

E-AGRICULTURE AND RURAL DEVELOPMENT IN INDIA

Dr.G.NEDUMARAN, Associate Professor
Department of Commerce
Alagappa University
Karaikudi – 630 003, Tamil Nadu

M.MANIDA, Ph.D. Research Scholar
Department of Commerce
Alagappa University
Karaikudi – 630 003, Tamil Nadu

Abstract

An extensive number of studies have exhibited that even today generally 70 per cent of Indian population lives in rural areas. Today, rural development is essential for the progress of the economy. Provincial economy can be created by improving provincial markets. Government of India has comprehended the piece of the rustic headway and the responsibility of information technology in the improvement of rural India. A sweeping number of adventures are exhibited in the nation domain with various pending exercises in the pipeline, which are inclined to be displayed by the government in the restricted ability to center time. E-agribusiness assumes key job in beneficial and expanded farming on the planet with the utilization of present day information technology strategies. Agriculture plays a significant role in addressing these challenges and moving the livelihood of Indian farmers. This paper explores the potential contribution of e-agriculture for the development of rural areas and for the better livelihoods of farming community. Further, a broad spectrum framework of the recent state-of-the art wireless sensor system is given as a thorny technology for the Indian farming neighborhood to observe their crops from a remote place.

Key words: Digital india, robotics in agriculture, farm mechanization, rural development, e-agriculture, etc.

1. Introduction

India is a developing country among world nations in which web based communications and its diverse benefits were enjoyed only the urban and semi-urban people. E-agribusiness portrays a rising field concentrated on the upgrade of agriculture and its products and the country advancement through enhanced data and correspondence forms. E-farming includes the conceptualization, outline advancement, assessment, and utilization of inventive approaches to utilize data

and correspondence innovations in the rustic space, with an essential spotlight on horticulture. In 2008, the United Nations introduced to e-horticulture as "a rising field", with the desire that its extension would change and develop the rural areas. E-agribusiness Strategy gives a structure to comprehensively address the ICT openings and difficulties in the horticultural part in a more proficient way while producing new income streams and enhance the occupations of the country network and additionally guarantee the objectives of the national farming end-all strategy are accomplished. The presence of e-horticulture technique and its arrangement with other government designs will avoid e-farming tasks and administrations from being actualized in disengagement. E-horticulture strategy guide was produced by the Food and Agriculture Organization and the International Telecommunication Union with help from accomplices, including the Technical Center for Agricultural and Rural Cooperation as a system for nations in building up their national e-agribusiness tactic/ end- all policies.

2. Rural development

Country's advancement is a powerful strategy, which is essentially stressed with the provincial domains. These join cultivating advancement, setting up of budget and social system, sensible wages as moreover cabin and house goals for the landless, town masterminding, general prosperity, preparing and utilitarian capability, and correspondence, etc. The progress of our nation with a point of view to improve the individual fulfillment of the common people is said to be provincial improvement. The saying of the rustic improvement is so as to accomplish the accompanying four factors, for example, raised monetary development, raise in pay of the country masses, freedom of provincial masses both political astute just as efficient, and insightful to empower simple access to different assets like instruction, restorative care, openings for work, etc.

3. Review of literature

Pradhan, & Mohapatra (2015) stated that plentiful future for successful use of ICT in agriculture and initiatives are gifted. However, much still remains to

be prepared. The execution of these subsequent recommendations can help to take in the full prospective of ICT in agriculture and recover rustic livelihoods.

Atanasoaie (2011) observed the vast ranches that create crops that require remarkable capacity surroundings, it is recommended the utilization of diagonal circulation channels, through which can be sold extensive amounts of merchandise. These channels are: grocery stores, natural shops specific, processors and different middle people. A few buyers need a closer connect with makers, need to hear the account of the item since they put their trust in the individuals who deliver and move these items, and certainty is second rate if the firm is significantly further away.

Ekaterina Arabska (2014) stated that consistence of natural creation to feasible advancement and change in buyer conduct and request towards sound and safe nourishment isn't sufficient. Market costs are a key component in the buyers' choice made by clients on one hand, and in the generation choice made by makers on the other. The simple directly to use to overall markets and great to acquire costs of simple materials, forms the division in the nation send out arranged. The investigation explores some critical issues in the natural homestead productivity and the impact of the European and the state bolster.

Jasur Hasanov and Haliyana Khalid (2015) observed that website quality has an oblique effect on the online purchase purpose of green food products, practitioners should also make the parallel value of their online stores with customers' expectations. To increase the level of online purchase intention, e-retailers should acquire relevant marketing strategies which include creating awareness of the benefits of green products to the public, establishing affiliate network and conducting constant promotions to their objective audience. It is important to understand that website quality is not the only decisive factors that could increase consumer purchasing target. Other qualities such as good customer service, efficient product distribution and logistics and also activist reviews from customers also play an important responsibility.

