



Identifying and Ranking the Factors Affecting the Social Role of Academic System Based on Interpretive Structural Equations

Fatemeh Esmaeelpour Darimi¹, Esmaeel Jafari^{2*}, Amirreza Asnafi³

1. PhD student, Department of Educational Management, Damavand Branch, Islamic Azad University, Tehran, Iran.
2. Associate Professor, Department of Educational Management, Shahid Beheshti University, Tehran, Iran.
3. Assistant Professor, Educational Management Department, Shahid Beheshti University, Tehran, Iran.

Article history:

Received date: 2022/10/29

Review date: 2022/11/24

Accepted date: 2022/12/30

Keywords:

Social Role, Academic System, Training And Learning Social Responsibility, Social Projects

Purpose: Examining the factors affecting the social role of the higher education system can help in its improvement. Thus, this research aimed to identify and rate the factors affecting the social role of the academic system based on interpretive structural equations.

Methodology: Regarding aim, this study was of applied type and considering method of implementation, it was cross-sectional. The research population consisted of the qualitative section of documents and texts related to the research and experts of this field. Fifty documents and texts were chosen via purposive sampling method, and 10 experts were selected via purposive sampling method as the sample. The data were collected through taking notes from the documents and texts as well as surveying experts about a researcher-made questionnaire, and analyzed further via interpretive structural equations method in PLS software.

Findings: The results indicated that the factors affecting the social role of the higher education system include 11 factors including making the academic curricula challenging, promoting social participation forms, preparing students for public jobs, active civic curriculum, training and learning social responsibility, research-orientedness, social projects, training qualified individuals, attention to the views of social beneficiaries in the academic system, and training social sensitivity. The results of interpretive structural equations indicated that the factor of promoting social participation problem claimed the first rank, followed by research-orientedness and training qualified individuals at the second level, training and learning social responsibility at the third level, factors of making academic curricula challenging and preparing students for public jobs at the fourth level, factors of active civic curriculum factors, attention to the views of social beneficiaries in the academic system and training social sensitivity at the fifth level, factor of developing eligible citizens at the sixth level, and factor of social projects at the seventh level. Based on that, the interpretive structural model of factors affecting the social role of the academic system was designed.

Conclusion: Based on the present study results, planners and experts of higher education can benefit from the present study results, and use the identified factors affecting the social role of the academic system for improving the status of university and acquiring competitive advantage.

Please cite this article as: Esmaeelpour Darimi F, Jafari E, Asnafi A. (2023). Identifying and Ranking the Factors Affecting the Social Role of Academic System Based on Interpretive Structural Equations, *Iranian Journal of Educational Sociology*. 5(4): 217-229.

* Corresponding Author Email: phd_136287@yahoo.com

1. Introduction

Universities function as fundamental institutions and can be a basis for learning how to generate capital. Thus, entrance to university creates a new stage in the humans' social life, which would affect their attitudes, competences, and skills in the creation and management of human and organizational groups in the future. Indeed, universities are a suitable context for various social networks including both formal and informal. Accordingly, the manner of application of this huge capital and identification of its main indices at universities as well as its development can be a robust base for its development in other social institutions (Samani, Shirzad Kobriya and Mahmoudi, 2022). In the modern society, the reality and idea of university are of central and crucial status in the cultural and social prosperity of any nation (Baghaei Sarabi and Esmaeili, 2010). The educational systems of any country in line with their social, cultural conditions as well as values, have diverse goals and missions, and by procuring facilities and allocating resources, they attempt to fulfill them. The factors affecting them include the instructor, learners, qualified managers, facilities and equipment, curriculum, and social context (Moscardini, Strachan and Viasova, 2020). The academic and higher education system are a set of academic courses whose applicants can reach it after the high school education, with the goals of the academic system of any country being composed of four main axes: 1) contributing to realization of social goals through providing equity in use of higher education opportunities, 2) fulfilling the social demand for the higher education in line with the motivations and expectations as well as education of individuals and facilitating constant learning process, 3) training specialized human workforce required for development of the country and helping solving the problems of society, and 4) professional driving of knowledge and generation of novel knowledge (Sabeti, Sepehr and Ahmadi, 2014). The academic system is a social institution with a history of around 800 years. In its early stages, this institution only dealt with educational activities for a long time. As one of the most important constituent elements of advanced societies and even developed and developing countries, this system has been playing a vital role in all-around development of societies. In recent decades, societies have been moving towards knowledge-orientedness, and higher education feels a heavy responsibility about the society and global community (Roudgarnejad, Kiakojouri and Taheri, 2011). The university is an intersect of three realms of knowledge, power, and culture. This is because it contributes to deepening of scientific and cultural attitudes, contemplation of dialogue-oriented culture and collective function, promotion of cultural diversity and richness, as well as national development. The development of any society is an outcome of the developed status of the science institution and higher education of that country. Thus, one of the main policies of developed countries over recent years has been enhancing accessibility to higher education and universalizing it. Higher education should be able to prepare individuals for social and personal life and future, but what facts suggest is that society approval at university, culture transfer, and training of academic humans have not been very successful (Parsamoein, 2018). Socialization refers to adaptation and familiarization with the society, and deals with a process in which individuals would acquire traits making them eligible for membership in the society (Dominguez-Gomez, Pinto and Gonzalez-Gomez, 2021). The responsibility and accountability of university about society in its different dimensions in areas deal with the definition and consolidation of the social role of the academic system in the local community, as well as national and international community. Thus, the greater trend of socialization of universities has become more evident in discussions, announcements, and conferences, and its aim is that the science should be at the service of development, peace, as well as local, national, and international development (Hossein Gholizadeh, 2011). One of the important responsibilities of universities is providing service to the society and making attempts for establishing a link between the world of research and world of business, open and active communication with the society, and introducing the specialties and competences present in the University to the society, promotion and sharing of knowledge in the society through involvement of knowledge-oriented individuals in social situations (Leko Simic, Sharma and Kadlec, 2022). Today, the academic system should orient itself with the expectations of the society, though within observation of ethical standards, political disinterestedness, critical abilities, interpreting the issues of the society and business world, founding long-term orientations based on needs and goals of the

