IJBPAS, July, 2015, 4(7): 729-740

ISSN: 2277–4998

International Journal of Biology, Pharmacy and Allied Sciences (IJBPAS)

'A Bridge Between Laboratory and Reader'

www.ijbpas.com

COMPARE VIRTUAL UNIVERSITY MODEL IN DEVELOPED COUNTRIES AND PROVIDE A MODEL FOR VIRTUAL UNIVERSITY IN IRAN

***MARJAN KAZEMI[1], FATTAH NAZEM[2], SAMAD KARIMZADEH[3]**

1,2,3: Department of Education, College of Education and Counselling, Roudehen Branch, Islamic Azad university, Roudehen ,Iran

***Corresponding Author: E Mail: m_kazemi58@yahoo.com**

ABSTRACT

The purpose of this research is a comparative study on models of virtual universities in developed countries and provide a model for virtual universities in Iran. Mixed research methods (quantitative-qualitative) were selected. The population of the investigation, in the quantitative part of all decision-makers, professors, teachers and staff of higher education and in all countries where the quality of university education, and they are allowed to provide this type of activity, respectively. In the small sample size of 410 patients (60 of the decision, 180 professors and instructors and 170 employees) and quality in four countries, England, Canada, the United States and Iran were among the leading countries in the field of virtual universities, respectively.random sampling was stratified. Data 5-point scale questionnaire with alpha coefficient was 0.86. To analyze the data from tests of exploratory factor analysis, structural equation and t-group were used.the results1. The seven factors in the evaluation and feedback, philosophy and objectives, and the software agents, theoretical, economic factors, Rules and how to manage human factors and the training of students as components necessary for the establishment of virtual universities in Iran recognize that the overall impact of these factors was 56.28 percent.2- The participants in the study, such as evaluation and feedback, theoretical and economic factors play a significant role in the establishment of virtual universities and factors such as the philosophy and objectives of the model and the software of the rules and how to manage human factors and the training of students other than the three factors for the establishment of a virtual university of lesser importance.3- Model for the establishment of virtual universities in Iran were designed to identify the dimensions

and finally, Utility values were obtained fitting parameters, seven-factor model of virtual universities in terms of fitness and proper diagnosis was confirmed.

Keywords: Virtual University, Developed Countries

INTRODUTION

The most fundamental transformation in the world today is happening in higher education (the definition of higher education has changed). Because education relatively knows whose job training, higher education task forces trained entrepreneur, turns. In other words, the engineer founder of animal husbandry to become. (Sedigh 2003). The major consequence of this change, the challenges that higher education is facing in the new century. Challenges such as:1- The rate of production of knowledge and the need for continuous and lifelong education system along with the convoy rushed to dramatic changes in the global education system.2- Demand to enter the university system and the realization of the right to access to information literacy and converge with the emerging globalization.3- The need to meet the growing demand for different educational and user centered educational equity (democratization of education) is the core of talented students and attract domestic and foreign in your dreams [5].

To overcome these challenges, there are different ways. The most important way is that the Universal Declaration of the UNESCO World Conference on Higher Education in Paris in 1998 is reflected. The Declaration states that:(Higher education institutions should be the first institutions of the advantages and potential of ICT to benefit in this way, to create a new learning environment In line with the age of information and explanation of their virtual systems). [8],One of these virtual systems is virtual University. The university is a web-based learning environment for the delivery of content and the development of university education is designed[3],Virtual universities are university-based on Internet. The university has no physical structure of synchronous and asynchronous technologies for the delivery of content and educational services to the students.(Sarlak and Abedi Jafari 2004).according to Yang and Liu[11],Virtual University Online University said that students from home or anywhere else on the Internet and participate in class. Virtual University, a university in a cybernetic space remote training students at home or at work to study and learn, provide. In other words, the agency is to provide learning opportunities for students is direct, Information technology, communications, and training programs for their own use and monitor it[5],Virtual universities are to the managers and teachers the tools that they can do their

jobs on the Internet. Professor tools available that can provide lessons, take exams and the students entered the exam[10].

