

Factors affecting the success of IT projects using interpretive structural approach (Case Study: State Tax Administration of Kohgiluyeh)

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Abstract

Nowadays, information technology and information systems play an increasingly important role in the intelligence agencies. Organizations, institutions and large firms have sought to achieve greater competitive advantages in comparison with competitors, through the purchase, production and updating their information systems, and whereas the rate of success or failure in the IT industry is about 70%. In this regard, identifying main factors of success of the projects and classifying them in different places to discover the most effective factors and ultimately use them to improve the management of projects related to information technology are essential in modern organizations. The aim of this study was to identify and analyze the factors affecting the success of IT projects in the State Tax Administration of Kohkiluyeh. According to the experts this study, 14 the main factor affecting the success of the project are approved and were selected. In order to analyze the relationships between them and provide appropriate structural model, the interpretive structural modeling was used. According to the analysis conducted, the results showed that, in the success of IT projects, as conceptual model also indicates, the existence of appropriate infrastructure in relation to the project plays an important role. The second factor that plays the greatest impact on the success of IT projects, is the manager's preparation for fund and design and deploy the system.

Keywords: projects, IT projects, structural approach to interpretation, tax departments

Introduction

The importance and role of information technology as a powerful agent for social and economic change caused large investments made to expand it (Feinberg and Tokic, 2004). These investments in 2004 in the global market for ICT has been more than 6.2 trillion dollars and 2.3 trillion dollars is expected for 2007 (SHANKAR 2007). An information system is a set of software modules that connects the Different parts of an organization aimed at improving cooperation among the various units, From planning and production to serve the customer and finally to the objectives of the organization. Information systems product market from 1990 onwards, grew rapidly and its influence among international companies spread in the private sector (Yong and Ying, 2005). Also, the information system term is used to display a broad combination of hardware, software and communication technologies in which business processes are under the command of the user and employers. The current intelligence system in many organizations and businesses such as banking systems, insurance and travel is important and has a prominent role. (TSENG, 2013)

Studies and researches in order to determine success and failure factors account for the application of this technology in their organizations. In addition, more researches in the field of information technology projects in the private sector success factors has been done. This part has basic differences with the public sector units, including the objectives, responsibilities, competition, production and sale. The results of the private sector cannot be directly applied in the public sector. Thus, this study intends to examine factors affecting the success of IT projects in the public sector and the State Tax Administration of Kohkilooyeh and using a structural approach to gain the interpretation model for factors identified. The main objective of the study is to identify success factors of IT projects in the State Tax Administration of Kohgiluyeh.

Literature

Technology

Given the different approaches to technology, there are many definitions. Tarek Khalil with management approach defines technology as a systematic process of combining tools, knowledge and information necessary to operate the instrument and the human skills needed to use the knowledge and tools. (Parthiban, 2012). Porter economically knows the technology as a factor of Transforming inputs into outputs that led to the emergence of a competitive advantage through value-added production in throughput (Muduli, 2013). In the eyes of economists, IT is a knowledge used in the manufacturing, trade and distribution of goods and services and means to enhance human intellectual and physical abilities and simple tool to convert resources to reserves and sophisticated goods. In fact, technology is practical knowledge. Technology is a system for converting knowledge into commercial products (Kannan et al, 2009). In fact, at the national level, technology is a set of capabilities for product development or industrialization. The purpose of the application is to achieve economic development and enhance competitiveness, public welfare, defense and combat capability to exploit the right of natural resources, protect the environment and the promotion of culture, relationships and social structure.

Information Technology

Many organizations mistakenly assume that they work with a boot to the organization's information technology, but the reality is that there is a much wider implications of information technology. Typically, the term refers to the wide range of information technology applications such as e-mail, word processors, video editing programs, web browsers and technologies that support such applications (e.g.,

networks, optical fiber). But on the other hand, the information technology is a new method of thinking about the issues in the form of automatic methods rather than manual methods.

