



## Exploring the Challenges of Financing Iran's Construction Projects from China and Providing Improvement Solutions

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### Abstract

In recent years, the tense regional conditions of the Middle East and international sanctions against Iran have led to Iran's construction projects being financed by foreign sources of complexity and limited to certain countries such as China. In spite of China's desire and signing several agreements, the opportunity and capacity of these packages are not optimized. In an effort to improve the situation, the present study focuses on the financing challenges based on the reality of a sensitive issue on Iran-China relations by presenting a common interface between the pillars of the project. The results of this study is highly likely to increase the efficiency of the financing system of the Iranian construction projects, which are to be financed by China. The statistical population of this research includes the contractors, agent, employer, foreign financier, financial consultant, and contractor of the central headquarters. Three construction projects, with non-existent conditions capable of aggregating their deep and varied data were selected as case studies according to the experts' opinion. Then out of a 25-long list of challenges, 5 challenges were chosen based on the weight as the main challenges, including domestic and foreign challenges, with some appropriate improvement solutions being presented. Based on the results of this research, a closer look at the relationships, the significance of impact and the arrangement of the strategies, produces the conceptual model.

*Keywords:* Construction Project; Project Financing; Financial Engineering; International Financing; Investment Attraction.

### 1. Introduction

In economic theory, investment is known as the engine of economic growth, and it is necessary to achieve economic and social development, as well as convenient and continuous economic growth [1]. Foreign Divert Investment directly results in an injection of capital, new technologies, marketing techniques and management skills into the domestic economy [2], and indirectly it plays a role in national economic growth, which can have a positive effect on other economic indicators, and rising payment balance [3]. Hence, in many developing countries, FDI is considered to be a fundamental component of their development strategies [4].

The base of each country development lies in construction and infrastructure projects. In Iran, one part of the Government's annual budget, known as construction budget, is allocated to conducting new projects and finishing semi-completed projects [5]. Given the high costs of such projects, even some governments are not able to finance them [6]. Unfortunately, not only Iran's construction budget is inadequate, but only a small portion of this budget is realized each year (for example, according to report of the Islamic Consultative Assembly Research Center of Iran, only 58% of the

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construction budget was realized in 2016 [7]). In the implementation process of any given project the key to success is choosing the right financing instrument [8]. Since the other methods, such as Public Private Partnership (PPP), have not yet matured for conducting the infrastructure projects in Iran, it, as an example of developing countries, should think of ways other than the state budget to fund this capital, whether domestic or foreign [5], [9]. Given the limitations in mobilizing such large amounts from domestic capital markets, there will be a need to attract foreign capital to meet the capacity creation targets [10]. This means that financing and the use of foreign-finance facilities can play a key role in the economic development of developing countries like Iran [6].

Owing to the necessity of attracting foreign capital to carry out construction projects and its impact on economic growth, Iran’s 5<sup>th</sup> five-year development plan (FYDP) suggests strategies to attract at least 30–40 billion dollars of foreign investment annually [11]. However, due to the existing challenges, Iran’s foreign capital absorption is far from the proposed figure. According to UNCTAD (United Nations Conference on Trade and Development) report, in [12], this amount was \$ 3.3 billion for Iran, which accounts for only 10% of the proposed amount, necessitating some improvement in this section. On the other hand, early evidence reveals that various foreign financing projects failed to meet the goals of the 5 year plan due to challenges, and lacked the desired effectiveness. A number of these challenges, such as weakness of laws and regulations, low awareness of international law, lack of coordination between governmental agencies, etc., are needed in this study to test these challenges in the real world and since they were not recorded anywhere, and most of the knowledge was implied, the survey from experts was selected to extract the most important ones.

Studies show that recent research has focused mainly on oil, gas, and energy projects, while construction projects, despite their profound impact on economic growth and development, have been studied less than the financing side. Besides, in very few cases carried out so far have the field evidence and the realities of these projects been taken into account as key pillars.

Since China has a major share of Iran’s foreign financing, this study has focused of identifying challenges and problems using qualitative data derived from in-depth analyses of several civil engineering projects, thereby offering viable solutions to the related problems. Following that, while reviewing the literature on foreign financing of construction projects, we extracted some literature related to the challenges. Having defined the research methodology, we examined, extract, and analyzed the major challenges already determined by the experts, and came up with a number of appropriate solutions.

## 2. Literature Review

Financing, in its broad sense, refers to the process of concentrating the financial resources on capital in the medium and long term [13]. Finance means financial or financing in dictionary, but in legal concepts and laws of Iran, it means using credit lines to receive loans from international institutions [14]. There are always two basic options for financing a project: financing through the capital of shareholders (equity), and financing by loan or debt method (based on debt) [15]. In line with Titman’s classification [13] (Figure 1), finance in this research is equal to corporate finance, debt financing, which is performed with government guarantees.

