



Evaluation of perspectives related to FMIS implementation from Urmia Jihad farming organization in six factors

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ABSTRACT

In this research we evaluate the different perspectives of Urmia jihad keshavarzi organizations experts from different factors as follows economic, social, education, policy and technical. And with pay attention to expert's condition in each factors of age, gender, field of their study and participating in farming management information systems educational courses in jihad organization. Present research is done in Correlation Descriptive method and research tool is questionnaire. In the case of questionnaire validity we helped from administrative professionals and professors and Cronbach alpha test is used for evaluate questionnaire evaluate stability. In this case 25 questionnaire distributed among jahad keshavarzi experts institute that the resulted value of Cronbach alpha showed suitable stability of research tool. 75 workers of institute individuals managerial in duration years between "2014-15" was chosen to survey. The data with SPSS application in windows is analysed

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INTRODUCTION

Precise agriculture introduced in the United States at first in 1980 and it was based on requirements environmental issues that was because of farming attempts solving like usage of fertilizers and pesticides.

Testing of precise agriculture began based on large fields. Then, precise agriculture considered as a precise farm. (Introducing 3 precise agriculture pattern based on existence technologies in china in order to sustainable development agriculture in Iran. Hossain Ghafari). Regarding to existence changes in farm production and more production with less expenditure and competitive it, among countries, precise agriculture is a modern agricultural way that attempts to use information technology for operation enhancement and efficiency in quality and quantity. Efficiency in precise agriculture is done by updating modern information technology with satisfied engineering technology and managerial technics. For a modern operational agriculture we need continuous data information flow to field and from it. Information flow helps to farmer with external knowledge and desertion support system in order to efficiency farm operations and use it as a transmission data tool in the field operation. At the present the large amount of data gathered and transmission from field operation by agricultural machines with difference data storage usage. Farming management information systems in industrial countries and scientific socials in field of food and agricultural production preparing are survival and competitive lifeline and failure in this field cased to dependence to producing countries. Included problems for research in Iran is lack of comprehensive farming

management information system and unknown farming operations include Jihad agricultural organization with this issue. Lack of farming accessory to the internet infrastructure and lack of knowledge in using new information technologies like smart phones and related Apps to them in the field. In developed countries operations from new technologies widely in order to enhancement efficiency. The results of this attempts in advanced and mechanical lands the amount of wheat production arrive to 15 ton per hectare. Controlling in order to fewer fertilize and poisons usage in farming that caused to entering fewer chemical poisons to environment and enhancement production quality and quantity and its efficiency and stabile farming environment and also preventing of humans environment damage. For this purpose FMIS subject raised. And achieving to purposes like more production with fewer attempt and expenditure and higher speed and health production and competitable with domestic and foreign producers and more financial benefits.

In fact in this project instead of monotonous distribution, we use point distribution appropriate to soil like its potassium, poison, fertilize, in the area with maximum 25 m² dimensions. This kind of agriculture that is alternative of laser methods in the world, belongs to advanced secretly projects in Europe. That like nuclear projects achievement and operation of its formula only is done by Iranian scientist. This project during next five years old type of product, products feeding and calculate and reports its executive expenditure. (Hossain Sahraean the responsible of precise agriculture national project in IRANA news) Precise farming have important attempts in gathering and interpreting data and implementing in rate of data variables.

Modern farming with aim of precise materials management, preparing difference production methods for agricultures producers in farming sector and give opportunity to formers to gather information like other technologies in order to identifying impacted variables on farm potential usage and uses needed materials in variable amount.(Salehi et.al 1387)

Research results in relation of precise farming materials acceptance was done by Batte showed that amount of acceptance precise farming equipment increase with advisory service, guidance and product supervision. Also this research results in implementation of precise farming had special regarding with use of educational methods. Fountas et al, (2006) also in their research results introduced expert farmers as a channel for information and skill transform to farmers. Also Swinton & Deборе research results showed that precise farming acceptance develops in the areas that economical investment is accessible. Griffin et al, 2004 in their research reached on this conclusion that low level advisory services is the main reason of low speed of precise farming technology acceptance. One of the Mishra's research conclusions that also done in relation with possibility and precise agriculture usage in India, showed positive impact of implementation precise farming in experimental locations. Also Breaseale (2006) in his research in relation with fertilizing with usage of precise farming methods, knew the application of this method with beneficial of operations rate increases, economical production improvement and expenditure compensation. Swinton & Deборе (1998) in the analysing of precise farming profitability evolution, reported increase rate of profit in 75% of precise farming in covered areas. Jin Tong et al (2002) evaluate precise farming possibility in china and optimized investment in materials, optimized application of natural resources, environmental contamination decrease and high quality production cited conclusion of precise farming usage. Fountas et al, (2006) stated hardware compatibility as a critical factor for acceptance of precise farming. Also Haapala et al (2006) knew precise farming compatible, trustable and economical in their research. China country is one of the beigest developing countries. This country has an ancient agricultural history. Unless after 25 years, china agriculture face with a lot of issues like environmental contaminations caused by fertilizes and chemical substances, lake of irrigation water and low efficiency of water sources. So this country's agricultures like other developing countries have no way unless moving toward modern managerial solutions and development. Hilly