For most people IT involves using a set of software, such as databases or the World Wide Web. In North America Information Technology Term often used to a series of special software or their underlying technology (Kling and Rob, 2001).

Project management

Project management is a process that touches on the life cycle of a project from inception to completion monitoring and control. It is based on elements such as planning, implementation and control of all resources, tasks and activities needed to complete a project. The fact is that project management is by no means solitary activity, but on the basis of a partnership group is created. Project Management found that the people how do the processes. Over the years, numerous projects were implemented in organizations. Some of them were successful and some failed, but the actual cause or causes of project failure was unknown. The majority believe that new technologies and changes in the operating environment is central to this failing. But after 1996, the new branch of project management, IT developed, and the major causes of problems were discovered. Technology was neither the cause nor the solution, because the solution lay in two words: people and processes. Results showed that in the light of process improvement and organizational teams we can solve the problems and defeat can be avoided. Sarookhani et al (2012), carried out an article appearing under the name of recognition factors in the failure of information technology projects. In this study it is stated that today information technology and information systems increasingly have important roles in the intelligence agencies. Organizations, institutions and big corporations have sought to achieve greater competitive advantages in comparison with competitors, through the purchase, production and updating their information systems. And whereas the rate of failure or failure of projects in the IT industry is about 70 percent. In this regard, identifying main factors of success of the projects and classifying them in different places to discover the most effective factors and ultimately use them to improve the management of projects related to information technology are essential in modern organizations. The aim of this study was to identify and analyze the factors affecting the success of IT projects in the State Tax Administration of Kohkilooyeh. According to the experts this study, 14 the main factor affecting the success of the project are approved and were selected. In order to analyze the relationships between them and provide appropriate structural model, the interpretive structural modeling was used. According to the analysis conducted, the results showed that, in the success of IT projects, as conceptual model also indicates, the existence of appropriate infrastructure in relation to the project plays an important role. The second factor that plays the greatest impact on the success of IT projects, is the manager's preparation for fund and design and deploy the system.

Jamali and Hashemi (2011) conducted a study entitled to assess the relationship between risk factors affecting the bank's information technology projects in Bushehr province, using fuzzy method. For this purpose, using the views of 15 experts and reviewing the literature the 23 risk factors affecting the bank's information technology projects were identified in Bushehr and then, these factors were ranked using fuzzy techniques of network analysis process. At the end of these eight factors were identified with the highest degree of importance. The results showed that the most important risk factors in the bank's information technology Bushehr project include: Staff inexperienced and lack the knowledge and skills needed in human resources, exclusive of some required resources, lack of reliability and high data security and maintenance and the risk of hacker attacks, and lack of adequate oversight mechanisms in the implementation of IT projects. Hicks (2002), by reviewing reports and case studies about the use of this technology in developing countries has come to a similar conclusion. In a study examining writings, opinions of experts in e-government and e-government and analyzing more than 40 reports from

developing countries, he concluded that, only 15% of innovations in this area succeeded, but 35% of them completely failed and 50% have been faced with the relative failure. Gysvya (2005) has done a research entitled "Factors affecting the successful implementation of ICT projects in government". In this article, has been said that provides operations and strategic focused to a large extent on information and communication technology (ICT) advanced to support improvements in efficiency, effectiveness, manage and ultimately, the quality of services. While the benefits of ICT in government is no secret, concerns in relation to the successful implementation of information systems in organizations is there. This article is a literature review of research in developed and developing countries (Kenya). In this study the key success factors of IT projects are identified and classified in a few groups. In this paper a descriptive framework for classification key factors in the implementation of ICT in the government with reference to the literature is presented. Gülçin Buruncuk, Zarife Gonca Gülser (2010), presented an article entitled to investigate factors affecting the success of information systems. In this study it is stated that nearly 80% of IT projects failed. Companies generally fear the issue of whether money, time and manpower spent on IT projects successfully implemented in organizations is to be effective? This study examines the factors that influence the success of IT projects this location. This study provided a model for the successful implementation of IT projects and the factors that affect these projects have been prioritized.