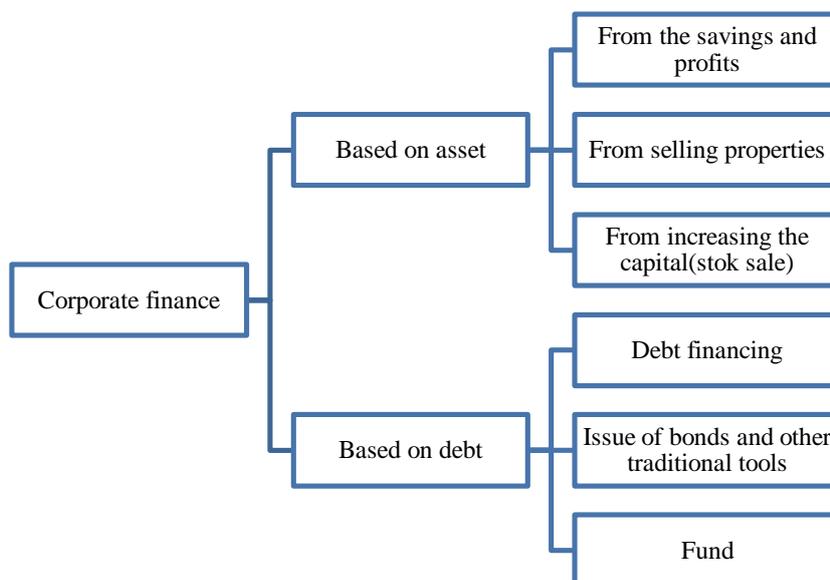


Figure 1. corporate finance

Depending on the project conditions, the type of financing needed varies. For example, in oil and gas projects where there is a product to be sold, majority of the product financing contracts have been based on sales, such as BuyBack\*, but in construction projects such as non-marketable products, most of the foreign investment is in the form of a loan with a government guarantee (Finance).

Through investigation, research studies on foreign investment or financing of projects can be categorized in three sections according to the focus of their subject:

- A. The Impact of Foreign Investment on Development Indicators: Some studies have discussed the impact of foreign investment on economic growth and development of countries: [4, 16, 17], and some of them have studied this impact only in Iran [3, 11, 18, 19, 20, 21], and others have compared Iran to other countries on this issue [19, 22].
- B. Prioritizing or suggesting a proposed structure: Research here can be divided into three categories: first, studies that prioritize financing methods for investing, [23, 24]; the second group that prioritizes projects for investors, have different types, for Iran's energy projects, [25, 26] for oil and gas projects, [27, 28]; and the third group has put forward a model or structure for attracting foreign investment [22, 29].
- C. Foreign financing challenges: In this section, which is closer to the subject of this research and we want to focus more on it, challenges have been examined from a variety of perspectives. Research [6, 30, 31, 32, 33] have addressed the legal aspects that have examined [30, 31] research fields of oil and gas, dealing with challenges, such as legal weaknesses in investment projects of oil and gas, lack of clear rules and lack of experienced legislators. Challenges for boosting foreign investment in Iran were investigated [6], where he suggested the related laws be clarified and that the rights and facilities for the capital entering the country be provided. The extent of investor's legal protection was addressed by [33]. He proposed that in countries with weak legal structure, in addition to the government, the investor should also be guaranteed through the project. The other group of research has tackled risk-centered challenges, namely [34, 37]. Research [34] reveals that the country's political and financial risks have a significant impact on the choice of the type and terms of the contract in financing the project. [35] Considered the risk factor as the most important challenge in assessing the mechanism of financing underground structures and, in terms of risk, divided the projects into three groups and examined the subject for each separately. Research [36], which investigated investment in risky environments, has highlighted the challenges of weaknesses in the law, absence of a clear framework, and lack of government support. [37], while examining the impact of sanctions on foreign investment, has presented three strategies: 1. Reducing political risk. 2. Linking foreign investment with the private sector. 3. Intervening the state and preparing the situation. Finally [38-40], have dealt with challenges in financing of development projects [39] considered government interference, appropriate risk mitigation, Iran's economic sanctions, and instability of the political and economic conditions of Iran and the United States as challenges and in [38] view, these include limited financing methods, banks' inability to provide the necessary capital, use of traditional forms of financing, lack of maturity of the Iranian financing market. They both suggested that construction projects should be separate from the government's development budget and the space for Iran's private sector participation in attracting foreign investment. [40] Added the challenges of lack of government support, the limited ability of banks, and shortage of initial owners of the project and concluded that the most appropriate way to finance construction projects is to use an accumulated capital such as the banking system and the stock exchange.

As discussed above, despite various studies conducted in the field of project financing, most of them have focused on the subject of foreign investment in large, or are related to the field of oil and gas projects, the results of which cannot be extended to construction projects. Some researchers have investigated the financing issue only from a specific point (for example, legal), and a few studies that have addressed this issue have not tackled the challenges of the project's components. Therefore, considering the status of construction projects in the development of the country and the need for these projects to attract foreign financial resources, this study addresses the challenges of foreign financing of construction projects and by conducting field research and information gathering from the projects' components as well as identifying significant challenges, it is attempted to propose a number of relevant solutions.

