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Comparison Study of Application of ICT on Marketing of Agricultural Crops in Iran

Mohamad Kamal Ebrahimi Filouri[1], *Azita Zand[2], Mohammad Mohammadi[3]

[1]M.Sc Student in Agriculture Management, Department of Agriculture, Islamshahr Branch, Islamic Azad University, Tehran, Iran, Email:m.kamalebrahimi@gmail.com
*[2,3] Assistant Professor of Agricultural Extension & Education, Department of Agriculture, Islamshahr Branch, Islamic Azad University, Tehran, Iran, *Corresponding Author Email: azitazand@iiau.ac.ir*

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Abstract

This research through comparison study of application of ICT on marketing of agricultural crops in khozestan province, evaluate the role of such factors. The study is of applied type and the method being used is descriptive- correlational. Statistical population of this research is all agricultural experts of Khuzestan province and using Cochran's formula , a sample size of 144 members was selected census method is used for the purpose of responding to the questionnaires. Researches show that there is significant difference between item of electronic readiness based on gender at 1% and item of market relationship, supply and demand, reducing production and sale costs based on gender at 5% and also there is significant difference between item of market relationship based on attending at computer education courses at level of 5%. There is significant difference between market influence based on education at the level of 1% and market relation based on education of respondents at the level of 5%.

1. Introduction

Nowadays organizations are successful that are able to revive in the high competitive world and continuously apply from appropriate communication methods. There are many challenges and problems for organizations in the present age that is due to negligence to innovation and methods of its improvement (Kwomena, 2008).

Therefore, the traditional marketing of that produce certainly could not be effective and useful but correct and targeted use of ICT (computer, web, satellite systems, hardware and software networks, and et.) in marketing of produce could fill the gaps, introduce Iranian palm date to the world and build some markets. Application of communication technologies will rapidly change the social structure and the people's way of living (Jomegi and Lashgarara, 2012).

Role of ICT on increasing economic efficiency of agriculture crops is the most important and effect on developing of marketing agriculture and prices. The significant difference between price of crops in farm and market may be reduced through offering appropriate information in the field of supply and demand and recognizing potentials of market. (Haji Hosseini, Rostami and Sabri 2011).

Some researchers believe that below items are necessary for developing ICT in villages: Facilitating of participation of rural people in ICT planning through increasing of receiving comments, expectations, complaints and recommendation of them and awareness original and subsidiary requirements of rural society (Barani and Ghodsi 2003).

The necessities of focusing on ICT leads to improvement of marketing in agricultural sector as well as rural development (Khajeh Shahkouhi et al, 2005). Some people believe that countries require 5 strategic effects to design successful and useful strategies of ICT including: suitable infrastructures, human capacity, supporting governmental policies, supporting business network, awareness of local cultures and applications (Curtain, 2002).

The purpose of research was comparison study of application of ICT on marketing of agricultural crops in Iran.

2. Materials and Methods

The study was applied research and descriptive–correlation methods. The validity was determined by panel of experts. Results of Alpha Cronbach coefficient showed that 0.85 in the ICT section of the questionnaire. Statistical population of this research was experts of agricultural organization in Khouzestan province (n=144). The census method was used for collecting data.

3. Results and discussion

3.1 Descriptive research

Results of organizational position of respondents was explained in table 1.Based on the results 3.6% of respondents are manager and 58.90% of respondents are experts.

Table 1. Frequency of organizational position of respondents

Organizational Position	Frequency	Percentage
Expert	83	58.9
Expert assistant	7	5
Facilitator	26	18.5
Manager	5	3.6
Faculty member	14	10.1
Other	4	2.9
Total	129	100

Based on the results 56.88% of respondents had Bachelor's Degree, 82.70% of respondents have education in agriculture and remained 17.30% had non-agriculture education. In fact, most the respondents were educated in the field of agriculture. 14.30% of respondents had less than 5 years experience, 19.60% of respondents had experience between 6 to 10 years, 49.70% of respondents had experience between 11 to 15 years and 16.60% of respondents had experience over 15 years.

3.2 comparing role of ICT on marketing of agricultural crops based on gender of respondents:

Based on table 2, there was significant difference between electronic readinesses based on gender at level of 1%. Market relations, supply and demand, reducing production and sale costs based on gender at level of 5%.

3.3 Comparing role of ICT on marketing of agricultural crops based on marital status of respondents:

Based on table 3, there was significant difference between supply and sale based on marital status at level of 1%, market relations and reducing production and sale cost based on marital status at level of 5%.

3.4 Comparing role of ICT on marketing of agricultural crops based on education of respondents:

Based on table 4 there was significant difference between market influence based on education at the level of 1% and market relation based on education of respondents at the level of 5%.

3.5 Comparing role of ICT on marketing of agricultural crops based on attending at computer course of respondents:

Based on table 5 there was significant difference between establishment of market relation and Attending base on having computer Course at the level of 5%.

3.6 Comparing role of ICT on marketing of agricultural crops based on having email organization

Based on table 6 there was significant difference between establishment of market relation, supply and sale based on having electronic positions at the level of 1%.