Virtual universities, compared to non-virtual universities also strict adherence to the information and communication technology, such as the distinctive feature does not require the physical presence of teachers and students in class, Independence classroom time, high quality courses due to the use of multimedia, to support a large number of students in a course, Having high scientific value due to the outstanding masters of the world, the promotion of the scientific community and immediate access to the digital library[9],The first virtual university in 1995 with the ability to offer all the courses on the web, as the college "Avbrtady Catalonia" in Spain began.

From that date onwards, both developed and developing countries in all five continents of the world, based on more or less similar objectives, Extensive efforts to expand its infrastructure and provide virtual training gave.(Rabi 2004). Virtual universities, higher education have been rapidly changing. Prestigious universities such as Harvard, Oxford, Stanford, and it was not possible for anyone, but now thanks to the achievements of technology to study in the university is open to all. Jump on the internet and simplify the development of Web sites and virtual or spiritual education institutions has increased.(Gold and partners 2000). Despite the wave of the mid-1990s, the development of virtual universities in the world has already started, but the Islamic Republic of Iran, As a developing country to achieve goals such as reducing the number of applicants for university entrance exams through the establishment of social justice and universal higher education, Cost reduction and downsizing of state universities in terms of physical, nonsurvival back of the caravan advanced countries, reducing the bureaucracy and in the community common Quality of educational services with little interruption to the continuous wave. According to documents of the Third Five-Year Economic Development Plan of iran(1999-2003).

And the declaration of president Khatami, as a second step to creating a common e-learning and virtual university have emphasized that, Ministry of Science, Research and Technology project entitled "Development of virtual higher education institutions in Iran," he declared. That the mentioned project, has designed a virtual university in the country is 21; Unfortunately, few of them have succeeded in obtaining a license from the Ministry of Science and also, according to Borzouei, Director of Development and Secretary of

the Council of Higher Education, Ministry of Science, Research and Technology, many universities are seeking to license virtual education And request permission. In fact, the Iranian virtual universities, such as virtual universities abroad, have not installed it in electronic form, But with permission from the Ministry of Science, attempted to set up a virtual training centers, and students in these courses are not accepted, and since the permanent license; From time to time, according to the inspection that is done, if functioning properly, the renewal of their licenses and otherwise, will be canceled. Since, virtual education, to respond to UNESCO's slogan "lifelong learning" and the longing for the "virtual education" and received a valid certificate, The population is increasing sharply, the aim of this research is to study comparative models in the world of virtual universities in developing countries Finally, based on studies, a model appropriate to the Iranian-Islamic norms and beliefs and are native to virtual universities in the country, to pay. Based on this research questions that:

1- What are virtual universities features in developed countries? 2- what is a model for the establishment of virtual universities in Iran?

MATERIALS AND METHODS

Methodology in this study is the goal, and the most practical way of collecting data, descriptive survey Mission (in quantity) and adaptive (in quality) is. In the qualitative part, to identify and compare the goals, mission and vision of the virtual university in the countries studied, the model range George (1969), which describes the four steps, interpretation, proximity and comparison.In the small, stratified random sampling method is used. That is among the first universities in the ratio of 15 (25%) were randomly selected college. In the small, stratified random sampling method is used.

410 patients (60 of the decision, 180 teachers and 170 support staff) were selected. In the qualitative part, the samples of countries, four countries, England, Canada, the United States and Iran have been selected and the researcher, goals, objectives and prospects of virtual universities in four countries. To collect the data in this study, a questionnaire was used. Since the questionnaire was not known in the field of research which is one of the leading countries in the field of Virtual University. Therefore, on the basis of theoretical research, studies, design and development of a self-made questionnaire consisting of 61 items was attempted. The questionnaire survey is based on a scale of 5 degrees. The reliability of the questionnaire

through kronbach's alpha on the 35 population was estimated to be 86/0 and their validity was confirmed by three professors.