### 3. Methodology

The current research is an applied research and is considered qualitative research in terms of method. A case study is suitable when the researcher aims to cover the background conditions in his research, since he or she believes that these factors are likely to affect the phenomena under study [41]. In this research, background conditions such as the specific laws of Iran, level of credits of the employer, the economic context of the project also affect the research. Thus, the research strategy is regarded case study. Given the research objectives, the research population was limited to construction projects financed by China. Purposeful sampling is used widely in qualitative studies. In this method, the

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\* The foreign partner that makes the initial investment can repatriate the return on the investment (at a pre-agreed fixed rate) through goods and services produced by the project.

researcher, to the best of his knowledge, experience and expertise, considers the criteria for realizing the research goals and sample members are selected accordingly [42]. After consulting with professors and experts, the criteria such as availability of information, complexity, having big size and high cost, the interest of project parties in the research subject, the possibility of diversification of samples, and experience of similar works by the contractor were selected for purposeful sampling. In line with that, three projects were selected from a parent contracting company among the studied projects (Table 1). The data were collected in five steps (Figure 2): the first step was the qualitative investigation of three projects of the ones financed by China. Diversification into the data collection source is one of the conditions for credibility of qualitative studies [43]. Thus, at this stage, in addition to interviewing the project agents at the parent company and reviewing the project documents, interviews were also carried out with financial managers and financial experts of other project pillars, such the employer, agent bank, Chinese contractor, project finance advisor, and central organization of parent contractor, who had adequate knowledge and information to answer the questions. By analyzing the qualitative content of the interviews and reviewing the documents, 25 challenges were extracted, for which the highest consensus was achieved. In the second step, the structured interviews and the questionnaire with 5 degrees Likert scale (reviewed by professors and experts before distribution), and the extracted challenges were re-confirmed by experts and all interviewed experts (n=20 people) prioritized the challenges from (minimum) 1 to 5 (maximum) in terms of importance. In accordance with the Pareto principle, 20% of the challenges (5) were identified as the main challenges. In the third step, the experts presented improvement strategies for the main challenges (5 of them) through interview. The fourth step, after analyzing the interviews, appropriate solutions, on which the highest consensus was achieved, were introduced as improvement solutions by experts. Then, the fifth step that the order of implementation of the solutions and their impact were discussed, the results were approved by the expert.

Based on Robert K. Yin (2003) [44], using protocol and a systematic approach for qualitative studies can greatly reduce the problems caused by lack of research results reliability. To provide validity and reliability, The Cronbach Alpha value was calculated as 0.858, the researcher developed a systematic approach and protocol in this research. Moreover, each step of the research was re-evaluated by the professors. At each step of the research process, the researcher tried to minimize the errors by reviewing the previous steps. The samples included financial managers, project managers, and financial experts with experience ranging from 5 years to 25 years.

Table 1. Study Projects

No	Project type	The year Contract	The year of obtaining the finance license	Progression percentage	Current conditions
1	Dam and Power Plant	2006	2011	97	open
2	Power Transmission	2012	2017	0	At the beginning stage
3	Water Transmission Network	2007	2013	60	Stopped

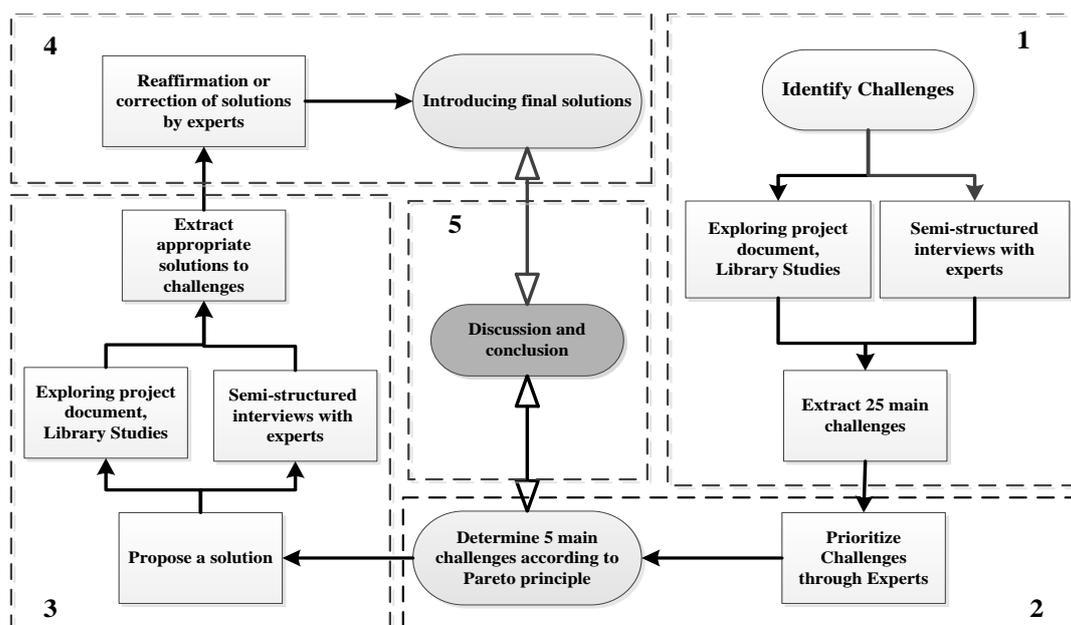


Figure 2. Research process

## 4. Data and Research Results

In this section, the studied samples will be introduced first. Then, a list of identified challenges, the most important challenges, and improvement solutions are presented.

### 4.1. Case Studies

Three big, complex and high cost project were selected as case studies by diversification of data collection resources, each of which was financed by China (Table 1).

