

A Study on Role of Information and Communication Technology in Agriculture Sector with Special Reference to Tirunelveli City

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Abstract: *Since over 55% of the population chooses agriculture as their major vocation and accounts for over 17% of the GDP, agriculture is regarded as the foundation of the Indian economy. Agriculture is a significant part of the Indian economy, but it is underdeveloped for a variety of reasons, including low market connectedness and fragmentation, late and ambiguous information to farmers, low land holdings, and a lack of or limited use of new technologies. It has become crucial to investigate various methods of keeping our farmers informed about contemporary technologies and pertinent information the actual challenge lies in the development and timely diffusion of better individualized technologies tailored to various agro-climatic conditions, types of crops, holding land sizes, types of soil, and associated diseases and pests.*

Keywords: ICT in Agriculture, Information related Agriculture, Indian Farmers, Market

I. INTRODUCTION

The development of information and communication technology (ICT) in recent years has had an impact on company growth in both developed and developing countries' economies. The International Telecommunication Union (ITU) reports that during the past ten years, there has been a rapid increase in the use of ICTs globally, as seen by an increase in all indices (such as mobile phone subscriptions, internet access, mobile and fixed broadband subscriptions, etc.). By 2013, there were 6.8 billion active mobile phone subscriptions, virtually the whole world's population. Almost 70% of those in the bottom fifth of the population in developing countries had a mobile phone by the end of 2015. Also, the internet is accessible to more than 40% of the world's population. Major initiatives are being undertaken to link people who are still disconnected, 3 The quick switch from mobile to broadband usage has also facilitated the quick creation of a variety of new information and communication channels. include social networking, portable cloud computing, big data, and smart terminals, which unquestionably are influencing how people live their lives. Mobile phone subscriptions are enabling new ways to conduct business online and offline in terms of purchasing, selling, marketing, and financial transactions. They are also changing how data and information are collected, stored, analyses, and shared, as well as how people's livelihoods are conducted.

1.1 Objectives of Study

- To study the ICT initiatives taken for agriculture.
- To know the awareness about the ICT tools among farmers
- To help the villagers augment the growth of agriculture and contribute in GDP growth

II. REVIEW OF LITERATURE

Manish Mahant, Abishek skula(201) Information and communication technology (ICT) is being used more and more in agriculture. E-agriculture is the idea, design, development, testing, and implementation of novel information and communication technology (ICT) applications in rural areas. realm, with an emphasis on agriculture in particular. Due to the fact that it comprises of three basic technologies, information and communication technology (ICT) can

significantly contribute to maintaining information properties. These technologies are used for managing, processing, and transferring data, knowledge, and information.

Roert szillagi(2012) Not only are new ICT technologies being developed quickly, but they are also giving rise to novel tools and systems. Nowadays, the Internet network has evolved into one of the most important tools for corporate processes. The possibilities multiply when using mobile devices to access the Internet. The Information technology has several particular applications in agriculture. The use of ICT in agriculture and its primary drivers have been studied. It is essential to comprehend the fundamental teachings for effective application. Get a rough idea of the Hungarian position by reading this section. This section contains information on household communication equipment and ICT usage by persons by age. Information technology regional differences can also be recognised. There are various technical and application.

Shunmuga priya M, Dr.Tamilarasi A.(2013) Mobile devices are widely used and offer an all-encompassing learning environment. This article discusses the development and creation of a mobile courseware for students studying ICT utilising a problem-based learning approach. The purpose of the course materials is to assess if implementing problem-based learning pedagogies in a mobile learning environment is feasible for students studying IT. For, a case study is developed The M-learning framework is used to implement Java programming and the course materials. The service-oriented architecture is used in the development of the Learning framework. The PBL environment serves as a visual representation of the creation and delivery of learning items for mobile learning.

