



A Way Forward for Agri Start-ups in India

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Abstract

Agriculture in India has progressed well beyond the cultivation of essential food grains. The previous measures were effective in that India was able to transition from import dependency to self-sufficiency. However, the crucial question is whether our current plans appropriately prioritize the key elements that have the potential to bring farmers wealth by delivering cost-effective solutions and attaining desirable future growth. Start-ups are critical for fostering creativity in a society. These entrepreneurs are challenging the dominance of huge corporations not simply via innovation, but also by giving simpler answers to the problems they address. Start-ups have unique ideas. They are always understaffed, never have enough hours in the day, and nonetheless have a pragmatic mindset that drives them to find new solutions to problems. These firms, via their unique approaches, have aided stressed farmers (especially small and marginal farmers) and provide solutions to Indian agriculture's difficulties.

In this view, to understand the importance of start-ups in agriculture, the government of India is aggressively working on creating an ecosystem in the country to support the start-ups through several programs and schemes. Here we studied the recent scheme 'RKVY-RAFTAAR' (Rashtriya Krishi Vikas Yojana - Remunerative Approaches for Agriculture and Allied Sectors Rejuvenation) for the promotion and development of agriculture start-ups in the country.

Keywords: *Startup, Agribusiness, RKVY, RABI, Ecosystem, Business*

Introduction

With 60% of India's population still engaged in agriculture and related occupations, economists and policymakers frequently emphasize the need to generate jobs and sectors in order to move a major portion of the population away from agriculture. This, however, is not the only solution to India's rural economic problems. It is also vital to bring about transformative changes in the agribusiness sector to improve incomes, expand agricultural sub-industries, and aid the rural poor in expanding their agricultural resources, in addition to establishing new sources of employment and revenue. The bulk of agricultural outliers are forced to look for work in nearby towns and cities, mostly in the unorganised low-wage sector. This underlines the significance of building more innovative rural economic systems in order to expand agribusiness job opportunities in the rural area. Regrettably, enterprising young entrepreneurs have flooded urban India with businesses in recent years, ignoring the rural economy. To put it another way, in rural India, entrepreneurs with the potential to transform the economy have yet to emerge.

The Ministry of Agricultural and Farmers' Welfare (MoA&FW) of the Government of India developed the RKVY-RAFTAR Program and the Innovation and Agri Entrepreneurship Cell to improve agricultural and allied infrastructure with these goals in mind. Agribusiness networking can be aided by providing financial assistance and helping the incubation ecosystem. Agribusiness incubation is still in its infancy in India's agricultural landscape. Despite the fact that there have been a huge number of non-agriculture incubators are there, agriculture incubators are very limited in number and their success rate has been poor. As a result of this programme, existing institutional agribusiness incubators will be enhanced as needed, and new ones will be formed through grant-in-aid (Anand, 2016).

Objective

To study the overall picture of India's agriculture start-up ecosystem & program operated by these start-ups.

Research Methodology

A comprehensive study (using primary and secondary data) will be conducted to analyse the overall scenario of agribusiness start-up policy for the development of ecosystem for start-ups.

Results and Discussion

RKVY-RAFTAAR encourages agribusiness incubation by leveraging agricultural ideas and technologies. To exploit synergies, incubation facilities and knowledge currently available with collaborating academic, technical, management, and R&D institutions in the country will be used individually or collectively. Grants-in-aid would be provided to the existing institutional agribusiness incubators on a need-basis.

By tapping agricultural concepts and technologies, RKVY-RAFTAAR encourages agribusiness incubation. Incubation facilities and knowledge now accessible with collaborating academic, technical, managerial, and R&D institutions in the country will be leveraged individually or together to capitalise on synergies. Existing institutional agribusiness incubators would get grants as per the scheme norms that mostly covers the component of human resource, recurring and non-recurring cost of project management etc. (Mittal, 2014).

An Overview of Jawahar RABI (One of the Agriculture Incubators under RKVY-RAFTAAR)

Agri-business incubator is a unit that helps budding and start-up agro-based entrepreneurs to develop by providing services such as management training, office space, mentoring, etc. JAWAHAR-R-ABI as business incubators Center for agri-startups has been conceptualized and established under the Institute of Agri-business Management, Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur, Madhya Pradesh, India with aims to promote innovation-led entrepreneurship and business creation in agriculture and allied sector by skill development; capacity building and technology scale-up. This program is financially supported by Rashtriya Krishi Vikas Yojana - Remunerative Approaches for Agriculture and Allied Sector Rejuvenation (RKVY-RAFTAAR), under Innovation and Agri-Entrepreneurship Cell, an initiative of Ministry of Agriculture & Farmers Welfare, Department of Agriculture, Cooperation and Farmers Welfare, Government of India. This scheme is structured to enable ideation stage agri-entrepreneurs and start-ups with a minimum viable product (MVP) to scale up their business by networks of technical and business experts, industry, government partners, financial partners, training with the commercialization experts from agri-sector, and extensive mentor network. The Knowledge Partner (KP) of JAWAHAR R-ABI is PUSA KRISHI, Indian Agricultural Research Institute, New Delhi.

