Application and Importance of Information Technology in Agricultural Sector: As Perceived by Extension Technical Personnels in West Azerbaijan, Iran

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Introduction

The agricultural sector in Iran is faced with several serious challenges: the declining cultivated area due to population pressure, mechanization, storage, and market prices (which is less favorable to farmers, because of too many intermediaries). One fundamental element in meeting these challenges is the adoption of improved agricultural production technologies and marketing techniques by farmers and other rural entrepreneurs. The transition from resource-based to a technology-based system of agriculture, places greater responsibility on the agricultural extension sector. Information Technology (IT) plays a vital role in introducing new agricultural information and technologies to farmers as well as providing feedback to researchers and policy-makers of farmer's problems, needs and concerns.

Propose and Methodology of the Study

The main purpose of this study was to determine the extension organization’s technical personnels’ perception toward application, and importance of IT. The Population of this research was all the technical expert's of the extension organization in west Azerbaijan province (located in north west of Iran). The population consisted of 104 personnels, which 60 of them were selected as a sample of the study (by a complete randomized sampling technique). A self designed questionnaire was used to gather data. The validity of questionnaire has been established using a panel of personnels. Pilot study was conducted on a similar population (in the adjacent province) to establish the reliability of the study. Reliability (Cronbach Alpha) coefficients of 0.82, and 0.89 were obtained for the application and IT importance sections, respectively.

Major Points and Lessons Learned

Application of IT by respondents: 14.3% in excellent level; 30.6% in good level; 40.8% in average level; and 14.3 % are weak in using IT. About their skills in using IT: 16.3% of respondents had excellent skill; 36.7% had good skill; 24.5% had an average level; and 36.7% had a weak skill in IT. Bivariate correlation indicated that positive and statistically significant relationship found between the respondents’ education level and their experience in using Internet; and between their skills of IT and their application level of various aspect of IT. Also, there was a positive and significant relationship between the respondents’ level of application and their perception of IT. The multivariate regression analysis indicated that about 38% of variance in respondents’ importance of IT could be explained by their level of application, their education, IT skills, and their position status.