RESULTS

In order to determine the formation and development of a model for the establishment of virtual universities in Iran, a 61-item questionnaire based on theoretical and empirical grounds, as well as experts and experts set and the sample was run through advanced techniques used by the In this study, a questionnaire extracted dimensions of virtual universities and virtual campuses middle (no mean 2.5) compared. The results of t-test single group can be seen in Table 1. After evaluation and feedback on the amount of t=10.397 at 0.001 significant. The following comparison shows that after an average of theoretical evaluation and feedback from the population mean is higher.

In other words, the participants in the research such as evaluation and feedback, theoretical and economic factors play a significant role in the establishment of virtual universities And factors such as the philosophy and objectives of the model and the software of the rules and how to manage human factors and the training of students than other three factors are less important for the establishment of a virtual university.

virtual university model. kronbach's alpha reliability coefficient based on the estimated total of 61 items is equal to 0.955.and suggests that appropriate research tools credits.

First question: The status of virtual universities in the country based on how each component is extracted? To answer this question, the research group t-test for comparison extracted from the component by Middle of virtual universities for each component is extracted.

Second question: What could be a model for the establishment of a virtual university offer? In order to develop a model for the establishment of virtual universities and determine the factor structure of the questionnaire was based on measurements of components of a virtual university model LISREL confirmatory factor analysis was performed using software package. In this way you can determine whether the heuristic analysis model 7 operating performance is achieved due to confirmed or not. Model with 61 and 7 show the underlying question as a result of exploratory factor analysis obtained, Based on maximum likelihood methods were investigated and 34 were repeated convergence. Features include the estimated path coefficients calculated in Table 2, the standard error values of t (which shows which parameters are significant factors or

significant),and the square of multiple correlation (2R) for each question.

All this chart it can be concluded that the value of t all questions, questions that path coefficients show significant difference between a credit and can be considered an appropriate measure to species. Domain coefficients standard error of the questions is also between0.04 to 0.14. Due to the relative importance of variables path coefficient item can be viewed as an indicator of underlying factors found.

Table 1: Summary results of the t-group to determine the status of virtual universities in the country based on each of the components

p	df	t-value	Mean Diff	SE of Mean	SD	M	Dimension
0.000	409	10.397	0.448	0.04310	0.873	2.95	Evaluation and feedback
0.000	409	-13.201	-0.383	0.290	0.588	2.12	Philosophy and objectives model
0.000	409	13.674-	-0.489	0.0357	0.724	2.01	Technical factors and Software
0.000	409	10.422	0.492	0.0472	0.956	2.99	Theoretical
0.000	409	3.836	0.191	0.0497	1.008	2.69	Economic factors
0.000	409	3.619-	0.145-	0.0401	0.814	2.35	Rules and how to manage
0.000	409	22.328-	0.697-	0.0312	0.632	1.80	Human factors and the training of students
Note:M= The symbols mean,Sd= Standard Deviation,Se of mean= Test for comparison of two groups,t-value= The mean difference between the two groups,Df= Degree of freedom.							

Table 2: Confirmatory factor analysis model for the statistical characteristics of the components of the virtual university