Agribusiness Start-ups Structural Organization under RKVY-RAFTAR in India

The Rashtriya Krishi Vikas Yojna (RKVY) is a significant scheme run by the Ministry of Agricultural and Farmers' Welfare (MoA&FW) of the Indian government with the goal of improving agriculture and related infrastructure. In 2018-19, a new component under the revamped programme RKVY-RAFTAAR was formed with 10% of yearly expenditure, including 2% administrative costs, to stimulate agri-preneurship and agribusiness through financial support and nurturing the incubation environment (Mittal, Agarwal & Kadam, 2021).

Five famous agricultural-based organizations are chosen as knowledge partners/implementation support mechanisms at the highest level, and they collaborate with the Pan India agribusiness incubators approved by DC&FW. Under this strategy, Host Institute is also one of them for promoting start-ups.

The five Knowledge Partners (KPs) are as follows:

- Chaudhary Charan Singh National Institute of Agricultural Marketing (CCSNIAM), Jaipur
- National Institute of Extension and Management (MANAGE), Hyderabad
- Indian Agriculture Research Institute (IARI), Pusa, New Delhi
- University of Agricultural Sciences (UAS), Dharwad
- Assam Agricultural University (AAU), Assam

Programmes and Funding under This Agribusiness Incubators

Knowledge Partners are autonomous institutes (most preferably ICAR body) that support, mentor, train, and direct respective RABIs among universities around the country in order to strengthen agriculture's ecosystem.

RKVY-RAFTAAR Agribusiness Incubators (R-ABIs) is a list of twenty-four RKVY-RAFTAAR Agribusiness Incubators (R-ABIs) that are part of the RKVY-RAFTAAR Innovation and Agri-Entrepreneurship programme.

- Chaudhary Charan Singh University, Hisar, Haryana
- Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishwavidyalaya, Palampur, Himachal Pradesh
- Indian Institute of Technology - Banaras Hindu University, Varanasi, Uttar Pradesh
- Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur, Madhya Pradesh
- Indian Council of Agricultural Research - Indian Veterinary Research Institute, Izatnagar, Bareilly, Uttar Pradesh
- Punjab Agricultural University, Ludhiana, Punjab
- Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh
- Sher-e-Kashmir University of Agricultural Sciences and Technology, Jammu, Jammu & Kashmir
- JIM, Kashipur, Uttarakhand
- Kerala Agricultural University, Thrissur, Kerala
- Indian Council of Agricultural Research - Indian Institute of Millets Research, Hyderabad, Telangana
- Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu
- Agri Innovation and Entrepreneurship Cell, Acharya N. G. Ranga Agricultural University, Andhra Pradesh
- National Rice Research Institute, Cuttack, Odisha
- Sri Karan Narendra Agriculture University, Jobner, Rajasthan
- Indian Institute of Technology, Kharagpur, West Bengal
- Bihar Agricultural University, Bhagalpur, Bihar
- Anand Agricultural University, Anand, Gujarat
- Indian Council of Agricultural Research - Central Institute for Research on Cotton Technology, Mumbai, Maharashtra
- Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, Maharashtra
- National Institute of Veterinary Epidemiology and Disease Informatics, Bengaluru, Karnataka
- College of Fisheries, Lembucherra, Tripura
- Department of Veterinary Medicine College of Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram
- College of Horticulture & Forestry, Pasighat, Arunachal Pradesh

Under the Rashtriya Krishi Vikas Yojana - Remunerative Approaches for Agriculture and Allied Sector Rejuvenation (RKVY-RAFTAAR) sponsored by DC&FW, Knowledge Partners Agribusiness Incubators and Handholding Agribusiness Incubators run two agri-startup programmes - Agri-preneurship Orientation Programme (AoP) and Start-up Agri-Business Incubation Programme (AIP).

