Determining and Assessing the Significant Barriers of Transferring Unfinished Construction Projects from the Public Sector to the Private Sector in Iran

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Abstract

The government sometimes lacks sufficient financial, management, and technical capabilities to deliver construction projects. As a result, it has recognized the need to introduce private sector capital and expertise to complete unfinished construction projects. This outsourcing paradigm is known as Public-Private Partnership, a form of privatization. This study identified the barriers associated with the transfer of unfinished construction projects to the private sector in Iran and grouped them into areas that were ranked to shed lights on where risk lies. After a thorough and comprehensive literature review, a questionnaire was developed and distributed to 67 experts in the public and private sectors in Iran. The survey included 37 barriers grouped into seven areas and measured on a five-point Likert scale. Face validity, content validity, and structural validity of the collected data were confirmed. The reliability of the questionnaire was also tested and validated using Cronbach's Alpha coefficient. The survey findings indicated that private company laws, national constitution,

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government policies, lack of sufficient regulations, one-sided regulations and lack of balance, the regulations of other organizations, and taxation laws, were perceived as the major barriers to the transfer of unfinished public sector construction projects to the private sector in Iran. The ranking of the seven areas produced the following top three ranked barriers areas: taxation laws, government policies, and one-sided regulations and lack of balance in order of importance. The elicitation of this study can be useful to both private and public sectors for the development of infrastructure construction projects.

Keywords: Private Sector; Public Sector; Barriers; Construction Projects; Infrastructure; Iran

Introduction

Evaluating the implementation process of construction projects in recent years indicates that the government, also known to be the owner and key player in infrastructure projects, lacks sufficient financial, management, and technical capabilities for these projects. The inefficient process of approval and execution of construction projects, coupled with the inability of the government to complete these projects according to the original schedule and budget, has led to a significant volume of unfinished and sometimes abandoned projects affecting the national economy. Therefore, inspired by international practices undertaken to solve the critical situation of unfinished projects, the government has proposed the adoption of public-private cooperation as a possible solution (Gaspareniene and Vasauskaite, 2014).

Public-Private Partnership (PPP) is a form of privatization and is defined as “an agreement between the government and the private sector in which partially or traditionally public activities are performed by the private sector” (Savas, 2005). The PPP includes a large variety of possibilities that are used in many developed and developing countries for the implementation of infrastructural projects (Takim *et al.*, 2008). Although in many projects implemented through PPP lack of ability and knowledge of the governments regarding proper contract structures leads to some of the goals remaining unfinished or even failing, various advantages of these approach including the use of private sector skills and investments, reduced costs and sharing of the risks have resulted in PPP currently being used as one of the most common approaches (Golabchi and Noorzaii, 2015).

In general, using the private sector to finance, invest, and implement projects can lead to a faster completion of projects and can reduce projects risks through proper planning, control, and implementation of projects (Jiang *et al.*, 2013). In addition, the implementation of any economic policy in developing countries will be faced with various problems and barriers which means that planning for the transfer of construction projects to the private sector must consider all regulations affecting the transfer process as well as the concerns of the private sector. Therefore, identifying and understanding the barriers associated with the participation of the private sector are critical to maximize the use of the capacities of private sector in national economy, and ultimalety optimize national economic processes (Ameyaw and Alfen, 2017; Muleya *et al.*, 2019; Debela, 2019; Woldesenbet *et al.*, 2020). Various studies have investigated the challenges and barriers of involving the private sector in public projects and have shown that lack of independent and centralized organizations with effective malmanagement (Dougherty and Nigro, 2013), numerous decision-making sources regarding privatization, high policy costs, use of methods incompatible with society's means (Pongsiri, 2002), weak investment and financial markets, weak executive management (Hukka, and Katko, 2003), economic changes and lack of economic stability, dependence of manufacturing processes to currency exchange rates, government monopoly in financial markets and their allocation, international sanctions by powerful economies (Nabli *et al.*, 2008), limiting bureaucracies in contracts, wage payment problems, lack of confidence in investment, lack of proper implementation quality in private sector projects (Abednego and Ogunlana, 2006), ignoring required standards and technical requirements, lack of sufficient commitment, lack of proper skills and experts among contractors (Maulidia *et al.*, 2019), weakness of general privatization laws, lack of transparency in laws and regulations related to investment (Seyoum and Manyak, 2009), and lack of proper incentives for investment are barriers faced by the private sector and its cooperation with the public sector, which increases the risks associated with PPP contracts.