R^2	t	SE	b	i	R^2	t	SE	b	i
590/	15/18	070/	26/1	32	260/	73/11	040/	420/	1
450/	10/5	090/	480/	33	550/	09/13	070/	950/	2
590/	07/18	060/	04/1	34	630/	03/19	040/	860/	3
720/	01/21	050/	10/1	35	510/	29/16	040/	690/	4
200/	35/9	080/	730/	36	110/	70/6	070/	470/	5
390/	89/13	060/	870/	37	300/	71/11	040/	470/	6
490/	83/15	070/	07/1	38	280/	26/11	050/	550/	7
190/	03/9	060/	520/	39	370/	13/13	050/	640/	8
570/	69/17	090/	54/1	40	240/	61/10	040/	420/	9
700/	08/16	090/	43/1	41	430/	49/14	040/	620/	10
470/	35/15	080/	29/1	42	280/	94/5	080/	460/	11
510/	44/7	140/	08/1	43	210/	43/9	040/	410/	12
640/	22/14	060/	890/	44	370/	53/4	070/	320/	13
440/	94/4	130/	620/	45	470/	61/10	040/	560/	14
220/	45/6	080/	510/	46	400/	18/13	050/	670/	15
480/	82/16	070/	07/1	47	200/	23/9	100/	880/	16
370/	25/7	050/	400/	48	670/	97/19	050/	920/	17
420/	30/14	060/	920/	49	720/	08/21	040/	860/	18
570/	22/18	060/	13/1	50	580/	70/17	050/	840/	19
550/	38/7	130/	920/	51	780/	65/22	040/	980/	20
520/	49/15	070/	13/1	52	420/	32/6	050/	320/	21
650/	27/7	070/	520/	53	370/	30/12	040/	520/	22
530/	22/18	060/	970/	54	530/	84/15	050/	790/	23
250/	60/10	080/	870/	55	720/	63/11	050/	530/	24
450/	81/16	090/	32/1	56	460/	37/14	060/	860/	25
470/	07/15	060/	880/	57	390/	90/12	070/	910/	26
470/	15/15	070/	10/1	58	660/	53/19	050/	03/1	27
510/	05/16	090/	52/1	59	320/	88/7	080/	610/	28
610/	27/17	070/	20/1	60	460/	16/15	060/	950/	29
700/	08/20	060/	16/1	61	450/	56/5	090/	510/	30
-	-		-	-	650/	58/19	070/	32/1	31
Note:i=question,b= Path coefficients,Se= Standard error									

1- The first factor (evaluation and feedback), Q 56, Q 42 have the highest relative importance among relevant questions.

2- The second factor (the philosophy and objectives of the model), Question 2 and Question 3 the relative importance of the questions are related.

3- The third factor (factor and the software) Question 20 and Question 17 The relative importance of the questions are related.

4- The fourth factor (theoretical) question 9 and question 16 The relative importance of the questions are related.

5- The fifth factor (economic factors), Question 31 Question 32 The relative importance of the questions are related.

6- The sixth factor (laws and how to manage), Question 40 Question 41 The relative importance of the questions are related.

7- The seventh factor (human factors and the training of students), Question 26 Question 25 the relative importance of the questions are related.

Moreover, the path of least factor of 13 questions from the seventh factor (human factors and the training of students) and 21 of the third factor (factor and the software), which suggests that these questions are the least effective in the establishment of virtual universities in Iran.

Third question: What is the fitness level model in terms of population? Most of the data were made in order to fit the model of a virtual university model by releasing some of the parameters are adjusted indices improved. Confirmatory factor analysis path diagram after the release of the parameters associated with standardized path coefficient is shown in Figure 1.

The fitness index is square and this hypothesis proves that the diffraction pattern model is coordinated between the variables observed .smaller values indicate greater fitness. The square (3225.92) is statistically significant.(p=0.000). Square proportion to the degree of freedom(df=1652) equal to 1.95 In accordance with the criteria proposed by Byrne(1989) and Bentler(1993) Which is the appropriate amount to less than 2 know.

So we can conclude that the test accurately fit the observed data confirms the model. The square root of the variance estimation error of approximation(RMSEA) The model is almost zero(0.048) And the upper limit is also zero(0.046) If it is the 0.008 by Browne & Cudeck(1993) The highest bid is accepted, we compare, we conclude that the model of fitness is a factor of seven. Another indicator is the root mean square residual.

In this model, the 0.05 is relatively small, it also represents a small error is acceptable model fit.

The following models **(Figure 2)** can be provided for the establishment of virtual universities in Iran:

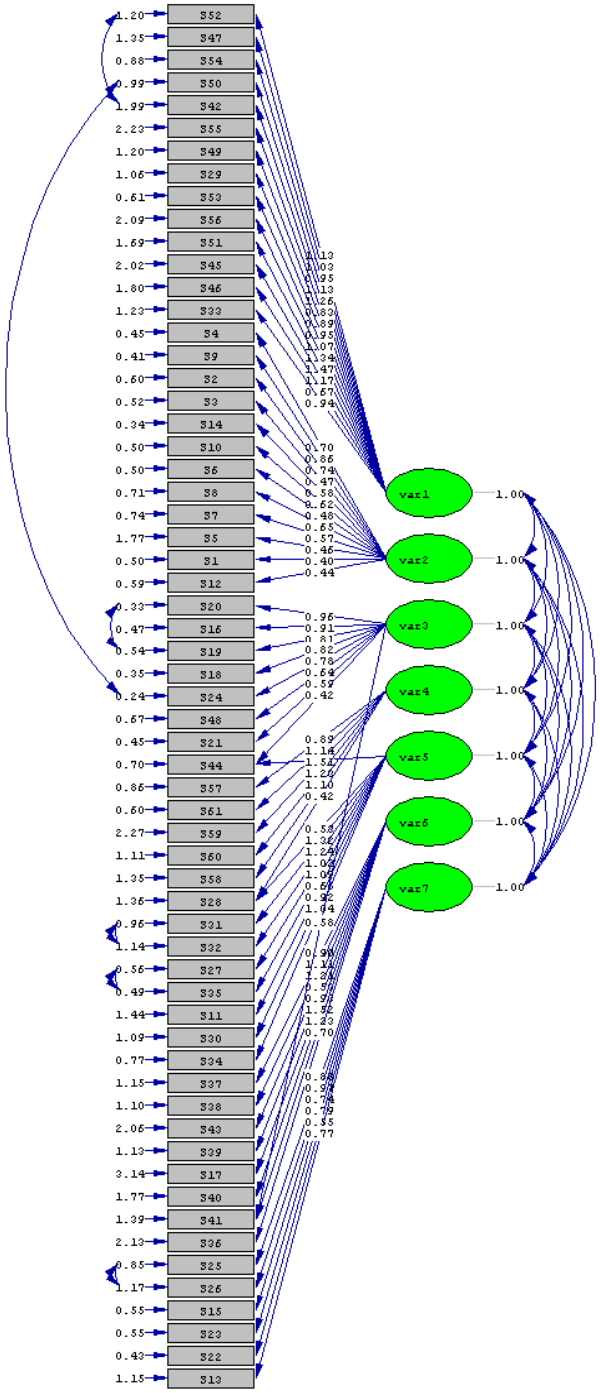

Figure 1 charts the factor structure and standardized coefficients operating direction of the virtual university.