Agri-preneurship Orientation Program (Idea to Product Prototype - Idea to Assessment Stage) is a launchpad for agri-startups, it is an initiative supported by the RKVY-RAFTAAR scheme of the Ministry of Agriculture and Farmer's Welfare, Government of India. It is a uniquely designed incubation program specifically for early-stage agri-startups, with an aim to promote innovation and entrepreneurship in the field of agribusiness and allied sectors. It is a two-phase Incubation program:

- 'Proof of concept' and 'promising Ideas' would get access to the research facilities, technical experts, patent filing and extensive mentoring support. This will facilitate to development of a feasible product prototype that can be scaled up.
- An Eight-Week in-house residency orientation program has been structured to help walk through the start-ups in their journey of success.
- Selected start-ups will be linked to other successful start-ups
- Towards the end of Phase-I, the selected start-ups of this phase will make a presentation to an expert committee of industry experts and professionals. This committee of experts will evaluate the performance of the start-ups throughout the course of phase-I and shortlist start-ups ready for acceleration in Phase-II of the program.
- Grant in aid

Start-up Agri-Business Incubation Program (Prototype, MVP Product Stage) is the seed stage funding Agri-preneurship Incubation Program (AIP) of Agribusiness Incubator (R-ABI) of RKVY-RAFTAAR Scheme. In this program, a Grant-in-aid of a maximum upto Rs. 25 lakhs will be granted to potential agri-startups that have a Minimum Viable Product (MVP) based on innovative solutions / processes/products/services/business model in agriculture and allied sectors. The applicant start-ups should fulfill the criteria as per the Start-up Definition related Notification regarding Start-ups issued from time to time by the Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce, GoI. Such incubates would be provided funds by the Ministry as per their genuine requirements and as per appraisal/evaluation of their business plan by the RKVY-RAFTAAR Selection & Monitoring Committee (RIC).

- Product Prototype to its Commercial Launch (Assessment to Expansion stage)
- Start-ups will validate their products/services.
- Start-ups will be mentored on how to commercially launch their product/service and sustain in the market.
- An initial grant-in-aid of up to Rs. 25 Lacs (commercially launched) will be awarded to the start-up.

Also, the extensive marketing and mentoring support by industry experts will be continued, till the time start-ups get graduated from the incubator.

Challenges Faced by Start-ups

A successful start-up cannot rely solely on the idea of enthusiasm and a concept to succeed. On the part of the entrepreneur, a high-level leadership ability with a clear knowledge of the market, good communication skills, maturity to see things from the appropriate perspective, and the capacity to take calculated risks are essential (Chokhani, 2017). Some of the challenges include a lack of awareness, multiple clearances, an unorganized market, poor infrastructure in Tier 2/3 cities, a lack of mentoring, strict exit policies, corruption/red tape, technological risk, regulatory obstacles, and a lack of reforms to keep up with rapidly changing market changes. Some of the major issues and challenges are discussed below:

Cut Throat Market Competition: The business world is a war place. Between the giants, there is always a competition. One of the most significant obstacles to a start-up's existence is competition, and if you're starting an online firm, the competition is even greater.

Unrealistic Expectations: Success does not happen by itself. It comes with it a set of expectations. Most of the time, these expectations appear practical, but they are only unrealistic in the true sense of the word. For fledgling start-ups, the same principle applies.

Selection of Human Resource: The synergy of the team is one of the most essential components that determine organisational culture in a start-up. A team is made up of people who have related skills and a similar focus. Organizations in general - and start-ups in particular - must select suitable personnel in order to build a highly successful team culture.

Sources of Financing: In fact, start-ups largely rely on financial backing from so-called investors. When there is a financial influx, small businesses, particularly start-ups, find it extremely difficult to properly manage their finances and slow things down under the strain. A recent report paints a gloomy picture with 85% of the new company's reportedly underfunded indicating a potential failure (Iwasiuk, 2016).

Collaboration Decision: The key to success is collaboration. This principle applies to both start-ups and established businesses. Start-ups are finding it challenging to find trustworthy partners in this ever-expanding and the ever-changing digital environment when enterprises must fight for existence. Today's entrepreneurs face a significant challenge. And, in the case of IT firms, the stakes in a partnership are considerably larger.

Regulations: There are several numbers of legalities to un-curtain a start-up from government agencies like Regulations (if applicable) pertaining to entity legal registration, environmental and pollution permission, labor laws, intellectual property rights, dispute resolution, etc. the Indian government has made it to complete legalities within the time frame of a month to start a start-up for fastening and headache less registration process. Although is far away to reach the time frame of OECD countries of 9 days to complete the process of company registration. Also, as per World Bank report, "World Bank Ease of Doing Business", India ranks 142 out of 189 economies (Griffith, 2014).

RKVY-RAFTAAR Agribusiness Incubator works with and incubates agri-startups across India to provide in-depth expertise on all concerns and obstacles, ensuring a high success rate for agri-startups.