Table 1 Demographic profile of the respondents

Demographic variables	Categories	Frequency	Percentage
Gender	Male	27	60
	Female	18	40
	Total	45	100
Age	Below20	9	20
	20-35	12	26.66
	35-50	11	24.44
	50-above	13	28.88
	Total	45	100
Education	Illiterate	12	26.66
	SSLC	11	24.44
	HSC	9	20
	others	13	28.88
	Total	45	100
Marital status	Unmarried	17	37.77
	Married	28	62.22
	Total	45	100
Income	Below20000	12	26.66
	20000-40000	15	33.33
	Above 40000	18	40
	Total	45	100

WHERE DO YOU GET THE MARKET RELATED INFORMATION?

GET THE MARKET RELATED INFORATION		
TV	12	26.66
Radio	13	28.88
News paper	8	17.77
Mobile phone	10	22.22
Total	45	100

WHAT FACTORS AFFECT YOUR YIELD?

Factors affect your yield		
Natural calamities	26	57.77
Lack of finance	19	42.22
TOTAL	45	100

Source data: Primary data

INTERPRETATION

The above table 1 shows that 60percentage of the respondents are male and 40percentage of the respondents are female.

- According to the age wise classification 28.88percentage of the respondents are the age group of above 50 years and 26.66percentage of the respondents are between the age group of 20-35 years and 24.44percentage of the respondents are between the age group of 35-50 years and 20percentage of the respondents are below 20 years.
- According to the education wise classification 28.88 percentage of respondents are others and 26.66 percentage of the respondents are Illiterate , and 24.44 percentage of the respondents are SSIC and 20 percentage of the respondents are SSLC..
- According to the marital wise classification 62.22percentage of the respondents are unmarried and 37.77percentage of the respondents are Married.
- According to income wise classification 40 percentage of the respondents are above 40000, and 33.33 percentage of the respondents of 20000-40000, and 26.66 percentage of the respondents are below 20000
- According to the Get the market related information classification 28.88percentage of the respondents radio and 26.66 percentage of the respondents TV. 22.2 percentage of the respondents the mobile phones. And17.77 percentage of respondents are news paper.
- According to the factors affecting your yield wise classification 57.77percentageof the respondents. natural calamities 42.22percentage of the respondents.

CHI-SQUARE TEST:

Null hypothesis: There is no significant relationship between age and level of satisfaction.

Age	Factor affecting yield	Natural calamities	Lack of finance	Total
Below 20		4	6	10
20-35		6	5	11
35-50		7	5	12
50- above		5	7	12
TOTAL		22	23	45

O	E	O-E	(O-E) ²	(O-E) ² /E
4	4.89	0.89	0.792	0.16
6	5.11	0.89	0.792	0.017
6	5.37	0.63	0.391	0.042
5	5.62	0.63	0.384	0.06
7	5.87	1.13	1.276	0.21
5	6.13	1.13	1.276	0.20
5	5.87	0.87	0.756	0.87
7	6.13	0.87	0.756	0.73
				2.289

Source: Computed data

Calculation of table value:

Calculated chi-square value 2.289

Degrees of freedom – (R-1) (C-1)

= (4-1) (2-1)

= (3)(1)

V=3

III. FINDINGS

- Majority of the respondents are male 60percentage
- Majority of the respondents are the age of above 50 year
- Majority of the respondents are literate 73.33percentage
- Majority of the respondents are earning above-50000.
- Majority of the respondents are business 37.77 percentage.
- Majority of the respondents are market related information to radio 28.88 percentage.
- Majority of the respondents are factors affecting yield in natural calamities57.77percentage.

IV. SUGGESTIONS

- To Increase Awareness on ICT Programmers in agricultural
- To contact Training programmers at village level.
- To Budgetary support.

V. CONCLUSION

One of the most important industries in our nation is agriculture. The ability of Technology to transform agriculture in numerous ways is a well-known truth. ICT projects have not yet progressed in any way diffusion of agricultural information and other regions. It is crucial to compare and calculate agricultural projects using ICT correctly. It is crucial right now to use ICTs to get relevant information and to use more advanced ICTs in agriculture.

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