Table 2. Comparing role of items of ICT on marketing of agricultural crops based on gender of respondents

Variable of Grouping	Level	Groups	Average	sd	U test	Sig
Electronic readiness	Gender	Female	100.06	20.84	-1.178	0.00
		Male	104.00	17.78		
Market relations	Gender	Female	38.14	4.06	0.444	0.024
		Male	37.72	5.97		
Marketing agricultural crops (date)	Gender	Female	19.94	2.64	-0.621	0.221
		Male	19.62	3.08		
Supply and sale	Gender	Female	27.92	2.96	-1.046	0.018
		Male	27.22	4.14		
Influence in market	Gender	Female	19.04	2.64	-0.235	0.197
		Male	19.17	3.33		
Reducing production and sale costs	Gender	Female	20.70	2.55	-0.990	0.039
		Male	21.29	3.77		
Competitive advantage	Gender	Female	33.40	3.35	-1.099	0.013
		Male	34.83	4.41		

Table 3. Comparing role of items of ICT on marketing of agricultural crops based on marital status of respondents

Variable of Grouping	Level	Groups	Average	sd	U test	Sig
Electronic readiness	Marital status	Single	98.61	16.03	1.09	0.298
		Married	108.17	19.34		
Market relations	Marital status	Single	3.51	3.51	4.167	0.043
		Married	5.57	5.57		
Marketing agricultural crops	Marital status	Single	1.87	1.87	1.113	0.293
		Married	3.05	3.05		
Supply and sale	Marital status	Single	2.47	2.47	6.929	0.009
		Married	3.91	3.91		
Influence in market	Marital status	Single	3.15	3.15	0.310	0.585
		Married	3.08	3.08		
Reducing production and sale costs	Marital status	Single	1.94	1.94	4.796	0.03
		Married	3.55	3.55		
Competitive advantage	Marital status	Single	4.87	4.87	1.305	0.255
		Married	4	4		

Table 4. Comparing role of items of ICT on marketing of agricultural crops based on education of respondents

Variable of Grouping	Level	Groups	Average	sd	U test	Sig
Electronic readiness	Education	Agriculture	104.34	18.20	2.43	0.363
		Non-Agriculture	94.17	20.61		
Market relations	Education	Agriculture	37.39	5.13	-2.34	0.519
		Non-Agriculture	40.17	5.90		
Marketing agricultural crops	Education	Agriculture	19.58	2.98	-1.33	0.425
		Non-Agriculture	20.46	2.57		
Supply and sale	Education	Agriculture	27	3.57	-3.37	0.201
		Non-Agriculture	29.75	2.97		
Influence in market	Education	Agriculture	18.98	2.95	-1.16	0.008
		Non-Agriculture	19.79	3.67		
Reducing production and sale costs	Education	Agriculture	20.62	3.11	-3.67	0.269
		Non-Agriculture	23.29	3.80		
Competitive advantage	Education	Agriculture	33.62	3.81	-4.72	0.394
		Non-Agriculture	37.67	3.84		

Table 5. Comparing role of items of ICT on marketing of agricultural crops based on attending at computer course of respondents

Variable of Grouping	Level	Groups	Average	sd	U test	Sig
Electronic readiness	Attending at computer course	Yes	104.48	16.50	0.551	0.952
		No	102.17	19.49		
Market relations	Attending at computer course	Yes	38.68	3.46	0.834	0.027
		No	37.69	5.68		
Marketing agricultural crops	Attending at computer course	Yes	19.84	2.90	0.2	0.749
		No	19.71	2.94		
Supply and sale	Attending at computer course	Yes	28.04	2.88	0.828	0.21
		No	27.35	3.93		
Influence in market	Attending at computer course	Yes	18.80	2.48	-0.575	0.425
		No	19.19	3.21		
Reducing production and sale costs	Attending at computer course	Yes	21.24	3.21	0.262	0.512
		No	21.04	3.43		
Competitive advantage	Attending at computer course	Yes	33.32	3.66	-1.345	0.664
		No	34.54	4.18		

Table 6. Comparing role of items of ICT on marketing of agricultural crops based on having email organization of respondents

Variable of Grouping	Level	Groups	Average	sd	U test	Sig
Electronic readiness	email	Yes	110.90	13.52	2.21	0.07
		No	101.10	19.44		
Market relations	email	Yes	35.62	2.97	-2.11	0.002
		No	38.27	5.58		
Marketing agricultural crops	email	Yes	18.29	1.87	-2.50	0.295
		No	19.99	3.01		
Supply and sale	email	Yes	26.71	1.93	-1.00	0.008
		No	27.61	3.99		
Influence in market	email	Yes	17.67	3.26	-2.38	0.522
		No	19.38	3		
Reducing production and sale costs	email	Yes	19.52	3.28	-2.32	0.993
		No	21.36	3.34		
Competitive advantage	email	Yes	33.19	3.93	-1.3	0.805
		No	34.52	4.12		

4. Conclusion and recommendations

Results showed that 3.6% of respondents are manager, 5% are expert assistant, 8.50% are facilitator, 10.1% are faculty member, 58.90% are expert, 2.90% have other positions. 56.88% of respondents have Bachelor's Degree. 14.30% of respondents have experience less than 5 years, 19.60% of respondents have experience between 6 to 10 years. 49.70% of respondents have experience between 11 to 15 years and 16.60% of respondents have experience more than 15 years. Results showed that there is significant difference between electronic readiness based on gender at level of 1%, market relations, supply and demand, reducing production and sale costs based on gender at level of 5%. There is also significant difference between supply and sale based on marital status at level of 1%, market relations and reducing production and sale cost based on marital status at level of 5%. There is significant difference between market influence based on education at the level of 1% and market relation based on attending at computer educational courses at the level of 5% and finally there is significant difference between establishment of market relation, supply and sale based on having email organization at the level of 1%. Based on the results recommended:

1) To design specific email organization for experts for facilitation marketing of agricultural crops and advertise different methods of developing crops.

2) Website should enable customers to easily purchase their required crops.

3) Set of educational computer for agricultural experts.

4) Considering extension experts in the field of agriculture with experience in ICT.

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