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RESEARCH ARTICLE

A STUDY ON E-VELANMAI MODEL OF EXTENSION IN TAMIL NADU

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ABSTRACT

A study was conducted to assess the 'Impact' of beneficiaries and non-beneficiaries of e-Velanmai (e-Agriculture) project implemented by the Tamil Nadu Agricultural University (TNAU) from 2007 to 2013. It was found that none of the beneficiary respondents (100 .00 %) had used ICT tools after completion of the e-Velanmai project. All the beneficiary respondents (100.00 %) desired that the e-Velanmai project should be continued. Almost all (98.90 %) of the beneficiary respondents had preferred TNAU for providing e-Velanmai services in case it is continued, and none of the beneficiary respondents (100.00 %) had preferred neither State Department of Agriculture nor State Department of Agriculture + IT Company. With respect to the constraints faced by beneficiaries, an overwhelming percentage (94.40 %) of the beneficiary respondents had expressed that they faced no constraints regarding the e-velanmai project, while a small percentage (5.50 %) indicated that there is no direct contact with TNAU Scientists', and no follow-up visit by Field Coordinators after giving advice (1.10 %). The beneficiary respondents have suggested that 'Number of Field Coordinators may be increased', 'Day-to-day market information may be provided', and 'Post Harvest Technology / Value Addition information for coconut and other crops may be provided', so as to further improve the e-Velanmai services.

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INTRODUCTION

A study was undertaken to study the impact of e-Velanmai model of extension, implemented by Tamil Nadu Agricultural University (TNAU) from July 2007 to March 2013 under the Tamil Nadu Irrigated Agriculture Modernization and Water-Bodies Restoration and Management (IAMWARM) project. According to Karthikeyan, 2011, e-Velanmai is a combination of personal and ICT (Information and Communication Technology) based, demand driven and participatory technology transfer model in agriculture to provide timely agro advisory services by a multidisciplinary team of agricultural scientists to farmers using ICT tools such as Digital Camera, Computer, Internet and Mobile Phone, through a Field Coordinator (FC) on need basis. e-Velanmai was planned to be a sustainable approach of technology transfer for enabling scientific farming. Therefore, e-Velanmai was implemented as a paid model of extension service. Being a new ICT venture, it was expected that it would evoke different kinds of responses from among the beneficiaries.

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Totally, 10,507 farmers, of which 1,076 were farm women, were enrolled as members in the project by paying a nominal fee of Rupees (Rs.) 50/- per farmer with upto five acres of land, Rs. 100/- for those with 5.1 to 10 acres, and Rs. 150/- for those with land holding of above 10 acres. During the project period based on demand advices were given to the members to solve their farm problems and to take informed decisions. In the light of the above it was decided to assess the process impact of e-Velanmai project among the beneficiaries.

Objectives of the Study

- To assess the process impact of e-Velanmai among the beneficiaries.
- To find out the constraints experienced by e-Velanmai beneficiaries.
- To elicit suggestions from the beneficiaries for further improving the e-Velanmai model of extension.

The e-Velanmai project was implemented in three districts of Tamil Nadu state in India viz., Coimbatore (Aliyar sub-basin), Tirupur (Palar sub-basin) and Villupuram (Varahanadhi sub-basin), and the study was carried out in all these three districts.

The respondents of the study were registered members (beneficiaries) of e-Velanmai project and those farmers who did not register in the e-Velanmai project (non-beneficiaries). Based on probability proportionate sampling method, 30 beneficiary respondents were selected from two Water User Associations (WUAs) in Aliyar sub-basin; 30 respondents from three WUAs in Palar sub-basin; and 30 respondents from three WUAs in Varahanadhi sun-basin, and thus the total sample size of the beneficiaries was 90.