society, respecting cultures, and environmental support (Coelho and Menezes, 2021). Knowledge arising from the curriculum in the academic system for improving democracy and civic life by dealing with the common problems of citizens is a necessity in the curricula of academic systems. Indeed, these systems should prepare the citizens through direct attempts for improving the democratic and civic performance at both national and international levels (Hollister, Wilson and Levine, 2018). Today, more than half of the students in the bachelor's degree participate in social services or other civic activities. Thus, the aim is that students be exposed to this situation practically and gain a direct experience of social services. Indeed, the civic participation activities are rapidly developing and it has been proven that any student will have numerous reflections and valuable experiences in social services and these experiences would lead to establishment of a greater impact on developing the knowledge of students and achieving improvement of social culture (Hoyt and Hollister, 2014).

Although no research has been performed on the social role of the academic system, the most important results of studies in this regard are reported further. Abdolvahabi, Roshanaie, Ahmadi and Jamali Ashtiani (2022) concluded that the social factors affecting promotion of organizational role of university included models of successful women, organizational support, role contagion, job satisfaction, and implement conditions. Semnani, Hanifi and Sharifi (2021) found that the factors affecting the components of social capital in education and training included the issue of social identity with family, individual, and cultural elements, issue of social network with elements of social relations and social occasions, issue of social participation with elements of social activities and political activities, issue of social harms with elements of social lack of trust and social norms, issue of social awareness with elements of social knowledge and development of social values, and issue of social responsibility with elements of social coherence and social trust. Koohi Nasrabadi, Hamami and Abidi (2016) concluded that the social factors affecting the trust of citizens to municipal organizations included evaluation of the municipality quality, assessment of the municipality performance, and civic participation. Hossein Gholizadeh (2011) found that for a fit higher education with emphasis on the social role of university in a knowledge-oriented society, the components and factors of the fitness of education, fitness of research, fitness of knowledge, fitness of major, fitness of specialty, structure and management, measurement and legal registration system, financial and economic aspects, academic culture, as well as educational and research policies should be taken into account. Baghaei Sarabi and Esmaeili (2010) concluded that the effective social factors affecting the social identity of students included academic culture, cultural capital, and academic motivations. Avarideh and Elmi (2010) found that sense of social belonging and economic problems played an effective role in social and cultural constitutions as well as institutions.

Universities play a significant role in fulfilling the educational, cultural, political, economic, and social affairs of any country, and universities are among the most complex and transformed systems with a special status in all-around development of the society especially in the social sector. This is because this educational system is the center of educating and training specialized as well as efficient human workforce and a center for generation of knowledge and acquisition of social and technical skills, and has a great importance for contributing to the all-around development of the country especially in the social sector. Today, it has been established that the educational system should be accountable and should accept its responsibility about the local, national, and international community. Accordingly, it should be investigated what be the features of this system should as well as its plans that would highlight the social role of university. Another important point is that sparse studies have been done about the social role of the academic system, and no research has examined the factors affecting its social role. Hopefully, by identifying the factors affecting the social role of the academic system, this research would help specialists, authorities, and planners of the higher education system significantly for improving the social role of the academic system through the identified factors. Thus, the aim of this research was to identify and rate the factors affecting the social role of the academic system based on interpretive structural equations.

