

FARMER PERCEPTION ON CYBER EXTENSION

U.I. Dissanayeke¹, H.V.A. Wickramasurya¹ and R. Wijekoon²

¹*Department of Agricultural Extension,*

Faculty of Agriculture, University of Peradeniya

²*Audio Visual Centre of the Department of Agriculture, Gannoruwa, Peradeniya*

Introduction

Cyber extension refers to an agricultural information exchange mechanism, which utilizes the power of online networks, computer communications, and interactive multimedia to facilitate information sharing among involved parties (Wijekoon *et al.*, 2008). The government of Sri Lanka initiated a cyber agricultural extension project in 2004, expecting to deliver agricultural information to farmers in an affordable and aesthetically appealing manner while strengthening the linkages between extension, research, marketing networks and farmers. During this project, a set of 35 interactive multimedia CD ROMs (IMMCDs) were produced and distributed among 45 Cyber Extension Units (CEUs) established island-wide, so that farmers can access information freely from these resources.

However, studies carried out to test the farmers' response to these IMMCDs at the field level are limited. Thus, the objectives of the study were (i) to identify the level of use of IMMCDs by the farmers (ii) to determine farmers' perception on cyber extension, and (iii) to evaluate the cyber extension against the other agricultural information sources.

Methodology

Out of the 45 CEUs functioning during the study period, thirteen CEUs were selected for the study using stratified random sampling. Annual assessment records maintained at the AVC of the DOA were used as the basis to stratify the CEUs as good (>56), average (19-56) and poor (<19). Thirty five and forty farmers, those who participated in farmer training programs organized by the cyber extension unit, were selected from the good and average categories respectively and it was not possible to obtain a sample from 'poor category' as these CEUs did not even have records of farmers who had training. A pre-tested questionnaire was used for data collection. Descriptive statistical procedures namely frequency analysis and cross tabulations were used to explain the variables. Chi-square analysis and Pearson product-moment correlation analysis was used to test relationships between variables.

Results and Discussion

The average age of the respondents was 47 years, while the majority (51.3%) was educated up to 9-11 years. Male to female ratio among the respondents were 1.9:1. About 82 percent of the respondents were found to be full time farmers while four percent were involved in business activities. A few (10.6%) respondents

were involved in farming only as a part-time activity.

The number of CDs watched by a respondent was used as the major indicator in determining the level of use of cyber extension. It was found that the majority (61.3%) had seen only one or two CDs. Table 1 shows the distribution of farmers by number of CDs viewed.

As shown in Table 1, nearly 87% of the respondents had viewed less than four CDs while the maximum number of CDs watched by a farmer was 10. The low availability of CDs for various agricultural practices, less awareness on the types of CDs available, and inadequate computer skills were the main reasons behind the low use of IMMCDs.

Even though the total number of CDs watched by a farmer seems to be fairly low, nearly 45 percent of the farmers used the same CD several times because they think the content is useful (55%), and to clarify problems related to pest and disease management (26%). Educated farmers preferred obtaining agricultural information using CBLMs as it is

more convenient for them ($r=0.319$, $p=0.046$). These farmers even made copies of CDs, available in the CEU, so that they can watch it leisurely in their home. Farmers who watched a higher number of CDs had more favourable attitudes towards cyber extension ($r=0.233$, $p=0.005$).

To determine the effectiveness of CBLMs as a medium to deliver agricultural information to the end-users, respondents were asked to compare and rank cyber extension with four other information sources. A mean score was then computed for each source based on the ranks (Table 2).

According to the results, farmers have selected extension officer as the source that is most effective in delivering agricultural information to the end-users. This shows that the role of the extension officer in disseminating agricultural information has been well recognized by the respondents. Hence, cyber extension would be supplemental, and is not likely to replace the role of extension officers.

Table1. Distribution of farmers by number of IMMCDs viewed

Number of CBLMs	Number	Percent	Cumulative Percent
1 – 2	46	61.3	61.3
3 – 4	20	26.7	88.0
5 – 7	7	9.3	97.3
8 – 10	2	2.7	100.0
Total	75	100	

Mean = 2.36

Standard Deviation = 1.79

Table 2. Effectiveness of different information sources as perceived by farmers

Source of Information	Effectiveness rank scores
Extension officers from the Agrarian Service Center	4.41
Cyber Extension /IMM CDs	2.89
Publications by the DOA	1.98
Mass media – Radio, TV, Newspaper	1.89
Neighbor farmers	1.64
Other	0.63

Besides, extension workers will continue to play a critical role in agricultural extension bridging the gap between computer-based-learning and end users (Leary and Berge, 2006). Interestingly, these farmers have rated cyber extension as the second most effective source to receive agricultural information. As IMM CD's having both audio and visual media, they were found to be more appealing to farmers. It can enhance the engagement and enjoyment of learning experience, affecting emotions and attitudes of users too (Levie and Lentz, 1982).

Respondents' attitudes towards cyber extension was determined using an attitude scale consisting of nine statements. (It had a reliability coefficient $\alpha = 0.5582$). Most (89.5%) of the farmers had favourable attitudes towards cyber extension while only ten percent of the respondents had moderate attitudes. None of the respondents had poor attitudes.

Conclusion

Farmers, those who had exposed to computer based learning materials, perceive cyber extension as an effective mechanism to deliver

agricultural information to the end users. However it is necessary to conduct awareness programmes to promote cyber extension among the other farmers.

References

Leary, J. and Berge, Z.L. (2006). Trends and challenges of e-Learning in national and international agricultural development. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)* 2(2): 51-59.

Wijekoon, R., Emitiyagoda, S., Rizwan, M.F.M., Rathnayaka, R.M.M.S. and Rajapaksha, H.G.A. (2008). *Cyber Extension: An Information and Communication Technology Initiative for Agriculture and Rural Development in Sri Lanka* [online] [cited 05.11.2008]. Available at: <www.fao.org/fileadmin/user_upload/kce/Doc_for_TechnicalConsult/>

Levie, W.H. and Lentz, R. (1982). Effects of text illustrations: Review of research. *Educational Communications and Technology Journal*. 30(4): 195-232.