Research Methodology

The objective of the research is applied and in terms of collecting survey data. Library and field method for gathering data with the surveys will be carried out. Data is gathered. The population of interpretive structural modeling is composed of experts. Therefore, in this study, the experts familiar with the technology used in Kohkilooye. For this purpose, the interpretive structural modeling is used. It is an interactive process in which different and interrelated set of elements are structured in a comprehensive and systematic model (warfield, 1947). This methodology will help to create and direct the complex relationships between the elements of a system. This technique is derived from network and graph theory. warfield introduced and explained the interpretive structural modeling. This technique enables complex relationships between individuals and groups in a complex situation and decided to draw a large number of elements. This technique can be used as a tool to organize and to act on the complexity and confusion of relationships between variables. Different stages of the ISM method is are follows.

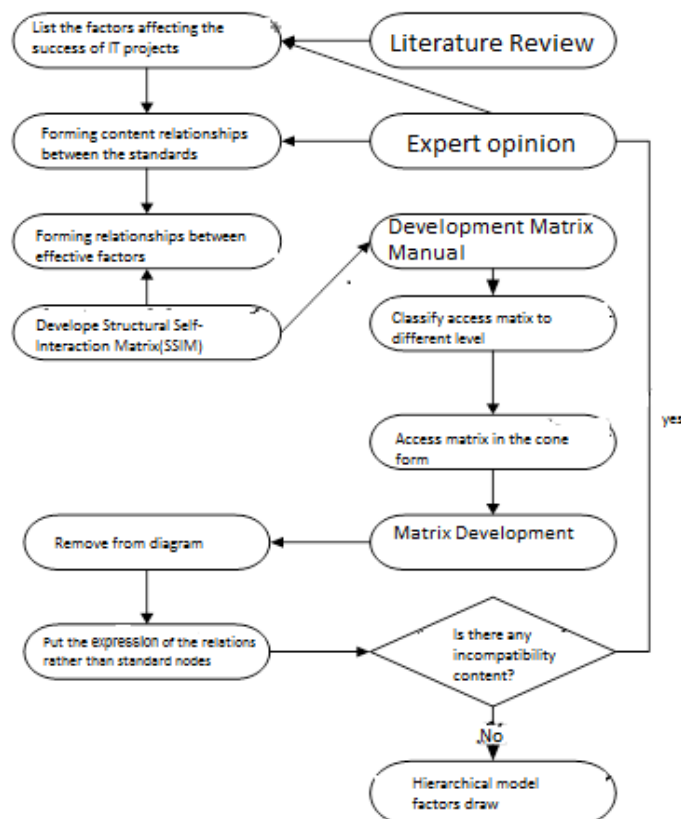


Diagram 1: Different stages of ISM

The first step: considered criteria or elements (in this study, factors affecting the success of IT projects) are listed.

Second step: using the criteria or factors identified in the first phase, a content relation between them according to the criteria defined for each pair. The relationship between the components of the conceptual content of the communication system in such a way that the meaning and content appropriate to the goals of the system. Content relation between the two components is classified in several ways including the relationship defined, a comparative relationship, the relationship affect the relationship between time and space relationships are mathematical relationships.

The third stage: A structural matrix interaction (SSIM) is developed for the obstacles that relations between the couple reveals the factors affecting the success of IT projects.

Fourth stage: access matrix is developed using an interactive matrix structure and the matrix in order to extend his being investigated. Interpretive Structural Modeling is a fundamental assumption regarding extended content. If you extend the variable "A" variable "b" is linked and variable "b" variable "c" is also relevant, as a result of the variable "A" variable "c" in the relationship.

Step Five: access matrix in the fourth stage is to be segmented to different levels.