Without doubt, PPP is a difficult endeavor and requires proper planning and organization. Therefore, before acting for achieving any kind of cooperation, senior managers and consultants in construction projects must evaluate the conditions for the transfer of projects to the private sector (Rajesh *et al.,* 2012) because the aforementioned barriers will prevent the participation of internal and foreign investment in these projects. Based on these facts, it can be concluded that attempts in cooperation with private sector before vast economic, social-cultural, legal, structural and political reforms are doomed to failure. Therefore, in order to overcome these barriers, it is necessary to provide and implement a comprehensive plan. As a result, the current study aims to investigate the barriers associated with the transfer of unfinished construction projects to the private sector in order to answer the following questions: *(i)* What are the barriers associated with the transfer of unfinished construction projects to the private sector? *(ii)* What is the degree of importance of each of these identified barriers?

Research Background

Iran is no stranger to unfinished construction projects. Table 1 outlines some unfinished projects that were executed in Iran and lists the type of each project and its associated causes of delay (Khoshgoftar et al, 2010). In addition to the delay causes identified by (Khoshgoftar et al, 2010), Abbasnejad and Izadi Moud (2013) noted that financial statement, payments, mismanagement of workshop, delays in preparing shop drawings, improper understanding of the project scope, contractors being less experienced and incompetency, skillfulness and specialization of workforce, and incorrect estimation of the costs of projects are also reported as major causes of construction project delays in Iran.

Please Insert Table 1 about here

The reports of Management and Planning Organization of Iran in 2017 showed that the total number of unfinished national development projects is 6,049 and the total number of provincial development projects is 65,478. These unfinished projects include various types of construction projects, equipment, repair, commitments, development, services, detailed design, basic study, design study, and supervision (Table 2).

Please insert Table 2 about here

The identification of barriers associated with PPP can help government managers address and remove these barriers to reduce and prevent increased costs, facilitate the execution of projects based on the original schedule, and provide higher quality services to citizens. Danaei et al. (2018) identified and prioritized 46 barriers associated with the expansion of private-public sector participation and categorized them into nine groups. Arab et al. (2017) stated that the possibility of returning some of the tender costs to the participants, clarity in legal and responsibilities, fair participation and risk allocation among parties, clear conflict resolution mechanisms, and political support for private sector investment are among the most important factors in the success of PPP projects and must be considered.

Kirama and Mayo (2016) concluded that, In the implementation of PPP projects, the private sector is faced with numerous problems including limited planning, short-term contracts, weak implementation of municipality regulations and policies, and lack of suitable waste recycling systems.

Ross and Yan (2015) stated that PPP has become a popular method among governments and citizens. Their study showed that the optimum selection of the amount of cooperation between the private sector and the transitional public sector depends on various factors such as flexibility and bargaining power of the government, noting that the flexibility of the government and the public sector can maximize investment by the private sector.

Udoh (2015) investigated public spending, private investment, and development of agriculture sector in Nigeria. This research showed that the increase in public spending has a positive effect on the development of the agriculture sector. Leaders, therefore, use both private and public investments in a combined policy to ensure proper short- and long-term productivity of the agriculture sector.

Marin (2009) concluded that the successful participation of the private sector in the water and wastewater industry requires various economic, structural, cultural and social, legal, and political reforms. Private sector investments require the confidence of the ownership of their property and often select popular and profitable investments. Stable taxation laws, anti-monopoly market conditions, transparent national laws among other factors are required to reduce the risk of the participation of the private sector in government economies.

Ahmad and Qayyum (2008) carried out an economic investigation for the 1972 to 2005 period. The results of the short-term investment function showed that while interest rate can stimulate private investment, macroeconomic instabilities and uncertainty have a negative effect on private sector investment.

