

Full Length Research Paper

E-Marketing Barriers from Agricultural Experts' Perception

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E-marketing has been predicted to be a new driver of economic growth for developing countries. Electronic marketing is a process of buying and selling products, services and information using computer networks and the internet. Accessible and transparent markets are necessary to raise income and improve livelihood of farmers. In developing countries, agricultural markets rarely meet these needs. In today's business marketplace, effective use and flow of information is the key to success. Electronic marketing promises vast opportunities. In implementation of e-marketing, farmers encountered several barriers. Therefore it is necessary to identify such barriers. This study investigates agricultural experts' perception about the barriers of e-marketing implementation. The factor analysis showed that the barriers can be classified into 3 latent factors namely: social and cultural barriers, technical barriers and legal and organizational barriers. 53.57% of total common variances are explained by these 3 factors.

Key words: Barriers; electronic marketing; agricultural markets.

INTRODUCTION

As a new trend, farmers and producers use Internet media to meet buyers and sellers and promote their products to improve their farm income. Many farmers have set up individual farm websites for buying inputs and selling products to increase their farm income (Briggeman and Whitacre, 2008). Farmers will get the potential benefit of online marketing through connection with consumers via Internet. Louisiana has become a partner for Food Industry Market Maker website and the All about Blueberries website in 2010 to help agriculture businesses to get advantages of computer technology. These websites help to sell or purchase items, by allowing search of the website 24 hours a day.

The use of information and communication technologies (ICTs) is becoming progressively more wide-spread throughout various sectors including education, business as well as agriculture. Electronic marketing can be considered a major pathway for future strategies related to marketing and efficiency improvement in the agro-food chain. Electronic marketing (e-marketing) is described as "the use of Internet and related digital information and communication technologies to achieve

marketing objectives". Agricultural related e-marketing network must distribute some sort of information, which often includes weather reports, future market quotes, and market analysis. On the other hand, E-marketing input supply firms should provide various inputs to farmers including seed, chemicals, and machinery over the Internet. Farmers will be able to search the Internet for the inputs they need and compare prices between suppliers. Buyers and sellers agree on price, quantity, and transportation of the desired product. This model will facilitate the e-marketing for buyers and sellers of farm inputs including chemicals, seeds, equipment, and animal health products. A product listing will be offered along with prices. The farmer then selects the best option for his or her needs. E-marketing has the potential to increase the level of competition in the input supply business. One important change is that customers will be able to more easily see what different suppliers are charging, and agricultural inputs are generally highly substitutable. The Internet could reduce a supplier's ability to charge higher prices because consumers would know what other firms were charging. (Taifur and Chowdhury, 2006).

Information technology can improve situation of rural marketing in following ways:

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Table 1. Factor Analysis of E-Marketing Barriers

Factor name	Eigen value	Explained common variance by factor
social and cultural barriers	4.06	25.69
technical barriers	35	19.01
legal and organizational barriers	2.43	8.87

1. Providing information about suitable time of selling of agricultural products
2. Providing information about suitable place to sell agricultural products
3. Helping farmers how to sell their products
4. To get informed about suitable price of agricultural products
5. Facilitation in accessing to new markets
6. Awareness of current policies in relation to market
7. Facilitation in accessing to credit and production sources
8. Cheaper and faster commerce of agricultural products.

Stakeholders are exploiting various aspects of cell phone to enhance rural development because

1. it is a reliable and timely communication channel in the context of markets, extension advice, monitoring, finances, health, etc.
2. It offers multiple formats for information in one device
3. It provides accessibility for illiterate users (i.e. voice and images)
4. It gives speed of communication for time-sensitive information, such as disease outbreaks (E-Agricultural Organization, 2009).

Wen (2007) studied electronic commerce system for selling agricultural products with three subsystems: financial subsystem, ordering subsystem to collect information of products/status analysis and administration subsystem which supervise selling and buying process. Also there is a section called data base which includes information such as Sales Amount, Sales Cost, Profits, Orders Amount, Net Operating Capital, Current Assets, Current Liabilities, Other Operating Assets, Short term Investment, market price, debt ratio, etc. Hawaii Department of Agriculture (2006), in "feasibility of a farmer –based E-commerce market" studied factors like farmers' computer skills, internet structure and the way of delivering the product to the market and then a website was designed. A farmer delivers his product to farm businesses and a center company would deliver the products to the customer.

The barriers of mobile marketing identified in this study, would be brought to the knowledge of the agricultural planners, practitioners, policyholders and extension technology specialists in order to achieve a realistic mobile marketing program.

Materials and methods

Based on previous studies, a questionnaire was developed to

study the barriers of e-marketing. The questionnaire was revised with the help of experts with significant experience in marketing and e-marketing to examine the validity of the research model. A 5-point Likert scale, ranging from 1 as strongly disagrees to 5 as strongly agree was used for the measurement. The first section of the questionnaire consisted of some items used to gather data about demographic characteristics, such as age, gender, level of education, etc. The second section included 31 items used to assess barriers.

