

# PERCEPTION OF ICT IN FARMING PRACTICES WITH SPECIAL REFERENCE TO E-COMMERCE IN AGRICULTURE

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**ABSTRACT:** : *Electronic commerce involves doing business with the help of electronic media, making use of information technology, such as electronic data interchange. ICTs play an important role in achieving sustainable agricultural development when they are used to document the organic and traditional farming process. For this study, 400 farmers are selected on convenient sampling method from the randomly selected in 5 Taluks at Perambalur District. 80 farmers in each taluk selected. One way Anova test used in this study. The researcher concluded that based on the education level of the farmers gave the impact to perception of e-commerce practices. Benefits is a significant of constraints in adoption of e-commerce.*

**Key Words:** *ICT, E-commerce, Perception*

## Introduction:

The term Electronic Commerce or electronic commerce consists of all the commercial activities carried out with the use of electronic means, that is to say, a computer network. It involves doing business with the help of electronic media, making use of information technology, such as electronic data interchange (EDI). Electronic commerce involves the sale or purchase of goods and services through computers and networks by companies, individuals, governments or other organizations. E-Commerce is based on traditional commerce by adding the flexibility and speed offered by electronic communications. Electronic commerce is the application of current and emerging information and communication technologies (ICT) to conduct business. These include existing technologies such as landlines and fax machines, but the ICTs that offer most of the possibilities for small businesses are mobile phones, email and other Internet-based services. The various areas in which ICT can play an important role are: To develop research and extension of the agricultural system; have specific research and extension modules for each location; and promote market expansion, sustainable agricultural development and participatory research. Agricultural extension systems in most developing countries do not have sufficient funds and have had mixed effects. Much of the extension information has turned out to be obsolete, irrelevant and not applicable to the needs of small farmers, leaving these farmers with very little information or resources to improve their productivity. ICTs help the extension system to reorient towards the general agricultural development of small production systems. ICTs play an important role in achieving sustainable agricultural development when they are used to document the organic and traditional farming process.

## Review of Literature:

**Ehmake et al.,(2001)** The open access architecture of the Internet, the decrease in the costs of information technology and the high volume have led to progressive advances for the entire marketing system. The parallel changes in the structure of agriculture have contributed to the current generation of information technology. The main change is the need for closer coordination of the upstream and downstream supply chain from the producer and from suppliers of seeds, fertilizers, machinery to food processors and retailers. Therefore, technologies such as electronic commerce have forced new relationships between and among agribusiness buyers to form a complex web interaction.

**Adebambo Adewale Oduwolw, Chichi Nancy Okorie, (2010)** examines the provision of agricultural information for rural inhabitants / farmers at the MDG meeting. They are eradicating poverty and hunger in the world. The methods of disseminating information to identified farmers include the use of electronic and printed media, meetings in the town square, churches and mosques, as well as markets.

**Bartholomew Aleke, Udechukwu Ojiako, David W.Wainwright, (2011)** In their article, they critically examined how the increased social parameters impact on the effective adoption of Information and Communication Technology (ICT) by small-scale agribusinesses operating in southeastern Nigeria. The result of this study highlights important issues of ICT adoption. One particular area that should be

considered is the adoption channel. Perceptions of ICT adoption will differ significantly among adopters. For this reason, the need to develop an appropriate adoption channel that guarantees the successful dissemination of innovation must be recognized.

**Aditya R. Khanal and Ashok K. Mishra (2013)** they mentions that a study by Briggeman and Whitacre in 2010 investigated the limitations in wider adoption of the Internet among agricultural households. They point out three main reasons why "there is no computer in the home", "concern for Internet security" and "inadequate Internet service" to explain the lack of Internet use by agricultural households. Two notable limitations of previous studies include: 1) the impact of Internet use on the income of agricultural households and the financial performance of the farm; 2) Data limitation: most studies have used local or regional data from large farms.

Gopinath.R, Kalpana.R, & Shibu. N.S.(2016) concluded from their study, adoption of e-commerce is very useful to farming activities of marketing namely customer support, collaboration with supplier, information and etc. to the farmers.

#### **Purpose of the study:**

To know how farmers have to perceive the adoption and constraints of e-commerce practices in the crop.

#### **Objectives of the study:**

To Know if there is any relationship between the perception of electronic commerce with experience and education.

#### **Hypothesis of the study:**

The research based on Null hypotheses

NH1: There is no significant difference in the perception of e-commerce based on the educational background of farmers and their experience.

NH2: There is no significant difference in the perception concerning constraints in adoption of e-commerce based on education background of farmers.

#### **Period of the study:**

This study covers a period of three months from January to March 2019.

#### **Methodology:**

##### **Sample frame:**

The sample chosen for the study covers the farmers of different segments of Perambalur District. Totally 400 farmers are selected on convenient sampling method from the randomly selected in 5 Taluks at Perambalur District. 80 farmers in each taluk selected.

##### **Data collection method:**

Primary data collected from the respondents through the administration of a structured questionnaire that addresses various aspects of the work sequences. This study was carried out through a survey method using questionnaires as the main instrument.