Barriers associated with the privatization of unfinished construction projects are synthesized using a metanalysis study on 22 countries and are presented in Table 3. Countries were selected based on their development level, their Islamic culture, their position in Asia, and similarities in their backgrounds (economic, political, and cultural and social). Out of the

22 countries analyzed, seven countries, namely Canada, Germany, Italy, Argentina, Portugal, Czech Republic and China are representatives of developed countries and the remaining 15 countries including Poland, South Africa, Brazil, Turkey, Russia, India, Bangladesh, Bolivia, Chile, Bulgaria, Pakistan, Malaysia, Tajikistan, and Thailand are examples of developing countries. While all these countries are of interest, more focused is placed on Turkey, Malaysia, Pakistan, and Tajikistan because of their Islamic culture and location in Asia.

Please insert Table 3 about here

The review of previous studies and evaluation of barriers associated with public private partnership in different countries show that although many studies have investigated the participation of public and private sectors in various fields, no comprehensive studies have yet investigated the topic of unfinished construction projects in Iran from a legal perspective. Therefore, the current study aims to fill this gap by identifying and prioritizing barriers areas associated with PPP in Iran when unfinished construction projects are transferred to the private sector.

Research Methodology

This paper aimed to determine the barriers associated with the transfer of unfinished construction projects to the private sector in Iran from a legal perspective using a survey approach. A thorough review of existing research, both in English and Persian, was first conducted to extract legal barriers. The Delphi technique was then used to evaluate the barriers extracted from the literature review with 15 experts in the field of unfinished construction projects (Table 4). After two rounds of semi-structured interviews, experts' final opinions were recorded. The Delphi technique resulted in a total of 37 barriers associated with the transfer of unfinished construction projects to private sector clustered into seven groups as shown in Table 5. A survey was then developed to collected data regarding the importance of each barrier. The 37 identified barriers were included in a questionnaire and were organized into seven sections (private company laws, national constitution, government policies, lack of sufficient regulations, one-sided regulations and lack of balance, the regulations of other organizations, and taxation laws). The importance of each of the 37 barriers was measured on a five-point Likert scale measurement (1 = unimportant, 2 = slightly important, 3 = moderately important, 4 = important, and 5 = very important). The statistical population of the study included all experts in public and private sectors with expertise in PPP projects. Using Cochran's equation, a sample size of 67 was determined. Survey respondents were selected using a convenient sampling approach and had to have participated in at least one PPP project in Iran.

Please insert Table 4 about here

Please insert Table 5 about here

The face validity of the questionnaire was confirmed based on experts’ opinions while the content validity was confirmed with experts in the field of construction management and several experts in related fields. The construct validity of the questionnaire, however, was determined using factor analysis in SmartPLS software.

Two test models were used to determine the construct validity in SmartPLS. The first model is the external model which is the equivalent of the measurement model. The second model is the internal model which is the equivalent of the structural model in covariance models. The measurement model was first investigated through validity and reliability evaluations. Then, in the second step, the structural model was tested by estimating the path coefficient between factors and determining fitting criteria.

To evaluate the fitting of the measurement model, three factors, namely reliability index, convergent validity, and divergent validity, were used. It should be noted that the reliability index is measured using three separate criteria: Cronbach's alpha, composite reliability and factor loading. Factor loadings are presented in Figure 1. The results obtained from Figure 1 show that all factor loadings of the barriers' questionnaire are higher than 0.4, indicating that all survey questions have acceptable factor loadings.

Please insert Figure 1 about here

Results and Analysis

Measuring the importance of the barrier areas

As presented in Table 3, experts identified a total of experts identified 37 barriers associated with transferring unfinished construction projects to private sector. These barriers were grouped into seven areas, and survey participants were asked to rate the importance of each barrier on a five-point Likert scale measurement. The average scores of the seven areas are presented in Table 6 in descending order. Since the P-value is smaller than 3 for all areas, the results indicate that all Barriers have a significant difference with the average value of 3. Additionally, since the upper and lower confidence limits are positive, it can be concluded that the effect of barriers associated with the transfer of unfinished construction projects to the private sector is higher than average and that these barriers strongly affect the transfer of projects to the private sector.