- Project 1 includes a dam and hydropower plant, the financing process of which lasted 5 years. In 2016, its dam was dehydrated and its power plant was put into operation with physical progress of 97%.
- Project 2 compasses reconstruction and renovation of power transmission lines in one of the major cities in Iran. In 2012, its contract with Iranian contractor was signed. Five years later, the required financing licenses were issued. The Chinese contractor was also specified, the stages of obtaining its foreign financing licenses were also passed through, and was waited for final notification. Its physical progress is zero percent and is yet at the beginning stage.
- Project 3 is the water transmission network in one of the southern provinces of Iran. The project has so far made 60% physical progress, and its financing process lasted 6 years, but it has been stopped due to change in the government policy until the final decision is made on it.

### 4.2. Challenges for Financing Construction Projects from China

Through studying documents and interviewing experts and analyzing qualitative content, 25 main challenges in the financing of construction projects from China were identified (Table 2), and then a number was assigned to each challenge. It was performed for identification and does not indicate the degree of importance of any given challenge. In the classification of challenges, depending on their origin, they were divided into two foreign and domestic domains. The share of foreign challenges was 6 and that of domestic ones was 19. They were also classified into 8 groups based on their nature, with the first two groups having the foreign origin and 6 other groups having the domestic origin.

The groups containing the problems caused by China were considered as "China Country"; the challenges caused by sanctions were considered as "Sanction"; the challenges caused by current economic conditions in Iran, which might be different in other countries, were regarded as "Iran economic conditions"; the challenges posed by inability of the employer in this area were considered as "Employer's weakness", the challenges caused by lack of maturity of the project pillars were considered as "non-maturity of project pillars"; the challenges related to the process of obtaining financial licenses were considered as "finance process"; and finally the challenges presented by characteristics of construction projects in any country were considered as "characteristics of construction projects".

### 4.3. Classification of Challenges Based on the Level of Importance

After obtaining the views of experts, the challenges were sorted in terms of importance of each (Figure 3) that the significance of each challenge can range from 0 to 100. The following points were obtained from the review of the Figure:

The level of importance of the beginning and the end of the spectrum has the difference close to 3 times (maximum= 93 and the minimum= 32), which reflects the difference in the degree of importance of the challenges. To distinguish the main challenges, we acted based on the Pareto principle, and the first five challenges (20% of the challenges), which have a relatively significant difference from the others, were selected as important, including: "Long path of bureaucracy in issuing the licenses "(93 %)" Task-orientation instead of process-orientation" (83%), and "Inconsistency of executive organizations' law with Iran's strategic issues" (80%) with domestic origin, "Difficulty in supply of parts and services due to sanctions" (86% ), and "Strictness of Chinese government in accepting the guarantee " (83%) with foreign origin. There are two points in comparing these results with Table 2: first, foreign challenges, despite their small number, are in the most important part, reflecting strong effect of these challenges. The second point is interconnectivity of domestic and foreign areas and the need to pay attention to both areas for responding to the challenges and improving the situation.

Table 2. Challenges categorization in terms of the origin

Challenge origin	Challenge nature	code	Challenge explanation	Importance
Foreign 24%	China	1	strictness of Chinese government in accepting the guarantee	83
	China	2	Delay in paying contract instalments by China	39
	China	3	Non-stability of Yuan rate in the market	46
	China	4	Lack of coherent procedure in Chinese companies	54
	Sanction	5	Difficulty in supplying parts and services due to sanctions	86
	Sanction	6	Restriction in transfer of funds due to lack of access to SWIFT	57
	Sanction	7	Budget restriction of Iran's government in guaranteeing the foreign financing projects	57
	Iran economic conditions	8	Excessive deduction of bank fee and insurance from the sum mentioned in the invoice	32
	Iran economic conditions	9	The effect of currency rate changes and non-stability of Iran economic conditions	57
	Iran economic conditions	10	Financing part of the project costs with free currency rate	46
Domestic 76%	Weakness of laws	11	Interference of the law supporting the domestic products with import of the facilities from China	54
	Weakness of laws	12	Low motivation of authorities issuing the license and lack of incentive	54
	Weakness of laws	13	Inconsistency of executive organizations' laws with Iran's strategic issues	80
	Weakness of laws	14	Lack of harmony between domestic laws and international laws	61
	Weakness of employers	15	Non-clarity of exact sum of project implementation at the beginning of work	64
	Weakness of employers	16	The necessity to finance 15% of the project sum by the employer during the demand for financing	50
	Weakness of employers	17	Non-completion of design and project technical documents at the beginning of work	39
	Lack maturity of project pillars	18	Non-familiarity of Iranian banks with international laws	54
	Lack maturity of project pillars	19	Weakness of finance knowledge in executive departments	61
	Finance process	20	Long path of bureaucracy in issuing the licenses	93
	Finance process	21	Task-orientation instead of process-orientation (non-coordination the relevant departments' laws)	83
	Finance process	22	Non-transparency in the criteria for selecting the path to obtain the license in Iran	54
	Project feature	23	Lack of product-orientation and non-cash benefit of some construction projects (welfare and social benefit)	36
	Project feature	24	Lack of international credit of the employer (Ministry of Power, Ministry of Roads, etc.)	54
	Project feature	25	Applying the government sovereignty in price and product sale conditions	57