2. Methodology

Regarding aim, this study was of applied type, and it was cross-sectional considering the methodology. The research population consisted of the qualitative section of documents and texts about the research and experts of this domain. A total of 50 documents and texts were chosen through purposive sampling method, and 10 experts were also chosen through purposive sampling method as the sample. In other words, in the initial phase all available studies related to the social role of the university in the form of papers, books, and theses, and in the second phase experts of the social responsibility of the academic system participated for rating the effective factors. In the purposive sampling method, the samples were chosen based on the criteria, where the documents and texts in case of relevance to the title of the present research, i.e. having some ideas about the social role of the academic system were chosen as the sample. Also, the experts were chosen as the sample in case of having suitable resume and related to the title of the present research or having performed prominent executive activities regarding the social role of the university.

For data collection, in the first stage using researcher-made checklists and taking notes from the documents and texts, the researcher collected the factors affecting the social role of the academic system. In the second stage, using researcher-made questionnaire about the factors affecting the social role of the academic system, the experts were surveyed, after which using multi-criteria decision-making, the factors affecting the social role of the academic system were rated. Multi-criteria decision-making is an interactive learning process which deals with the interrelations between the concepts of a problem through interpreting the opinions of a group of experts. It then creates a comprehensive structure of a complex set of concepts. In addition, it also determines the precedents and antecedents of the influence of elements on each other along with the direction and intensity of the relation of the elements of a complex set in a hierarchical structure. The stages of multi-criteria decision-making are as follows: 1) forming structural self-interaction matrix, in which identified factors are introduced. In this matrix, if the element of row i leads to column j , letter V; if element of the column j leads to row i letter A, and if this relationship is bilateral, letter X; and if there is no relationship, letter O will be set. Since in this research for filling in the questionnaires, several experts were employed, for forming the structural self-interaction matrix, Mode method based on the maximum frequency was used. 2) forming the initial reachability matrix (RM); this matrix is formed by converting the symbols of the relations of SSIM matrix to zero and one numbers. 3) formation of the final reachability matrix; once the initial reachability matrix is obtained, its internal consistency should be established. For example, if factor 1 leads to factor 2, and factor 2 in turn results in factor 3, factor 1 should also lead to factor 3. If in the reachability matrix, this was not true, the matrix should be corrected, and the relations that have been missed should be replaced. For consistency of the matrix, several methods have been proposed, and here two general methods are described: method 1: a number of researchers believe that after collecting the expert opinions and obtaining the SSIM as well as reachability matrices, in case inconsistency was observed inside the reachability matrix, the questionnaire should be re-completed by the experts, and then the consistency of the reachability matrix should be checked again. This should continue until consistency is established. Method 2: in this method, mathematical rules are used for establishing consistency in the reachability matrix. Indeed, it exponentiates the reachability matrix to $(K+1)$ and $K \square 1$. Nevertheless, the matrix **exponentiation** operations should be based on the $1=1 \times 1$ and $1=1+1$ rules. 4) determining the level and priority of variables; after determining the set of reachability and the prerequisites set for each factor as well as specifying the common set, rating of factors is done. The reachability set is a set in which the rows emerge as one, while the prerequisites set is a set in which the columns have emerged as one. By obtaining the overlap of these two sets, the common set is obtained. If the factors of the common set are the same as the reachability set, they claim the first level of priority. By eliminating these factors and repeating this stage for other factors, the level of all factors is determined. 5) drawing the interpretive structural model; based on the determined levels and the final reachability matrix, the model is drawn. 6) analysis of the influence-dependence; the row sum of the values in the final reachability matrix for each element represented the extent of influence, while the columnar sum indicated the extent of dependence. Based on the influence and dependence, four groups of

includable elements are identified including independent (the factors with poor influence and dependence), dependent (the factors with poor influence and heavy dependence), interconnected (the factors with heavy dependence and influence), and key independent (the factors with poor influence and dependence).

Considering the procedure of the research, after reviewing the documents and texts regarding the factors affecting the social role of the academic system, the factors of each of them were recorded and noted using researcher-made checklists. Then, the experts were identified for investigating their opinions about the identified factors. Note that the agreement of experts for participation in the research was received, before which the significance of the research was explained to them. Eventually, after taking notes from the documents and texts as well as surveying the experts about the researcher-made questionnaire, the data were analyzed in PLS software via interpretive structural equations method.

3. Findings

The results of identifying the factors affecting social role of the academic system are presented in Table 1.

