



Research Article

STUDY ON PERFORMANCE OF SELECTED FARMERS USING MOBILE PHONES FOR FARMING IN LAKHNAUR BLOCK OF MADHUBANI DISTRICT OF BIHAR

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Abstract- The present study was conducted in Madhubani district of Bihar. To find out the performance of farmers in term of efficiency, effectiveness and reach of selected farmers using mobile in farming. Madhubani districts were selected purposively from the Bihar due to the following reason, the district has very rich & fertile land, they have been boon for the farmers. Total of 100 farmers were randomly selected from Block Lakhnaur in Madhubani district of Bihar. Lakhnaur block consists of 44 villages, out of which 2 villages were selected randomly for this study. Data was collected by interviewing the respondents through a structured interview schedule. Result shows that majority of respondents had contact local farmers for advice on how to deal affected crops, contact someone far away without incurring transportation cost and gain information much more quickly.

Keywords- Farmers Efficiency, Agriculture, Mobile, Information, Farming.

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Introduction

In 21st century agriculture plays important roles in augmenting the income of the rural stakeholders through proliferation of food based industries and sustainable management of natural resources. The modern day agriculture benefits the different stake holders associated to it in different levels like the farmers, the intermediaries, the ultimate users as well as the policy makes that is the government. In developing countries like India Information and communication, technologies (ICTs) have provided the farmers with different need based and timely information related to agriculture. By virtue of this advancement in technological intervention, these countries are now considered at par with the developed ones in information sharing regarding weather, natural resources and other agriculture related information [1]. In last two decades the popularity of ICT in every nook and corner of the society has induced significant effect on agriculture by boosting the levels of production and rural society by providing social justice and bridging down the gap between the rural-urban divide. [2]. It is showed that those farmers who have used the mobile in agriculture farming have increased their crop production agriculture related information and knowledge about the natural resources. The trend remains the same for the users of e-services, e-commerce applications in agriculture. This has significantly raised their incomes, [3, 4].

Among the all forms of tools related to ICT mobile phones are most popular in the context of developing nations like India. They fasten the process of getting information by the farmers, interpreting them, and sharing with other farmers. Increasingly, they enable farmers manipulate and seeking useful and time bound information from different social and business networks, [5]. The role of mobile phones in getting access to various agricultural information and extension services. It identifies new techniques for improving access to information from various sources whether private sources or through government agricultural extension services with proper management of input and output supply chains;

facilitating the delivery of other mechanisms; making the extension services more accountable; and increasing linkages with research systems, [6]. The mobile phones usage in getting information has reduced information asymmetries to great extent, enabling users to access arbitrage, marketing or trade opportunities, [7]. Studies have attributed multiple benefits to the mobile phone [8]. The proliferation of mobile phone-based services increased significantly in recent years, providing new dimensions of accessing price and market information, and coordinating input or output resources including transport and logistics, finance and production techniques, [9]. The role of the mobile phones in improving the levels of production of individuals and organizations within resource-constrained environments is very inspiring due to increased efficiency in assessing the information, effectiveness in communicating, and extent of reach to different levels in agriculture farming. [10, 11]

Materials and Methods

The study was conducted in district Madhubani of Bihar. Bihar state was selected purposively. Agriculture is the dominant economic activity employing around three quarters of the population in the State contributing around 38 percent of the Gross Domestic Product (GDP) of the state. Among the main crops cane, wheat, lentils and jute are important. Supplementary crops include oilseeds like mustard and sesame, pulses like green gram and red gram, barely, gram and maize and vegetables like potatoes, tomatoes, cabbage, etc [12]. The state of Bihar comprising 38 districts, out of which Madhubani district was selected purposively for study. Due to the district has very rich & fertile land, they have been boon for the farmers. Madhubani district has been divided in to 21 blocks. Out of these 21 Blocks, Lakhnaur was selected purposively. Lakhnaur block consists of 44 villages, out of which 2 villages were selected randomly for this study. Total sample of 100 respondents were selected randomly for this study,

which possessed mobile phone for getting agricultural information. The obtained results were analyzed in the form of frequency and percentage.

Frequency

It was calculated to find out the number of respondents in a particular cell.

Percentages

The percentage value was calculated to make simple comparisons. Percentage was calculated by dividing the frequency of a particular cell by number of respondents and multiplying by hundred.

$$\text{Percentage (P)} = (n/N) \times 100$$

Where

n = Frequency of particular cell

N = Total number of respondents in a particular cell

Results and Discussion

Table-1 Enhance to efficiency of farmers using mobile in farming

S.No.	Categories	Frequency	Percentage
1	Ability to decrease transportation cost thought increased coordination results in increased finance	20	20
2	Ability to use mobile calendar allow for timely planting	11	11
3	Ability to coordinate multiple farmers so that they can now sale in bulk to larger market	31	31
4	Ability to contact someone far away without incurring transportation cost	38	38
Total		100	100

[Table-1] indicates that majority of respondents (38%) had contact someone far away without incurring transportation cost followed by to coordinate multiple farmers so that they can now sale in bulk to larger market (31%). Further, (20%) decrease transportation cost thought increased coordination results in increased finance and Only respondents (11%) had use mobile calendar allow for timely planting.

Table-2 Enhance to effectiveness of farmers using mobile in farming

S.No.	Categories	Frequency	Percentage
1	Ability to use the mobile has increased Agriculture Outputs through the increased access to Agriculture Input	22	22
2	Ability to call for agricultural help decrease uncertainty	33	33
3	Ability to gain information much more quickly	37	37
4	Ability to contact agriculture based development organization for emergency agricultural needs	8	8
TOTAL		100	100

[Table-2] indicates that majority of respondents (37%) had gain information much more quickly followed by to call for agricultural help decrease uncertainty (33%). Further, (22%) use the mobile has increased Agriculture Outputs through the increased access to Agriculture Input and only respondents (8%) had contact agriculture based development organization for emergency agricultural needs.

Table-3 Enhance to effectiveness of farmers using mobile in farming

S.No.	Categories	Frequency	Percentage
1	Ability to gain experts advice	27	27
2	Ability to contact the multiple markets and compare before bartering	38	38
3	Ability to call people that own land and organize rental agreement to farm it	4	4
4	Ability to gain access to agricultural input	31	31
TOTAL		100	100

[Table-3] indicates that majority of respondents (38%) had contact with the multiple markets and compare before bartering followed by to gain access to agricultural input (31%). Further, (27%) to gain experts advice and only respondents (4%) had call people that own land and organize rental agreement.

Conclusions

From the above findings, it can be concluded that using mobile by farmers in farming have enhance their performance agriculture activities. Majority of respondents had contact someone far away without incurring transportation, contact the multiple markets and compare before bartering and had gain information much more quickly. Mobile phones can help enhance farmer ability in making right decision at right time in agriculture. Mobile phone is more powerful tool of ICTs, which enhanced performance of farmers in farming activities.

Conflict of Interest: None declared

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