Step Six: based on relationships that are set in the matrix access, a directed graph is plotted and extend relationships are deleted.

Step Seven: The final diagram using nodes to replace variable names or criteria instead becomes an interpretive structural modeling.

Step Eight: interpretive structural modeling has been developed at the seventh stage is to be revised, if any incompatibility reforms needed to do so.

Structural self-interaction matrix (SSIM)

Interpretive Structural Modeling recommends that experts' opinions be used based on different management techniques such as brainstorming, nominal group and others in the development of relations between the content variable. As a result, in this study to determine the relationship between the content success factors of IT projects, the views of 26 experts is used. For each pair of criteria, the experts were asked to comment on the relationship between the two measures. 4 signs were used in order to show how relations between the two criteria i and J are. (To simply showing the relationships, the English letters were not used and the numbers 1, -1, 2, 0 were used instead.):

1: If the benchmark i impacts on j and i.

-1: if only j impacts on i.

0: if there is no relationship between I and j.

2: if I impacts on j and vice versa.

According to the warfield (1974) to determine the relationship between factors affecting the success of IT projects, from fashion experts are used.

Initial access matrix

Structural self-interact matrix becomes matrix zero and one, called basic access matrix. In this matrix are just numbers zero and one. Placement rule of the numbers one and zero instead of raw four numbers (2, 1, -1 and 0) is as follows:

If the intersection of criteria (i, j) in the SSIM is 1, the primary cell access matrix (i,j) is equal to 1 and cell (i, j) is equal to zero.

If the intersection of criteria (i, j) in the SSIM is 2, in access matrix cell (i, j) and the cell (i, j) are equal to 1.

If the intersection of criteria (i, j) in the SSIM is equal to 0, the access matrix cell (i, j) and the cell (i, j) are equal to 0.

If the intersection of criteria (i, j) in the SSIM is equal to -1, in access matrix cell (i, j) equal to 0 and the cell (i, j) is equal to 1.

$$l_C \quad]$$

In the D matrix that is the primary access matrix, rather than any indication of the numbers zero and one are d_{ij} , C_j is also indicative of the factors affecting the success of IT projects.

ultimate access matrix

Matrix ultimate access to the standards achieved by taking extended relation to basic access matrix to be consistent. For this purpose, the initial matrix should be brought $K + 1$, so that the steady state is established. Thus, one will also become zero elements.

After making matrix or matrix relationships initial access, should the access matrix using the links below. (I is the identity matrix):

In large and complex systems, it is assumed that each component is obtainable from himself. Therefore all the elements of the diagonal of the matrix system are always 1. For this purpose, the identity matrix with the matrix of our early access to the final matrix. The final matrix properties include:

Therefore, the final matrix obtained enough power to report on the state of the matrix and the matrix will be obtained. Number 1 means that in the first line or lines indicate that the effect is caused by the first criterion. The first column is the number of 1's that are indicative of the effect that the first criterion laid out. Malia impacts on system components and any minor detail that does not affect the source is named.

Sets early and late

Each of the components of the system (benchmarking) has two different sets early (A) and late- or accessed (R) is in the final matrix structure and system design are essential. The early set of criteria, including the criteria that lead to that criterion or criteria that affect it. In other words, the standards used in the column corresponding to a standard 1 has been stopped, set earlier column, the criteria are. For example, if the criteria 2, 3 and 4 on the Criterion 1 influence, these measures constitute the first criterion early set. In contrast, the later sets a benchmark or benchmarks show that the affected part of the system. For example, if standard criteria 1, affects 2, 3, 4 and 5, measures 2, 3, 4 and 5 are late set of 1. Late collection is also called to set attainable.