lands are almost 60% of total country's land. In most of hilly lands, economic are in the poorest condition. This problem is true about technology too. So it is difficult to develop precise agriculture by using advanced information technology and high level mechanisation. Suitable pattern is that common precise agriculture pattern. (Introducing three precise agriculture patterns based on existence technology in china in order to sustain able agriculture in Iran. Hossain Ghafari)

Research method:

The statistical society of present research are composed of Urmia jihad keshavarzi organizations expert. The method of data gathering is field type, and satisfied questionnaire is tool of data gathering in case of impacting factors (social, economic, education, policy, technical and managerial). . Questionnaire is data gathering tool. For questionnaire codification, theoretical subject according to resources and references evaluate first. The initial interviews were conducted with administrative experts in this subject and primary questionnaire was prepared. To validate questionnaire tool evaluate, designed questionnaire and distribute to Urmia university professors and after needed reformation, questionnaire creditability verified. For experiment tool satiability, 25 questionnaire items were completed by Salsas jahad keshavarzi organization and calculated Cronbach's alpha coefficient for different part of questionnaires was used (educational 0.779 , economical 0.805, technical 0.790 , managerial 0.783 , socialist 0.711 ,policies 0.703 , and underlie features application possibilities 0.805). 75 jahad keshavarzi farming experts were selected for research implementation. In this research to the different field of farming in bachelor and higher graduated that were working during the years "2014-15" in the Urmia jahad keshavarzi is intended agricultural expert. The research Independent variable includes educational factures (15 items), economical (15 items), technical (15 items), managerial (15 items), social (15 items), policies in precise agriculture application (15 items) and evaluation dependent variable fields in precise agriculture possibilities (with 4 items).

To measure each of mentioned factors 5 level Likert scale is used (1- very little degree until so much -5). To analyse gathered data SPSS software release 16 is used. To evaluation of significant relationship among this factors with expert's age, gender, field of study and participation in FMIS related courses we use t student statistical method in 14 free degree in

Table 1- Cronbach's alpha factors investigated in the questionnaires

Cronbach's alpha	Factors	row
0.711	Social factors	1
0.779	Educational factors	2
0.805	Economic factors	3
0/703	Political factors	4
0.790	Technical factor	5
0.783	Managerial factors	6
0.769	Total alpha (standard alpha)	

Distribution rate of the used expert's features in the research evaluated are includes gender, age, educational level,

field of study, job experience and participating in educational courses.

Experts gender in Urmia jihad keshavarzi organization

The result of respondents' gender distribution showed that 52 (69%) members of them are male and 23 (31%) members are female. The results are ready according to table 1-4

Table 2 -distribution rates of respondents' gender

31	23	Female
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Ppercentage	Abundance	Gender
69	52	Male

Table 3- distribution rate of expert's age

Age	abundance	Percentage
40 and under 40 years old	43	57%
Over 40 years old	32	43%
sum	75	100%

Table 4- distribution rate of respondent's education.

percentage	abundance	Education level	Educational study field of Urmia jihad keshavarzi experts.
81	61	bachelor	
19	14	master	
100	75	Total	

According to table -3 the most of studied expert's ages are within 31-40 and minimum of them are over 51 years old and higher (16%).

Table 5- distribution rate of respondents study field.

Participating in courses	abundance	Percentage	Participating in educational courses
Yes	16	21	
No	59	79	
Sum	75	100	

According to table 6 in related to experts participating in educational courses, 79% of experts did not participate in FMIS related courses and only 21 percent of them passed these courses.