The process impact of e-Velanmai was assessed by means of three parameters viz., Extent of use of ICT tools after the project period, Continuance of e-Velanmai Project, and Willingness to pay enhanced fees. The extent of use of ICT tools was assessed on a three point continuum of 'Regularly', 'Occasionally' and 'Never'. The Continuance of e-Velanmai project was assessed in two ways viz., Desire for Continuance and Source Performance. The 'Desire for Continuance' was assessed by means of a single statement with a dichotomous response of 'yes' or 'no'.The 'Source Preference' was assessed by means of a schedule developed for the study. The list of possible sources (firms / organizations) capable of offering e-Velanmai services was prepared. The preference of the sources was ascertained by means of a dichotomous response of 'yes' or 'no'. Percentage analysis was carried out to find out the source preference of beneficiaries. 'Willingness to pay enhanced fees' was assessed by means of a single statement with a dichotomous response of 'yes' or 'no'.

FINDINGS AND DISCUSSION

The findings and discussion are presented as follows:

Extent of Use of ICT Tools

The distribution of beneficiary respondents according to extent of use of ICT tools is given in Table 1.

Table 1. Distribution of Respondents according to Extent of Use of ICT tools

Extent of Use of ICT tools Categories	Beneficiaries	
	No. (n = 90)	Per cent
Regularly	0	-
Occasionally	0	-
Never	90	100.00
Total	90	100.00

Table 1 reveals that none of the beneficiary respondents (100 .00 %) had used ICT tools after completion of the e-Velanmai project.

It was found that none of the beneficiary respondents had used any of the ICT tools after the completion of the e-Velanmai project period, though almost all the beneficiary respondents had expressed high level effectiveness of ICT tools. It should be noted that one family member of each registered member was trained in use of ICT tools as part of the project. However, ownership of ICT tools would have been less among the respondents due to the expensive nature of the ICT tools and less familiarity in use of ICT tools by the respondents, which may be the probable reasons for the finding.

Desire for Continuance

The distribution of beneficiary respondents according to desire for continuance is given in Table 2.

Table 2. Distribution of Respondents according to Desire for Continuance

Desire for Continuance Categories	Beneficiaries	
	No. (n = 90)	Per cent
Yes	90	100.00
No	0	-
Total	90	100.00

It is interesting to note from Table 2 that all the beneficiary respondents (100.00 %) desired that the e-Velanmai project should be continued. This indicates that the beneficiaries were very much satisfied with the services offered under e-Velanmai, which is evident from this finding.

Source Preference

The distribution of beneficiary respondents according to source preference is given in Table 3. From Table 3 it is observed that almost all (98.90 %) the beneficiary respondents had preferred TNAU for providing e-Velanmai services in case it is continued, followed by more than three-fourths (82.20 %) who had preferred TNAU + IT Company. None of the beneficiary respondents (100.00 %) had preferred neither State Department of Agriculture nor State Department of Agriculture + IT Company.The Coefficient of Variation was found to be 5.26 per cent, inferring that the internal variation was very less among respondents with respect to TNAU. In respect of TNAU + IT Company, the Coefficient of Variation was found to be 32.47 per cent, inferring that the internal variation was less among respondents. Almost all the beneficiary respondents want TNAU to solely continue to offer the e-Velanmai model of extension services to the farmers, if not a majority preferred that the e-Velanmai services may be offered by TNAU joining with IT Company. This shows the credibility which TNAU has earned through the e-Velanmai project due to the efficient implementation of the different activities.

Table 3. Distribution of Respondents according to Source Preference

S.No.	Sources	Beneficiaries				
		Yes		No		C.V %
		No. (n=90)	Per cent*	No. (n=90)	Per cent*	
1.	TNAU	89	98.90	1	1.10	5.26
2.	TNAU + IT Company	74	82.20	16	17.80	32.47
3.	State Dept. of Agriculture	-	-	90	100.00	-
4.	State Dept. of Agriculture + IT Company	-	-	90	100.00	-

*Due to multiple responses the total will not add upto 100 per cent

Willingness to Pay enhanced Fees

The distribution of beneficiary respondents according to willingness to pay enhanced fees for availing e-Velanmai service is given in Table 4.

Table 4. Distribution of Respondents according to Willingness to Pay enhanced Fees

Willingness to Pay enhanced Fees Categories	Beneficiaries	
	No. (n = 90)	Per cent
Yes	0	-
No	90	100.00
Total	90	100.00

From Table 4 it is inferred that none of the beneficiary respondents (100.00 %) were willing to pay enhanced fees in the event of continuation of the e-Velanmai project. This findings are similar to that of Anbarasan (2010) who also reported that none of the farmers were willing to pay for the services for availing the extension services offered by the State Department of Agriculture. Public sector extension services have always been free for the farmers, which may have created a particular mindset among the beneficiary respondents and this would have caused this finding.