Grading criteria

After setting the precedent set for each of the criteria set achievable and common set of classification criteria is to be performed. Having obtained intersection of two sets achievable the early common set can be obtained. Criteria that their common set and achievable set are same, are in the first level priority. By

eliminating these criteria and repeat this process for the other criteria, as well as other criteria specified levels. On the basis of the levels determined the final matrix diagram drawn ISM. Each level is determined using the following formula.

$$R(C_j) \quad A(C_j) \quad R(C_j),$$

Criteria clustering

In order to segmentation criteria, access to each element in the matrix driving power and dependency must be calculated. The driving power of an element or criteria are criteria that affects the relevant criteria, including its own criteria. Power dependence is the number of criteria that influence related criterion and contribute to achieve it. The driving power and dependency analysis, cross-reference matrix multiplication effect applied (MICMAC) classification used, where autonomous measures are divided into four groups, affiliated associations and independent (stimulus measures). The purpose of the analysis matrix multiplication effect cross-reference functional analysis and driving power is the power dependence (Mathias et al., 2013). Variables are divided into four clusters. The first cluster includes criteria autonomous driving power and dependence is weak. These criteria are relatively separate from the system that is actually few linkages to other elements of the system, perhaps strong ties. The second cluster includes criteria is dependent on the strength of weak ones but are highly dependent power. The third cluster link metrics that are strong driving power and power have a strong dependence. These criteria are in fact non-viable or are unstable, because any action on them will have an impact of the other criteria or themselves. Fourth cluster consists of independent metrics that drive high power with low power dependence. One measure of the strength of strong stimulus measures is key name and is in the category of independent variables or link.

Data analysis

To complete this step the opinions of 15 experts in the field of science experiments and theoretical information technology has been used and the results of their views in a matrix (Table 1) are summarized. Thus, by studying literature review of the technology and also studies on factors in the success of IT projects, factors were identified in the field of technology in tax administration. The factors will be used as criteria and elements in the first stage of interpretive structural modeling. These factors are shown in Table 1.

Table 1: Factors affecting the success of IT projects

The managers preparation for fund to design and deploy systems
Provision of basic necessities of project
conditions, rules and procedures appropriate and efficient
Adequate infrastructure and standards in relation to the project
Executive Management Support
Skills, expertise and design knowledge of leaders and managers
Experienced project managers
Give communicating with users
Vision and clear organizational goals
Reliable estimates and projections
Organizational specific demands on project
Projects with shorter delivery time

The attractiveness of the system for managers to work with them and meet their needs
Having specific and formal procedure

Summing up the views of participants to the concept of fashion (a condition that is most common among respondent's responses) is used.

Table 2: structural self-interact matrix

1	2	3	4	5	6	7	8	9	10	11	12	13	14	Factor
	V	V	A	V	V	V	O	V	V	V	O	V	V	1
		O	A	O	O	A	O	A	A	O	O	O	O	2
			A	O	V	O	O	V	V	O	O	O	O	3
				O	O	O	V	V	V	O	O	O	V	4
					O	O	O	O	O	V	O	O	O	5
						O	O	V	O	O	O	O	O	6
							O	A	O	A	O	V	O	7
								A	O	O	X	O	O	8
									V	V	V	O	O	9
										A	O	O	A	10
											O	V	A	11
												O	O	12
													O	13
														14

Due to the self-interact matrix obtained and regulations, early access matrix obtained for Table 2 and then the Table 3 is prepared as the ultimate access matrix.

Table 3: The initial access matrix

14	13	12	11	10	9	8	7	6	5	4	3	2	1	Factor
1	1	0	1	1	1	0	1	1	1	0	1	1	1	1
0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
0	0	0	0	1	1	0	0	1	0	0	1	0	0	3
1	0	0	0	1	1	1	0	0	0	1	1	1	1	4
0	0	0	1	0	0	0	0	0	1	0	0	0	0	5
0	0	0	0	0	1	0	0	1	0	0	0	0	0	6
0	1	0	0	0	0	0	1	0	0	0	0	1	1	7
0	0	1	0	0	0	1	0	0	0	0	0	0	0	8
0	0	1	1	1	1	1	0	0	0	0	0	1	1	9
0	0	0	0	1	0	0	0	0	0	0	0	1	1	10
0	1	0	1	1	0	0	0	0	0	0	0	0	0	11
0	0	1	0	0	0	1	0	0	0	0	0	0	0	12
0	1	0	0	0	0	0	0	0	0	0	0	0	0	13
1	0	0	1	1	0	0	0	0	0	0	0	0	0	14