Table 1. The results of identifying the factors affecting the social role of academic system

No.	Factors	References
1	making the academic curricula challenging	Altbach et al (2009), Parsons (2004), Stromquist (2007), Vasilescu et al (2018), Singh (2012), Mousavi, et al (2020)
2	Promoting social participation forms	UNESCO (1995), Brennan et al (2018), Leathwood (2014), Castells (2001), Savage (2015), Brown and Lauder (2011)
3	Preparing students for public jobs	Hollister (2012), Hollister et al (2006, 2008), Ehrlich (2000), Musil (2009), Youniss and Levine (2019)
4	active civic curriculum	Ostrander and Portney (2017), Hollister et al (2008), Hoyt and Hollister (2014), Watson et al (2011)
5	training and learning social responsibility	Millican and Bourner (2011), Reason and Hemer (2015), Torney-Purta et al (2015), Wong and Green (2016), Torney-Purta et al (2015), Steinberg et al (2011)
6	Research-orientedness	The University of Manchester (2012), Crane et al (2013), Academic Ranking of World Universities (2016), Allen et al (2015), Fitzgerald and Caro (2016), O'Reilly (2012), Sanz et al (2015), Ziegler and Scharf (2013)
7	Social projects	Feagan and Rossiter (2011), Strier (2014), Smith and Lewis (2011), Ostrander and Chapin-Hogue (2011), Jules and Good (2014), Ikas and Wagner (2009), Putnam et al (2016)
8	training competent and qualified individuals	Lieberman (2016), Yu et al (2014), Guo et al (2015), Zhang (2015), Xie (2017), Pei (2017), Abbaspour et al (2019)
9	developing eligible citizens	Alzyoud and Bani-Hani (2015), Dima et al (2013), Vasilescu et al (2018), Wright (2002), Li and Wang (2009), Vazquez et al (2014)
10	attention to the views of social beneficiaries in the academic system	Godfrey et al (2009), Cheng et al (2014), Brammer and Millington (2018), Alzyoud (2015), Vallaeys (2019)
11	educating social sensitivity	Yu et al (2014), Cui (2010), Peng (2013), Zhong (2012), Teaching Affairs Office of Beijing Normal University (2015)

According to Table 1, the factors affecting the social role of the higher education system include 11 factors of making the academic curriculum challenging, promotion of the social participation forms, preparation of

students for public occupations, active civic curriculum, training and learning social responsibility, research orientedness, social projects, training competent and qualified individuals, developing eligible citizens, attention to the views of social beneficiaries in the academic system, and educating social sensitivity. The results of the structural self-interaction matrix for rating the factors affecting the social role of the academic system are presented in Table 2.

Table 2. Results of structural self-interaction matrix for ranking the factors affecting the social role of the academic system

No.	Factors	1	2	3	4	5	6	7	8	9	10	11
1	making the academic curricula challenging	-	V	A	O	V	V	O	V	X	O	A
2	Promoting social participation forms		-	A	O	A	A	O	A	O	A	A
3	Preparing students for public jobs			-	X	V	V	A	V	X	X	A
4	active civic curriculum				-	O	O	O	V	V	X	O
5	training and learning social responsibility					-	X	O	V	O	A	A
6	Research-orientedness						-	A	X	O	A	A
7	Social projects							-	V	V	O	X
8	training competent and qualified individuals								-	A	A	A
9	developing eligible citizens									-	O	A
10	attention to the views of social beneficiaries in the academic system										-	X
11	educating social sensitivity											-

Based on Table 2 results, the mutual relationship of the factors affecting the social role of the academic system is evident. Indeed, if element of the row i leads to column j , letter V; if element of the column j results in row i , letter A; and if this relation is two-sided, letter X; and if there is no relation, letter O is assigned. In the next stage of interpretive structural equations, the symbols should be converted to zero and one. Thus, the results of the initial reachability matrix of the factors affecting the social role of the academic system are reported in Table 3.

Table 3. Results of initial achievement matrix of the factors affecting the social role of the academic system

No.	Factors	1	2	3	4	5	6	7	8	9	10	11
1	making the academic curricula challenging	1	1	1	1	0	1	0	1	1	0	0
2	Promoting social participation forms	1	1	1	1	0	1	1	0	1	1	1
3	Preparing students for public jobs	1	1	1	0	0	0	0	1	1	1	1
4	active civic curriculum	1	1	0	0	1	0	1	0	1	1	0
5	training and learning social responsibility	1	1	1	1	1	1	1	1	0	0	0
6	Research-orientedness	1	1	1	0	1	0	1	0	1	1	1
7	Social projects	1	1	0	1	1	0	0	0	1	0	1
8	training competent and qualified individuals	1	0	1	1	1	0	1	0	1	1	0
9	developing eligible citizens	0	1	1	1	1	1	1	1	1	1	1

10	attention to the views of social beneficiaries in the academic system	1	1	1	1	1	1	1	1	0	0	0	0
11	educating social sensitivity	1	1	1	0	1	1	1	1	0	1	0	1

According to the results of Table 3, the results of the initial reachability matrix are shown based on which the results of the final reachability matrix should be drawn; if A affects B, and B influences C, then A is also effective on C. Therefore, the results of the final reachability matrix for the factors affecting the social role of the academic system are provided in Table 4.

