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Identifying Failure Factors in the Implementation of Residential Complex Projects in Iraq

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ABSTRACT

Residential complexes have witnessed a great demand in most countries worldwide, as they are one of the main infrastructure elements, in addition to achieving a developed urban landscape. However, complex residential projects in developing countries face various factors that could be improved in their implementation, especially in Iraq. Sixty-two experts in residential complex projects were interviewed and surveyed to verify these projects' failure factors,. Fifty-one factors were the main failure factors, divided into four main components (leadership, management system, external forces, and project resources). The Relatively Important Index (RII) is used to determine the relative importance factors and obtain the top twelve factors that cause the optimal failure factors, correspondingly: political interference (87.7%), change in governments (86.5%), partisan politics available (85.6%), Unclear strategic planning (84.3%), inadequate planning (84.3%), lack of materials and equipment (83.3%), the poor obligation for project leaders (82.6%), work suspension due to demonstrations (82.3%), lack of human capacity (81.8%), bureaucracy (81.7%), corruption (81.4%), and misalignment in culture or ethics (81.3%). The achieved RII readings were high for leadership (73.1%), followed by project resources (71.3%), management systems (70.5%), and external forces (69.9%). The study recommended addressing the problems of implementing complex residential projects and solving the crisis to start the state's economic growth phase according to new foundations and standards.

Keywords: Residential complexes, Failure, Resources, Management, Leadership.

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تحديد عوامل الفشل لتنفيذ مشاريع المجمعات السكنية في العراق

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الخلاصة

شهدت المجمعات السكنية إقبالاً كبيراً في معظم دول العالم، كونها أحد عناصر البنى التحتية المتطورة ، بالإضافة إلى تحقيقها مشهدا حضريا متقدما ، إلا أن العديد من مشاريع المجمعات السكنية في الدول النامية واجهت عوامل مختلفة تسببت في تأخير تنفيذها وخاصة في العراق.وللتحقق من عوامل الفشل التي تواجه هذا النوع من المشاريع ، تم استخدم منهج المقابلة والاستبيان من خلال اثنين وستين خبيراً في تنفيذ المجمعات السكنية. تم الحصول على واحد وخمسين عامل فشل رئيسي مقسم إلى أربعة مكونات رئيسية (القيادة ، نظام الإدارة ، القوى الخارجية ، موارد المشروع). استخدم مؤشر الاهمية النسبية (RII) لتحديد العوامل المؤثرة على الفشل والحصول على أهم اثني عشر عاملاً له دور امثل في فشل المشاريع ، وتشمل :التدخل السياسي (87.7٪) ، التغيير في الحكومات (86.5٪) ، السياسة الحزبية المتاحة (85.6٪) ، التخطيط الاستراتيجي غير الواضح (84.3٪) تخطيط غير ملائم (84.3٪) نقص المواد والمعدات (83.3٪) ضعف التزام قادة المشروع (82.6٪) توقف العمل بسبب المظاهرات (82.3٪) نقص القدرات البشرية (81.8٪)) ، البيروقراطية (81.7٪) ، الفساد (81.4٪) ، اختلال الثقافة أو الأخلاق (81.3٪) ، وكانت نتائج مؤشر الاهمية للمكونات عالية جدا ، وكما يلي: القيادة (73.1٪) ، تليها الموارد (71.3٪) ، النظام الإداري (70.5٪) والقوى الخارجية (69.9٪) وعلى التوالي.وأوصى البحث بضرورة معالجة مشاكل الفشل في تنفيذ مشاريع المجمعات السكنية وحل أزمة الإسكان للبدء بمرحلة النمو الاقتصادي للدولة وفق أسس ومعايير جديدة.

الكلمات المفتاحية: المجمعات السكنية، فشل، موارد، ادارة، قيادة.

