RESEARCH NOTE

Influence of Socio-economic Variables in Agricultural Web-education System – An Ex-post-facto study

P. Mooventhan

Scientist, National Research Centre on Meat, (ICAR), Hyderabad.

Corresponding author email: agriventhan@yahoo.co.in

ABSTRACT

This experimental study was conducted to identify the influence of socio-economic variables on knowledge gain and symbolic adoption of agricultural web-education learners in six village of Tamil Nadu using expost-facto research design. The Tamil Nadu Agricultural University (TNAU) website (www.tnau.ac.in) was selected as a learning module for experiment. Totally one hundred and eighty respondents were selected for this study. The variables educational status and mass media exposure had influenced positively and significantly to knowledge gain. This showed that a unit increase in the educational status and media participation would increase the gain in knowledge by 0.24 and 0.32 units respectively. Farm status had negative coefficient, which means that a unit increase in farm status would result in decrease of knowledge gain by 0.420 units. Farm status and innovativeness had contributed positively at one per cent level of significance towards symbolic adoption whereas mass media exposure contributed negatively at one per cent level of significance. The study revealed that respondents were more satisfied and eager to learn through web-education. This indicates that, they were inclined towards accepting cyber extension approaches.

Key words: *Knowledge gain; Symbolic adoption; Web-education;*

"Technological change is not additive; it is ecological. A new technology does not merely add something; it changes everything." The web is a new platform which change the education process itself in the form of web-based education well stated by *Neil Postman (1993)*. "Access to Internet will soon be universal, and it can provide unrestricted low-cost access to information, as well as highly interactive distance learning. The Internet will not only facilitate interactions among researchers, but also quickly improve their ability to communicate effectively with the potential users of their research knowledge" said by *Prof. M.S. Swaminathan (2003)* further clearly indicate that, Internet mediated communication will be the best way to minimize cost as well as time gap. Web-education system provides a remarkable new plateau to launch education for the creative teacher as well as learner. Web-based education is more students centered rather than professor centered education of traditional education (*Knowlton, 2000*). Information dissemination through new communication technologies such as interactive web-education technology should be need based, demand driven, site specific and in local language. With this background the present expost facto research study was planned with the following objective.

- To find out the influence between personal and socio-economical factors of the web-education learners towards the knowledge gain and symbolic adoption.

METHODOLOGY

This ex-post facto study was conducted in Coimbatore and Trichy districts of Tamil Nadu, India because these two districts had close proximity with agricultural institutions such as Tamil Nadu Agricultural University, Coimbatore; Forest College and Research Institute, Mettuppalayam and Anbil Dharmalingam Agricultural College and Research Institute, Trichy respectively. From these districts, the list of villages provided with computers and internet facilities were obtained from collectorates. Among the villages six villages *viz.*, Odanthurai, Chikkarampalayam and Marudur from Coimbatore district and Ediyapatti, Anthanallur and Navallur Kuttapattu from Trichy district

were selected at random. From each of these villages, thirty respondents were selected with the use of simple random sampling. Totally one hundred and eighty respondents were selected for this study. The respondents are expected to have a minimum educational qualification of 5th standard and above. They will have to undergo pre and post exposure knowledge test. Data were collected using a knowledge build questionnaire, demographic schedule, teacher-made knowledge test, participatory observation, open-ended questions and focus group discussions. Appropriate scientific tools were developed to measure the dependent variables towards knowledge gain and symbolic adoption. The main objectives of this study were to identify the existing relationship between independent socio-economic variables and dependent variable like knowledge gain and symbolic adoption.

RESULTS AND DISCUSSION

Influence of the independent variables towards knowledge gain: From the Table 1, it could be seen that the coefficient of multiple determination *viz.,* R^2 was 0.6127, which was significant at 1 per cent level. This meant that 61.27 per cent of the variation in the dependent variable is explained by the independent variables chosen for the study. The partial regression coefficient value was found to be negatively significant for the variable, age at 1 per cent level of significance and the farm status behaviour at 0.05 per cent level of significance. This revealed that, a unit increase in age would decrease the knowledge gain by 0.198 units. Farm status had negative coefficient which means that a unit increase in farm status would result in decrease of knowledge gain by 0.420 units. The variables educational status and mass media exposure had influenced positively and significantly to knowledge gain. This showed that, a unit increase in the educational status and media participation would increase the gain in knowledge by 0.24 and 0.32 units respectively.