4. Objectives of the study

1. To study on e-agriculture and rural development.
2. To examine the Government's initiatives for e-agriculture.
3. To list out the advantages of digital India for agriculture.

5. Advanced India project and agriculture

Government's "Advanced India Project" venture propelled on the first July 2015 imagines enabling natives with e-access to tax payer driven organizations and work related administrations, among others. The venture has three center segments, viz. advanced framework, computerized administrations and advanced proficiency. A cell phone is the favored conveyance medium with center around m-Governance and m-Services. The Agriculture and m-Gram Bazaar, out of the seven parts secured under m-Services, specifically affect farming augmentation and promoting administrations. It tries to:

- Transform rustic India into a carefully enabled learning economy.
- Provide all inclusive telephone availability and access to broadband in 250000 towns.
- Extend convenient administration to ranchers through data innovation and its devices.
- Enhance productivity in agrarian administration through computerized education and electronic conveyance of administrations.

6. Government initiatives

The government has come with new strategies and initiatives to help the farmers, among others, started a few measures. The Government has put in task three entrances viz. agriculturist gateway, Kisan call focus, and the m-kisan

entryway to enable ranchers to make educated choices for effective cultivating under differing agro-climatic conditions.

Kisan Credit Card (KCC): The Kisan Credit Card scheme is a credit scheme introduced in August 1998 by Indian banks. This model scheme was prepared by the National Bank for Agriculture and Rural Development on the recommendations of R.V.GUPTA Committee to provide term loans and agricultural needs. Its objective is to meet the comprehensive credit requirements of the agricultural sector by giving financial support to farmers. Participating institutions include all commercial banks, Regional Rural Banks, and state co-operative banks. The scheme has short-term credit limits for crops, and term loans. KCC credit holders are covered under personal accident insurance upto Rs. 50000 for death and permanent disability, and upto 25000 for other risk. The premium is borne by both the bank and borrower in a 2:1 ratio. The validity period is five years, with an option to extend for upto three more years. Kisan Credit Card offering credit to the farmers in two types viz, cash credit and term credit for allied activities such as pump sets, land development, plantation, and drip irrigations.

- Under the e-Governance program, soil wellbeing card programming has been institutionalized and online programming created to give coordinated supplement administration suggestions utilizing soil test edit reaction strategy for eight states.
- Under National e-Governance Plan in Agriculture, data is given to ranchers through numerous channels including Common Service Centers Internet Kiosks and SMS. Presently, 12 distinguished groups of administrations give data on climate; soil wellbeing; seeds, supplements, bugs; water system; crops, great horticultural practices, cultivate hardware; promoting foundation; cultivate product costs, entries, obtainment focuses; electronic affirmation to send out and import; dry season help and administration; domesticated animals, fisheries administration; preparing; observing usage and assessment of plans.

- National Bank for Agriculture and Rural Development has likewise outlined agrarian gateways for ranchers.

Centered attention: The prompt need is to direct a country wide assessment concentrate to evaluate the effect of ICT activities on horticulture effectively created and set up by the legislature and private division in regard of:

1. Number of ranchers routinely accepting and utilizing portable empowered horticultural data administrations.
2. Input from clients about substance, convenience, utility, fulfillment, changes required, their complaints.
3. Increment in efficiency, yield, and salary of profited agriculturists.
4. Increment in value acknowledgment in cultivating products sold, coordinate offering without reliance on agents.
5. Decrease in expenses of exchanges.
6. Mechanism to review complaints.

For the effective outlining in the areas of farming, the following framework has been introduced.

1. Straightforward entry
2. Refreshed substance
3. Format, outline, and study subjects
4. Simple route
5. Higher intuitiveness
6. Access through numerous media
7. Higher utilization of non-printed data
8. Language alternatives
9. Lower cost of exchange

Robotics in agriculture: The use of robotics in the field of agriculture is quickly becoming a thought-provoking high-tech industry, representing novel professionals, original companies and new investors. The technology is developing rapidly, not only advancing the fabrication capabilities of farmers, but also advancing robotics and mechanization expertise as we know it. In the farming sector, the multipart ranch duties are being too risky and they are performed by the robots, which are tricky for human to achieve. Recent news claims that the Japanese regime has taken a proposal to use automatic operators in domain inundated by the March 2011 tsunami. This “Dream project” was planned to involve unmanned tractors effective on the farm on the disaster site. The robotic farmers are capable of cultivating vegetables, fruits, soybeans, wheat and rice, which are then packed in boxes and shipped across the country by this robotic technology. Agricultural robots are rising production yields for farmers in assorted ethnicity. From drones to self-governing tractors to robotic arms, the technology is organism deployed in original and pioneering applications.