1. INTRODUCTION

Iraq suffers from a major housing crisis due to the population increase and the lack of projects to accommodate this increase. A few years ago, the implementation of residential construction projects exhibited good growth in all Iraqi provinces, especially Baghdad. Some of these projects were implemented with high performance but with high unit costs, and the demise of others due to the stoppage of work made them vulnerable to depreciation despite the achievement of completion rates at advanced levels equal to 90%.

(Waheeb, 2023) found in a study conducted on residential projects in Iraq that the most important delay factors are time and cost analysis, time/cost, redesign and change requests, security situation, low prices and bids, weather factor, redesign, changes, contractor failure, low prices, and inefficiency**.** Also, **(Alsaadi, 2021)** focused on the risks that may negatively affect the residential projects' implementation and lead to delays or an increase in their cost. The study also concluded that the contractor bears full responsibility for most of the risks, and this is due to the government's weak support for construction companies and the lack of an effective risk management policy in most state institutions and private sector companies.

However, other studies referred to the main delay factors as legal, technical, and security **(Zhang and Li, 2022)**. There are many causes, like the implementing companies' lack of financial allocations, corruption, and poor management **(Gad et al., 2022)**. The previous development plan of the Ministry of Planning confirmed with the statements of the Ministry of Housing that Iraq needs nearly two and a half million housing units, and the number is still on the rise due to the large population growth **(Li et al., 2022)**. Previous studies focused on failure factors in different criteria for construction projects. The research reviewed the newest studies to identify and evaluate failure factors related to construction projects for the last few years.

(Nguyen, 2020) showed that the bad performance of stakeholders in the construction phase leads to weak construction, especially in high-rise buildings. The study tried to analyze the structural failure factors and reveal the basic relationships between them, identify 30 failure factors, and classify them according to the stakeholders' viewpoints. The study concluded that there were four major failure factors: traditional methods, poor planning, incompetent party involvement, and delay**. (Enshassi, 2019)** concentrated on the cost and obstacles to transportation projects. One of the most important was the government's focusing on the short-term approach instead of the long-term approach for development purposes due to the poor performance of most government institutions, especially the lack of required resources and many political and social obstacles that restrict reconstruction**. (Damoah, 2019)** used a questionnaire to obtain information and identified forty-two factors categorized into five main factors: political leadership, culture, financial resources, and administrative practices with external forces. All these combinations of factors were statistically significant as major reasons for the failure of education projects in the Ghanaian public sector. Political leadership emerged as one of the main factors, followed by poor management practices, poor funding, culture, and external forces. **(Adebisi, 2018)** collected the failure factors of multi-story construction projects in Nigeria and classified them based on human resource capacity, planning, structural quality, contractor selection and diversity, insecurity and variance, force majeure, and political risks in the preconstruction phase, structural failure, contractor bankruptcy, incorrect scheduling of project activities, and failure to engage qualified professionals. The study recommended paying attention to project management and appropriate contracts for multi-story construction projects to enhance the delivery of construction projects**.** These factors are well known in most developing countries that have previously suffered from the scourge of war. **(Ahmed and Asadi, 2017)** contributed the main factors to the failure of construction projects by using perceptions for 20 factors causing the failure of construction projects in an overview of the construction project. The study applied the contribution of many factors that lead to failure in construction projects to provide good aspects and understanding to be considered early while implementing the projects. The study recommended that the manager or construction company record all the problems during the implementation of construction projects in all stages to know the causes of failure and solve the effect sources, evaluate future projects, and measure efficiency by focusing on contractor, financial, and political risks. **(Adagba, 2023)** recognized ten critical factors identified by construction professionals through a comprehensive questionnaire. The study concluded that it is necessary to educate workers in the construction industry and decision-makers about identifying the causes of failure in construction projects and how they can find appropriate alternatives to make the project successful. The study also showed that transparency or commitment to professional ethics has an essential role in the development and invention of construction work and in avoiding legal claims.

Identifying failure factors at any project phase aims to provide possible solutions to address delays in most construction projects. It can help make the appropriate decision for higher authorities, with the ability to educate the participating parties to develop the best solutions without affecting the cost and time.