Table 6- Distribution of participating in related educational courses

Participating in courses	abundance	Percentage
Yes	16	21
No	59	79
Sum	75	100

The research descriptive:

Table 7 – educational factor prioritize in the field of FMIS

Priorities	Educational factors	Average
1	Related classes for external and internal organization periods for experts	4/21
2	Trained related professional experts and consultants	4/17
3	Consultants and experts for knowledge-based organizations related to agricultural activity-based management information systems at the conferences and workshops for researchers and promotions.	4/16
4	Joining relevant classes and seminars for promotions and researchers abroad	4/08
5	The introduction of agricultural management information system through local media and special programs for modern agriculture.	4/07
6	Cooperation and invite professionals to teach and transfer of their professional experience.	3/99
7	Distributed brochures, magazines or articles required knowledge necessary for the introduction of technology and how to work with them.	3/89

8	Organizing rich class sessions with knowledge and appropriate period of time.	3/88
9	Content and duration of the job relation and the achievement of objectives in agricultural management information system	3/85
10	The inclusion of concepts and topics related to agriculture management information systems in the agricultural student courses.	3/77
11	Rate of class's topics and courses being activation.	3/76
12	Useful content presented in courses in agricultural management information systems activities within and outside the organization	3/73
13	Meet the needs of the trainees	3/69
14	The practical relevance of the work that you do in the workplace.	3/57
15	The ability of the learning facilitate and quality of related class's facilities.	3/52

The screenshot shows an Excel spreadsheet with columns A and B containing numerical data. Column A values range from 3 to 5, and column B values range from 3.15 to 4.34. Cell C16 contains the formula $=T.TEST(A1:A15,B1:B15,1,15)$ and displays the result 0.403432.

Table 8- The evaluation of experts' different respondents in gender point of view about social factors with Excel app and t student method.

A= the average of female experts response
 B= the average of male experts response

Table 9- Economic factors prioritise

Priorities	Economic factors	Average
1	Provide Credits required and sufficient funding for research related to agriculture management information system based on farmers' fields	4/24
2	Providing adequate funding and credits required for the preparation of the necessary equations applications for farmers	4/20
3	Payment of bank loans to farmers and precise agricultural authorities to fund and encourage.	4/13
4	Providing enough subsidies for agricultural inputs and equipment based on the introduction of a management information system.	4/12
5	Payment of financial assistance and incentives to agricultural companies in charge of management information systems in the field of agriculture-related classes and practical application.	4/11
6	Encourage farmers to implement agricultural-based management information systems (such as free internet or low-cost) for direct or non-direct funds.	4/08
7	Expenditure in creating solutions to ensure better quality products.	4/07
8	Expenditure in creating the necessary measures to ensure that the consumer market for sale.	4/04
9	Expenditure in creating the necessary measures to ensure that products in less time	4/01
10	Incentives and introduce farmers expenditure to use farm management information systems that have been able to achieve returns.	4
11	Insurance guarantee for agricultural products at a lower cost and with encouraging.	3/92
12	Expenditure to create solutions for agricultural products export.	3/89
13	Expenditure in creating the necessary explanations and solutions to ensure higher productivity.	3/88
14	The cost of recruiting students and activists in the agricultural sector to monitor and participate in agricultural land	3/84
15	Expenditure for free related classes for farmers.	3/81

Table 10- The evaluation of experts' different respondents in gender point of view about Economic factors with Excel
 A= The . app and t student method average of female experts response
 B= The average of male experts response

