed by Mumbai and
Delhi-NCR continued to be the top hubs in India, accounting for over 40% of all incubators and accelerators in the country.

Incubators help entrepreneurs in developing their ideas, skills, knowledge, building sustainable business environment while benefitting the broader corporate communities. They are involved at all stages from idea stage to revenue-generation to late stage of a startup development. If a startup is a part of an incubator or a startup accelerator in India, the chances of its getting funded also increases. Various startup incubators supported by many different government bodies, corporations, and even educational institutions are present in India.

Incubators provide a support environment for startup companies, thereby promoting local job creation, economic development, and technology transfer. The services offered by an Incubator, namely infrastructure, coaching and networking are at very cost effective and affordable rates to the Incubatees.

With startups facing a high chance of failure, the resources and support provided by an incubator are invaluable. The startups do have an idea, but incubators guide them to make it a reality and reach the market.

Recent government regulations favour allotment of 2% CSR funds to incubators run by government and academic institutions. Every year, companies with a minimum net worth of Rs 500 crore or more, or turnover of Rs 1,000 crore or more, or net profit of Rs 5 crore are required to spend at least 2% of their average profit for the previous three years on corporate social responsibility (CSR) activities under the Section 135 of the Companies Act, 2013 (the “Act”). India has the 3rd highest number of incubators with over 250 incubators being present in India. Incubators and accelerators both play an important role in the growth of startups. Incubators can help a startup with initial funding and help them in making their innovative product a reality through experienced mentors. Guidance & Mentoring from those who have already succeeded on this path is really a blessing for a startup journey.

**Startup and Intellectual Property**

Intellectual property (IP) is one of the most valuable assets for a startup company. It’s often the intellectual assets that differentiate a startup from other large companies, deliver the competitive advantage, and go on to drive revenue. IP protection is essential and patents are often topmost among IP in terms of value. Protecting the IP will let a startup monetize their ideas and work, avoid the theft of their ideas, help them secure funding, and lead to higher valuations when their business eventually gets valued. Innovations give an edge to the startups over their competitors. Innovation is the process of transforming new ideas, new knowledge into new products and services. Innovation does not always mean to create something new, something that already exists can be taken and improve, to make it better and the best for their customers. IP could help to create a sustainable and strong differentiator for an entity.

Baum and Silverman showed that startups of biotechnology, which are in possession of patent applications or patent grants, have been likely to receive more venture capital financing than venture firms, which do not have patent protections. Startups must balance the need to protect IP with other areas of the business. In order to make a decision about what to patent, a startup must first know what IP it has. The probability of receiving funding also improves by filing patent applications.

A patent is an exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem. Patents permit the owner to "exclude" others from making, using, selling, offering for sale, and importing a product or service embodying the invention. Patent is a "negative" right, which means that obtaining a patent does not give the right to sell a product or provide a service; many products and services are covered by the claims of multiple patents owned by different parties. Patents are generally viewed as the strongest form of intellectual property because they can prevent a competitor most effectively from making its product. A patent can also translate into tangible economic value in the following ways: (1) patents can be sold outright to another person or entity; (2) patents can be licensed to others to practice the patented invention; (3) patents can be asserted against others in lawsuits to obtain damages for infringing the patent.

Startups have become an inseparable element of the innovative economy presently. Many of these companies base their competitive edge on intellectual capital and innovations. In this context, it is extremely important to legally secure the intangible goods belonging to a given company, as well as to
constantly increase the knowledge on management and protection of intellectual property, especially in the area of effective transfer of technologies. The value of IP protection should not be underestimated by startups. IP is thus important at every stage of business development. In today’s competitive and fast-growing environment, IP can be a Unique Selling Proposition (USP) of the goods or services especially for startups. Valuation of a company can be taken to another level when IP is correctly and strategically protected. A start-up can protect their product/services/ symbols, logos, brand name etc. under different forms of IP namely as Patents, Trademarks, Copyrights, Designs, etc.

The Indian startup ecosystem has grown tremendously over the past year. According to data released by Startup Blink, India moved up to 17th position in 2018 from 37th spot last year in the Startup Ecosystem Ranking for 2019. India ranks 17 globally among 100 countries, based on the strength of its startup ecosystem, according to Startup Blink.

The startup ecosystem with respect to protecting their IP rights in India is welcoming now. Startups, with limited resources and work force, can sustain in this highly competitive world only through continuous growth and development oriented innovations; for this, it is equally crucial that they protect their IPRs. The scheme for Startups Intellectual Property Protection (SIPP), envisaged facilitating protection of Patents, Trademark and Designs of innovative and interested startups. A startup now requires only a certificate of recognition from the Department for Promotion of Industry and Internal Trade (DPIIT) and would not be required to be examined by the inter-ministerial board, as was being done earlier. For availing the certificate, a startup has to register itself on the official website of Startup India. Startups, which are recognized, are eligible for an 80% rebate on patent fees. So far, 18,861 startups have been recognized according to the definition of the Department of Industrial Policy and Promotion (DPIIT). A properly managed IP adds tremendous value to a startup.

Conclusion

Entrepreneurship and innovation both serve as the catalysts in the process of economic growth. Through the startup India scheme, the government aims to build an ecosystem in which entrepreneurs can innovate and excel without any barriers. Increasing government support, coupled with rise in investor’s confidence and technological advancements are revolutionizing the startup landscape of India. New technologies have the potential to find solutions to challenging economic and social problems. The growing number of incubators across the country has also helped the startups to get mentor support, know various sources of funding and develop links with the industry. Startup ecosystems have the ability to innovate and create jobs. The Indian startup ecosystem is growing at a fast pace and the entrepreneurial culture in India is picking up. Indian startups backed by government’s support will definitely be influential in transforming India and will have significant impact on the economic growth. The Indian government has set its vision of being a US $ 5 trillion economy by 2024-25 and with the government support; the startups are certainly contributing and are definitely going to play a crucial role in achieving this target.

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