Please insert Table 6 about here

Ranking the seven barrier areas

Friedman test was conducted to compare the priority of the seven barriers' categories. The resulting low p-value presented in Table 7 indicates that, at the significance level of 0.05, there is a significant difference between the various barriers' areas (private company laws, national constitution, government policies, lack of sufficient regulations, one-sided regulations and lack of balance, the regulations of other organizations, and taxation laws) associated with the transferring of construction projects to private sector.

Please insert Table 7 about here

According to the results presented in Table 8 and the ranking of Friedman test, the areas of Taxation laws has the first priority with an average rank of 4.81, government policies has the second priority with an average rank of 4.76, one-sided regulations and lack of balance has the third priority with an average rank of 4.65, followed by private company laws and an average rank of 3.80, regulations of other organizations and an average rank of 3.63, national constitution and an average rank of 3.24 and finally, lack of sufficient regulations, ranked seventh in priority, with an average rank of 3.12.

Please insert Table 8 about here

Discussion and Recommendations

In order to achieve an acceptable level of combination between government and private sector involvement, private sector cooperation policies have been implemented as part of the main economic reform plans in various countries including Iran. However, there are various barriers associated with the participation of the private sector in various projects, including unfinished construction projects. The current study determined 37 barriers and grouped them into seven different areas. Each of these areas is further discussed and some recommendations are presented to reduce the risks associated with each area. The seven areas are listed in a descending order, with the area that was found to have the highest impact discussed first.

Taxation laws: it can be said that during changes in energy prices, prices of raw materials, changes in currency exchange rates and international sanctions, private sector always receives the largest amount of damage, especially in recent years and currently lacks a suitable position in the national economy of Iran. Since the performance of the private sector is essential for exiting economic depression, forcing the majority of the pressure caused by taxation onto the private sector and taxes paid by real people through direct income taxation and value-added taxation can have negative effects on the performance of the private sector. Therefore, new taxation inventive laws for protecting the private sector can facilitate higher participation of the private sector in various projects including unfinished construction projects.

Government policies: unfortunately, changes in governments in Iran result in significantly different methods of dealing with privatization. This means that along the change in the ministries, private sector policies also change to match the method used by that government without the existence of a stronger and predetermined law which must be followed by all governments. This has resulted in a lack of uniformity of procedures in private sector participation. One of the methods of creating economic development in a country is established on reducing the role of governments in entrepreneurship and the use of national resources through the transfer of various projects including unfinished construction projects to the private sector. This process has faced various problems in different periods. The main reason for this problem is the lack of proper laws and insufficient supervision. As mentioned before, the lack of laws acting as the executive arm of article 44 of the constitution is a clear oversite in this regard.

One-sided regulations and lack of balance: as stated before, weak supervision, management, and control during the implementation of laws is a problem which must be considered. Lack of desire and commitment in legal and executive authorities for creating required regulations, lack of proper definition regarding government management, and profit-centered nature of government institutes instead of focusing on the provision of free or cheap services for the entire society have all resulted in a lack of social equality that benefits the government. Therefore, new laws, instead of looking for the interest of the majority of people, should aim to increase the profit of government institutions.

Private company laws: many of the current laws include various problems such as lack of clear and transparent contracts for investments, legal problems for inclusion of contractor companies in the stock market and public-private securities, numerous complex bureaucratic barriers, lack of legal measures and suitable organizations and similar other problems. The formulation of suitable laws and regulations can facilitate the participation of the private sector and help in the transfer of unfinished construction projects to the private sector.

Regulations of other organizations: it can be stated that the lack of proper regulation and implementation of privatization efforts will result in lack of desire for participation among the private sector. Under these conditions, the power of the financial market will be controlled by the government which increases the possibility of financial crises. The public sector, with the help of the government-controlled banking sector and with the aim of increasing its profits and gains, prevents the access of private sector to various resources and resulted in reduced investment by the private sector which results in the short-term reduction of the private sector cooperation.