Table 11- technical factor priorities

Priorities	Technical factors	Average
1	Implement a management information system based agricultural training for farmers in pilot farms in different parts of the target and control and run the technology implemented in that place.	4/25
2	Express suggestions and recommendations for farmers with a view to analysing the data collected from farmers' fields to achieve the desired efficiency (e.g., interpreting the results of GIS and offer the necessary solutions by experts)	4/17
3	Team up with members of various disciplines. related to all procedures required for expression farm project with equipment based on management information systems, taking into account the conditions of the fields (environmental and soil)	4/16
4	The use of agriculture-related information technology-based information systems management experts and farmers at the farm.	4/09
5	Continue to express the most appropriate methods to farmers in the use of agricultural technology based on management information systems in all stages of agricultural activities in order to provide farmers' fields for the next crop season.	4/08
6	To organize and process the data in management information systems and data processing software as used.	4/01
7	Providing equipment and technology capabilities for researchers and promotions for the use of agricultural technology based on modern management information systems.	3/97
8	Construction sites and canters to analyse data collected from farms levels required by agricultural organizations for the use of modern agricultural purposes.	3/92
9	Technology equipment needed for agricultural management information systems in agricultural extension and education will be provided. To make progress in agriculture and enhance the quality of agricultural work.	3/91
10	Providing necessary equipment related to information technology for agricultural applications such as computer-based management information systems. For farmers, especially those with limited literacy, or smartphone.	3/88
11	Using a computer can enhance the flexibility in time and space efficiency of promotional activities implementation of agricultural extension and research with agricultural management information system.	3/79
12	Available telecom infrastructure, network and media coverage and user fees for rural and agricultural communities.	3/69
13	Agricultural technology equipment be required to provide in the management information systems for real needs of farmers.	3/61
14	Technology equipment required to supply agricultural management information systems to reduce costs of acquisition and transfer of information.	3/55
15	Required equipment technology in agricultural management information system to exchange views and experiences and provides farmers suitable environment.	3/47

Table 12 -The evaluation of experts' different respondents in gender point of view about educational related courses with Excel app and t student method.

A= The average of female experts response

B= The average of male experts response

Table 13- Managerial factors priorities

Priorities	Managerial Factors	Average
1	The need for effective management and proper implementation of agriculture-based on advanced management information systems	4.20
2	Management informed of the most recent scientific knowledge and information related to their jobs in relation of the agriculture management information systems.	4.17
3	Paving the way for a partnership with local non-governmental organizations for activities in the field of agricultural research and extension based on advanced management information systems.	4.12
4	The availability of international scientific research centers in the field of agriculture-based advanced management information systems through collaboration and partnership with them.	4.07
5	The farmers' knowledge of the limitations of cultivation in the use of advanced based of management information systems	4.01
6	The need for effective management and correct application of agricultural related organizations for effective expression-based management information systems.	3.93
7	Managers should consider interest, talent, cognitive abilities and personality, and intelligence in determining the employee's career.	3.92
8	Management should be aware of the effect of encouraging and rewarding cooperation efficient and profitable, farmers and experts in projects related to agricultural management information system.	3.98
9	To improve the management process responsible for the units implement new and updated methods contentiously.	3/85
10	The management should proportion between the equipment , environment and type of the work	3/79
11	The use of co-management experts and officials involved limits in activities related to farmers be high	3/72
12	Management should choice number of needed staff for operation in the organization based on organization chart.	3/65
13	A management with the social systematic attitude and the ability to see things as integrated collection so that all parts and components in relation to each other understood.	3/59
14	Academic researcher attitude and understanding of the impact of technology on modern agricultural management.	3/53
15	Management's ability to organize and prioritize the allocation of other resources to programs related is involved to agricultural management information system.	3.52

Table 14 -The evaluation of experts' different respondents in gender point of view about policy factors with Excel app and t student method.

A= The average of female experts response

B= The average of male experts response

Table 15- Social Factors prioritises

Priorities	Social Factors	Average
1	Attempt to coherent farmers for agricultural organization for two-way relationship between policy makers and farmers	4/16
2	Efforts to unite the farmers to form farmer's organizations for bilateral relations between farmers and planners	4/08
3	Trying to consolidating the farmers and researchers at all stages of activity based on management information system and evaluation of the results of precision farming applications	4/01
4	The amount of each of the experts and farmers knowledge from agricultural management information system business objectives, policies, organization and knowledge of the requirements associated with the job that led to the group's knowledge	4
5	Adequate and continuous efforts to achieve organizational goals each from experts and farmers on agricultural management information systems, leading to useful working group	3/96
6	There be Social responsibility in the organization as the organization's commitment to preserve, care for and help the community of experts and stakeholders in the activities	3/95
7	Trying to develop interconnected networks and transfer the information, review the relations between farmers and the relevant authorities to raise or Social increase farmers' knowledge and expertise on the rights and status to increase, resulting in the expectations of the Agriculture enterprise	3/91
8	Social organizations culture of shared values, social ideals and joint together the members of organization and farmers	3/89
9	Trying to provide a sense of personal responsibility for the experts know themselves against the farmers and vice versa	3/88
10	Agricultural management information system acceptance by the farming community with financial and budgetary feasibility and profitability of the farmers	3/85
11	Create a sense of rapport and trust between the Commonwealth of experts to farmers to adopt management systems and related information out of traditional agriculture	3/84
12	Administrators and managers of organizations decision with a comprehensive view and protect the public interests and unity of the country, decisions and overall strategy to their affairs.	3/81
13	The condition of promotion and dissemination of successful modern agriculture for farmers	3/79
14	The values, norms and beliefs of farmers are respected and ethical values in the work and activities are expected to follow	3/73
15	Trying to create agriculture relationship in branches receive special offers and accountability and consultation between the relevant authorities in the context of .agriculture and farmers 'management information systems	3/65