A pre-test for the reliability of the instrument was conducted with 25 experts randomly chosen from the target population. The barriers were summarized into one single variables B. Then, the Cronbach's alpha from those variables was computed. Cronbach's Alpha was employed to investigate the reliability of the factors. According to Nunnally (1978), a Cronbach's Alpha score of 0.70 or higher is considered to show proof of internal consistency. In this research, acceptable reliability (0.83) is demonstrated.

The research population included agricultural experts in Tehran province. Using the random sampling technique and the results from the pilot test, 150 experts were surveyed.

Results and Discussion

More than 80% of experts are male; average age of them is about 37 years old; and about 40% of them have Bachelor level of education.

Implementation of factor analysis summarizes all barriers into 3 factors given by Table 1.

Factor one is composed of the following barriers. Misunderstanding of decision makers about e-marketing, Misunderstanding of decision makers about e-marketing objectives, Inconsistence culture about using of e-marketing, farmers 'resistance, Implicit benefits and nature of e-marketing. So it was named social and cultural barriers.

Factor two is composed of the following barriers. Low speed of internet, Low availability of web network, Lack of experts in Iran, lack of e-marketing infrastructure, inadequate quality and speed of lines. So it was named technical barriers.

Factor tree is composed of the following barriers. Absence of legal and regulatory system, no clear procedures and guidelines, lack of e-marketing legislations, and lack of managing support. So it was named legal and organizational barriers.

The main variance has been explained by social and cultural barriers. Cultural barriers in some countries may also exist to reduce the acceptance of e-marketing as a way of doing business. In countries like Iran, shopping is a social activity and personal face-to-face contacts with sellers are an important part of the shopping experience. Lack of developed legal and regulatory systems also would inhibit the development of e-marketing in develop-

ing countries. However, cultural and social background of the people lags in term of accepting E-marketing in Iran. Among cultural and social factors IT literacy takes the lowest score and e- trust also is next to last. Therefore, the government, the private sectors and the media need to invest in E-marketing training programs. In addition, the government should plan to modify the law to embrace E-marketing and increase e-trust among Iranians.

References

- Basole RC (2006). Modeling and analysis of complex technology adoption decisions: an investigation in the domain of mobile ICT, PhD Dissertation, Georgia Institute of Technology.
- Briggeman B, Whitacre B (2008). "Farming and the Internet: Factors Affecting Input Purchases Online and Reasons for Non-Adoption." Paper presented at the annual meeting of Agricultural and Applied Economics Association, Dallas, 2008.
- Cantoni V, Cellario M, Porta M (2004). Perspective and challenges in e-learning: towards natural interaction paradigms. *J. Visual Lang. Comput.* 15:335–345.
- Connetha M (2007) 'Mobile learning in the classroom', Research Paper on the Use and Effectiveness of Using Mobile Phones for Learning with College Students using a Commercial M-Learning Platform, West Chester University, Delivered at SALT Conference in Arlington, VA. August 2007.
- E-Agricultural Organization (2009) Mobile Telephony in Rural Areas. Available at: <http://www.e-agriculture.org>.
- Hawaii Department of Agriculture (2006) Feasibility of a farmer based e-commerce market in the state of Hawaii. [Online] Available at: <http://www.ams.usda.gov>[Accessed 10 June 20 11].
- Hord J (2005). How SMS Works. Available at: <http://www.communication.howstuffworks.com/SMS.html>.
- Kamalabadi I, Bayat A, Ahmadi P, Ebrahimi A (2008). Identifying and Prioritization of Challenges and Barriers of E-commerce Implementation in Iran. *World App. Sci. J.* 5 (5):590-597
- Kamar N, Ongondo M. (2007). Challenge of M-Learning on Social Change. Kenya: Edgerton, Univ.
- Karmakar, C.K. (2006). Recommendations for Bangladesh towards E-learning Readiness. Department of Computer Science, Shah Jalal University of Science and Technology, pp.97–101.
- Kon CL (2009). Mobile Learning: Different Technologies Aspects. Designing Usable Systems, Computer and Internet Technologies University of strathclyde.
- Leary J, Berge ZL (2005). Trends and challenges of e-learning in national and international agricultural development. *Int. J. Edu. Develop. ICT.* 2(2):51–59.
- Mungania P (2004) 'Employees' perception of barriers in e-learning: the relationship among barriers demographics and e-learning self efficiency', PhD Dissertation, Kentucky University.
- Nunnally JC (1978). *Psychometric Theory*, 2nd ed., McGraw Hill, New York.
- Sribhadung RA (2006) 'Mobile device in e-learning', Third International Conference on e-Learning for Knowledge-Based Society, Bangkok, Thailand, 35:1–5.
- Taifur SM, Chowdhury M (2006). Prospects of e-Governance in Bangladesh, Available at: [www.sictgov.org/Prospects of e-Gov.doc](http://www.sictgov.org/Prospects_of_e-Gov.doc).