#### **Statistical tools:**

The primary data were collected, tabulated. A pilot study was carried out to review the questionnaires and for the analysis of items. The validity and reliability of the questionnaires were measured. The internal consistencies of scale were evaluated through the Cronbach's Alpha computation. The one way anova was used in this study.

#### **Limitation of the study:**

- 1) The time restriction has imposed important limitations on the study and has forced to restrict the respondents in a stipulated time.
- 2) The study focused solely on the application of ICT in agricultural marketing.
- 3) The information provided by the respondents is based exclusively on their perception only.

#### **Statement of Problem:**

The reform of agricultural marketing was considered an essential step to improve the commercialization of electronic agriculture and electronic agriculture in India. A major setback for the agricultural industry is its inability to plan production according to market requirements. In fact, it is this difference between other industries and agriculture that places him in a disadvantaged position. Market-oriented production will surely benefit farmers in India. It is to determine the role of electronic commerce, combined with the

concept of communities of practice that can play to improve farm productivity and farmers' knowledge.

**Findings & Discussion:**

**Table No. 1. Showing the result of Educational Qualification of Farmers**

Description	Frequency	Percent
None	90	22.5
School	110	27.5
Under graduate	140	35
Post graduate	60	15
Total	400	100.0

Source: Primary data

**Table No.2 One-way ANOVA results across Education and Perception of E-Commerce**

		Sum of Squares	df	Mean Square	F	Sig.
Buying -Selling	Between Groups	42.588	4	10.647	9.045	.000**
	Within Groups	465.184	395	1.177		
	Total	507.772	399			
Provide Information	Between Groups	15.733	4	3.933	2.913	.001**
	Within Groups	533.382	395	1.350		
	Total	549.115	399			
Decision Making	Between Groups	10.142	4	2.536	2.085	.005**
	Within Groups	480.457	395	1.216		
	Total	490.599	399			
Improve Recruitment	Between Groups	38.250	4	9.563	8.042	.002**
	Within Groups	469.850	395	1.189		
	Total	508.100	399			
Customer Support	Between Groups	13.208	4	3.302	2.389	.006**
	Within Groups	545.907	395	1.382		
	Total	559.115	399			
Improve Collaboration With Suppliers.	Between Groups	29.779	4	7.445	5.937	.009**
	Within Groups	495.590	395	1.254		
	Total	525.369	399			
Improve Collaboration With Other Farmers.	Between Groups	64.492	4	16.123	10.879	.005**
	Within Groups	585.505	395	1.482		
	Total	649.997	399			
Coordination	Between Groups	16.216	4	4.054	3.760	.000**
	Within Groups	425.913	395	1.078		
	Total	442.129	399			
Advertising	Between Groups	11.883	4	2.971	2.012	.008**
	Within Groups	583.291	395	1.476		
	Total	595.174	399			
Logistics	Between Groups	8.644	4	2.161	1.943	.004**
	Within Groups	439.524	395	1.112		
	Total	448.169	399			

Source: Primary data \*\* significant at 1% level

**Table No. 3. One-way ANOVA results across Education and Constraints of e-commerce**

		Sum of Squares	df	Mean Square	F	Sig.
Infrastructure	Between Groups	11.034	4	2.759	2.657	.210
	Within Groups	410.372	395	1.038		
	Total	421.406	399			
Cost of Implementation	Between Groups	55.928	4	13.982	11.026	.110
	Within Groups	501.061	395	1.268		
	Total	596.988	399			

Obstacles	Between Groups	23.151	4	5.788	5.669	.520
	Within Groups	403.567	395	1.021		
	Total	406.718	399			
Benefits	Between Groups	32.110	4	8.028	7.011	.020*
	Within Groups	452.610	395	1.145		
	Total	484.720	399			
Lack of trust	Between Groups	8.424	4	2.106	1.646	.233
	Within Groups	505.563	395	1.279		
	Total	513.987	399			

Source: Primary data \* significant at 5% level

## Analysis of result & Discussion

### Frequency table:

Based on the findings, table no.1 shows that 35% farmers finished their under graduate, 27.5% farmers finished their school level, 15% farmers completed their post graduates and 22.5% farmers were illiterate.

### ANOVA Analysis:

Table no. 2 reveals that all the enumerated variables have significant F values at a level of 0.01 and, therefore, the null hypothesis, H<sub>0</sub> is rejected and the alternative hypothesis, that is, there is a significant difference in perception on the adoption of electronic commerce. On the basis of the educational background of farmers is adopted.

Table no. 3 clearly reveals that the only variable "Benefits" by itself is significant and, therefore, the alternative hypothesis is accepted: there is a significant difference in the perception relative to the restrictions in the adoption of electronic commerce based on the background Farmers' education The remaining variables have obtained insignificant results and, therefore, for these variables, H<sub>0</sub> is accepted.

### Conclusion:

Based on the results, farmers' education used to adopted the information communication and technology(ICT). Ministry of commerce and industry insist the impacts of ICT due to digital era for global level business. Government took all the steps to fulfill the digitalized one. But Perambalur district is a backward area and the district is in terms of perception and level of adoption of Internet information for e-commerce among farmers, which is in fact only in its initial stage. The researcher concluded that based on the education level of the farmers gave the impact to perception of e-commerce practices. Benefits is a significant of constraints in adoption of e-commerce.

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