Table 4. Results of final achievement matrix of the factors affecting the social role of the academic system

No.	Factors	1	2	3	4	5	6	7	8	9	10	11	Influence
1	making the academic curricula challenging	0	0	1	1	0	1	0	1	0	1	1	6
2	Promoting social participation forms	1	1	0	1	1	1	1	1	1	0	1	9
3	Preparing students for public jobs	1	0	1	0	1	1	0	1	0	1	1	8
4	active civic curriculum	1	0	0	1	1	0	1	0	1	0	1	6
5	training and learning social responsibility	0	0	1	1	0	0	0	0	1	1	1	5
6	Research-orientedness	1	1	0	1	1	1	0	0	1	1	1	7
7	Social projects	1	0	0	0	1	1	1	1	1	0	1	7
8	training competent and qualified individuals	1	1	0	1	1	1	1	1	0	1	1	9
9	developing eligible citizens	1	0	0	1	0	1	0	1	1	0	1	6
10	attention to the views of social beneficiaries in the academic system	0	0	1	1	1	1	1	0	1	1	1	8
11	educating social sensitivity	1	1	1	0	1	0	1	0	1	1	1	9
Dependence		8	4	5	6	8	8	6	6	8	7	11	---

Based on the findings of Table 4, the results of the final reachability matrix can be observed, based on which the set of reach, prerequisite, and common should be specified. Thus, the results of rating and prioritizing the factors affecting the social role of the academic system are presented in Table 5 and Fig. 1.

Table 5. The results of ranking and prioritizing the factors affecting the social role of the academic system

No.	reachability set	Prerequisite set	Common set	Rate or level
1	3•4•6•8•10•11	2-3-4-6-7-8-9-11		First
2	1-2-4-5-6-7-8-9-11	2-6-8-11	2-6-8-11	
3	1-3-4-6-8-10-11	1-3-5-10-11		
4	1-3-5-6-8-10-11	1-2-4-5-6-8-9-10-11		
5	3-4-9-10-11	2-3-4-6-7-8-10-11		
6	1-2-4-5-6-9-10-11	1-2-3-6-7-8-9-10		
7	1-5-6-7-8-9-11	2-4-7-8-10-11		
8	1-2-4-5-6-7-8-10-11	1-2-3-7-8-		

9	1-4-6-8-9-11	2-4-5-6-7-9-10-11	
10	3-4-5-6-7-9-10-11	1-3-5-6-8-10-11	
11	1-2-3-5-7-9-10-11	1-2-3-4-5-6-7-8-9-10-11	
1	3-4-6-8-10-11	3-4-6-7-8-9-11	
3	1-3-4-5-6-8-10-11	1-3-5-10-11	1-3-5-10-11
4	1-3-5-6-8-10-11	1-4-5-6-8-9-10-11	
5	3-4-9-10-11	3-4-6-7-8-10-11	
6	1-4-5-6-9-10-11	1-3-6-7-8-9-10	Second
7	1-5-6-7-8-9-11	4-7-8-10-11	
8	1-4-5-6-7-8-10-11	1-3-7-8-	
9	1-4-6-8-9-11	4-5-6-7-9-10-11	
10	3-4-5-6-7-9-10-11	1-3-5-6-8-10-11	
11	1-3-5-7-9-10-11	1-3-4-5-6-7-8-9-10-11	
1	3-4-6-8-10-11	4-6-7-8-9-11	
4	1-5-6-8-10-11	1-4-5-6-8-9-10-11	
5	4-9-10-11	4-6-7-8-10-11	
6	1-4-5-6-9-10-11	1-6-7-8-9-10	
7	1-5-6-7-8-9-11	4-7-8-10-11	Third
8	1-4-5-6-7-8-10-11	1-7-8-	1-7-8
9	1-4-6-8-9-11	4-5-6-7-9-10-11	
10	4-5-6-7-9-10-11	1-5-6-8-10-11	
11	1-5-7-9-10-11	1-4-5-6-7-8-9-10-11	
1	3-4-6-10-11	4-6-7-9-11	
4	1-5-6-10-11	1-4-5-6-9-10-11	
5	4-9-10-11	4-6-7-10-11	
6	1-4-5-6-9-10-11	1-6-7-9-10	
7	1-5-6-7-9-11	4-7-10-11	Fourth
9	1-4-6-9-11	4-5-6-7-9-10-11	
10	4-5-6-7-9-10-11	1-5-6-10-11	
11	1-5-7-9-10-11	1-4-5-6-7-9-10-11	1-5-7-9-10-11
1	3-4-6-10	4-6-7-9	
4	1-5-6-10	1-4-5-6-9-10	1-5-6-10
5	4-9-10	4-6-7-10	
6	1-4-5-6-9-10	1-6-7-9-10	Fifth
7	1-5-6-7-9-	4-7-10	
9	1-4-6-9-	4-5-6-7-9-10-	
10	4-5-6-7-9-10-	1-5-6-10-	
1	3-6-10	6-7-9	
5	-9-10	-6-7-10	
6	1-5-6-9-10	1-6-7-9-10	Sixth
7	1-5-6-7-9-	-7-10	
9	1--6-9-	-5-6-7-9-10-	