2. REALITY OF RESIDENTIAL COMPLEX PROJECTS IN IRAQ

The research attempts to identify the reasons for the delays in the implementation of residential complex projects in Iraq, especially after the urgent need for the increase in the population of Iraq, which reached 42 million people, according to the latest statistics of the Iraqi Ministry of Planning MOP for the year 2023. Identifying delay factors can contribute to finding appropriate solutions in the various stages of the project and to selecting the appropriate decision-making for higher authorities, educating the parties involved in the construction process to develop the best solutions when they occur without absolutely affecting the overall project time and cost.

2.1 Iraq Vision for Sustainable Development 2030

As a result of the population increase, the Iraqi government decided to provide adequate housing for the citizens, who play an important role in the national growth and development of the country, impact the general community, and provide a way of social and economic growth for the welfare of citizens. Iraq's strongest asset is its young population pyramid; it is a real wealth for Iraq that can face all challenges now or in the future **(Muhsen and Rezouki, 2022)**. To preserve this wealth and provide a comfortable living and an appropriate environment for work and creativity, the government must seek to provide the basics of a comfortable living and decent housing for them. However, reality showed that the failure of these complex residential projects would hurt citizens' national development and lives for different reasons. The reality is that many causes led to the failure and have affected the citizens and national development of the country.

Fig. 1 shows the statistical data from the Iraqi Ministry of Planning and shows the largest number of young people (less than 19 years old), or about 50% of the Iraqi population. The housing sector is becoming increasingly important in Iraq due to the severe shortage of suitable housing units, which prompted the state to launch strategic goals and tools to achieve the national housing goal **(MOP, 2019)**.

The most important items in the five-year plan issued by the Iraqi Ministry of Planning are:

1. Short term:

a) Resuming work on suspended projects.
b) Commitment to the main urban plans in Iraq and trying to end slums.

2. Medium and long term:

a) Build 100,000 housing units, at least
b) Using modern methods, techniques, and good services in construction
c) Provide 50% of real estate financing or use private sector investments to cross the housing deficit in Iraq.
d) Improving the quality of municipal services and the provision of drinking water and sanitation to improve the residential environment
e) Ending slums (informal housing), reorganizing them in a civilized manner, and providing services and infrastructure necessary for human well-being

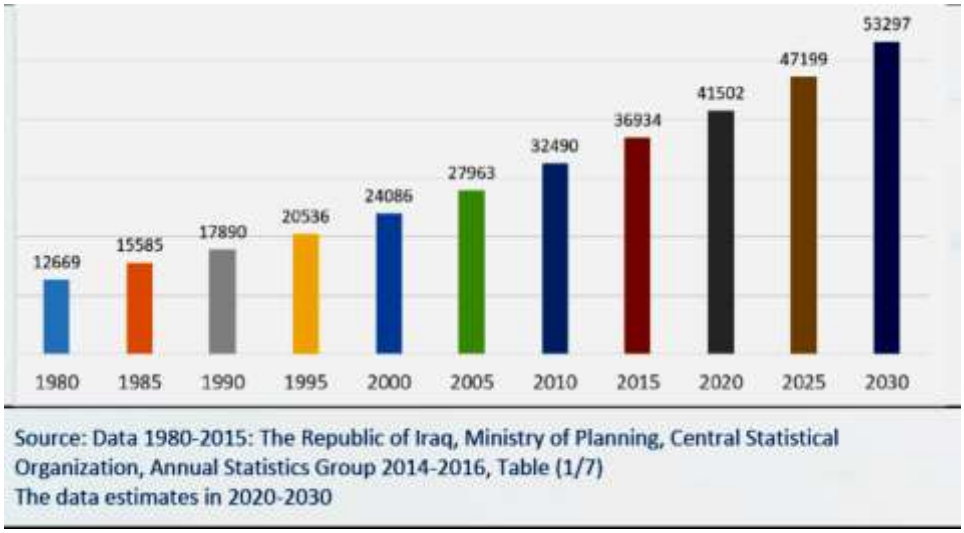

Figure 1. Iraq's Population 1980-2030 **(MOP, 2019)**

2.2 Failure Factors Affecting Residential Complex Projects

Depending on previous studies and other local factors that were investigated and collected during personal interviews with experts, 51 factors were collected and classified into four main components; the classification was similar to Damesh's distribution in his study, where 34 factors were collected and distributed into four main components **(Damoah, 2018)**. The following are component descriptions to identify the failure factors of residential complex projects in Iraq:

1. Commitment of leadership: The leadership issue may arise from technical perspectives, political perspectives, or both **(Sulieman and Alfaraidy, 2019)**. It is; the technical factors are usually traced back to political leadership. Another major factor is the continuity of government. The new government took power and decided to give up the entire project; they wanted to fulfil their new official guarantee of new projects and programs **(Hwang and Ng, 2013).** One of these factors is the relationship between technocrats and the implementation of the project by the political leadership. Other factors are unclear strategic planning **(Olugboyega and Windap, 2021)**, lack of commitment, and starting numerous projects simultaneously. Hence, the government will fail to finance them. The absence of the rule of law, scope creep, wrong specification **(Borku and Yenialem, 2002)**, lack of assessment, and poor feasibility Studies **(Mohammed, 2019)** show a change in project leadership; the inexperienced project manager is inexperienced, and the interference of clients in the construction process.

2. Management and Administration System: The manager must have the ability, professionalism, and specialization to manage a business or any project to ensure its success**.** All studies reviewed the weaknesses of institutional bottlenecks in their countries, the nature of political systems, and cultural difficulties. The corruption perception index (CPI) report indicated that corruption in Iraq decreased to 160 out of 183 in 2020 from 162 in 2019 **(Tsao and Hsueh, 2022).** The phenomenon of corruption is clear and widespread in all institutions. However, the government makes many great efforts to combat corruption and expose it through accountability and justice **(Homenko et al., 2022).** The weak public management and administration systems allow officials undertaking projects to influence

this system for individual gains, affecting the project's performance **(Al-Ageeli and Alzobaee, 2016).** many factors were covered in our study, like (Inadequate Planning, Bureaucracy, Corruption, Poor supervision, Lack of monitoring, Long management practices, Bad project management techniques and models, Wrong project scope, Delays in payments, High inflation, Failure to communicate, Unpractical procurement processes, Consultants refused for certifying work, Poor commitment, Poor productivity Issues, and delays) **(Zilfianah et al., 2022)**, besides other factors, such as (Inadequate documentation and tracking, Failure to define a parameter and enforce them, Disregarding project Warning signs, Lack of evaluation to identify unintended consequences bad interaction with the project process) **(Shahbaz et al., 2019; Osuizugbo, 2019)**.

3. External forces: To put more consideration into it, there is a need for external forces in the implementation of all construction projects that are similar in characteristics. These factors may influence the execution of the construction project **(Al-Sayyid and Ali, 2021).** There are nine factors taken in the study as external forces consisting of several factors collected and identified from different references, including work suspension due to demonstrations, misalignment in culture or ethics **(Ogunde et al., 2017),** regulators of sanctions, groups by media and NGOs' pressure on political activities, release of funds, resistance from the local community, unstable security situation, natural disaster, and weak investment environment. All these factors are reasons for any project to fail (**Frimpong et al., 2003).**

4. Resources Allocation: About seven factors that were collected from previous studies include weak resources such as materials and equipment, low human capacity, poor project funding**,** project team formation **(Çavdur et al., 2019)**, inaccurate change orders **(Khoso et al., 2019)**, cost estimates, and weakness in identifying resources **(Shehu et al., 2014).** Iraqi budgets showed that government funding relies on oil revenue **(Anatolevich, 2021)**, pushing the government to search for other funding sources influencing the success or failure of any project **(Shaikh, 2020).** Therefore, the government searches heavily for external resources to carry out the projects **(Hwang and Ng, 2013)**

