



A Study of Effective Socio-economic Factors on the ICT in Commercialization of Agriculture in Iran

Azita Zand^{1}, Mohammad Mohammadi², Mohamad Kamal Ebrahimi Filouri³*

1, 2- Assistant Professor of Agricultural Department, Islamshahr Branch, Islamic Azad University, Islamshahr, Iran

3- M.S Student in Agriculture Management, Department of Agriculture, Islamshahr Branch, Islamic Azad University, Islamshahr, Iran

Abstract

In this study, we try to evaluate the role of the ICT socio-economic factors in the palm dates marketing. The study is of an applied type and the method used is descriptive-correlational. Having used Cochran's formula, a sample population of 144 members was selected. The statistical method used for this purpose is responding to the questionnaires. The Results of correlation between organizational electronic readiness of the experts and items of dates marketing shows that there is positive significant relationship between electronic readiness of the palm dates experts with the entire items of dates marketing except reducing the cost of selling and producing dates. The results of T test shows that there is significant difference between the items of electronic readiness based on sex at 1% and the items of creating market relationship, supplying and selling and reducing cost of producing and selling based on sex at 5%.

Keywords: Socio-economic factors, ICT, Commercialization

Introduction

Effective factors on improvement of inner organizational marketing include establishment of new businesses, creation of new attitude toward process of innovation and marketing, changing competitive rules, discovering new opportunities of marketing, and prioritizing continuous communication of customers (Plant & Odame 2008). Agricultural managers having positive, self-motivated attitude for application of new technology play a crucial role in promotion and spread of ICT application (Shahkouhi 2012). Due to any reason in the past and in compliance with the basic structure of agricultural sector, the marketing of agricultural crops was neglected. On the other hand, in most countries of the world, farmers attempt to benefit from new technologies and strategies for increasing quality of the products and cope with new scientific problems (Jalali 2012). Yazdani in

his research in the year 2003 examined the challenges of exporting dates. In this study, by recognizing marketing and exporting challenges, it is possible to increase the quality of produced crops and promote the level of export and import of agricultural crops. The close, increasing competition among different organizations and communities and the developments made in the recent years have occurred so much deeply, extensively and rapidly that there remains no opportunity to use traditional methods and legacy skills and indeed, it faces the future of those organizations with new opportunities and threats. (Ranga & Etkowit, 2010)

Thanks to the presence of vast palm groves and appropriate environmental conditions such as appropriate water, weather and soil in Khuzestan province which is needed for the construction of new palm groves and due to applying cultivars and because Iran has water and land borders with several

countries in the region, the named province could play an important role in earning income and generating jobs both in the province and the country in production and exportation of the product, processing and production of other palm dates products. However, in view of the fact that other palm dates producers, who are mainly the neighboring countries, have had extensive activities in the export of the product, they have monopolized the same markets (Jam'gi and Lashgarara, 2012).

In a typical agricultural produce company, there are four categories of these opportunities in the form of: unexpected events, incompatibilities, process requirements, agricultural changes and the market. The other three sources of opportunity are created beyond the company in social and thought environments, which consists of: change in demographic features, change in attitudes and change in new knowledge. These sources are overlapping but differ from one another regarding risk ability and complexity and more than one of them could be a factor for communication and innovation at a time (Miller, 2006). Today, ICT has seen an extensive and dramatic development in different countries and has provided them with many advantages (Hamedanlou, 2009)

The general objective is to study the effective socio-economic factors on the ICT in agriculture marketing in Iran.

The special objectives are:

1. Analysis of the individual characteristics of the agriculture experts in Khuzestan province
2. Study of the correlation between the individual and job properties of the experts on one hand with the competitive advantages of dates marketing on the other hand

3. Study of the correlation between the organizational electronic readiness and experts with the items of dates marketing

4. Study of the role of ICT on dates marketing based on the activities in the field of dates business

5. Study of the role of ICT on dates marketing based on benefiting from websites or weblogs

Material and Methods

The present study is of an applied type using descriptive–correlation methods. The theoretical stage of the research and the qualitative investigations are conducted by documentary method and the quantitative stage is done by fieldwork method, using a questionnaire. The aforesaid questionnaire went through a revision and was submitted to the scholars, professors and experts in the field of marketing and agriculture to confirm its validity. According to the findings, a Chronbach Alpha coefficient was found to be 0.85 in the ICT section of the questionnaire. The population consists of the experts of Agriculture Ministry in Khuzestan province (n=144). The statistical method was used for collecting data. For description of the research variables, statistical items such as Frequency Distribution, Frequency Tables, Means, Standard Deviation, Variation Coefficient, the Minimal and the Maximal values were used.

