Agri-Startups in India

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ABSTRACT

On the one hand, India is quickly becoming one of the world's largest markets, second only to China. On the other hand, India has a number of major issues to address, including education, infrastructure, agriculture, logistics, retail, and healthcare. This combination provides the most fertile ground for new enterprises. The incomes and consumption of not only the thriving middle class, but also the rural economy, are increasing rapidly. Startups will develop innovative descriptive business models to address the challenges that India faces. This is the most significant impact that startups will have on the Indian economy. This article provides an in-depth understanding of the Indian startup ecosystem.

INTRODUCTION

Currently, the term "startup" has many varied meanings depending on the situation, but according to Investopedia, "a startup is a young company that is just starting to develop. Startups are often modest in size and are first financed and run by a small group of founders or by just one person. These companies offer a product or service that is not currently being offered elsewhere in the market or that the founders believe is being offered in an inferior manner" (MANAGE report 2019). With 350+ startups and $300 million in funding in 2016, the Indian agritech industry is expanding steadily. Investors favour digital businesses and technology in the fields of infrastructure, information platforms, agriculture data analytics and supply chain management. The next phase of the industry's growth will be characterised by the greater use of new technologies like drones, AI-based smart solutions and enhanced farm analytics (NASSCOM report 2018). In the five focus areas of supply chain, infrastructure development, finance and related solutions, farm data analytics and information platforms, we have seen a reasonable increase of agristartups in the nation. Start-ups in the supply chain typically include people who operate in e-distribution, e-commerce and various linking platforms. The drip-like technological solution, system or components, hydroponics, etc. are generally included in the infrastructure developer sub-component. Payments, income sharing, and creative lending are the focus of financial solutions, whereas agricultural data analytics includes farm mapping, field operations, and remote sensing with human interaction. Startups in the information platform space are involved in the information distribution market (FICCI report 2018). Since people are becoming more interested in starting their own businesses and because of improving government rules and the working environment, India is home to a rising number of startups. There are currently about 11500 startups working in India. Currently operating in India are about 6300 non-tech based firms and 5200 tech oriented startups.. (Dwivedi, 2019)

The start-primary up's goal is to give the state's economy a foundational framework. It provides a picture of how things work. Consequently, giving things a shape results in a contribution to the welfare of the state. It is common knowledge that a start-up is a concept with a customer impact, but it is only the beginning. We consistently overlook how starting a business affects societal socioeconomic conditions. Cities, industries, and the global economy all benefit from it. These kinds of social and economic developments have an impact beyond only the consumers. However, in order to achieve this goal, the government must adopt progressive policies and provide adequate financial support (Ahmed, 2019).

Lifecycle of a Startup

Startups are regarded as nation builders around the world since they have a beneficial impact on the economy and generate employment. Startups are typically defined as freshly established, rapidly expanding businesses that seek to fill a market need by creating a workable business model around cutting-edge goods, services, procedures or platforms. With their success, they also foster the idea that homegrown inventions and technology might eventually produce beneficial economic results. In our nation, the startup landscape is expanding quickly. It is crucial for enablers to comprehend the startup lifecycle in order to sustain growth and promote startups.

1. 1. Concept or idea stage: The entrepreneur finds a problem or an opportunity that has the potential to lead to a business. At this point, mentoring is essential to help entrepreneurs describe their business-related tasks clearly and create a future business plan. At this point, capital is not really needed, and founders often self-finance or bootstrap their businesses.

2. Pre-seed or validation stage: The business owner creates a likely answer in the form of "a proof of concept" or "a prototype" with pertinent assumptions. These presumptions are then verified by an initial small sample of the target market's feedback and response regarding the product or service. Self-financing (boot strapping), investor finance or government subsidies for research or prototype development are typically used to meet the funding requirements. At this point, having access to an incubator and mentors facilitates finding and pitching early customers, developing a minimum viable product and determining product-market fit.

3. Seed or early traction stage: The demand for a product or service is determined using mentors' ideas and input from early clients. The client retention rate attests to the company's and its product's early success. By actively looking for capital from crowd funding organisations, angel investor or network groups, incubators, and government seed grants, startups can attract more customers. The startup is helped by the financing at this stage to avoid the "valley of death" for the time between when a startup firm receives an initial capital contribution and when it starts to generate revenues.

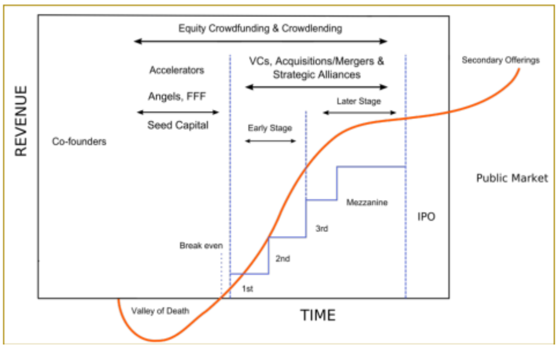
4. Growth or scaling stage: At this stage, most processes are defined and the business is well-established. Entrepreneurs create a repeatable user or customer acquisition process, identify market growth channels, and seek opportunities to expand the business to new geographies or markets. The expansion is supported by scale-up funding from institutional investors such as Venture Capitalists (VCs) and acceleration programmes.

