

Building Agribusiness Ecosystem for Startups through Emerging Business Models

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Abstract

Agri-startups diversify across the agricultural value chain, leveraging technology and developing business models to boost competitiveness and commercialization by catering diverse fields like agricultural biotechnology, remote sensing, IoT, farm mechanization, food technology, robotics, and artificial intelligence. Agri-business models are emerging to support these startups and facilitate commercialization in various forms, such as technology transfer offices, technological parks, incubation centers, and industry-university research centers. These models aim to help create and grow spin-off firms by providing targeted support facilities, such as low-cost space and access to consultants. Incubation activities, such as spin-outs and intellectual property licensing, are used by higher education institutes to generate and capture profit from start-ups. Contract farming, cooperative societies, corporate farming, farmer producer organizations, public-private partnerships, and joint ventures are some of the emerging business models. However, agribusiness faces challenges such as inadequate infrastructure, financial strength, quality, technical know-how, organizational ineffectiveness, and limiting factors such as branding, market networking, and skill development programs.

Introduction

India's agrarian sector, which contributes to 20.20 percent of the country's GDP, faces challenges such as decreasing agricultural land holdings, climate variability, soil fertility, uneven access to modern technology, market variability, and lack of capital investment. To transition the sector from subsistence agriculture to profitable ventures, promoting entrepreneurship and business attitude among farmers and youths is crucial. Integrating farming and business is essential for a smooth integration of on-farm and non-farm employment. Agro-business initiatives attract rural youth and empower rural women in tribal areas. However, low productivity remains a persistent issue at the farming level due to lack of production planning, defragmented supply

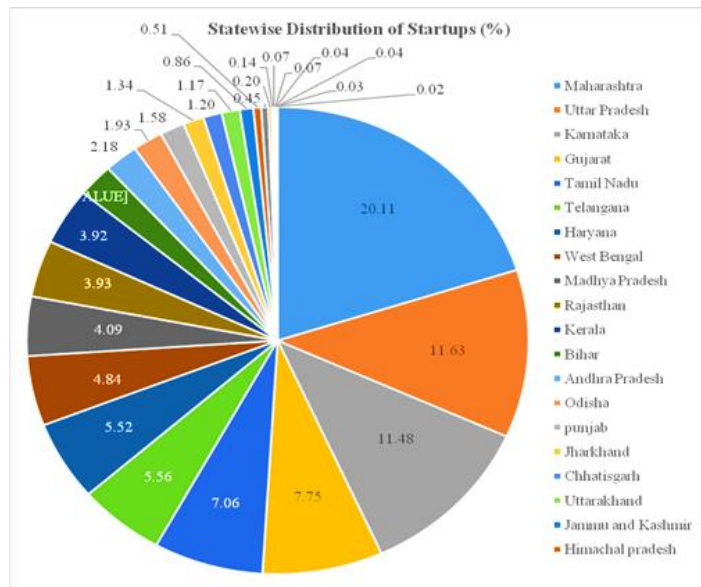
chain, and inability to exploit modern technology benefits. Despite initiatives like online marketplaces, marketing remains a major bottleneck at the business level. Young student innovators face the challenge of raising initial funding for their startups, often coming from friends, family, angel investors, and high net worth individuals.

Commercialization activity has increased, leading to the emergence of various structures such as technology transfer offices, technological parks, incubation centres, and industry-university research centres. These structures aim to support spin-off firms by providing low-cost space, access to consultants, and advice. Higher education institutes use various modes of commercialization, such as spin-out, intellectual property licensing, and outreach. An incubation model is a process where an incubation company supports start-ups to increase the likelihood of portfolio firms' survival and development. Understanding changing business models, products, services, technology-enabled processes, and strategies is crucial for successful navigation in the competitive environment. The incubation model can be an effective method for enhancing agriculture sector policies fostering innovation and technology-driven entrepreneurial growth. This article aims to contribute knowledge on the existing business models in India.