Results

Individual Characteristics of Agriculture Experts: The findings of the age frequency of the respondents showed that the highest age frequency in the respondents related to



the age range 31-40 years with a frequency of 47.4% while the lowest age frequency belonged to the people aged over 51 years with a frequency of 13% regarding marital status. Most respondents, that is, 121 persons (87.10%) were married while only 18 persons (12.9%) of them were single. regarding the persons supported, the responses showed that 87 (62.6%) of respondents supported 2 persons. As regards the birthplace of respondents, 100 persons (49.80%) were born in villages, 37 persons (49.30 %) were born in cities and 2

persons (1.50%) had not responded to the item.

Correlation of competitive advantage with some research variables

The results of the correlation between individual and job properties of the experts with the competitive advantage (as in Table 1) showed that there is a positive relationship between the age of respondents ($r=0.168$) organizational position ($r=0.462$) field of study ($r=0.374$) service record ($r=0.227$) having weblog ($r=0.191$) and competitive advantage.

Table 1: Variables, index of variables, correlation coefficient and sig level with reducing cost of production and sale

Sig level	Correlation coefficient	Test		Index criterion	Index	Anticipating variable
			Index			
0.048	0.168*	Spearman	Distance	Supplying and selling	Nominal	Sex
0.303	0.088	Pearson	Distance	Supplying and selling	Distance	Age
0.000	0.462**	Spearman	Distance	Supplying and selling	Sequence	Organizational position
0.817	-0.02	Spearman	Distance	Supplying and selling	Sequence	Education
0.000	0.374**	Pearson	Distance	Supplying and selling	Nominal	Field of study
0.007	0.227**	Pearson	Distance	Supplying and selling	Distance	Service record
0.181	0.114	Spearman	Distance	Supplying and selling	Nominal	Computer education
0.173	0.116	Spearman	Distance	Supplying and selling	Nominal	Email
0.024	0.191*	Spearman	Distance	Supplying and selling	Nominal	Having weblogs
0.254	0.097	Spearman	Distance	Supplying and selling	Nominal	Dates culturing
0.254	0.097	Spearman	Distance	Supplying and selling	Nominal	Dates business
0.077	0.151	Spearman	Distance	Supplying and selling	Sequence	Introduction to the rules
0.203	0.109	Spearman	Distance	Supplying and selling	Sequence	Satisfaction of budget allocated to ICT

Correlation for organizational electronic readiness of the experts with items of dates marketing: The results of the correlation between organizational electronic

readiness and the experts with items of dates marketing show that there is a positive significant relationship between electronic readiness of dates experts with entire items of

dates marketing except for reducing cost of producing and selling date. There is a negative significant correlation between electronic readiness with dates marketing and reducing

production cost of producing and selling dates; nevertheless, there is a positive correlation with the other items(as in Table 2).

Table 2: Correlation for organizational electronic readiness and experts with the items of dates culturing

Items for influence of ICT on dates marketing	Electronic readiness of experts	Sig level	Electronic readiness of organization	Sig level
Creation of market relationship	0.427**	0.000	0.296**	0.000
Date marketing	0.375**	0.000	0.125	0.142
Supplying and selling	0.331**	0.000	0.274**	0.001
Influence in market	0.443**	0.000	0.238**	0.005
Reducing production cost & selling	-0.068	0.424	0.011	0.896
Competitive advantage	0.210*	0.013	0.239**	0.005

Based on activity in the field of date business (independent T test): Results of T test is shown in table (3) revealing that there is 5% significant difference between items of electronic readiness, creation of market relationship, supply and selling, influence on market, reducing cost of producing and selling and competitive advantage based on benefiting website in organization Multi

regression for relationship of influence of independent variables on attitudes of experts and influence of ICT.

Based on place of living (independent T test): Results of T test is shown in table (1-4) revealing that there is 5% significant difference between items of electronic readiness, and reducing cost of producing based on place of living.

Table 3: Comparing item of role of ICT on date marketing based on activity in the field of date business

Sig	t	Standard deviation	Average	Groups	Level	Grouping variable
0.026	-0.59*	19.1	102.4	Yes	Activity in the field of dates	Electronic readiness
		20.2	109.0	No		
0.025	-3.08*	5.2	37.7	Yes	Activity in the field of dates	Creation of market relationship
		6.55	47.0	No		
0.067	-3.26	2.8	19.6	Yes	Activity in the field of dates	Dates marketing
		3.54	25.0	No		
0.125	-3.66	3.6	27.3	Yes	Activity in the field of dates	Supplying and selling
		5.76	35.0	No		
0.034	-2.83*	3.0	19.0	Yes	Activity in the field of dates	Influence on market
		4.45	24.0	No		
0.032	-2.60*	3.3	21.0	Yes	Activity in the field of dates	Reducing production cost & selling
		0.0	26.0	No		
0.012	-1.15*	4.1	34.3	Yes	Activity in the field of dates	Competitive advantage
		0.0	37.0	No		