Conclusion

On the basis of study, it is very clear that the government is very serious about the overall development of start-ups in India by creating a full-fledged start-up ecosystem. India is making progress toward its goal of creating a robust start-up ecosystem. The government has dedicated ministry (department) committed to assisting start-ups in order to promote and support them. Furthermore, the Indian government has introduced a slew of initiatives aimed at boosting entrepreneurship in the country and providing financial assistance to start-ups. Even in COVID-19 restrictions, Government of India is facilitating start-ups by operating its numerous program (viz., RKVY-RAFTAAR) in virtual mode. Start-up Ecosystem facilitated through various government departments & programs and its few milestones are as below:

- 4100+ Start-ups have benefitted in the last year through various programs of the Central Govt.
- 960 crores of funding has been enabled to Start-ups through various schemes
- 828 crores sanctioned funds for infrastructure
- Tax Exemptions
- Legal Support in Patent Filing (80% rebate in filing of patents: 377 start-ups benefitted)
- *Easy Compliance*: Self-certification and compliance of 9 environments and labour laws through Start-up India web portal/mobile app. Online self-certification for Labour Laws enabled through 'Shram Suvidha' portal
- Relaxed Norms for Public Procurement: By easing the requirement of prior experience and prior turnover in tenders for application by start-ups
- Credit Guarantee Scheme for Start-Ups
- *Industry/Academia Support*: Providing and building infrastructure across the country by setting/scaling up 31 Innovation Centers, 15 Start-up centers, 15 Technology Business Incubators, 7 Research Parks, 500 Atal Tinkering Labs.
- *Start-up Recognition*: 6398 Applications received; 4127 start-ups recognized; 1900 start-ups eligible for tax exemption (900 processed, 1000 pending); 69 start-ups given tax exemption.

On the ground of above steps, that shows that there plenty of opportunities available in start-up in our country.

Limitations

This study analyzed only the programs; schemes & initiatives carried out by the government of India for the betterment of start-up culture along with the working pattern of RKVY-RAFTAAR program that is operational by Individual RABIs (24 in numbers). Here we discussed one of the tools for start-up promotion, so likewise it is not exactly determined the net growth of start-up supporting practices, we can just access a gross picture by this study.

Recommendations

On the basis of experience gained, following recommendations are made for development of start-up activities in the country on next level:

- The similar units must be established in all the agricultural and allied science universities for promotion of agribusiness in India.
- On the line of All India Coordinated Research Projects (AICRPs) on crop improvement and natural resource management, the AICRP on Agribusiness Management (AICRP on ABM) may be initiated by the ICAR, New Delhi.
- There is need of centralization for creating a single window solution of all the programs of the state and central government on start-up development may be brought under one umbrella in the country.

Conflict of Interest

The authors declare that they have no conflict of interest.

Acknowledgement

The authors are thankful to the institutional authority for completion of the work.

References

- Anand, A., & Raj, S. (2019). *Agri-tech Startups: The Ray of Hope in Indian Agriculture*. National Institute of Agricultural Extension Management. <https://www.manage.gov.in/publications/discussion%20papers/MANAGE-Discussion%20Paper-10.pdf>
- Anand, P. (2016, February 3). Opportunities for Startups in India. *Entrepreneur India*. <https://www.entrepreneur.com/article/270330>
- Chokhani, R. (2017, January 27). Challenges and opportunities for Indian start-ups; Key points to note. *The Financial Express*. <https://www.financialexpress.com/industry/challenges-and-opportunities-for-indian-start-ups-key-points-to-note/524728/>
- Griffith, E. (2014, September, 26). Why startups fail, according to their founders. *Fortune*. <https://fortune.com/2014/09/25/why-startups-fail-according-to%20-their-founders/>
- Iwasiuk, D. (2016, August 5). Key Challenges, Opportunities for Tech Startups in Emerging Markets. *Ventureburn*. <https://ventureburn.com/2016/08/key-challenges-opportunities-tech-startups-emerging-markets/>
- Kesavan, T.R. (2018). *Agri start-ups: Innovation for boosting the future of agriculture in India*. Federation of Indian Chambers of Commerce & Industry. <https://ficci.in/spdocument/23049/Agri-start-ups-Knowledge-report-ficci.pdf>
- Mittal, A. (2014, November 25). Indian Startups: Challenges and Opportunities. *The Economic Times*. <https://economictimes.indiatimes.com/small-biz/startups/indian-startups-challenges-and-opportunities/articleshow/45272839.cms?from=mdr>
- Mittal, R., Agarwal, M., & Kadam, M. (2021). Agribusiness Startup: Issues, Challenges & Opportunities. *Journal of Agricultural Marketing*, 1(1), 64-72.