3. RESEARCH METHODOLOGY

This work covered the required data to implement the theoretical aspect of previously conducted research to obtain the data required for the assigned objectives. To achieve the methodology, the following steps were followed to collect the data needed for the study **(Marwa and Altaie, 2022)**:

1. Interviews with participants and many stakeholders were conducted to clarify the paragraphs of the questionnaire in case there was a need to ensure the correct answer.
2. Using a questionnaire as a major tool in data collection, putting into consideration its formulation and ability to diagnose and measure the dimensions of the study, the questionnaire method is used in expressive and common analysis studies to find out the information and points of view of numerous researchers or experts.
3. Statistical analysis was used for the data obtained from the questionnaire to determine the critical failure factors that pertain to the implementation of residential complexes in Iraq.

3.1 Research Sample

The first step was to interview five arbitrators to ensure there were no duplicates of the failure factors used in the study and add factors from the survey to prepare a final form of

the questionnaire. The second step is to determine the sample size by using Yamane's formula **(Adam, 2020);** see Eq. (1) to find the sample size of the population study and select thirty-six (36) companies to obtain the sample size required from engineers and experienced, as mentioned below:

$$n = N/\ (1 + Ne^2) \quad (1)$$

where,
n is the number of samples (responses).
N is the number of companies, equals to 36.
e^2 is the limitation of error (The limit of error is equal to 1%)
Then:
$n = 36 / \{1 + 36(0.01)^2\} = 35.87 \simeq 36$

The authors distributed about 75 questionnaires to strengthen the questionnaire's validity. The researcher received only 62 responses, exceeding Yamane's required response threshold. The response ratio was equal to 83%.

3.2 Measurement Assessment

A five-point Likert scale is used to assess the rankings provided by respondents and determine the failure factors. The statistical results provided the causes of residential complex project failures outlined in the questionnaire. Eq. (2) was used to establish the relative importance of selected factors that were identified as failure causes in residential complex projects **(Altaie, 2017; Obead and Wali, 2020)**:

$$\text{RII} = \frac{\sum_{i=1}^{5}(X1 * S1 + X2 * S2 + \cdots + Xn * Sn)}{(A * N)} \quad (2)$$

where: RII is the relative importance index, S is the weights of factors, X is the frequency of each factor, N is the sample size (62), A is the highest score Likert scale, equal to 5, and i = 1,2,3,4, 5
Depending on the previous studies and local failure factors collected, fifty-one (51) cause factors of residential complex projects were identified first before being distributed to the responses. The identified causes were classified into four groups. These groups are leadership factors, management and administration system factors, external forces factors, and resource factors.

4. STATISTICAL RESULTS

4.1 Sample Information Analysis

Table 1 shows the data for all respondents who answered the questionnaire. The results indicated that the sample chosen to answer the axes of the questionnaire was characterized by the ability and specialization to identify the failure factors related to the implementation of residential complex projects.

4.2 Failure Factors Ranking

The final calculation found the ranking using the relative importance index for cause factors with the components. **Tables 2 to 5** below show the ranking results of the failure factors for the four components.

Table 1. Sample size of the study

No. sample = 62 Responses						
No.	Variable	No.	%	Variable	No.	%
Gender				Sector		
1	Male	46	74.2	Public	43	69.3
2	Female	16	28.8	Private	19	30.7
Years of Experience				Work Position		
1	1-5	3	4.8	Corporate	3	4.8
2	5-10	10	16.2	Senior management	10	16.1
3	10-15	14	22.6	Junior management	9	14.5
4	15-20	13	21.0	Supervisory	14	22.6
5	>20	22	35.4	Subordinate	26	42.0
Respondent Category				Education		
1	Contractor	23	37.1	Bachelor	45	72.6
2	Project manager	22	35.5	Master's degree	13	21.0
3	Client	17	27.4	PhD	4	6.4

