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Mobile phone technology: An impact of farming community

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Abstract

Mobile phone is a welcoming technology in the field of agriculture. Mobile phone is very useful to communicating agriculture message to timely and required languages. Mobile phone-based extension allows us to tackle many problems associated with traditional extension. Mobile phone is low cost and timely delivery information. A study was conducted at Coimbatore district of Tamil Nadu to understand the utilization pattern of the mobile agro advisory services offered by the public extension system. Here the agro advisories offered by the e-Extension centre of Tamil Nadu Agricultural University was selected. A sample of 200 respondents was selected by employing proportionate random sampling method. Results of the survey showed that personal changes, farm improvement / development, technology changes and social changes are increased as results of mobile agro advisory service. With regard to the economic level changes, farmer experienced only a very little impact on the economic wellbeing.

Keywords: Mobile phone technology, farming community, traditional extension.

Introduction

The mobile technologies have created new channels to communicate with others. Farming is not so linear but requires constant inputs at every stage where new technological inputs provide better crop outputs. It means, crop production depends on weather, agricultural practices and management of pests and diseases at right time to save crops and gain better results. The final produce should provide better marketable price to farmers, where the market intelligence is the key, which provides regular information about nearby markets in local language for which mobile based services are more essential now-a-days.

Donner (2009) ^[1] distinguished between different livelihood functions of mobile phones, including mediated agricultural extension, market information systems, virtual markets, financial services and direct livelihood support. Another recent study by the World Bank identifies four areas where mobile applications can promote agricultural and rural development, including better access to markets, disease and climate information; better access to extension services; better market links and distribution networks (by linking buyers and sellers, and facilitating accounting and traceability); and better access to finance, including credit, insurance and payment methods (Qiang *et al.* 2011) ^[2].

In Tamil Nadu, public and private agencies are providing mobile agro advisory services to farmers. Among the public advisory service providers, state department of agriculture and Tamil Nadu Agricultural University (TNAU) are the two important prominent agencies addressing the critical agricultural information needs of the farmers. Among these two agencies, the Tamil Nadu Agricultural University is the prominent giant which caters to the agricultural information needs of farmers and extension workers of state department of agriculture in Tamil Nadu. More over it has a wider coverage of farmers throughout entire Tamil Nadu, comparing to other information service providers. A critical analysis of its information support system, farmers preferences over various dimensions of the services, farmers' use pattern of the advisories and the impact generated would help to make appropriate suggestions and to reorient/fine tune the service modalities, so as to offer/valuable services and ensure maximum satisfaction to the farmers.

Considering the above, the present study entitled "Mobile Phone Technology: An Impact of Farming Community" has been taken up with the following specific objective.

- ❖ To study the perceived impacts as expressed by the respondents on the mobile agro advisories

Methodology

The study was conducted in Coimbatore district of Tamil Nadu considering vast coverage of farmers and technological solutions. Annur and Kinathukadavu blocks of Coimbatore district of Tamil Nadu was selected for the study considering the more coverage of subscribers of the service. The study sample comprised of 200 farmers (Annur- 107, Kinathukadavu – 93). The respondents from each block were selected by employing proportionate random sampling method. An ex post facto research design was used and structured questionnaire was prepared and administered to collect data, by face to face interaction. Data were loaded properly and tabulated. Further, attempts were made to collect details on the perceived impacts as expressed by the respondents on the mobile agro advisory services. For this purpose, thirty two impact items were taken into consideration by having elaborate discussion with local farmers, extension worker, crop scientists and social scientists. The impact items were categorised into five broad aspects of changes viz., personal changes, farm improvement/development changes, technology oriented changes, social changes and economic changes. The respondents were asked to indicate their responses for each of the statements on a three point continuum namely increased, decreased and no change with a scoring pattern of 3, 2 and 1 respectively for each of the responses. Percentage analysis was done to get meaningful interpretation of the results.

Result and Discussion

The respondents were requested to state the impacts they perceived with respect to their personal changes, farm improvement/development, technology changes, social changes and changes in their economic wellbeing. The findings are given in following tables.

Personal changes

With regard to personal changes an overwhelming majority of the respondents (94.00%) stated that the decision making ability has increased. Most of the respondents reported an increase in the self confidence (85.50%), increase in contact in other farmers for technical consultancy (83.50%), and increased outside contact (81.50 %).

A vast majority of the respondents (79.50%) reported that they were consulted by other farmers for their personal problems. Almost an equal percentage of the respondents stated that they gained respect from village (69.60%) and from their family members (66.00%).

Around the fifty per cent of the respondents stated that they had increased exposure to media sources (54.50%) and they were recognised by other members of the social system.

The other farmers reported no changes expressed by them on the listed out parameters.