Table 16-The evaluation of experts' different respondents in gender point of view about technical factors with Excel app and t student method. A= the average of female experts response B= the average of male experts response

Table 17- polices priorities

Priorities	polices priorities	Average
1	Having the value of the agricultural policy of the current management information systems after every season for the proper implementation of the plan in the next growing season	4/08
2	Implementing agricultural scheme based on agricultural management information system is a key element in the context of the macro-structure and agricultural policy and rural development.	3/92
3	Needed researches on farming management information systems for planers and policy makers according to the next related researches priorities.	3/84
4	Having a policy on the allocation of agricultural inputs to agricultural shortages based on management information systems	3/81
5	Implementation of projects in the vicinity of the same products at the same plant (co-culture) to farmers with small farms for the purpose of implementation of agriculture-based Management Information Systems.	3/80
6	Supportive government policies including price support, input support, compensation products or policies of price support policy is that the guaranteed price.	3/79
7	Support the agricultural sector through a number of ways because if one of these methods using is restricted or prohibited supportive of alternative methods can be used.	3/77

8	Structuring of the country's trade by creating restrictions on imports that raise domestic prices and enhance agricultural production support	3/72
9	A tax system with correction of the investment policy for the agricultural sector, by reducing the tax rate on investment ground for more investment in this sector and as a result, provide more production leading to job creation and employment and improve the trade balance.	3/69
10	An increase in government investment policy in the sector to raise production as well as the raising of public services thus enhances the rate of agricultural support.	3/56
11	Having pro-farmer policies of some products that have a lot of volatility. Lead to lack of flexibility in pricing strategies and raise the costs of production.	3/51
12	The policy to increase subsidies to agricultural inputs and the distribution of agricultural inputs at lower prices.	3/44
13	Implementing policies that competitive agricultural activities in comparison with other financial activities and funding service activities, especially the traders profitable and competitive	3/41
14	be the form of laws and anti-dumping measures (import into the country for less than value) is	3/33
15	Breakdown of payments by policy support for different institutions, or law firm that specified payments for each product.	3/32

Table 18- The evaluation of experts' different respondents in gender point of view about managerial factors with Excel app and t student method.
A= the average of female experts response
B= the average of male experts response

In all of the blue boxes A and B referring to average answers for each of "1 -15" questionnaire questions.

Table 19 -Evaluation of meaningful relationship among between 40 years and higher, experts and under 40 years old in the social perspective with excel app and t student method.
A= The average of 40 and under 40 years old experts respondents
B= The average of over 40 years old experts respondents

Table 20 -Evaluation of meaningful relationship among between 40 years and higher, experts and under 40 years old in the economic perspective with excel App and t student method.
A= the average of over 40 years old experts respondents
B= the average of 40 and under 40 years old experts respondents

Table 21- Evaluation of meaningful relationship among between 40 years and higher, experts and under 40 years old in educational perspective with excel app and t student method.
A= the average of 40 and under 40 years old experts respondents
B= the average of over 40 years old experts respondents

	A	B	C	D	E	F
1	3.90375	4.102791				
2	3.90375	3.870244				
3	3.90625	3.790099				
4	4.00375	3.604051				
5	4.0025	3.604051				
6	4	3.627907				
7	3.4375	3.44198				
8	3.75	3.325581				
9	3.05625	3.60405				
10	3.125	3.488372				
11	3.46875	3.372003				
12	3.71875	3.72093				
13	3.5	3.186547				
14	3.71875	3.44198				
15	3.05625	3.72093				
16				0.141005		

Table 22- Evaluation of meaningful relationship among between 40 years and higher, experts and under 40 years old in policy perspective with Excel App with t student method.
A= the average of 40 and under 40 years old experts respondents
B= the average of over 40 years old experts respondents