10	-5-6-7-9-10-	5-6-10-	5-6-10	
1	3*6	6-7-9		
5	-9-	-6-7-		
6	1-5-6-9	1-6-7-9		Seventh
7	1-5-6-7-9-	-7	7	
9	1--6-9-	-5-6-7-9-		
1	3*6	6-9		
5	-6-	-6-	6	Eighth
6	1-5-6-9	1-6-9	1-6-9	
9	1--6-9-	-5-6-9-		
1	9	9	9	ninth
9	1-9-	9-	9	

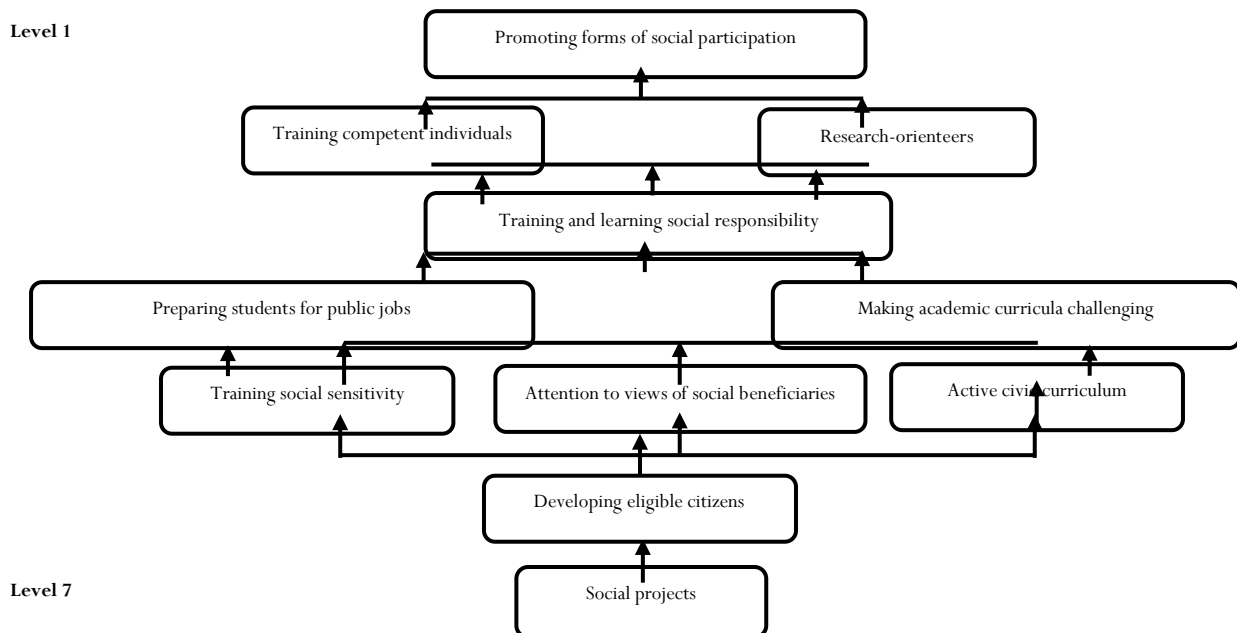


Fig. 1. Results of rating and prioritizing the factors affecting the social role of the academic system based on interpretive structural equations

According to the results of Table 5 and Fig. 1, the results of the interpretive structural equations showed that the factor of promoting social participation forms claimed the first level, research-orienteeers and training of qualified individuals factor the second level, the factor of training and learning social responsibility the third level, the factors of making the academic curriculum challenging and preparing students for public jobs the fourth level, the factors of active civic curriculum, attention to the views of social beneficiaries in the academic system and training social sensitivity the fifth level, the factor of developing an eligible citizen the sixth level, and the factor of social projects the seventh level. Based on that, the interpretive structural model of the factors affecting the social role of the academic system was designed.

4. Conclusion

Given the importance of the social role of the higher education in the society, the aim of this research was to identify and rate the factors affecting the social role of the academic system based on the interpretive structural equations.