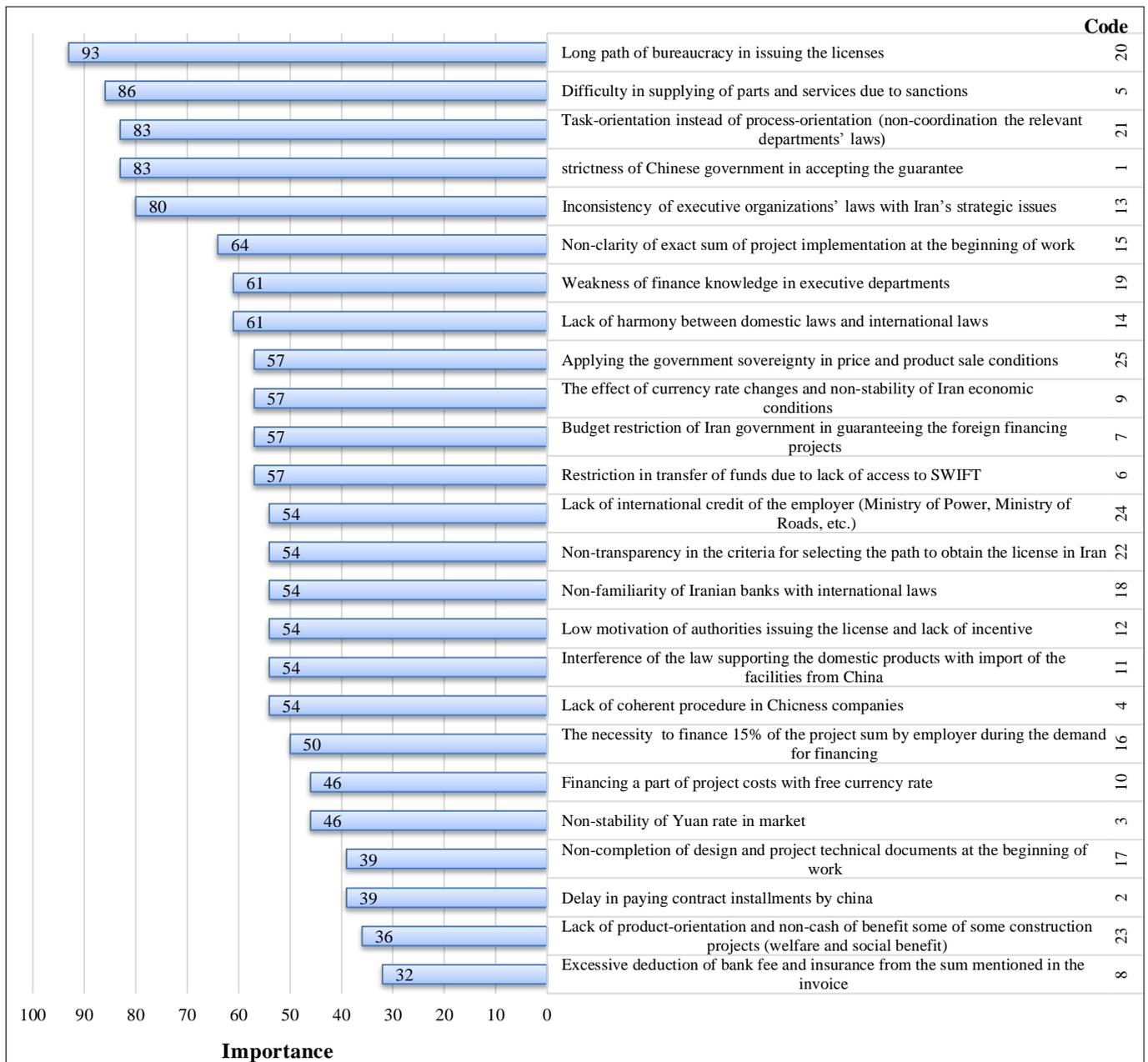


Figure 3. Order of challenges in terms of level of importance

**4.4. Investigation of the Most Important Challenges and Improvement Strategies**

In this section, five major challenges were identified, and the superior solutions proposed by experts to solve the challenges and improve the financing process of construction projects from China were examined in terms of origin in both domestic and foreign areas. The solutions related to each area were then described. The summary of results is presented in Table 3.

Table 3. Most important challenges and improvement strategies

Related solutions	Main challenges	
Process engineering and recognizing bottlenecks and solving them	Long path of bureaucracy in issuing the licenses	
Implementing the finance path process instead of task-orientation	Task-orientation instead of process-orientation (non-coordination the relevant departments' laws)	Domestic
Forming a joint committee to make the projects in line with Iran's strategic goals	Inconsistency of executive organizations' laws with Iran's strategic issues	
Establishment of joint company with China and financing export-oriented projects	Difficulty in supplying parts and services due to sanctions <sup>1</sup>	Foreign
Reducing the rank of guarantee to lower than the central bank rank	strictness of Chinese government in accepting the guarantee	