Table 4: The final access matrix

the power Influence	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Factor
13	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
9	0	0	1	1	1	1	1	1	1	0	0	1	1	0	3
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4
5	0	1	0	1	1	0	0	1	0	1	0	0	0	0	5
8	0	0	1	1	1	1	1	1	1	0	0	0	1	0	6
3	0	1	0	0	0	0	0	1	0	0	0	0	1	0	7
2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	8
8	0	1	1	1	1	1	1	1	0	0	0	0	1	0	9
3	0	1	0	0	1	0	0	0	0	0	0	0	1	0	10
5	0	1	0	1	1	0	0	1	0	0	0	0	1	0	11
2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	12
1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	13
1	1	1	0	1	1	0	0	1	0	0	0	0	1	0	14
	3	9	7	8	9	5	7	9	4	3	1	3	10	2	Dependence

Using the access matrix, leveling agents takes place.

Table 5: The first repeat of the leveling process

Level	Common Set	Output set	Input set	Factor
	1	1,2,3,5,6,7,8,9,10,11,12,13,14	1,4	1
	2	2	1,2,3,4,6,7,9,10,11,14	2
	3	2,3,6,7,8,9,10,11,12	1,3,4	3
	4	1,2,3,4,5,6,7,8,9,10,11,12,13,14	4	4
	5	5,7,10,11,13	1,4,5	5
	6	2,6,7,8,9,10,11,12	1,3,4,6	6
	7	2,7,13	1,3,4,5,6,7,9,11,14	7
1	8,12	8,12	1,3,4,6,8,9,12	8
	9	2,7,8,9,10,11,12,13	1,3,4,6,9	9
	10	2,10,13	1,3,4,5,6,9,10,11,14	10
	11	2,7,10,11,13	1,3,4,5,6,9,11,14	11
1	8,12	8,12	1,3,4,6,8,9,12	12
1	13	13	1,4,5,7,9,10,11,13,14	13
	14	2,7,10,11,13,14	1,4,14	14

Table 6: The Second repeat of the leveling process

Level	Common Set	Output set	Input set	Factor
	1	1,3,5,6,7,9,10,11,14	1,4	1
	3	3,6,7,9,10,11	1,3,4	3
	4	1,3,4,5,6,7,9,10,11,14	4	4
	5	5,7,10,11	1,4,5	5
	6	6,7,9,10,11	1,3,4,6	6
2	7	7	1,3,4,5,6,7,9,11,14	7
	9	7,9,10,11	1,3,4,6,9	9
2	10	10	1,3,4,5,6,9,10,11,14	10
	11	7,10,11	1,3,4,5,6,9,11,14	11
	14	7,10,11,14	1,4,14	14

Table 7: The third repeat of the leveling process

Level	Common Set	Output set	Input set	Factor
	1	1,3,5,6,9,11,14	1,4	1
	3	3,6,9,11	1,3,4	3
	4	1,3,4,5,6,9,11,14	4	4
	5	5,11	1,4,5	5
	6	6,9,11	1,3,4,6	6
	9	9,11	1,3,4,6,9	9
3	11	11	1,3,4,5,6,9,11,14	11
	14	11,14	1,4,14	14

Table 8: The fourth repeat of the leveling process

Level	Common Set	Output set	Input set	Factor
	1	1,3,5,6,9,14	1,4	1
	3	3,6,9	1,3,4	3
	4	1,3,4,5,6,9,14	4	4
4	5	5	1,4,5	5
	6	6,9	1,3,4,6	6
4	9	9	1,3,4,6,9	9
4	14	14	1,4,14	14