The findings indicated that the factors affecting the social role of the higher education system included 11 factors of making the academic curricula challenging, promoting social participation forms, preparing students for public jobs, active civic curriculum, training and learning social responsibility, research-orientedness, social projects, training qualified individuals, attention to the views of social beneficiaries in the academic system, and training social sensitivity. The results of the interpretive structural equations showed that the factor of promoting social participation forms claimed the first level, research-orientedness and training of qualified individuals factor the second level, the factor of training and learning social responsibility the third level, the factors of making the academic curriculum challenging and preparing students for public jobs the fourth level, the factors of active civic curriculum, attention to the views of social beneficiaries in the academic system and training social sensitivity the fifth level, the factor of developing eligible citizen the sixth level, and the factor of social projects the seventh level. Based on that, the interpretive structural model of the factors affecting the social role of the academic system was designed. No research about the factors affecting the social role of the academic system as well as their rating or prioritization was found. However, the results of this study can be considered somehow in line with the findings of Abdolvahabi et al. (2022), Semnani et al. (2021), Koochi Nasrabadi et al (2016), Hossein Gholizadeh (2011), and Baghaei Sarabi and Esmaeili (2010).

Based on the results, the factors affecting the social role of the academic system, included the following (in order): social projects, developing eligible citizens, active civic curriculum, attention to the views of social beneficiaries in the academic system, training social sensitivity, making the academic curricula challenging, preparing students for public jobs, training and learning social responsibility, research-orientedness, training qualified individuals, and promoting social participation forms. Thus, it can be claimed that the key factors affecting development of the social role of the academic system is leaving the mold and exposure of universities off enclosed walls to the social context, for which development of social projects can be used. In this regard, Butcher, Bezzina and Moran (2011) subjected different types of participation, action models, and various domains of activities in itself as complex and dynamic construct of the academic community to different interpretations. Therefore, different representations of the society may cause multiplicity in public perception. Thus, development of projects can lead to suitable perception of the society about the social role of the academic system. Brown-Luthango (2013) also believed that the increasing changes in the participation between university and society in recent decades have been a response to the extensive changes in social, economic, and institutional arenas. These changes have affected the cultural and academic culture of research institutes of the higher education, where the academic research through the novel plans and activities they initiated promoted a new kind of experiments. Alzyoud and Bani-Hani (2015) also concluded that training and developing eligible citizens was another dimension and factor with an essential priority in development of the social role of the university. In conditions where the world is facing growing challenges in economy, society, and culture, and environment, the social responsibility of the university has changed into a major issue, higher education and universities should actively respond to the social changes and shoulder the responsibility of reconstructing and promoting the social development. Also, the educational programs of the university should promote service programs and civic development in order to enhance our understanding of civic development. In order for these experiences to be shared, we should live in a world where students with a high social responsibility are trained. Dima, Vasilache, Ghinea and Agoston (2013) believed that under conditions where the world is facing numerous economic, social, cultural, and environmental problems, the social responsibility of the university is very important. Discussion in the higher education sector based on the beliefs held by the universities, commitment to addressing these challenges and solutions such that it would make our world more equitable, comprehensive, peaceful, and stable are of utmost importance. The academic system should take steps towards social improvement through integrating policies of social responsibility, institutional management, pedagogy, research, services, and public activities. This means that the university should actively respond to social changes and shoulder the responsibility of reconstructing and enhancing social development. This would be possible only through training and developing eligible citizens.

A citizen would be trained actively if they are first concerned and then could show a better social performance. Thus, the process of social responsibility and highlighting the social role of the academic system is a sensitive and important issue. Another notable point is that stability in business should be progressively realized through attention to the views of curricula beneficiaries. The essential idea of this aspect of the social role of universities emanates from that fact that the beneficiary groups in doing businesses compared to nonresponsible companies have a wide range of commercial activity, and are predisposed to enhancing the occupational commitment of their staff by transferring their views to the academic system. This would also lead to development of loyalty and acquisition of popularity in the society. All these eventually result in diminished confusion in job selection by citizens. Therefore, applying the views of beneficiaries is effective on improving the competitive advantage and performance of the organization in the long run, and boosts the responsibility against beneficiaries by the universities. A set of these actions such as injecting social content and training social sensitivity, making the academic curricula challenging, preparing students for public jobs, training and learning social responsibility, research-orientedness, training qualified individuals, promoting the forms of social participation, and all factors that somehow lead to mutual collaboration between university and society can highlight the social role of the university.