4.5. Domestic Challenges and Solutions

One of the main challenges is the "Long path of bureaucracy in issuing the licenses ". The long path in implementing the project will present several challenges. As shown in Figure 4, the process of obtaining the license in Iran to receive finance from China is a long path with various audits and different authorities in terms of laws. Table 1 shows that the time required to pass through this process tends to be as long as that of project implementation. The solution put forward by the experts is doing process engineering in order to recognizing the bottlenecks, and solving them. One of the fastest and most practical measures in this area, where the whole process is studied, is identifying the main problems and resolving them. Accordingly, in the short term, the speed of the process increases. For example, in the finance process (Figure 4), before operation 5, the first evidence seen in the list of documents demanded by the bank is a commercial contract, while the finance has not been still executed and there is essentially no contract. The process of obtaining this document should normally follow operation 7. In addition, after operation 7, the agent bank acts as a bottleneck, and the whole process waits for the decision of the agent bank, which is a bottleneck in the process. The second challenge is the challenge of "task-orientation rather than process-orientation". In the finance process, the laws of the organizations are not coordinated and consistent. Each organization has its own laws, which can cause re-working and performing the parallel works. One example of performing the parallel tasks is when the agent bank, the strategic committee secretariat, and the department of financing the central bank currency demand feasibility studies and project justification design from the applicant (each in their own style), and examine it separately. Nevertheless, there is no need to re-examination after the first examination and confirming the documents. As a solution to avoid reworking and parallel working, it is necessary to define a transparent, integrated, coordinated, and straightforward process rather than the current path which includes separate redundant steps, eliminating domestic conflicts and parallel working and increasing transparency. The third challenge is "Inconsistency of finance organizations and departments with the strategic orientation of country". Decision making organizations pay less heed to consistency of project with other strategic documents of the country in selecting the projects (such as the 20-year perspective), and bargaining and relations are more effective. For example, if the country's approach is generating the power, the organizations responsible should prioritize power generation projects.

In this regard, interviewee 1 (legal manager and contractor of company contracts) stated, "We have held several meetings with the central bank and the agent bank. Their priority is not solving the water problem, power problem, and energy problem of country. They are more concerned on their domestic laws." The solution for this challenge is forming a joint committee of all relevant organizations, under the integrated management of the Ministry of Economy and Finance, in order to establish a structure and framework for selecting the projects, based on the major conditions and orientations of the country, in a way that they are not in conflict with interests of executive organizations. This solution was termed "forming a joint committee to make the projects in line with Iran’s strategic goals" .