Table 1: Component wise changes encountered as a result of mobile agro advisory services

(n=200)

S.No.	Indicators	Increased		Decreased		No Change	
		No.	%	No.	%	No.	%
A.	Personal changes						
1.	Outside contact increased	163	81.50	-	-	37	18.50
2.	Gained respect from village	139	69.50	-	-	61	30.50
3.	Gained respect family members	132	66.00	-	-	68	34.00
4.	Increased self confidence	171	85.50	-	-	29	14.50
5.	Consulted by other farmers on technical purpose	167	83.50	-	-	33	16.50
6.	Consulted by other farmers for personal problems	159	79.50	-	-	41	20.50
7.	Recognized by others	97	48.50	-	-	103	51.50
8.	Increased exposure to media sources	109	54.50	-	-	91	45.50
9.	Decision making capacity on the technology had improved	188	94.00	-	-	12	6.00
B.	Farm improvement/ development						
1.	Had opportunity to adopt improved latest technology	133	66.50	-	-	67	33.50
2.	Modernized the farm	43	21.50	-	-	157	78.50
3.	Developed the farm to orient with the locality based agriculture	190	95.00	-	-	10	5.00
C.	Technology oriented changes						
1.	Increased awareness on the technology	200	100.00	-	-	-	-
2.	Increased adoption	166	83.00			34	17.00
3.	Scientific base of the technology made clear	26	13.00			174	87.00
4.	Developed interest on adoption by knowing the technology	188	94.00	-	-	12	6.00
D.	Social changes						
1.	Participation in decision making	193	96.50	-	-	7	3.50
2.	Became member in any organization	116	58.00	-	-	84	42.00
3.	Acquired leadership	27	13.50	-	-	173	86.50
4.	Respected by the peer group	136	68.00	-	-	64	32.00
5.	Cosmopolitaness increased	149	74.50	-	-	51	25.50
6.	Social participation increased	193	96.50	-	-	7	3.50
7.	Increased contact with scientists	71	35.50	-	-	129	64.50
8.	Participated in subject related training programmes	157	78.50	-	-	43	21.50
E.	Economic changes						
1.	Increased level of income	25	12.50	-	-	175	87.50
2.	Increased savings	4	2.00	-	-	196	98.00
3.	Increased investment on enterprises	1	0.50	-	-	199	99.50
4.	Improvement of livelihood status	5	2.50	-	-	195	97.50
5.	Debts cleared	0	0.00	-	-	200	100.00
6.	Spending behaviour enhanced	2	1.00	-	-	198	99.00

Farm improvement/development

The findings in the table 1 reported that an overwhelming majority of the respondents (95.00%) have developed the farm to orient with the locality based agriculture. Further majority of the respondents (66.50%) opined that they had opportunities to adopt improved latest technologies. About one-fifth of the respondents (21.50%) stated that they modernized their farm. The rest of the respondents reported that there were no changes in the listed out activities.

Technology changes

It is interesting to note that cent per cent of the respondents gained increased awareness on the modern technology and an overwhelming majority of the respondents (94.00%) have developed interest on adoption of recommended technologies and most of the respondents (83.00%) reported increased adoption. Even though there existed an increased adoption thirteen percent of the respondents stated that the scientific base of the technology was not clear, but anyhow they have adopted the technology and considering the merits of the service provider.

Social changes

From above table 1, it could be inferred that an overwhelming majority of the respondents (96.50%) have participated in decision making activities and further the social participation has increased because of the subscription and adoption of mobile based agro advisories. About three-fourth of the respondents reported that they participated in different training (78.50%) and their cosmopolite nature has increased (74.50%). Majority of the respondents opined that they were respected by the peer group (68.00%) and they became member in different social organizations (58.00%). About one-third of the respondents (35.50 %) stated that their contacts with farm scientists have been increased. Gaining leadership position was also reported as an impact by 13.50 per cent of the respondents.

Economic changes

With regard to the economic level changes, farmer experienced only a very little impact on the economic wellbeing. Only about thirteen per cent of the respondents (12.50%) experienced increased income level. Only the meagre per cent of the respondents experienced other impacts viz., improvement of livelihood status (2.50%), increased saving (2.00%) and increased spending behaviour (1.00%).

Conclusion

From above findings it could be finally concluded that most of the famers experienced an increased decision making capacity and further their outside contact has increased. They further reported that they gained the confidence of fellow farmers, increased in the social prestige value. Besides, they gained respect from family members. TNAU being a prestige prime institute in agriculture, it has its own reputation among farmers. Hence, associating with such an institute will certainly contribute to their socio-personal value as reported in the present study.

It is welcoming fact that they could adopt locality based agriculture and modern technologies. The service provider of the advisories also focusing on local situation based agriculture technologies and modern technologies to increase the productivity of the farm and hence the respondents reported that they well realised the benefits.

Hence, with regard to the social changes the mobile based advisories mostly contribute on their participation in decision making, social participation, participation in training programmes, contacts with scientists. The mobile based advisories widely propagating modern technologies, market based information and weather bulletins. Such advisories are the real needs of the farming community, hence contributed social change activities as reported in the study.

It is clear fact that any development programme could exert its immediate impact on individuals personal changes, creating awareness/adoption over the recommended technologies participation in social activities and social prestige value. Increased economic benefits will normally be realised only after certain period of time, till then the farmer will be engaged in social activities and other adoption process/adoption stages related with the advisories/recommendations received. The same has resulted in the present study also.

None of the respondents reported decreased changes.

Hence it could be observed that majority of the respondents an increase in change dimensions listed which is welcoming fact.

References

1. Donner J. Mobile-based Livelihood Services in Africa: Pilots and Early Deployments. In M. Fernandez-Ardevol & A. R. Hjar, eds. Communication Technologies in Latin America and Africa: A multidisciplinary perspective. Barcelona: IN3, 2009, 37-58.
2. Qiang Christine Zhenwei, Siou Chew Kuek, Andrew Dymond, Steve Esselaar. Mobile Applications for Agriculture and Rural Development, Washington D.C.: World Bank, 2011.