Agricultural robots mechanize purposeful, chronic and boring tasks for farmers, allowing them to spotlight further on civilizing overall production yields. Some of the most common robots in agriculture are used for harvesting and picking, weed control, independent mowing, pruning, seeding, spraying and lessening, arrangement and packing and effectiveness platforms. Harvesting and picking is one of the most popular robotic applications in agriculture due to the accurateness and rapidity that robots can attain to progress the size of yields and diminish ravage from crops being left in the field. For example, a robotic system designed to pick sweet peppers encounters many obstacles. Vision systems have to conclude the spot and maturity of the interleave in unkind conditions, including the occurrence of clean, varying light greatness, temperature swings and movement created by the wind. But it still takes more than advanced vision systems to pick a pepper. A robotic arm has to navigate environments with just as many obstacles to delicately grasp and place an infuser. This process is very different from picking and placing a metal part on an assembly line. The agricultural robotic arm must be supple in a lively environment and perfectly

adequate not to damage the peppers as they are being selected. Harvesting and substitute robots are attractive, very trendy with farmers, but there are dozens of other novel traditions the agricultural diligence is deploying preset computerization to develop their production yields.

7. Need of administrative and development authority

1. Increment in ranchers' simple, convenient and dependable access to horticultural data framework all through the nation in an orderly and arranged way.
2. Advancement of need based suitable computerized models for agribusiness under open and private area which adjust BIS and accessible at moderate expense.
3. Enhancing general and advanced education and PC aptitude and computerized framework in provincial India in accordance with the computerized India vision and avoidance of receiver models and fake practices.

8. Advantages of digital india for agriculture

- Electronic or digitization activity can decrease battles for land, affirmation, and exchange of land accordingly ranchers.
- Technology exchange, regardless of whether the figure will be quicker and simpler through advanced India.
- 'Seed Bank', 'Land overview' needs digitization, once done, then the government can frame approaches and can direct agriculturists to best practices reasonable to their property.
- Digitization can cull the escape clauses and increment proficiency in endowment and other advantage exchange.
- Online exchange of information will be a shelter once ranchers associated with

it. This will incorporate them straightforwardly with the government where arrangements can be given rapidly.

India is a major agrarian culture and no horticultural society can develop without coordinating the greater part of its populace since it is a gathering of individuals associated with determined social cooperation, or an extensive social gathering having the same geological or social domain, commonly subject to the same political expert and overwhelming social desires. These projects will incorporate the rancher network to a standard which was to a great extent due.

9. Conclusion

From the examination, we came to realize that e-farming administration gives advantages like to expand profitability, expanded quality in items, high pay, expanded productivity, raised profit, simple information assembling about climatic condition, dampness, soil type, crop design and so forth and can share agrarian information in a quick way. E-horticulture encourages auspicious and precise reports with respect to current market cost and the market request to ranchers at lower cost and at lower chance by methods for ICT empowered gadgets, for example, cell phones, radio, TV and through internet providers. Consequently, making mindfulness among the rustic masses with respect to IT and ITC programs, assumes the indispensable job or accomplishing rustic improvement. In the event that IT and ITC mindfulness had been made among the provincial masses that may prompt social and financial prosperity of country masses that encourages rustic advancement just as country advancement. India is a making country so keeping cash region was totally electronic giving all trades and activities. These preferences moreover significant to the agriculturist that development an Indian Government has given to the farmer entrance, Kisan call center, and the mkisan portal to empower farmers to settle on taught decisions for profitable developments under evolving agro-climatic conditions. For making countries, the advances in enrolling power, accessibility, electronic thinking, biotechnology, and GIS, and more state-of-the-art, progressively equipped headways hold monstrous assurance.

10. Reference

- Atanasoaie (2011). Distribution channels on the organic foods market. *Journal of Horticulture, Forestry and Biotechnology*, 15 (3), 19-25.
- Jasur Hasanov., & Haliyana Khalid (2015). The impact of website quality on online purchase intention of organic food in Malaysia: A webqual model approach. *Elsevier*.
- Pradhan Mohapatra (2015). E-agriculture: A golden opportunity for Indian farmers. *International Journal of Research and Development - A Management Review*, 4 (1), 2319–5479.
- Robert. J. Cox (2001). Could E-marketing be utilized in the Tasmanian organic growers industry. University of Tasmania,15.
- Stewart Lockie, K., & Lyons G. Lawrence (2006). Going organic: Mobilizing networks for environmentally responsible food production. *CABI*, 126 - 128.
- Varun Kumar, M., & Pulidindi Venugopal (2016). E-agriculture and rural development (A study specially focused on rural farmers of Katpadi Taluk in Vellore District of Tamil Nadu). *Journal of Chemical and Pharmaceutical Sciences*, 9 (4).