	A	B	C	D	E	F
1	3.84375	4.209767				
2	3.875	3.932333				
3	4.125	4.186547				
4	4.03125	4.116279				
5	4.09375	4.003072				
6	4.15625	3.908977				
7	3.90625	3.932333				
8	3.875	3.883721				
9	4.21875	4.27907				
10	4.21875	3.813863				
11	3.8375	4.348837				
12	3.5	3.581395				
13	3.40625	3.511629				
14	3.6875	3.55814				
15	3.71875	3.674419				
16				0.419527		

Table 23 -Evaluation of meaningful relationship among between 40 years and higher, experts and under 40 years old in technical view with excel App and t student method.
A= the average of 40 and under 40 years old experts respondents
B= the average of over 40 years old experts respondents

	A	B	C	D	E	F
1	4.125	4.258014				
2	4.0025	4.258014				
3	4	3.883721				
4	3.9375	3.790099				
5	4.0025	4.102791				
6	4.125	3.830233				
7	4.21875	3.953488				
8	4.09375	3.790099				
9	3.6875	3.627907				
10	3.78125	3.44198				
11	3.75	3.813863				
12	3.71875	3.72093				
13	3.6875	3.385349				
14	3.59375	3.488372				
15	4.03125	3.790099				
16				0.118481		

Table 24- Evaluation of meaningful relationship among between 40 years and higher, experts and under 40 years old in managerial view with excel App with t student method.
A= the average of 40 and under 40 years old experts respondents
B= the average of over 40 years old experts respondents

	A	B	C	D	E	F
1	4.381818	4.4				
2	4.018182	4.3				
3	3.545455	3.95				
4	3.909091	3.65				
5	3.890909	4				
6	4.490909	4				
7	3.945455	3.85				
8	3.145455	3.75				
9	3.90363	4				
10	3.054545	3.4				
11	2.890909	3.05				
12	3.454545	3.65				
13	4.290909	3.65				
14	3.545455	3.05				
15	3.627273	3.7				
16				0.237794		

Table 25- Evaluation of significant relationship among agricultural related fields and non-agricultural related fields in social point of view with Excel App and t student method.
A= Related to non-agricultural field of study
B= Related to agricultural field of study

	A	B	C	D	E	F
1	3.945455	4.01				
2	4.145455	4.2				
3	4.054545	4.04				
4	4.145455	4.12				
5	4.127273	4.13				
6	3.909091	3.88				
7	4.036364	4.07				
8	4.309091	4.24				
9	4.072727	4.08				
10	3.945455	3.89				
11	3.927273	3.92				
12	4.036364	4				
13	3.909091	3.81				
14	3.818182	3.84				
15	4.090909	4.11				
Σ				0.43811		

Table 26- Evaluation of significant relationship among agricultural related fields and non-agricultural related fields in economic point of view with Excel App and t student method.
A= Related to non-agricultural field of study
B= Related to agricultural field of study.

	A	B	C	D	E	F
1	3.018182	3.73				
2	3.527273	3.52				
3	3.854545	3.85				
4	3.945455	3.88				
5	3.563636	3.57				
6	3.063636	3.76				
7	3.072727	3.69				
8	3.981818	3.99				
9	4.2	4.21				
10	4.218182	4.17				
11	3.854545	3.77				
12	4.090909	4.08				
13	4.090909	4.07				
14	4.2	4.16				
15	3.836364	3.89				
Σ				0.41829		

Table 27 -Evaluation of significant relationship among agricultural related fields and non-agricultural related fields in educational related courses with Excel App and t student method.
A= Related to non-agricultural field of study
B= Related to agricultural field of study.

	A	B	C	D	E	F
1	4.054545	4.08				
2	3.8	3.92				
3	3.727273	3.84				
4	3.945455	3.82				
5	4	3.8				
6	3.890909	3.79				
7	3.472727	3.44				
8	3.581818	3.51				
9	3.745455	3.77				
10	3.236364	3.33				
11	3.436364	3.41				
12	3.727273	3.72				
13	3.4	3.32				
14	3.545455	3.56				
15	3.563636	3.69				
Σ				0.40004		

Table 28- Evaluation of significant relationship among agricultural related fields and non-agricultural related fields in policy point of view with Excel app with t student method.
A= Related to non-agricultural field of study
B= Related to agricultural field of study.