National constitution: it is necessary to mention that article 44 of constitution of the Islamic Republic of Iran states that Iran’s economic system must be maintained based on three bases of public, private and cooperative sectors. The goal of article 44 of the constitution is facilitating national economic growth and expansion of private ownership (expansion of the private sector and reduction of government involvement) in order to achieve social equality. Proper implementation of this article will lead to the improvement of economic institutions and improved productivity of financial, human and technological resources, increased competitive advantage in the national economy, and increased share of the private sector. However, the implementation of article 44 of the constitution and achieving these aims require the ratification of new laws, an endeavor that has failed to be carried out to this day by relevant authorities.

Another important thing to note is that the private sector must also endeavor to fix its defective structures, strengthen human resources, improve its management knowledge base, facilitate structural cooperation with government and society, and provide suitable products and services with acceptable quality to the public while also considering its profitability and competitive advantage in order to prepare itself to participate and be an active player in the national economy.

Conclusions

In this study, the authors identified 37 barriers associated with PPP in Iran when unfinished public sector construction projects are transferred to the private sector. These barriers were then categorized into seven areas: government policies, lack of sufficient regulations, national constitution, other organizations' regulations, private companies' laws, taxation laws, and one-sided regulations and lack of balance. Among these seven areas, the effect of taxation laws related barriers was deemed the most influential. The remaining six areas were ranked as follows: government policies (ranked second), one-sided regulations and lack of balance (ranked third), the regulations of other organizations (ranked fourth), private company laws (ranked fifth), national constitution (ranked sixth), and lack of sufficient regulations (ranked seventh). To overcome these obstacles, transparent policies should be implemented, interactions among the sovereign and private sector should be increased, and a slow and steady approach to public and private partnership should be adopted. The results of the current study build on the existing body of knowledge and provide insights into policymaking. Since the barriers to involving the private sector in infrastructure construction projects depend on different various factors that can be also context-specific, future researchers can examine the effects of the identified barriers and their respective areas across different developed and developing countries and across sectors. Another future research direction is can expand on the work presented in this paper and broaden the spectrum of barriers that are important in attracting private sector investment, and generalize the applicability of the results from a regional perspective (Iran) to a global context.

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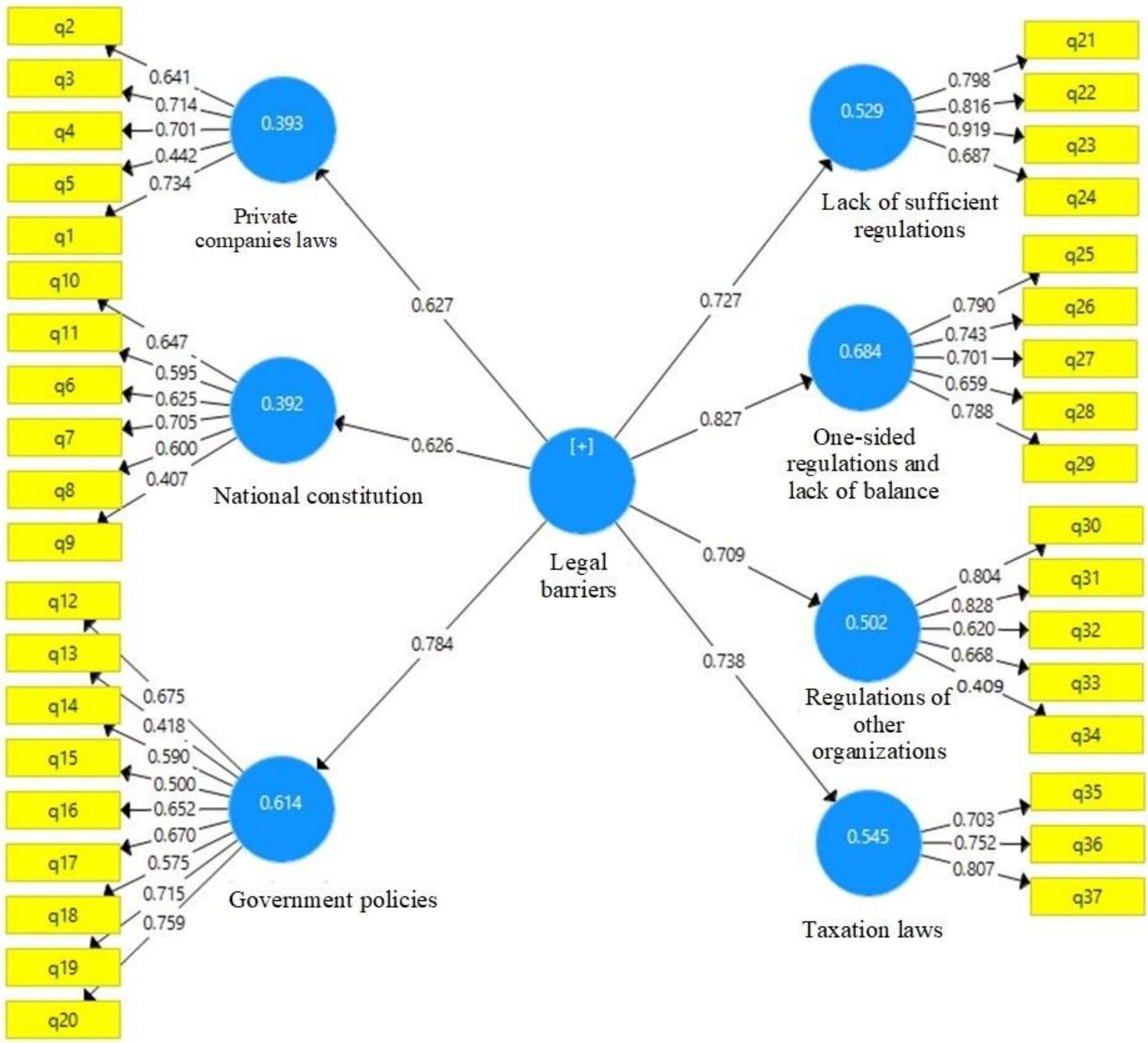