5. Maturity or Exit, IPO, M&A stage: Many investors, promoters, and founders look for opportunities to exit and realise profits through the partial or complete sale of the business entity. The next set of investors could be another entity in the same space looking to acquire the business and gain market share, or Startup could issue a public offer or completely sell the business. Bank funds, private equity funds and IPO investors all play important roles in funding large deals for startups.

According to the FICCI report 2018, India has received reasonable support from fund providers across the various categories and stages of agri-start-ups with the majority of start-ups in the early stages. From 2013 to 2017, 366 agri-based start-ups were established. In the last five years, more than half of all new businesses were founded in 2015 and 2016. 90%+ of all funding goes to seed and early-stage start-ups with an emphasis on quality and scale-up.

Startup Funding: Putting the Fuel in the Startup Engine

Every startup, regardless of its nature or size, requires funding to turn its innovative ideas into reality. It is relatively simple to come up with a startup idea; however, bringing the startup through the stages of funding to fruition is quite difficult. The majority of start-ups fail due to an inability to raise sufficient funds. After all, money or capital is required to keep your business running at all stages.



As a precursor to understanding the new age of startup financing, we feel it is still important to become familiar with the different investment phases

Pre –seed stage

This is the stage at which the founder(s) attempt to turn the idea into a business opportunity. This stage necessitates some research funding to determine the viability of an idea. At this stage, the most likely sources of funding are self-funded (savings), FFF (Family, Friends, and Fools), angel investors, accelerators, and, more recently, crowd funding. (MANAGE,2019)

Seed stage

This stage focuses on orienting the company in the larger marketplace as well as developing a deeper understanding of what the customer wants and how to refine the product to their preferences. Although the product or idea is still in its early stages, it has a name and a brand, but the majority of funding at this stage still comes from bootstrapping or the generosity of friends and family, as well as some crowd funding, incubator and accelerator money. In this stage, micro venture capital firms and investment syndicates have also begun to appear to fund start-ups.

Bridge loans & mezzanine financing

Bridge financing occurs when investors make a short-term loan to a startup company in order to help it reach the next round of funding with the expectation of receiving their money back. It is essentially used to 'bridge' the gap between investments in order to keep a startup company afloat. Bridge financing also known as a "bridge round," is used by startups to help them get to a significant round of funding, such as equity funding or the sale of the company. Mezzanine financing, on the other hand, is typically offered to companies that have a track record in their industry, an established reputation and product, a history of profitability, and a viable business expansion plan, such as through expansions, acquisitions, mergers or an Initial Public Offering (IPO). These types of loans last six to twelve months and are typically paid back by funds raised during an IPO, since they serve to bridge the gap between the end of late stage and the point of a business reaching maturity (MANAGE,2019)

Factors Impact the Growth of Start-ups in India

Micro Factors - Micro-level factors influencing the emergence and growth of high-tech start-ups include entrepreneurial and firm-level characteristics. Each of these micro aspects is further classified into two types: latent and tangible. While tangible aspects are directly observable and measurable characteristics (such as entrepreneurial background, firm size, and so on), latent aspects are more covert factors such as the entrepreneur's personality and behavioural attributes, as well as the firm's adaptability in particular. (Joshi and Satyanarayana, 2014)

Macro Factors - Macro (environmental or ecosystem) parameters influencing the lifecycle of a high-tech startup can be classified into four broad dimensions. (i) Macroeconomic indicators (including infrastructure-related factors), (ii) Regional start-up ecosystem factors (iii) Industrial environment characteristics and (iv) Government policies. (Joshi and Satyanarayana, 2014)

Agri-start-ups Fare during the COVID-19 Pandemic-

The unprecedented impact of COVID-19 and the resulting national lockdowns had thrown the global economy into a tailspin, with most countries sealing their international borders and restricting people and trade movements. From March 24 to May 31, India's economy was shut down in all sectors. Even after the lockdown, the economic environment remains uncertain in both the formal and informal sectors. The agriculture sector, which still employs approximately 44% of the workforce, has been the least affected, despite facing numerous challenges such as crop harvesting, procurement and storage, ensuring farmers receive the right price at the right time and preparing for the next sowing season. Furthermore, they are struggling to ensure uninterrupted food supply with last-mile delivery while adhering to new protocols of social distancing, restricted mobility of resources, labour shortages, and market liquidity crunch, among other inherited challenges at the farmer level. . Going forward, agri-start-ups will have an indispensable role in combating the economic fallouts of COVID-19. They must be prepared to adjust and adapt to a new normal through improved cash flow management and revenue streams. However, the COVID-19 challenges and opportunities for agri-start-ups are still unknown. Startups in their seed stage are the most vulnerable because they typically raise funds from personal investors, friends, and banks because institutional funding agencies are unwilling to invest. These start-ups are vulnerable and deserve special attention because they are at a sensitive and vulnerable stage of their business lifecycle. Even with the resilient crisis-management strategies that start-ups are employing on an individual level, better coping mechanisms and government-initiated policy frameworks to redesign, rework, or reinvent the technologies and protocols in a post-COVID-19 scenario are required, thereby creating the paradigm for a new normal within a minimum response time. However, empirical understanding of the operation and challenges of agri-start-ups in India is virtually non-existent. (Kumar, 2020)