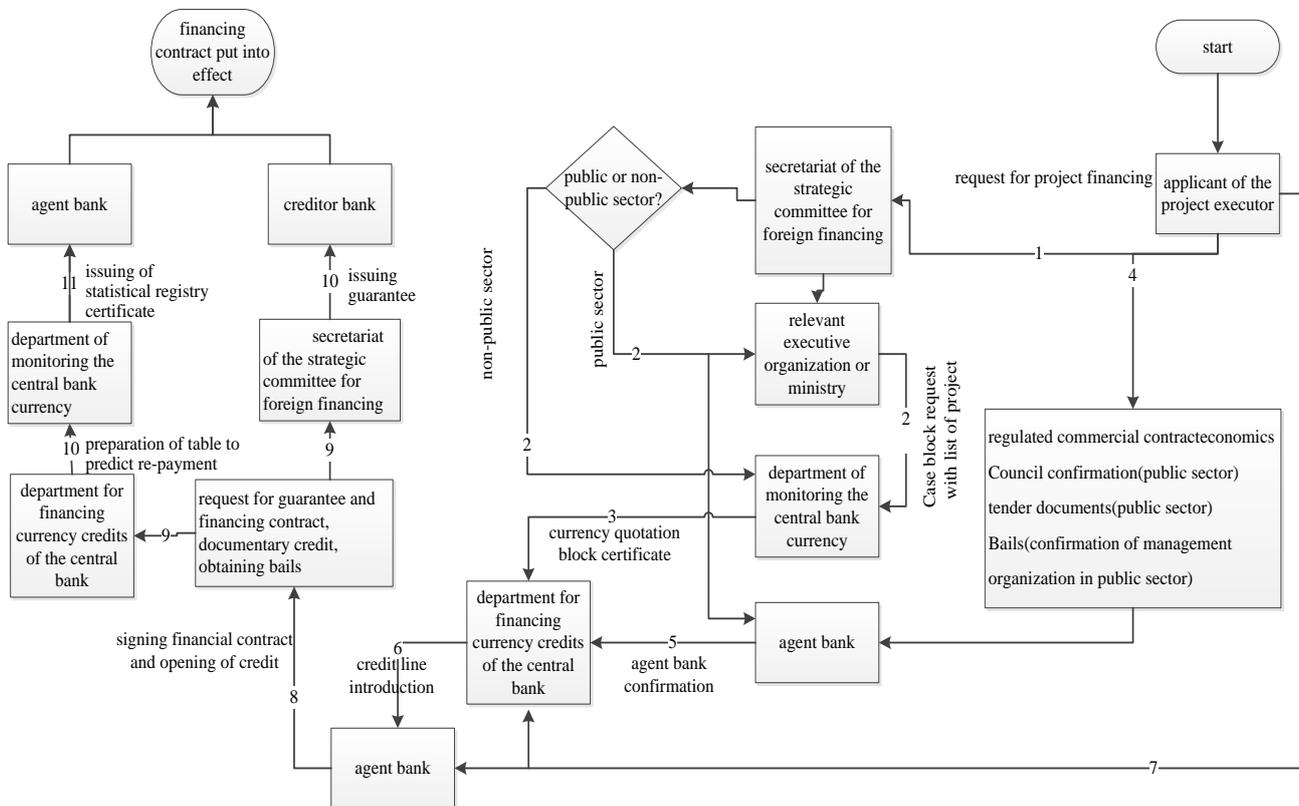
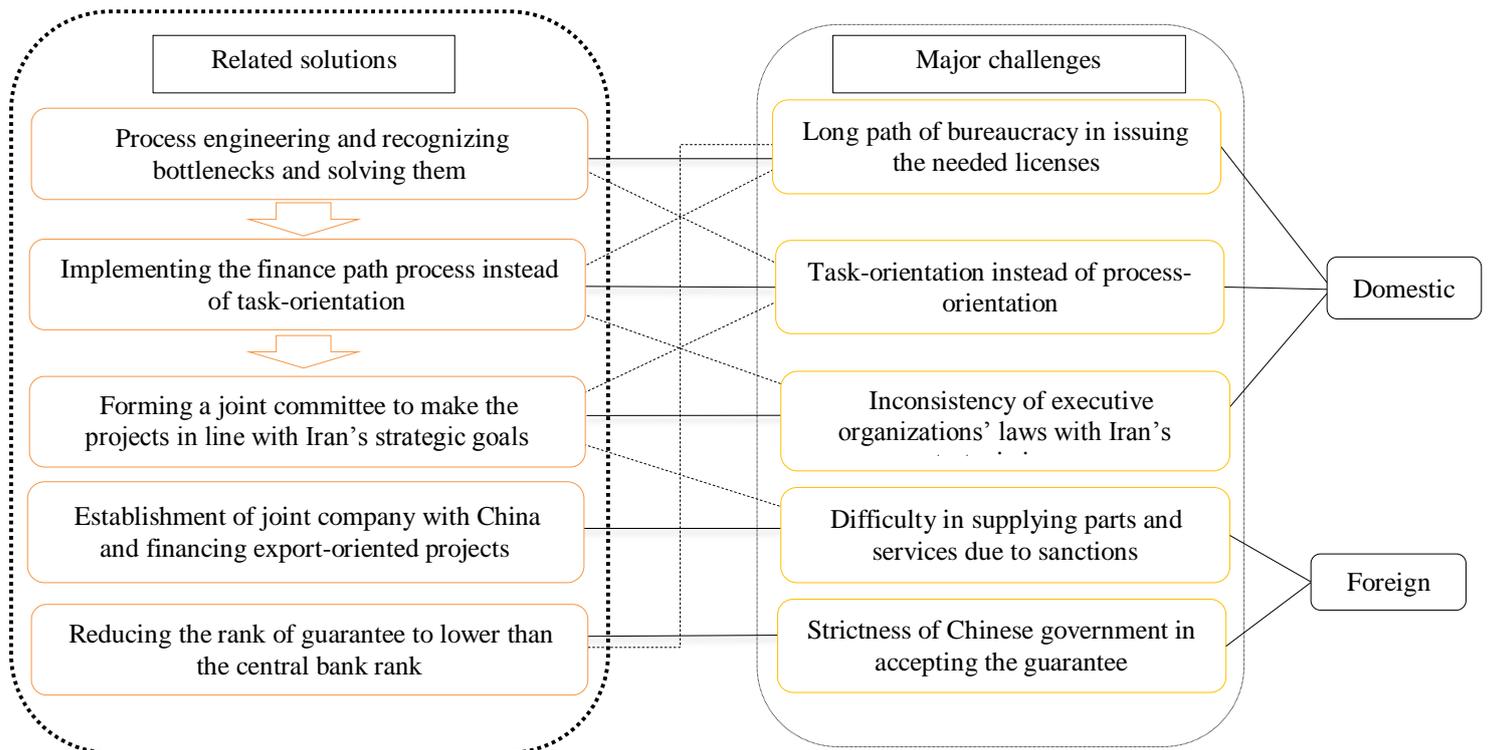


Figure 4. Long path to obtain the project licenses to finance from China [45]

**4.6. Foreign Challenges and Solutions**

While the severity of sanctions imposed on Iran has occasionally experienced fluctuations, it has always been one of the serious challenges of foreign financing, posing problems in foreign purchasing, insurance for purchased equipment, equipment transference to Iran, and using the knowledge and technology of foreign companies. This challenge has been called "The difficulty in supplying parts and services due to sanctions." By establishing a joint company with China and financing the export-oriented projects as a related strategy, the adverse effect of the sanctions can be foiled, and the repayment of finance installments would be greatly compensated through exporting numerous products. The latest challenge is "strictness of the Chinese government in acceptance of the guarantee". The Chinese government simply accepts government guarantees and avoids accepting the guarantees of ministries or subsidiaries. To confront this challenge, the strategy of "reducing the rank of guarantees to lower than the central bank rank" was suggested. If China approves of the guarantee provided by either ministries or project employers, where the government plays the role of the insurer, significantly more projects will be financed.



**Figure 5. The conceptual model**

**5. Results and Discussion**

In this research, we examined the challenges and then the ways to improve foreign financing of Iran's construction projects from China. According to the Pareto principle, 25 challenges (Table 2), 20% of the challenges (5 challenges) were identified as the main challenges, and then with their approach to solving them, the most important way of improvement was introduced (Table 3). Here, the results are discussed in order to clarify the relationship between the solutions and challenges and the steps taken to implement the solutions.