	A	B	C	D	E	F
1	3.890909	3.97				
2	3.836364	3.91				
3	4.109091	4.16				
4	4.018182	4.09				
5	4	4.09				
6	4.054545	4.01				
7	3.872727	3.92				
8	3.909091	3.88				
9	4.2	4.25				
10	3.818182	3.79				
11	4.163636	4.17				
12	3.590909	3.55				
13	3.454545	3.47				
14	3.581818	3.61				
15	3.654545	3.69				
Σ				0.257899		

Table 29- Evaluation of significant relationship among agricultural related fields and non-agricultural related fields in technology point of view with excel App and t student method.
A= Related to non-agricultural field of study
B= Related to agricultural field of study.

	A	B	C	D	E	F
1	4.236304	4.2				
2	4.2	4.17				
3	3.903030	3.93				
4	3.903030	3.89				
5	4.163630	4.13				
6	4.090909	4.01				
7	4.145455	4.07				
8	3.903030	3.82				
9	3.909090	3.85				
10	3.672727	3.59				
11	3.804848	3.79				
12	3.709091	3.72				
13	3.903030	3.52				
14	3.545455	3.53				
15	3.909091	3.89				
16				0.30209		

Table 30- Evaluation of significant relationship among agricultural related fields and non-agricultural related fields in technical point of view with excel App and t student method.
A= Related to non-agricultural field of study
B= Related to agricultural field of study.

	A	B	C	D	E	F
1	4.3125	4.40079				
2	4.3125	4.03086				
3	3.9125	3.610169				
4	3.6875	3.881266				
5	3.8125	3.849153				
6	4	4.457027				
7	3.75	3.960162				
8	3.75	3.190441				
9	3.875	4				
10	3.275	3.084746				
11	3.5625	2.906162				
12	3.625	3.474570				
13	3.625	4.254237				
14	3.6875	3.542372				
15	3.625	3.558322				
16				0.415793		

Table 31- the significant relationship among experts with educational courses related to FMIS and non-related FMIS in social point of view with Excel App and t student method
A= with non-related educational courses
B= with related educational courses

	A	B	C	D	E	F
1	4.1875	4.1875				
2	4.375	4.375				
3	4.0625	4.0625				
4	4.1875	4.1875				
5	4.125	4.125				
6	3.8125	3.8125				
7	4.125	4.125				
8	4.125	4.125				
9	4	4				
10	3.8125	3.8125				
11	3.8125	3.8125				
12	3.875	3.875				
13	3.625	3.625				
14	4	4				
15	4.25	4.25				
16				0.3		

Table 32 - Evaluation the significant relationship among experts with educational courses related to FMIS and non-related FMIS in economic point of view with excel App and t student method.
A= with non-related educational courses
B= with related educational courses

	A	B	C	D	E	F
1	3.981017	3.73				
2	3.525424	3.52				
3	3.847468	3.89				
4	3.915254	3.88				
5	3.810169	3.57				
6	3.898305	3.76				
7	3.711864	3.69				
8	3.983051	3.99				
9	4.220339	4.21				
10	4.180441	4.17				
11	3.954407	3.77				
12	4.084746	4.08				
13	4.101686	4.07				
14	4.152542	4.16				
15	3.84746	3.89				
16				0.415793		

Table 33 - Evaluation the significant relationship among experts with educational courses related to FMIS and non-related FMIS in education point of view with excel App and t student method.
A= with non-related educational courses
B= with related educational courses

	A	B	C	D	E	F
1	4.09	4.007793				
2	3.92	3.894407				
3	3.84	3.728014				
4	3.81	3.815254				
5	3.8	3.848153				
6	3.79	3.881366				
7	3.44	3.525424				
8	3.51	3.508475				
9	3.77	3.76661				
10	3.53	3.271186				
11	3.41	3.440079				
12	3.72	3.745763				
13	3.32	3.372881				
14	3.86	3.842373				
15	3.89	3.58322				
16				0.833609		

Table 34 - Evaluation the significant relationship among experts with educational courses related to FMIS and non-related FMIS in policy point of view with excel App and t student method.
A= with non-related educational courses
B= with related educational courses

	A	B	C	D	E	F
1	3.87	3.815254				
2	3.81	3.847468				
3	4.16	4.135683				
4	4.08	3.983051				
5	4.08	4.010948				
6	4.01	4.023888				
7	3.92	3.898305				
8	3.88	3.898305				
9	4.26	4.220339				
10	3.79	3.79661				
11	4.17	4.152542				
12	3.56	3.542373				
13	3.47	3.474576				
14	3.61	3.599322				
15	3.88	3.827119				
16				0.900076		