Table 4: Comparing the role of ICT on dates marketing based on living place

Sig	t	Standard Deviation	Average	Groups	Level	Grouping variable
0.032	*1.626	5.73	21.86	Village	Living place	Electronic readiness
		6.24	23.24	City		
0.269	0.245	5.25	24.25	Village	Living place	Creation of market relationship
		5.66	24.06	City		
0.219	0.183	6.37	20.04	Village	Living place	Date marketing
		6.83	19.86	City		
0.596	0.259	6.12	22.25	Village	Living place	Supplying and selling
		6.37	22.02	City		
0.962	0.668	5.78	22.18	Village	Living place	Influence on market
		5.69	21.63	City		
0.023	-0.291	6.56	20.29	Village	Living place	Reducing cost of producing and selling
		6.30	20.55	City		
0.139	-0.690-	5.51	20.57	Village	Living place	Competitive advantage
		6.72	21.17	City		

Table 5: Comparing the role of ICT on dates marketing based on benefiting from websites or weblogs

Sig	t	Standard Deviation	Average	Groups	Level	Grouping variable
0.007	3.19**	8.1	116.9	Yes	Benefiting website	Electronic readiness
		19.2	100.9	No		
0.000	-2.50**	1.5	34.7	Yes	Benefiting website	Creation of market relationship
		5.5	38.3	No		
0.003	-3.71**	0.4	17.2	Yes	Benefiting website	Dates marketing
		3.0	20.0	No		
0.029	-1.17*	2.0	26.4	Yes	Benefiting website	Supplying and selling
		3.9	27.6	No		
0.046	-4.52*	1.9	15.9	Yes	Benefiting website	Influence on market
		3.0	19.5	No		
0.015	-4.30*	1.3	17.7	Yes	Benefiting website	Reducing production cost & selling
		3.3	21.5	No		
0.955	-2.28	3.7	32.1	Yes	Benefiting website	Competitive advantage
		4.1	34.6	No		

Based on benefiting from websites or weblogs (independent T test): The results of T test is shown in Table 1-5 revealing that there is a 5% significant difference between items of electronic readiness, creation of market relationship, supply and selling, influence on market, reducing production cost and selling and competitive advantage

based on benefiting from websites in organizations.

Conclusion

The findings of the age frequency of the respondents showed that the highest age frequency in the respondents related to the age range 31-40 years with a frequency of 47.4% while the lowest age frequency

belonged to the people aged over 51 years with a frequency of 13% regarding marital status. Most respondents, that is, 121 persons (87.10%) were married while only 18 (12.9%) of them were single. Regarding the persons supported, the responses showed that 87 persons (62.6%) of the respondents supported 2 persons. As regards the birthplace of the respondents, 100 persons (49.80%) were born in villages, 37 persons (49.30 %) were born in cities and 2 persons (1.50%) did not respond to the item.

The results of the correlation between individual and job properties of experts with competitive advantage showed that there is positive significant relationship between sex, organizational position, the field of study, service record and having weblogs. The results of the correlation between organizational electronic readiness or experts and items of dates marketing showed that there is a positive significant relationship between electronic readiness of date experts with the entire items of dates marketing except reducing cost of selling and producing dates. The results of T test showed that there is a significant difference between items of electronic readiness based on sex by 1% and items of creating market relationship, supplying, selling and reducing production cost and selling based on sex by 5%. The results of T test showed that there is a significant difference between items of creating market relations based on attending the educational courses of computer at level by 5%. In addition, the results of T test showed that there is significant difference between items of creation of market relations, supplying and selling based on benefiting organization from email by 1%.

Recommendations

- 1) Supporting rules in relation to applying ICT by the government
- 2) Holding educational classes for experts to familiarize them with dates marketing
- 3) Success marketing in palm dates relates to the images of the producers applied by ICT.

References

- Hamedanlou, M.(2009). Obstacles and challenges of developing rural ICT centers in Iran. <http://www.modiriran.ir/modules/article/view.article.php/597>.
- Jalali, A. Study Effects Social-Economic on ICT in Rural people in Iran, Ministry of ICT
- Jomegi, M. & Lashgarara, F.(2012), Challenge in Apply ICT point of view Agriculture Student in Tehran Province, Journal of Agriculture Extension & Education, 5(3).
- Miller, D. (2006). Building a new Agricultural Research and Extension System in Afghanistan: Initial Thoughts. USAID, February14, 2006.
- Pant, P., L. and Odame, H., H. (2008). "Asseaaing social Innovation in agriculture research and development partnership". A paper prepared for workshop "Rethinking Impact", Cali-Colombia, March 26-27, 2008.
- Ranga, M. and Etzkowit, H., J. (2010). "The Gender Dimension of Technology, Innovation and Entrepreneur". Journal of Technology Management and Innovation, vol 5(1), pp: 1 – 5.
- Shahkahi, A. (2012). Studying ICT in Quality of rural life (case study: Ghezen abad & Esfahankalate), Gorgan City Geography Journal, University Golestan,3(7).
- Yazdani Saeid 2003, Studying date export and its challenges and strategies, Research journal of economics, Economics research journal, Issue.74, Page.225-233.