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|  | Project | Report |
| Agriculture Startup And Technology in Undeserved Markets Of India  Authored By-  RAYAN KEJRIWAL | | |
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| **Abstract**  **A**gritechnology start-ups are such a meaningful solution across the agricultural value chain and can be in the form of a product, a service or an application.The following report talks about the existing and the upcoming startups in the field of agriculture and effect on the marketing trend, stakeholders and food supply chains. Many of the new technologies have emerged which are helping farmers to grow and flourish. The report identifies the holistic drivers for the agriculture sector – the demand pull, supply side push and an enabling conducive policy environment for its overall growth. While summing up the future outlook of the sector, the need for technologies to steer the agriculture sector have been emphasized. Characteristics and categories of start-ups, along with the key challenges faced by them, have been shown with a strategic way forward.  Also, Measures by the Government of India to develop start-ups have yielded impressive results; however, to realize their true potential, concentrated efforts by the right mix of partners and with clear objectives will help in achieving faster results. |
| Introduction  Agriculture has always been called the backbone of Indian economy, supporting the livelihoods of the majority of the population. Although India has a significant presence internationally in terms of production of key cereals, pulses, fruits, vegetables and animal products, at the same time, productivity is fairly low. Despite a conducive policy environment and strong demand pull for the sector, key challenges plaguing the sector involve smaller holding size, dismal primary and secondary processing infrastructure, a convoluted supply chain with multiple levels and intermediaries, and limited last mile delivery of services, to name a few.  With the increasing population and demand for better quality and higher quantity of ‘food, fibre and feed’, the performance pressure on farms is increasing remarkably. As per estimates from the Indian Council for Agricultural Research (ICAR), the demand for food grains would increase from 192 million tonnes in 2000 to 345 million tonnes in 2030 and hence in the next 20 years, production of food grains needs to be increased at the rate of 5.5 million tonnes annually.  Agri start-ups have received decent support from the government through supportive policies such as Start-up India, Atal Innovation Mission, NewGen Innovation and Entrepreneurship Development Centre, the Venture Capital Finance Assistance (VCA) Scheme promoted by the Small Farmers’ Agri-Business Consortium and ASPIRE scheme. Such schemes along with well-recognised accelerators, incubators and mentors identified for the agritech start-up ecosystem have been working in tandem to provide the best technical support and reduce the gestation period of agri start-ups. |

Literature: Need of Agricultural Startups

* 1. Modernizing Indian Agriculture

Government needs to modernize Indian Agriculture because agriculture contributes to a major part of the economy and shares 16% of crop provides employment to more than 50% employment to more than 50% employment generation in the country and also majority of rural economy is dependent on agricultural activities. Hence, modernizing agriculture will plays major role in the growth of economy.

2018 witnessed almost 500 agricultural startups in India and in past 5 years, these 500 startups earned nearly $130 M investments.

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* 1. Fragmented Supply Chain

Supply chain in the agricultural sector is largely fragmented in India. Especially the supply chain for perishable commodities like food, vegetables, fruits etc. Remain largely fragmented in India with small scale farmers earning. This is because lack of proper storage facilities including warehouses, transportation, food processing and final reach to the market in the supply chain of these commodities. This is how the supply chain is fragmented.

The best solution which can be offered to this problem requires huge capital investments and an effective organized structure I order to bring this fragmented supply chai into organized structure.

* 1. Unpredictability

Prices of agricultural Commodities are highly volatile and purely depend on the concept of demand and supply. If the demand of an item in a season is less, prices also come down. More the demand, more the supply will increase and as the supply becomes excess, prices drop down significantly.

This problem can also be managed by the implementation of proper supply chain. If the supply by farers increase as compared to the demand, the main problem is the lack of storage space. This can be solved by developing storage centers, godowns, warehouses and cold storages for the perishable goods which enables the stabilization of food supply chain. The excess material can be stored and thus utilized in the off season. Agricultural tech startups can prove to be most beneficial and may provide a right hand solution to the above concerns of the agriculture market.

Also, improvement of fast and efficient transport logistic systems will help a lot.

Understanding Successful Startup Models so far…

Supply Chain efficiency

Startups should use data and technology to prove the efficiency of supply chain.

For Example, Way Cool an agriculture based startup, distributing goods on small scale sellers to large retail outlets and also helps in reducing wastage and inefficiency by the use of data management, process and technology which connects devices to each other.

Jumbo Tail is another startup which connects retailers to food processing industries and farmer producers to maintain a coordination and manage the supply chain efficiently.

Eugos is another startup which operates a chain of warehouses and provides crop storage solutions in rural areas.

Production Support

Startups have created alternative channels to deliver farmers the services in the form of farming inputs i.e. they somehow tend to help farmers dealing with production related affairs. These startups help the farmers to cut down the cost of production by offering seeds, fertilizers etc. In addition, they can supply farming machines and equipment on lease so that farmers can cut down their costs. For example, Gold farm who provides services using cloud based platform. Agrostar offers online web services, call services through which farmers can obtain higher quality products.

Finance

Most of the farmers lack access to financial services due to unavailability of proper collateral in lieu of availing credit facilities. Apart from public sector banks, there are emerging startups who provide easy loan services to small farmers.

Result

Way Ahead

All these instances prove that there is a existing culture for Agro Startups and more startups are most welcome in the upcoming years as many of the startups are most welcome in the upcoming years as many of them have been set as an example till now.

In more of view, Indian agricultural startup set on the go and a startup culture has already been established. What more has to be done includes that these startups may have access to the global markets and talent, need more technical advice and their services may disseminate.

Startups which aim to serve small farmers need more funding, incubation and mentoring from Angel investors and VC’s.

Conclusion

Indian agriculture till now has achieved an appropriate level of and has moved far beyond the production of basic food grains. India has made herself self-sufficient and is able to maintain a good economical balance in terms of import and export. Most of the areas in which starvation was problem are ensured food security by the policies of government and the boost in agricultural sector due to emerging technologies. These policies have the potential to being prosperity to the farmers by providing cost reducing solutions and making them see a change in they want to witness.

Message from FICCI

‘The time has come to enunciate agricultural strategies with innovations. Therefore, leveraging the efforts of agri start-ups is imperative…’