

DATAQUEST



FaaS: Farmer self-reliance to drive agriculture ecosystem

A notification pop-up appears on a phone that reflects the daily data report concerning climate conditions, soil, and preferred crop plantation. The farmer checks it and makes an informed decision about the commodity to be sown. Later, he decides to rent the necessary plantation equipment followed by the purchase of high quality seeds available in the market. After a few months, he completes the harvest, scans the crop for quality and discovers the deserving market price for the produce. With online access to the markets, the sale is complete without a middle agent and he is able to provide for his entire family easily through a higher income. Ten years ago, this would've sounded like a dream. Today, it is a conceivable reality due to Farming-as-a-Service (FaaS).

In layman terms, FaaS enables the farmer to overcome supply chain inadequacies via subscription based service models that employ modern technologies such as Artificial Intelligence, machine learning, etc. Combined with data from satellites, farmers, dealers, and government, FaaS creates an ecosystem that facilitates substantial increase in efficiency, and consequently productivity, via data-driven decision making.

Farm Management Solutions

Out of the three categories of FaaS, farm management solutions with respect to precision farming forms the nucleus. Analytics transform the understanding of natural factors like weather, soil, seed quality, etc, as well as market patterns into tangible data. Once collected, this data can be processed and analyzed to yield valuable insights, which is valuable for all the stakeholders present across the agriculture value chain. For instance, real-time data inputs can optimize commodity monitoring, financial tracking, and industry advice for leading organizations and government bodies. Similarly, farmers can implement adequate Agri practices that yield higher output.

However, the only way to truly utilize farm management solutions at its true potential is maximum scalability.

Scalability

No technology can revolutionize an industry without accessibility. According to a 2018 report by Bain & Co, FaaS in India has received funds worth over \$100 Mn from investors across the globe in the recent years. The idea is to ensure that FaaS benefits can be accessed through a few clicks on the mobile instead of expensive equipment that excludes a majority of small farmers. This is why the initial wave of funding that accelerated new-age startups in the agri sector is shifting towards experienced founders. The success of FaaS is strongly dependent upon in-depth understanding about agriculture along with an on-ground network capable of mass outreach – an intersection that gives an edge to veteran organizations over new business-model driven ventures. But, why is a ground network needed?

Challenges

FaaS paints a perfect picture for farmer benefit on paper, but in reality, majority of small holder farmers continue to be unaware of the technology. Arguably, the biggest challenge for FaaS is to convince the small holder farmer that it is time for them to let go of the archaic, tedious processes associated with agriculture and switch gears to access the entire harvest value chain through his mobile. Subsequently, this should be followed by regular, hands-on training sessions and door-to-door awareness campaigns at the rural level in order to truly overcome the aforementioned awareness challenge.

To conclude, FaaS has the ability to bring farmers, market leaders, and experts on a common platform. It is a technology that can help India achieve the dream of self-reliant, farm-to-fork farmers that are capable of running the agriculture ecosystem in their individual capacity. Provided that we achieve this, the increase in agriculture's contribution to the Indian economy will be nothing short of a marvel.



The article has been written by Ashutosh Kumar, Chief Technology Officer, SLCM Group

(Views expressed are personal)