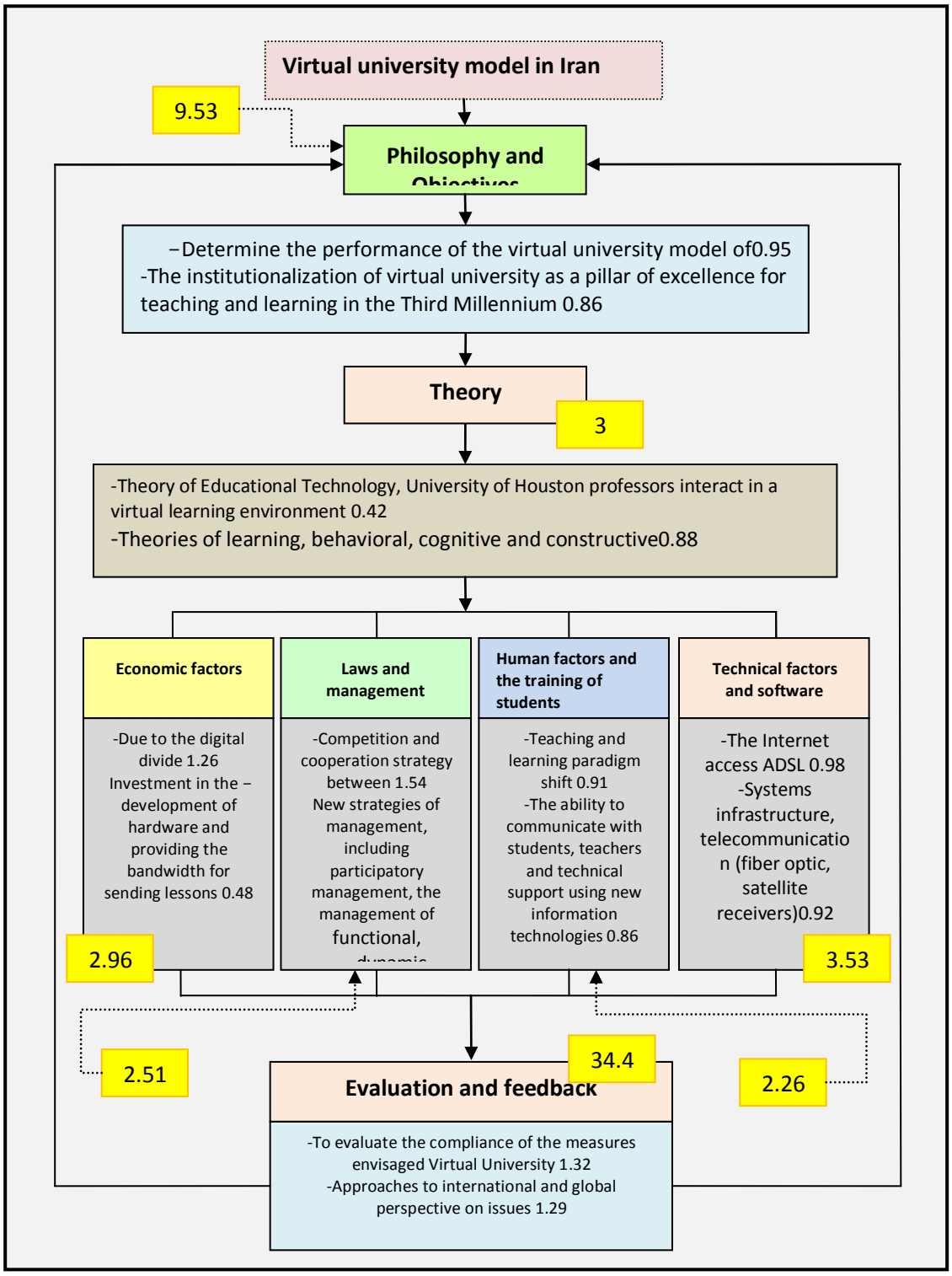

Figure 2: Model of Virtual University in Iran

CONCLUSION

The first results of this study showed that: Factors such as evaluation and feedback, theoretical and economic factors play a significant role in the establishment of virtual universities, and factors such as the philosophy and objectives of the model, and the software agents, Rules and how to

manage human factors and the training of students than other three factors for the establishment of a virtual university of lesser importance.

The results obtained with previous results by Fathi vajargah and partners [2],That showed the Ferdowsi University of Mashhad Professors virtual training course content is desirable;Alavi and Shariati (2010) Tehran University of Medical Sciences showed that employees had a higher satisfaction than the e-learning courses;Mohseni[6],Which showed a series of information technology training university, he is of good quality;Karimi and partners (2009) Showed that about half of the students of practical agricultural training center in the province have had positive attitude towards e-learning;Daryan(2009) and Rastegar(2007) Each in their research separately showed learning curriculum Wii Khajeh Nasir University students and professors from the perspective of utility is necessary[9].

Brayen(2007) His research has shown that bank employees, the quality of education and training courses have been satisfied;Grin (2005)quoted from Sharifi and Eslamieh(2011) His research has been recognized in the virtual classroom students were happy to receive feedback;Sang(2004)and Mac gery(2003) Have expressed, flexibility in curriculum design online, is one of the important factors that should be considered,Sang(2004) Has shown that feedback provided to learners understand the quality of online courses has been effective, had the same results.

The second and third of the study showed that:

The results showed that for the establishment of virtual universities in Iran, the model can be presented in Chapter 4 is shown. The degree of importance of each factor in the model proposed, are shown as follows: In order to develop a model for the establishment of virtual universities and determine the factor structure of the questionnaire was based on measurements of components of virtual universities, Model LISREL confirmatory factor analysis was performed using software packages.

In this way you can determine whether the heuristic analysis model 7 operating performance is achieved due to confirmed or not. The results showed that the value of t all questions, questions that path coefficients show significant difference between a credit and can be suitable to the desired measure. Domain coefficients, standard error of the questions are also between0.4 to 0.14.