Figure 1. Factor loadings related to each of the barriers identified for the transfer of unfinished public sector construction projects to the private sector

Table 1. Examples of unfinished public sector projects in Iran

#	Project	Type of project	Causes for Unsuccessful Completion
1	Tehran- Chalus Freeway	Road construction	- Inadequate budget - Improper management - Lack of integrated management approach in the dimensions of employer, contractor, and consultant
2	Koohrang third dam	Road construction	- Inadequate budget - Lack of transparency - Lack of change control process - Inadequate use of resources
3	Chadegan Pool	Entertainment construction	- Inadequate budget - Improper management
4	Imam Khomeini International Airport	Airport construction	- Inadequate budget, - Successive managerial changes - Lack of general vision

Table 2. Status of unfinished construction public sector projects

Type of project	**Number of projects**	
	National	**Provincial**
Construction	2949	25676
Equip	809	6633
Repair, renovation and reconstruction	724	14350
Commitments	29	274
Development	672	7960
Services	228	8538
comprehensive plan	25	-
Fundamental study	166	511
Design study	258	1536
Monitoring	24	-
Other	165	-
Total	6049	65478
Total number of projects	71527	

Table 3. Privatization barriers identified in various countries

Privatization Barriers	Countries
Lack of competent management	Russia [1], Czech Republic [1], China [2]
Lack of suitable legal and organizational measures	Russia [1], Chile [3], Tajikistan [4], Pakistan [5], Poland [1]
Lack of liquidity	Bolivia [6], Chile [3]
Incorrect design of privatization process	Bolivia [6,7]
Slow financing of privatization	Russia [1], Czech Republic [1]
Lack of flexibility in implementation	Russia [1], Czech Republic [1]
Use of non-localized guidelines	Russia [1], Bolivia [7]
Lack of proper reforms in financial sector	Bangladesh [8]
Lack of sufficient commitment	Malaysia [9]
High political nepotism in privatization	India [7], Thailand [7], Tajikistan [4]
Negative attitude of people and experts toward privatization	Brazil [7]
Lack of privatization experience	Chile [1], Mexico [1]
Centralized economic system	Portugal [10]
Lack of participation of sport clubs in stock market	Portugal [10]
Non-profit nature of sport clubs	Italy, Bolivia [7], Tajikistan [4]
Political instability	Bangladesh [8]
Political conflict among factions	Pakistan [5]
Interference of numerous influential groups in privatization	China [2], Malaysia [9,11], Germany
Resistance of people, political parties, and groups for reasons such as fearing poverty, unemployment, lost profit, etc.	Chile [2], Bolivia [7]
Accelerated privatization without proper environment and conditions	Mexico [1], Argentina [1], Bulgaria [1], South Africa [1]
Delay in the transfer process of companies	Italy [1], India [7]
The pressure from national and international debts	Brazil [2], China [2], Bolivia [7], Italy [1]
Weakness of financial and stock markets, lack of independent and accountable inspection organization for proper privatization	Pakistan [5], China [2]
Corruption in privatization process	China [2], Tajikistan [4]
Complex bureaucratic processes	Bangladesh [8]
Transfer of unprofitable companies	Turkey [1]
Lack of proper determination of privatization aims	India [7]
Lack of participation of foreign companies in sport facilities' constructions	China [2]
Lack of powerful private sector	China [2]
High risk in sport facilities	China [2]
Transfer of large and unprofitable units	Chile [3], Pakistan [5]