Table 35 - Evaluation the significant relationship among experts with educational courses related to FMIS and non-related FMIS in technical point of view with excel App and t student method.
A= With non-related educational courses
B= with related educational courses

	A	B	C	D	E	F
1	4.2	4.272288				
2	4.17	4.212288				
3	3.85	3.848153				
4	3.88	3.881366				
5	4.12	4.135683				
6	4.01	4.084746				
7	4.07	4.118644				
8	3.92	3.812203				
9	3.88	3.827119				
10	3.58	3.601017				
11	3.79	3.847468				
12	3.72	3.728014				
13	3.53	3.579271				
14	3.53	3.588475				
15	3.88	3.881366				
16				0.364074		

Table 36 - Evaluation the significant relationship among experts with educational courses related to FMIS and non-related FMIS in managerial point of view with excel App and t student method.
A= With non-related educational courses
B= with related educational courses

Conclusion and discussion:

According to Table 8 and calculations in Excel with t-test statistical method 0.4034 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among female and male experts in the social factor perspective.

According to Table 10 and calculations in Excel with t-test statistical method 0.0042 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among female and male experts in the economic factor perspective.

According to Table 12 and calculations in Excel with t-test statistical method 0.113088 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among female and male experts in the related educational courses factor perspective.

According to Table 16 and calculations in Excel with t-test statistical method 0.459424 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among female and male experts in the related technical courses factor perspective.

According to Table 18 and calculations in Excel with t-test statistical method 0.079415 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among female and male experts in the related managerial courses factor perspective.

According to Table 19 and calculations in Excel with t-test statistical method 0.2547 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among under 40, 40 and over 40 years' old experts in social point of view.

According to Table 20 and calculations in Excel with t-test statistical method 0.4495 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among under 40, 40 and over 40 years' old experts in economic point of view.

According to Table 21 and calculations in Excel with t-test statistical method 0.1425 was obtained. And with pay attention to t.test distribution table shows amount of 1.161 in 0.05 level and 14 free degree. So there is no significant difference among under 40, 40 and over 40 years' old experts in related educational courses point of view.

According to Table 22 and calculations in Excel with t-test statistical method 0.14160 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant

difference among under 40, 40 and over 40 years' old experts in policy point of view.

According to Table 23 and calculations in Excel with t-test statistical method 0.41823 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among under 40, 40 and over 40 years' old experts in technical point of view.

According to Table 24 and calculations in Excel with t-test statistical method 0.11844 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among under 40, 40 and over 40 years' old experts in related managerial courses point of view.

According to Table 25 and calculations in Excel with t-test statistical method 0.2397 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among related and non-related experts field of study with agriculture in social point of view.

According to Table 26 and calculations in Excel with t-test statistical method 0.4361 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among related and non-related experts field of study with agriculture in economic point of view.

According to Table 27 and calculations in Excel with t-test statistical method 0.41182 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among related and non-related experts field of study with agriculture in FMIS educational courses point of view.

According to Table 2 and calculations in Excel with t-test statistical method 0.46065 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among related and non-related experts field of study with agriculture in policy courses point of view.

According to Table 29 and calculations in Excel with t-test statistical method 0.3573 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among related and non-related experts field of study with agriculture in technical point of view.

According to Table 30 and calculations in Excel with t-test statistical method 0.3020 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among related and non-related experts field of study with agriculture in FMIS educational courses point of view.

According to Table 31 and calculations in Excel with t-test statistical method 0.4157 was obtained. And with pay

attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among related and non-related experts field of study with agriculture in social point of view.

According to Table 32 and calculations in Excel with t-test statistical method 0.5 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among related and non-related experts field of study with agriculture in economic point of view.

According to Table 33 and calculations in Excel with t-test statistical method 0.41107 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among participating and non-participating in FMIS educational courses through FMIS educational courses perspective.

According to Table 34 and calculations in Excel with t-test statistical method 0.4335 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among participating and non-participating in FMIS educational courses through policy perspective.

According to Table 35 and calculations in Excel with t-test statistical method 0.36567 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among participating and non-participating in FMIS educational courses through technical perspective.

According to Table 36 and calculations in Excel with t-test statistical method 0.3640 was obtained. And with pay attention to t.test distribution table shows amount of 1.761 in 0.05 level and 14 free degree. So there is no significant difference among participating and non-participating in FMIS educational courses through managerial perspective.

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