Due to the relative importance of variables path coefficient item can be viewed as an indicator of underlying factors found. The

degree of importance of each factor in the model proposed, are shown as follows:

1- The first factor (evaluation and feedback), question 56 (Determination of compliance with the standards expected of the Virtual University) 42 examination (approaches to international and global perspective on issues) with path coefficients respectively 1.29,1.32, The relative importance of the questions are related.2- The second factor (the philosophy and objectives of the model), Question 2 (determining the performance of a virtual university model of Iran) by a factor of path0.95 and question 3(Institutionalization of virtual university as a pillar of excellence for teaching and learning in the Third Millennium) Direction by a factor of 0.86 The relative importance of the questions are related.

3- The third factor (factor and the software) Question 20 (the Internet access) And Question 17 (systems infrastructure telecommunication)(fiber optic, satellite receivers) with path coefficients0.92 and 0.98, The relative importance of the questions are related.4- The fourth factor (theoretical) question 9 (theory of interaction in virtual learning environment technology professor at the American University of Houston) And Question 16 (theoretical learning theories) (behavioral, cognitive and constructive) with coefficients0.42 and 0.88 The relative importance of the questions are related.5- The fifth factor (economic factors), question 31 (according to the digital divide) by a factor of path1.26 and question32(Investment in hardware and providing the bandwidth provided specifically for a course) by a factor of path0.48 The relative importance of the questions are related.

6- The sixth factor (laws and how to manage), question 40 (strategy between competition and cooperation) by a factor of path1.54 and question 41(New management and leadership strategies including participatory management, the management of functional, dynamic and Future) by a factor of path1.43 The relative importance of the questions are related.7- The seventh factor (human factors and the training of students), item 26 (change the paradigm of teaching and learning) by a factor of path0.91 Examination 25 teachers and technical ability to communicate with students using new information technologies by a factor of path0.86 The relative importance of the questions are related.

The appropriateness of the proposed model, the results showed that fit indices values obtained (Square 92/3225 = X2, the square root of the variance estimation error of approximately RMSEA=0.048, Fitness indicator compared to CFI=0.97 and

indicators fitted Nekoyee =0.79 GFI and fitness of the modified AFGI=0.76) Desirable and appropriate to show the relation between structural study confirms This shows that the seven-factor model of a virtual university of fitness is good.

REFERENCES

[1] Abedi Jafari,H,Sarlak,MA (2005). Design and trust of those who decide to explore models of virtual education. Management Knowledge. No. 71. pp. 109-140.

[2] Fatihi vajargah,K.Pardakht chi,MH.Rabiei,M (2011). Evaluating the effectiveness of e-learning in higher education system of Iran (Case Study: Ferdowsi University of Mashhad). ICT in education. Year 1 No. 4, pp. 5-12.

[3] Gold, Larry; Maitland, Christine., Phipps, Ronald A (2000). What's the difference? A review of contemporary research on the effectiveness of distance learning in higher education. Washington, DC: Institute for Higher Education Policy.

[4] Harasim, Linda (1997). Learning Networks: A Field Guide To Teaching and Learning On-Line. Cambridge and London: The MIT Press. Informal Language Learning mobile web sites for .

[5] Maniyan,A.Montazer,GH.Pezeshk,H .Moosa khani,M (2005). Design and define a model for the development of virtual universities in Iran. Volume 3 No. 3, pp. 5-33.

[6] Mohseni,M (2013). Virtual University: processes and needs. Shiraz:Sama.

[7] Rabi,A (2004). Higher education in the twenty-first century.Proceedings of the International Conference on Knowledge-based Development .Higher Education and Free Zones, the International University of Chabahar.

[8] Sediq, J (2003). Developments in higher education. Training. No. 44. pp. 69-73.

[9] Sharifi, A. Eslamieh, F (2011). New look to the application of new technologies in education and management. Tehran: green culture.

[10] Toumi, I (2002). networks of innovation: change and meaning in the age of internet. oxford, oxford university press.

[11] Yang, Z. and Liu, Q (2005). Research and development of web-based virtual online classroom. Computers and Education. vol 17. PP: 65-69.