Based on the results of present research, higher education planners and experts can benefit from these results, and use the identified factors affecting the social role of the academic system for improving the status of university and gaining competitive advantage. Thus, it is suggested that: 1) In the academic system, the occupational needs of the society be considered and actions be made based upon needs, so that deficiency or excess would not occur in the human workforce in a sector; 2) the academic system should be replete with induction of social proactivity, the plans should not remain restricted at universities, and maximum communication with the society should be established; 3) curricula should be in line with the views of beneficiaries of the society and universities should somehow follow good governorship policies; 4) across the entire curricula, commitment should be evident and students should be committed to the society as a living creature, and consider themselves as guarantor of enhancing quality of life in a healthy society; 5) Social claims and issues faced by the societies should be a component of the academic curricula, and could generate policy and executive recommendations for resolving social plights; 6) the ethical issues of the society should always guide the academic curricula in order to pave the way for society development.

Acknowledgements

All individuals who contributed to this research are highly appreciated.

References

- Abdolvahabi M, Roshanaie A, Ahmadi OA, Jamali Ashtiani H. (2022). Studying the social factors effective on the improvement of organizational role (A case study: The employed woman at Islamic Azad University, Science and Research Branch, Tehran). *Journal of Iranian Social Development Studies*. 14(1): 69-82. [Persian]
- Alzyoud SA, Bani-Hani K. (2015). Social responsibility in higher education institutions: Application case from the Middle East. *European Scientific Journal*. 11(8): 122-129.
- Avarideh S, Elmi M. (2010). A study of the factors affecting the rate of social and cultural participation of Payam-e-Nour university girl students. *Journal of Woman & Study of Family*. 3(9): 37-55. [Persian]
- Baghaei Sarabi A, Esmaeili MJ. (2010). The effective social factors on the academic identity of Islamic Azad University students. *Journal of social sciences*. 3(4): 175-203. [Persian]
- Brown-Luthango M. (2013). Community-university engagement: The Philippi city lab in Cape town and the challenge of collaboration across boundaries. *Higher Education*. 6: 309-324.
- Butcher J, Bezzina M, Moran W. (2011). Transformational partnerships: A new agenda for higher education. *Innovative Higher Education*. 36, 29-40.
- Coelho M, Menezes I. (2021). University social responsibility, service learning, and students' personal, professional, and civic education. *Frontiers in Psychology*. 12(617300): 1-8.
- Dima AM, Vasilache S, Ghinea V, Agoston S. (2013). A model of academic social responsibility. *Transylvanian Review of Administrative Sciences*. 9(38): 23-43.
- Dominguez-Gomez JA, Pinto H, Gonzalez-Gomez T. (2021). The social role of the university today: From institutional prestige to ethical positioning. *Contemporary Issues in Entrepreneurship Research*. 11: 167-182.
- Hollister RM, Wilson N, Levine P. (2008). Educating students to foster active citizenship. *Peer Review*. 10(2-3): 18-21.
- Hosseini Gholizadeh R. (2011). Higher education relevancy with an accent on the social role of university in a knowledge-based society. *Higher Education Letter*. 4(13): 121-142. [Persian]
- Hoyt LM, Hollister RM. (2014). Strategies for advancing global trends in university civic engagement-The Talloires network, a global coalition of engaged universities. *All Ireland Journal of Teaching and Learning in Higher Education*. 6(1): 16916-16919.
- Koohi Nasrabadi M, Hamami A, Abidi N. (2016). Social factors affecting the trust of citizens to the municipal organizations (Case study: Municipality of Kashan). *Social Capital Management*. 3(3):369-389. [Persian]
- Leko Simic M, Sharma E, Kadlec Z. (2022). Students' perceptions and attitudes toward university social responsibility: Comparison between India and Croatia. *Sustainability*. 14(13763): 1-14.
- Moscardini A, Strachan R, Viasova T. (2020). The role of universities in modern society. *Studies in Higher Education*. 47(2): 1-19.
- Parsamoein K. (2018). Social factors affecting the formation of higher education (with emphasis on documentary). *Journal of Social Research*. 9(37): 23-46. [Persian]
- Roudgarnejad F, Kiakojouri K, Taheri A. (2011). The role of Islamic Azad University in the educational, cultural, social and economic affairs of women. *Journal of Woman and Culture*. 3(9): 33-44. [Persian]
- Sabeti M, Sepehr M, Ahmadi F. (2014). The role of higher education in national development. *Journal of Iranian Social Development Studies*. 6(4): 59-69. [Persian]
- Samani M, Shirzad Kobriya B, Mahmoudi A. (2022). Investigating the effective factors on the formation of social capital in universities with emphasis on the views of Imam Khomeini and developing an appropriate model for its development. *Journal of Iranian Social Development Studies*. 14(2): 237-254. [Persian]
- Semnani N, Hanifi F, Sharifi A. (2021). Identifying the factors affecting the components of social capital in education in order to provide a model to promote it. *Sociological Cultural Studies*. 12(3): 97-124. [Persian]