Startup Ecosystem in Agriculture Sector

The startup ecosystem in the agricultural sector has been a significant contributor to the growth and development of the nation. Despite being at a nascent stage, startups are developing personalized solutions to address various emerging issues faced by farmers in agriculture and allied sectors. These startups transform agriculture into agripreneurship, providing solutions at each stage to ease farmers' burdens. India ranks third in the startup ecosystem, with over 69000 recognized startups spread across 647 districts. Startups have diversified across the agricultural value chain, leveraging technology and developing suitable business models to bring competitiveness and commercialization. The growth of the startup ecosystem has been steep, with 15%

annual growth in 2018, while incubators showed a 11% growth. However, startups can stagnate due to unavailability of differentiated products, lack of suitable marketing strategies, or competitive



advantage, leading to their eventual death. The startup ecosystem is spread across 30 states, with Maharashtra having the highest number of startups (Table 1).

Figure 1: State wise distribution of startups in India

Source: Bhat et al., 2022

Emerging Agribusiness Models

- Contract Farming Business Model:** Contract farming signifies associate degree agricultural production (including farm animal and poultry) supported a pre-harvest arrangement between patrons (such as food process units and exporters), and manufacturers (farmers or farmer organizations). The producer will sell the agricultural produce at a selected price within the future to the customer as per the agreement. Besides contract farming, the producer can reduce the danger of unsteady market value and demand the risk of non-availability of quality produce can be reduced. In India, the Indian Contract Act, 1872 regulates contract farming.
- Cooperative Societies Business Model:** A cooperative is "an independent group of persons joining voluntarily to achieve their common economic, social, and cultural needs and ambitions through a jointly-owned and democratically-controlled firm," according to the International Cooperative Alliance (ICA). The government established a commission to study the implementation of cooperatives in India alongside the Indian Famine Commission

(1901), wherein Sir Edward Law served as the commission's head. He received a favourable report from the Commission in 1903, and in 1904 he signed the first Cooperative Credit Corporation Act. As an illustration, consider the cooperative dairy business Anand Milk Union Limited (AMUL), which is situated in the Indian state of Gujarat's small town of Anand. The biggest dairy and milk producer in India is AMUL.

- Corporate Farming Business Model:** Corporate farming consists of business organizations directly owning or leasing farms with a purpose of producing goods for their own captive processing needs or for the open market. Captive farming is the phrase used when it is carried out for captive reasons, while the two names are typically used interchangeably. For example, West Bengal and Assam's Tata Tea plantations.
- Farmer Producer Organization Business Model:** Farmers' Producer Organization (FPO), also known as farmers' producer company (FPC), are legally recognized bodies consisting of primary producers which includes farmers, fishermen, milk producers, weavers, craftsmen and rural artisans. However, their daily operations and business structures mimic those of the expertly managed private enterprises. FPO's has been helping farmers earn more money, giving them greater negotiating power, enabling farmers to add value to their produce, and giving small, marginal farmers access to better technology, loans, better input, and more markets. As an illustration, Chetna Organic Agriculture was established to help the regions tiny and marginal cotton growers who were suffering from poverty. Over 25,000 farmers in Andhra Pradesh, Maharashtra, and Orissa are part of the Chetna Organic network.
- Public-Private Partnerships Business Model:** Public-private partnerships are collaborations between a government organization and a business from the private sector that can be used to fund, construct, and run projects like parks, convention centers, and public transit systems. A project's funding through a public-private partnership may enable an earlier completion or even the project's potential.
- Joint Venture Business Model:** It is a type of Business Company which consists of two or more organizations/people engage in to split

the costs and profits of a certain commercial undertaking. It is an alliance where two or more units combine property and aptitude to conduct a single business endeavor is well-established in management literature. The organizations can be commercial, governmental, or private.

Conclusions

Agri-business entrepreneurship can boost capital formation and reduce unemployment by tapping diverse agricultural resources. Proper organizational support and funding facilities can help agricultural producers use innovation to boost productivity and maintain natural resources. This promotes sustainability and reduces environmental damage. Incubators and accelerators can prepare aspiring entrepreneurs for successful innovation-led agricultural growth. A well-planned business model can stimulate inclusive growth in agriculture and allied sectors by introducing new farming models, advanced agri-tech services, and food products. Newer models with innovative ideas and technologies are needed to address future challenges and improve the traditional farming system.

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