Table 9: The fifth repeat of the leveling process

Level	Common Set	Output set	Input set	Factor
	1	1,3,6	1,4	1
	3	3,6	1,3,4	3
	4	1,3,4,6	4	4
5	6	6	1,3,4,6	6

Table 10: The Sixth repeat of the leveling process

Level	Common Set	Output set	Input set	Factor
6	1	1,3	1,4	1
	3	3	1,3,4	3
	4	1,3,4	4	4

Table 11: The seventh repeat of the leveling process

Level	Common Set	Output set	Input set	Factor
7	1	1	1,4	1
	4	1,4	4	4

Table 12: The eighth repeat of the leveling process

Level	Common Set	Output set	Input set	Factor
8	4	4	4	4

After determining the level of all the factors, the ISM survey for second graph is drawn. The basic model forms based on the final accessibility and the level of factors. Factors that have a similar level are in the same class, and their relationships with each other and with before and after levels are displayed as based on availability matrix and use of arrows.

As can be seen in interpretive structural model, 4 and 1 were at low levels. This indicates that the foregoing factors are radical factors affecting the success of IT projects. Therefore, considering these two factors in the successful implementation of IT projects is very important and if this does not happen, the other administrative efforts will be ineffective. Also, due to the factors 7,8, 12,13 and 10 at the highest levels of model we conclude that the experience of Project Manager, is the result of the interaction of other factors. So the best thing to do is to control their previous factors.

Except for the above, other factors (executive management support, organizational vision and clear objectives, a clear and formal working methods and organizational specific demands in relation to the project) are in the middle. These factors require special attention, because in fact they are the bridge between early and late factors.