Key challenges faced by the agri start-up ecosystem- (FICCI Report, 2018)

1. Low landholding size - Small and scattered landholdings of farmers reduce the scope of technology scale up, leading to poor cost effectiveness.

2. Return for the investors- Rate of return on technology investment has not proven very profitable in case of agri tech startups as compared to other IT-based startups

3. Talent Retention - Agri start-ups and enterprises are finding it hard to retain technical talent working in this sector

4. Long gestation period- Technology adoption and penetration is a very slow process which certainly diminishes investors' interest

5. Technology affordability - High-priced technology solutions are unaffordable for a large user group, i.e. small and marginal farmers

6. Skill adaptability - Making farmers adaptive to the required skills for working on advanced technologies requires significant effort

7. Non-localised technology - Most of the technology solutions available are not localised to emerging markets

8. Regulatory and policy issues- Regulations are favourable, but are complex in nature, facilitating adoption of proven technologies through subsidy is yet to gain momentum.

9. Deployment Constraints - Equipment with proven technologies is largely deployed by service providers due to poor last mile reach of start-ups.

REFERENCES

Ahmed, A. (2018). Problem and Performance of Entrepreneurship Development and Start-Ups in Jammu and Kashmir. ISSN: 2454-2415 Vol. 6, Issue 9, 2018 September, 2018.

Anand, A. (2019). Agritech Startups: The Ray of Hope in Indian Agriculture, National Institute of Agricultural Extension Management (MANAGE).

Dwivedi,R.(2019).Indian Startups: Analyzing Their Vulnerabilities &Prevailing Challenge. SMS Journal of Entrepreneurship & Innovation 6 (1) 61-79.

FICCI (2018). Agri start-ups: Innovation for boosting the future of agriculture in India.

Joshi, K. and Satyanarayana, K. (2014). What Ecosystem Factors Impact the Growth of High-Tech Start-ups in India? Asian Journal of Innovation and Policy (2014) 3.2: 216-244.

Kumar, A. (2020). How Did Agri-start-ups Fare during the COVID-19 Pandemic? Challenges and the Way Forward.

Government initiative for startups-

Name of The Scheme	Headed By	Industry Applicable	Fiscal Incentive
Support for International Patent Protection in Electronics & Information Technology (SIP-EIT)	Department of Electronics and Information Technology (Deity)	IT Services, analytics, enterprise software, technology hardware, Internet of Things, AI	Up to INR 15 Lakhs for each creation or half of the aggregate costs brought about in documenting and handling of the patent application up to give, whichever is lesser
MSME Market Development Assistance	Office of the Development Commissioner (MSME)	Sector-agnostic	Provides air fare reimbursements based on category entrepreneur lies in (General, women, SC/ST/PwD). It add up to sponsorship on air passage and space rental charges will be confined to INR 1.25 Lakhs for every unit
Coir Udyami Yojana	Coir Board	Agriculture	It add up to endowment on air toll and space rental charges will be confined to INR 1.25 Lakhs for every unit. The measure of bank credit will be 55% of the aggregate task cost in the wake of deducting 40% edge cash (appropriation) and proprietor's commitment of 5% from recipients
Raw Material Assistance	National Small Industries Corporation (NSIC)	Sector-agnostic	MSMEs will be benefited financial aspects of buys like mass buy, money rebate, and so forth. Additionally, every one of the methodology, documentation and issue of letter of credit if there should be an occurrence of imports will be dealt with
Bank Credit Facilitation Scheme	National Small Industries Corporation (NSIC)	Sector-agnostic	N/A
Software Technology Park (STP) Scheme	Software Technology Parks of India (STPI)	IT services, fintech, enterprise software, analytics, AI	Deals in the DTA up to half of the FOB estimation of fares is admissible and devaluation on PCs at quickened rates up to 100% more than 5 years is passable
Pradhan Mantri Mudra Yojana (PMMY)	Micro Units Development and Refinance Agency Ltd. (MUDRA)	Sector-agnostic	MUDRA offers impetuses through these mediations: >Shishu: covering credits upto INR 50,000/ - > Kishor: covering credits above INR 50,000/ - and upto INR 5 Lakhs >Tarun: covering credits above INR 5 Lakhs and upto INR 10 Lakhs

(SOURCE- Dwivedi,2019)