Monopoly of private sector managers	Germany [8]
Use of public companies as tools for implementation of government policies	Italy [2]
Transfer of profitable companies to private sector	Malaysia [9,11]
Ethnic diversity and its effects on decision-making	Malaysia [9], Bolivia [7], Tajikistan [4]

[1] Kikeri and Nellis, (2002); [2] Estrin and Pelletier, (2018); [3] Bitrán and Serra, (1998); [4] Sharma, (2007); [5] Khalid, (2017); [6] Almeida, (2006); [7] Bahramnejad, (2007); [8] Mohaghegh, (1389); [9] Sarvari et al., (2014a); Campos, (2004); [11] Sarvari et al., (2014b)

Table 4. The specifications of participants in Delphi survey technique

Characteristic	Group	Number	%
Education	Bachelor's degree	5	33
	Masters' degree	6	40
	PhD degree	4	27
Work experience	Less than 10 years	4	27
	Between 10 to 20 years	6	40
	More than 20 years	5	33
Organizational position	Project manager	5	33
	Contractor or project employer	7	47
	University faculty member	3	20

Table 5. Identified barriers to the transfer of unfinished public sector construction projects to the private sector

No.	Areas	Barriers	Researchers
1	Private company laws	Lack of clear contract for investment in unfinished construction projects in cooperative public – private projects	Berezin et al. (2018); Ojebode (2016)
2		Legal problems for participation of contractors in unfinished civil project in stock market	Experts' opinion
3		Complex bureaucracy in cooperative public – private projects for investment of private sector	Mouraviev and Kakabadse, (2015); Wang et al. (2018)
4		Lack of legal measures and proper organizations for transfer of unfinished construction projects to private sector	Mouraviev and Kakabadse, (2015); Sarvari et al. (2020b)
5		Lack of proper definition of privatization goals	Experts' opinion
6	National constitution	Lack of sufficient and effective regulations related to cooperative public – private projects for investment in unfinished construction projects	Experts' opinion
7		Lack of transparency of legal framework for investment in unfinished construction projects	Rezouki and Hassan, (2019); Sarvari et al. (2020a)
8		Changes in investment laws and regulations for unfinished civil project and cooperative public – private projects	Tang et al. (2010); Mouraviev and Kakabadse, (2015)
9		Lack of government support for public – private cooperation and investment of private sector in unfinished construction projects	Wang et al. (2018); Sarvari et al. (2020b)
10		Lack of suitable legal and executive mechanisms for participation of private sector in unfinished construction projects	Ojebode (2016)
11		Problems in implementation of article 44 policies in unfinished construction projects regarding investment by private sector	Experts' opinion
12	Government policies	Government ownership of many organizations and companies related to unfinished construction projects	Experts' opinion
13		Government's approach in provision of public – private cooperation infrastructures for unfinished construction projects	Mouraviev and Kakabadse, (2015); Spahiu (2020)
14		Lack of sufficient financing for private sector in unfinished construction projects in employment and investment workgroup	Experts' opinion
15		Lack of competent management in government policy-making	Ojebode (2016); Wang et al. (2018)
16		Emergence of legal problems due to the lack of liquidity in the country	Tang et al. (2010); Mouraviev and Kakabadse, (2015)
17		Emergence of legal problems due to the centralized economic system	Rezouki and Hassan, (2019)