Constraints faced by beneficiaries while availing extension services under e–velanmai

The distribution of beneficiary respondents according to the constraints faced while availing extension services under e-Velanmai is presented in Table 5.

Table 5. Distribution of Beneficiary Respondents according to Constraints Faced while availing Extension Services under e-Velanmai

S. No.	Constraints	Beneficiaries	
		No. (n=90)	Per cent*
1.	No constraints	85	94.40
2.	No direct contact with TNAU Scientists	5	5.50
3.	No follow-up visit by Field Coordinators after giving advice	1	1.10

* Multiple Reponses.

It is seen from Table 5 that an overwhelming percentage (94.40 %) of the beneficiary respondents had expressed that they faced no constraints while availing services under e-Velanmai project. A small percentage (5.50 %) indicated that there is no direct contact with TNAU Scientists and no follow-up visit by Field Coordinators after giving advice (1.10 %).

Suggestions given by beneficiaries for improving the services under e- velanmai

The distribution of beneficiary respondents according to the suggestions given for improving the services under e-Velanmai is presented in Table 6. It is observed from Table 6 that the foremost suggestion offered by the beneficiary respondents was "Number of Field Coordinators may be increased" (86.60 %), followed by "Day-to-day market information may be provided" (72.20 %), "Post Harvest Technology / Value Addition information for coconut and other crops may be provided" (50.00 %), "A separate office for e-Velanmai project may be opened in every sub-basin" (47.70 %), "Schemes with Subsidy details may be provided" (21.10 %), "Farm Machinery details for various crops may be provided" (20.00 %) and "TNAU Scientists need to visit farmers fields once a month as part of the e-Velanmai project" (7.70 %).

Table 6. Distribution of Beneficiary Respondents according to Suggestions for Improving the Services under e-Velanmai

S.No.	Suggestions	Beneficiaries	
		Respondents	Per cent*
1.	Number of Field Coordinators may be increased	78	86.60
2.	Day-to-day Market Information may be provided	65	72.20
3.	Post Harvest Technology/ Value Addition information for coconut and other crops may be provided	45	50.00
4.	A separate office for e-Velanmai project may be opened in every sub-basin	43	47.70
5.	Schemes with Subsidy details may be provided	19	21.10
6.	Farm Machinery details for various crops may be provided	18	20.00
7.	TNAU Scientists need to visit farmers fields once a month, as part of the e-Velanmai project	7	7.70

* Multiple Reponses.

The first and foremost suggestion offered by the beneficiary respondents was "number of Field Coordinators may be increased". When the e-Velanmai project was operated by TNAU, one Field Coordinator was made in-charge for an entire sub-basin. The Field Coordinator was in the cadre of SRF (Senior Research Fellow) drawing Rupees (Rs). 16,000 /- per month, with a six-day work schedule. The daily schedule would start by 9.00 AM and end by 5.00 PM. Vehicle for mobility was not provided to the Field Coordinators. Each sub-basin covered a vast area; for instance Palar sub-basin covered an area of 1,53,965 hectares. Therefore, if additionally one more Field Coordinator is posted to look after a sub-basin, the work turnover will be more and any delay in meeting the registered members can be avoided.

Conclusion

The desire for continuance of e-Velanmai model of extension was very strong as expressed by all the beneficiary respondents. Not only do the beneficiaries want the project to continue, but almost all of them also wished TNAU (Tamil Nadu Agricultural University) to operate the project. This speaks volumes about the credibility that TNAU has developed among the e-Velanmai members due to efficient implementation of the project. The credit not only goes to the Project Team but also to the beneficiaries who responded well and followed the advice of the TNAU Scientists. Since the feedback was encouraging, the e-Velanmai model of extension has been upscaled to cover all the 100 blocks of Tamil Nadu with a budget outlay of Rs. 50 lakhs, from the year 2015 onwards.

TNAU is acting as a consulting agency so as to ensure the quality of the e-Velanmai services offered under the project.

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