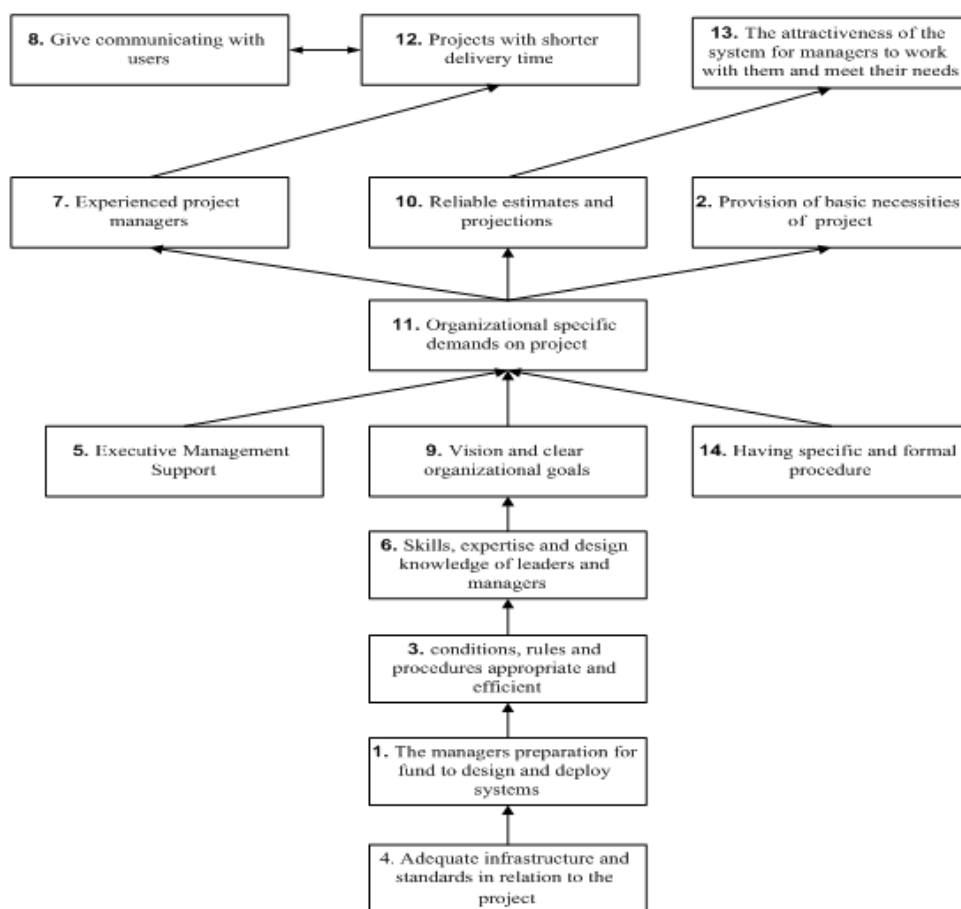


Diagram 2: Interpretive Structural Modeling Factors affecting the success of IT projects

Discussion and conclusion

The aim of this study was to identify and analyze the factors affecting the success of IT projects in the State Tax Administration of Kohkilooyeh. According to the experts this study, 14 the main factor affecting the success of the project are approved and were selected. Then in order to analyze the relationships between them and provide appropriate structural model, the interpretive structural modeling was used. According to the analysis conducted, the results showed that, in the success of IT projects, as conceptual model also indicates, the existence of appropriate infrastructure and standards in relation to the project plays an important role. Information infrastructure elements require extensive use of equipment and physical facilities such as switching systems, routing, extensive network of fixed telephone lines, mobile and radio networks. In this regard and in order to do the operation and management, the physical infrastructure consists of elements and hardware equipment, hardware and software that must be used. By design and implementation of information infrastructure (communication platform), the connection of devices such as home phones, cell phones, wireless devices, personal computers and network service providers to offer and they are able to use the service and the various services. The second factor that

plays the greatest role in the success of IT projects, is manager's preparation for fund to design and deploy the system. IT projects are in fact organizational investments. When an organization wants to create IT-based solutions or implement it, should use significant time, cost and resources to achieve the desired result. Budget allocation or investment in IT projects should be based on the benefits that the project eventually will follow for organizations. Another important factor in the success of IT projects, are the rules and proper instructions in organization. IT applications include automation, awareness and transformation, which start hierarchically by automating. Automating processes what is done with the aim of automating existing processes, or to re-engineer them, in terms of the members of the panel, the lack of work processes is a failure in the application of information technology. The next important factors are designer's skills and knowledge of the managers. Information technology application projects, like any other project without having qualified managers are likely to fail. Panel members also, produced the use of competent managers for projects as a key factor for the success. In their view, if the project management led it to be consistent with the basic managers, the project will face the probability of success. In order to discuss and explain the results obtained in previous stages can be used to analyze leverage-dependence. To perform this analysis, the factors on the basis of leverage and dependence placed in four categories. The four categories are self-dependent, dependence, connective, and independent. Autonomous factors are factors that have Low leverage and dependence. These factors have limited relationships with other members and the same point causes the system to have minimal impact and effectiveness. 14,5,12 and 8 are factors in this category. Second, the factors dependent that have low leverage and high dependency. These are low-impact but very dependent and usually are at the top of interpretive structural model. In the system under consideration in this study 11, 7, 10, 2 and 13 are in this category. The factors that are placed in the third category, called connective elements. These factors also have high leverage and dependence. Linked factors are unstable due to any changes in them is effective on the other factors, and feedback of this change effects on them again. The fourth and final category of this division, are independent factors. The factors have high leverage and dependence. These characteristics make them to be at lower levels of interpretive structural models. Among the factors affecting the development of tourism, the 4, 1, 3, 6 and 9 are independent. The following chart shows above as a schematic.

14	4													
13		1												
12			Independent						Linked					
11														
10														
9			3											
8				6	9									
7														
6			14											
5			5					11	Dependent					
4	Autonomous													
3									7,10					
2							8,12							
1									13	2				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14

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