Influence of the independent variables towards symbolic adoption: The multiple regression analysis was carried out to assess the extent of influence of twelve independent variables towards symbolic adoption. From the Table 2, it could be observed that coefficient of multiple determination *viz.,* R^2 was 0.4012 which was significant at 1 per cent level. This meant that 40.12 per cent of the variation in dependent variable is explained by the independent variables selected for the study. Table 2 vividly shows that, farm status and innovativeness had contributed positively at one per cent level of significance towards symbolic adoption whereas mass media exposure contributed negatively at 1 per cent level of significance. A unit increase in farm status, and innovativeness would result in increasing the symbolic adoption to an extent at 2.16 units and 0.07 units respectively.

Table 1. Influence of the independent variables towards knowledge gain (N=180)

Independent Variables	't' value
Age	-2.681**
Educational status	2.786**
Occupational status	0.087^{NS}
Farm status	-1.982*
Farming experience	0.812^{NS}
Annual income	-0.086^{NS}
Mass media exposure	3.498**
Computer training undergone	0.525^{NS}
Computer utilization behaviour	-0.086^{NS}
Innovativeness	0.628^{NS}
Awareness about agricultural websites	-1.567^{NS}
Utilization of agricultural websites	-0.087^{NS}

Note: $R^2 = 0.6127$ (knowledge gain); NS = Non Significant,
** Significant at 0.01 level of probability,
* Significant at 0.05 level of probability

Table 2. Influence of the independent variables towards symbolic adoption (N=180)

Independent Variables	't' value
Age	0.162^{NS}
Educational status	0.176^{NS}
Occupational status	0.390^{NS}
Farm status	2.665**
Farming experience	0.610^{NS}
Annual income	-1.471^{NS}
Mass media exposure	-2.812**
Computer training undergone	1.420^{NS}
Computer utilization behaviour	-1.781^{NS}
Innovativeness	3.217**
Awareness about agricultural websites	-0.056^{NS}
Utilization of agricultural websites	-0.467^{NS}

Note: $R^2 = 0.4012$ (symbolic adoption),
NS= Non Significant,
**Significant at 0.01 level of probability,
* Significant at 0.05 level of probability.

CONCLUSION

It can be summed up as, the variables such as educational status, mass media exposure, innovativeness, farm status and farming experience were found to act as critical variables in the web education technology. So, while preparing web-education modules in future, one should take care of above variables.

The study revealed that respondents were satisfied with the tool web-site but not convinced with the technology existed on it. So, the scientific community should take initiatives to evolve technologies, which would compromise farmers in terms of affordability and effectiveness. Further, the study explored that, respondents are more satisfied with the web education and transfer of technology through computers and it clearly indicated that they are inclined towards accepting Cyber Extension. Since the farming community is proactive, the government has to initiate broad based approach to enhance the information technology infrastructure at the farmer's door steps to facilitate them with respect to timely information reach as well as better transfer of technology.

Paper received on : July 15, 2013
Accepted on : September 23, 2013

REFERENCES

Anonymous, *M.S.Swaminathan speech*. 2003. (*http://www.mssrf.org*)

Knowlton, Dave S. 2000. *A Theoretical Framework for the Classroom: A Defense and Delineation of*

Student-Centered Pedagogy. pp. 5-14. In Weiss, Renee E, Knowlton, Mark S. and Speck, Bruce W. (eds.) Principles of Effective Teaching in the Online Classroom. San Francisco, CA: Jossey-Bass.

Postman, Neil, 1993. *Technopoly: The Surrender of Culture to Technology*. pp. 240. Vintage, Books publication, New York.

• • • • •