No.	Areas	Barriers	Researchers
18		Emergence of legal problems due to political instability	Experts' opinion
19		Emergence of legal problems due to conflict among political parties	Spahiu (2020)
20		Use of government companies as implementation tools for government policies	Experts' opinion
21	Lack of sufficient regulations	Lack of proper legal framework for investment in unfinished construction projects through public – private cooperation	Mouraviev and Kakabadse, (2015); Spahiu (2020)
22		Lack of sufficient regulations regarding land ownership and suitable space for public – private cooperation in unfinished construction projects	Experts' opinion
23		Lack of proper laws for preventing the resistance of people, political parties, and various groups against privatization for reasons such as fear of poverty, employment, loss of benefits, etc.	Experts' opinion
24		Corruption in implementation of the privatization law	Tang et al. (2010); Al-Hanawi et al. (2020)
25	One-sided regulations and lack of balance	Lack of reform in the financial regulatuon	Rezouki and Hassan, (2019)
26		Interference of numerous interest groups in privatization process	Sarvari et al. (2020a); Ojebode (2016)
27		Extreme political nepotism in transfer of projects to private sector	Tang et al. (2010); Mouraviev and Kakabadse, (2015)
28		Lack of flexibility in implementation privatization laws	Spahiu (2020); Al-Hanawi et al. (2020)
29		Lack of an independent and accountable organization for privatization	Experts' opinion
30	Regulations of other organizations	Lack of interest from banks for investment in public – private cooperation in unfinished construction projects	Experts' opinion
31		Lack of interest from government organizations for investment in public – private cooperation in unfinished construction projects	Spahiu (2020); Sarvari et al. (2020b)
32		Slow financing process of organizations for privatization of unfinished construction projects	Experts' opinion
33		Complexity of accounting in public – private cooperation for investment in unfinished construction projects	Spahiu (2020); Al-Hanawi et al. (2020)
34		Undesirable labor laws and insurance in public – private cooperation in unfinished construction projects	Wang et al. (2018); Ojebode (2016)
35	Taxation laws	Lack of taxation incentives and support for investment of private sector in unfinished construction projects	Rezouki and Hassan, (2019)
36		Complex taxation situation for public – private cooperation investment in unfinished construction projects	Al-Hanawi et al. (2020); Sarvari et al. (2020a)
37		The pressure from national and international debt	Experts' opinion

Table 6. The one-sample t-test results for barriers to the transfer of construction projects

Areas	T	P-value	Average	Standard deviation	Lower limit	Upper limit
Government policies	14.959	0.000	4.121	0.613	0.972	1.271
Lack of sufficient regulations	5.931	0.000	3.641	0.885	0.425	0.857
National constitution	10.632	0.000	3.751	0.578	0.610	0.892
Other organizations' regulations	10.300	0.000	3.859	0.682	0.692	1.025
Private companies' laws	12.128	0.000	3.856	0.578	0.715	0.997
Taxation laws	13.449	0.000	4.169	0.711	0.995	1.342
One-sided regulations and lack of balance	13.741	0.000	4.077	0.641	0.921	1.234

Table 7. The results of Friedman test (significance results)

Chi-square	Degree of freedom	Significance level	Test result
48.926	6	0.000	H_0 is rejected

H_0 = the priority of the components of unfinished construction projects is the same.

Table 8. The results of Friedman test (ranked average of barriers to the transfer of unfinished public sector construction projects to the private sector)

Areas	Ranked average	Rank
Taxation laws	4.81	1
Government policies	4.76	2
One-sided regulations and lack of balance	4.65	3
Private company laws	3.80	4
Regulations of other organizations	3.63	5
National constitution	3.24	6
Lack of sufficient regulations	3.12	7