Although Table 2 presents challenges of domestic origin of 76% and foreign challenges only 24% of the challenges, in Table 3, 2 foreign challenges and 3 domestic challenges proved most significant, indicating the tremendous influence of foreign challenges on the finance, interconnectivity of the domestic and foreign domain, and the need for attention to both areas to address the challenges and barriers. This urges those responsible and those who seek to resolve these challenges that they should pay heed to both areas simultaneously.

As for Table 3, one may wonder whether each remedy affects one challenge only or rather complicates the relationships between them; moreover, how is the implementation of the solutions? The fact of the matter is, there is a complicated relationship between them. This relationship and the order of their implementation, which is extracted with the help of experts, is shown in figure 5 in which reveals the relationship between solutions and challenges, where the direct impact of a solution to a challenge is shown with a continuous, boldfaced line and its indirect impact on other challenges is shown with a pale dashed line. As can be seen, doing process engineering directly addresses the challenge

of a "long bureaucracy of licensing", which indirectly brings task-orientation closer to the process-orientation. When the finance process is implemented, it achieves the most profound impact on the challenge of "task-orientation instead of the process-orientation" and also rise to the two challenges (although not all have the same effect). When a joint board of executive agencies is set up to coordinate the laws pertaining to finance with the strategic approach of the country, it is highly likely to improve the duty challenge with no tangible impact on the reform of the bureaucratic path. Establishing a joint company with China directly tackles the challenge of sanctions. Moreover, because of China's share of the company, the warranty challenge overcome. Finally, when the guarantee category falls below the central bank, not only the warranty issue will be resolved, but also, to some extent, it improve the streamlining of licensing because it was part of this trend for receiving a guarantee. When a joint board of government apparatuses coordinates financially relevant laws with the country's strategic approach, it responds to the challenge of task-oriented and does not have a significant impact on the reform of the bureaucratic path. The establishment of a joint venture with China directly raises the challenge of sanctions, but indirectly, due to China's share of the company, the warranty challenge also improves. And finally, when the guarantee category falls below the central bank, not only will the warranty issue be resolved, but also to some extent improve the streamlining of licensing because it was part of this trend for getting a guarantee.

The order of the implementation of the solutions in Figure 5 is illustrated by a line. The first proposed solution for implementation is solution 1, "Perform process engineering, and diagnose bottlenecks and fix them", which has the shortest possible time. Although this solution does not solve all the problems, the short-term solution has a marked effect on tackling the bottlenecks that can be the first step to improvement and the way forward. In the following, implementation of Route 2 "Implementation of the Finance Path Process instead of the Task-oriented" can be carried out. The first approach was short-lived, but this is a mid-term solution. Because it requires major changes to the financial process, it take longer to be executed. After implementing these two strategies, it is proposed to create a joint committee from different state organs of the country in order to integrate and establish unity of procedure and align with the strategic approach of the country, requiring more time than two previous solutions and is one way Long term. These three most important solutions can be adopted in the order recommended. The other two solutions do not have a specific execution order and can run in parallel.

The results of this study are consistent with the results of the research [30] and [31], [6] and [33], which pointed to the weakness of the laws, proposed to amend it, addressed the importance of the role of governments in foreign finance, and asked them to Support foreign investment, also there is less commonality with research[38]. Despite the emphasis of studies conducted by [39] and [37] on private sector participation and [40] on using the stock exchange and banking system, experts in financing elements did not pay much attention to this issue. This indicates that given the circumstances of construction projects in Iran, the conditions for involvement of the private sector in this area and asking help from banking system and the exchange are not provided. [27] suggested the mutual buying and BOT as the priority of the method of attracting foreign capital for oil projects, but as construction contracts such as oil projects are not product-oriented, it is not possible to sign these contracts . Compared to the study conducted by [34] and [38], while government intervention in pricing products remains a challenge, it was not considered among the main options in terms of importance. [33] suggested that guarantee needs to be given for investor through the project, while it is not feasible in Iran due to special legal conditions of the country.

## 6. Conclusion

Execution of construction projects through foreign financing is of paramount significance for developing countries such as Iran, and it has a tremendous impact on economy. Foreign financing challenges to the host country are heavily dependent on Iran as a result of sanctions and tensions in the Middle East.

Because these challenges were not recorded anywhere, and most of the knowledge was implied, the survey from experts was selected. With the help of experts, five of the most important challenges of foreign financing of construction projects were identified in both domestic and foreign domains.

Domestic challenges included:

- Long path of bureaucracy in issuing the licenses.
- Task-orientation instead of process-orientation (non-coordination in the relevant departments' laws.
- Inconsistency of executive organizations' laws with Iran's strategic issues

And foreign challenges:

- Difficulty in supplying parts and services due to sanctions.
- Strictness of Chinese government in accepting the guarantee.

Appropriate solutions to challenges are also divided into two groups. The domestic group includes:

- Process engineering and recognizing the bottlenecks and solving them.
- Implementing the finance path process instead of task-orientation.
- Forming a joint committee to make the projects in line with Iran strategic goals.

And the foreign solutions:

- Establishment of a joint company with China and financing of export-oriented projects.
- Reducing the rank of guarantee to lower than the central bank rank

Based on the results of this research, according to Table 3, a closer look at the relationships, the significance of impact and the arrangement of the strategies, produces the conceptual model presented in Figure 5. Although domestic solutions are more feasible because all its factors are within Iran, this does not mean the convenience of work, but the need to try the government and pursue the project owners to implement them and coordinate the various operating systems.

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