Table 2. Ranking results of the failure factors for commitment to leadership

No.	Factor	RII	%
1	Political interference	0.877	87.7
2	Change in governments	0.865	86.5
3	Partisan Politics available	0.856	85.6
4	Unclear strategic planning	0.843	84.3
5	low commitment by project leaders	0.826	82.6
6	Government cannot fund start more than one project at the same time	0.786	78.6
7	The absence of the rule of law	0.767	76.7
8	Scope Creep	0.757	75.7
9	Wrong specification	0.681	68.1
10	Un coefficient Feasibility studies	0.669	66.9
11	User involvement	0.669	66.9
12	The project is not needed anymore	0.658	65.8
13	Change in project leadership	0.586	58.6
14	The project Manager is Inexperienced.	0.577	57.7
15	The interference of the clients in the construction process	0543	54.3
Average		0.731	73.1

Table 3. Ranking results of the failure factors for the management and administration system

No.	Factor	RII	%
1	Inadequate Planning	0.843	84.3
2	Bureaucracy	0.817	81.7
3	Corruption	0.814	81.4
4	Poor supervision	0.791	79.1
5	Lack of monitoring	0.788	78.8
6	long management practices	0.756	75.6
7	Bad project management technique and models	0.751	75.1
8	Wrong project scope	0.742	74.2
9	Delays in payments	0.733	73.3
10	High inflation	0.719	71.9
11	Failure communicate	0.692	69.2
12	Unpractical Procurement processes	0.681	68.1
13	Disapproval for certifying work project	0.677	67.7
14	Poor commitment to the project	0.67	67.0
15	Poor productivity Issues and Delays	0.669	66.9
16	Inadequate documentation and tracking	0.652	65.2
17	Failure to define parameters and enforce them	0.643	64.3
18	Disregarding Project Warning Signs	0.562	56.2
19	Lack of evaluation to identify unintended consequences	0.554	55.4
20	Bad interaction with the project process	0.545	54.5
Average		0.705	70.5

Table 4. Ranking results of the failure factors for external forces

No.	Factor	RII	%
1	Suspend the work due to the demonstrations	0.823	82.3
2	Misalignment in Culture or Ethical	0.813	81.3
3	Sanction by regulators	0.722	72.2
4	Pressure groups by media and political activities	0.693	69.3
5	Release of funds	0.635	63.5
6	Resistance from the local community	0.586	58.6
7	Security situation Unstable	0.723	72.3
8	Natural disaster	0.651	65.1
9	Weak investment environment	0.642	64.2
Average		0.699	69.9

Table 5. Ranking results of the failure factors for resource allocations

No.	Factor	RII	%
1	Lack of materials and equipment	0.830	83.3
2	Lack of human capacity	0.818	81.8
3	Poor Project funding	0.721	72.1
4	Project team formation	0.681	68.1
5	Many Change Orders	0.681	68.1
6	Inaccurate Cost Estimations	0.649	64.9
7	Weakness in identifying resources	0.612	61.2
Average		0.713	71.3

4.3 Final Results And Discussion

The most important failure factors (12) are shown in **Table 6**. These factors have a relatively important index of more than 80%, calculated from the previous step.

Table 6. The top twelve overall rankings

No.	Factor	Component	RII%
1	Political interference	LEADERSHIP	87.7
2	Change in governments	LEADERSHIP	86.5
3	Partisan Politics available	LEADERSHIP	85.6
4	Unclear strategic planning	LEADERSHIP	84.3
5	Inadequate Planning	MANAGEMENT AND	84.3
6	Lack of materials and	RESOURCES	83.3
7	low commitment by project	LEADERSHIP	82.6
8	Suspend the work due to the	EXTERNAL FORCES	82.3
9	Lack of human capacity	RESOURCES	81.8
10	Bureaucracy	MANAGEMENT AND	81.7
11	Corruption	MANAGEMENT AND	81.4
12	Misalignment in Culture or	EXTERNAL FORCES	81.3

The four components and failure factors are discussed according to their ranking and importance:

1. The leadership component is the most important (73.1%) among the other components, with four main factors occupying the first ranking, including political interference (87.7%) as the biggest cause factor, followed by change in governments (86.5%), partisan politics available (85.6%), and unclear strategic planning (84.3%). To reduce the impact of politics, we must make laws that give independence to technocrats implementing government projects.
2. The resources are the second most important component, with a relative importance of (71.3%). Two principal factors are a lack of materials and equipment (83.3%) and human capacity (81.8%). This means the importance of resources in the implementation of projects. The poor delivery of these resources to the work site certainly has a role in delaying completion and the project's failure. Here comes skill development, which is necessary to enhance the quality of the project. The required skills and competence are important to accomplish. It will only be achieved with financial support from the government, external parties, or financial institutions.
3. Management and Administrative System Practices: The relative importance is equal to 70.5%, with three failure factors, which are inadequate planning (84.3%), bureaucracy (81.7%), and corruption (81.4%). There should be attention to this phenomenon. The spread of corruption in Iraq is the main influence on the failure of public sector projects. For this reason, the state should seek the assistance of qualified professional experts to implement projects and rely on their specialized decisions in their field of expertise, meaning the right person in the right place, as said. The challenges faced by the construction industry in Iraq when reviewing real practices and unprofessional methods in implementing projects created a huge gap in the project management system that is difficult to apply with known scientific methods.

4. External forces: This component came last in the rankings with a relative importance of 69.9%; attention should be paid to these factors in the execution of projects. The two major factors in this component, ranked according to relative importance, are suspending the work due to demonstrations (82.3%) and misalignment in culture or ethics (81.3%); the security and political situation in Iraq played a fundamental role in the failure of all projects, like stopping work due to the demonstrations and various holidays in Iraq. They all played a role in the delay or stalled residential complex projects and the coronavirus pandemic.

5. CONCLUSIONS AND RECOMMENDATIONS

The study focused on residential complex projects in Iraq due to their importance in the local economy, their role in the well-being of citizens, and their right to live in a safe and healthy environment. The study indicated a major failure in implementing investment projects, especially in residential complex projects, despite the availability of all material and human capabilities and government support to cover the urgent demand for housing. The study examined the real situation that the local construction environment suffers from, which directly contributed to the failure of the relationship between stakeholders and led to the weakness of forming a strong relationship between them by studying the reasons that all stakeholders share, which leads to the failure of partnerships to achieve the desired results from projects.

The following is a summary of conclusions and recommendations to find the best solutions for the most prominent failure factors within the four components identified for the study:

1. The area of politics discussed in the study refers to the partisanship politics in Iraq. This kind of study has yet to be taken in previous local research despite its widespread use in our daily practice as a routine. Besides that, the bad political decisions will impact the execution of the government's vision and policies in Iraq. Political interference and changes in governments are the most important reasons that led to the failure of strategic projects, the obvious weakness in the strategies, and the constant change in senior positions, which all contributed to the immaturity of the clear goal of the meaning of investment and led to the delay of many strategic and development projects, especially residential complex projects. The study proved that political leadership is a serious factor that leads to the failure of residential complex projects, and this confirms the findings of the literature and previous scientific studies that determined the role of political decisions in the failure of projects in general.
2. The results of the study showed that failed management creates failed projects. Project management in all its phases depends on planning basics; insufficient planning led to the failure of residential complex projects in Iraq. Management that relies on administrative and financial corruption will not follow the principle of success in its work; it is concerned with achieving the private interest at the expense of the public interest. The study also proved that bureaucracy has a significant effect on the management system and contributes to the failure of economic development projects in Iraq. Bureaucracy has become a significant problem in our country that must be addressed by following the right path that depends on introducing different technologies into all different systems and institutions and confirming the electronic approaches to fight and expose corruption through accountability and easy access to media and civil society organizations. All these will help with monitoring and transparency.

3. The study highlighted the impact of external factors on the possibility of the success of construction projects. This factor is related to successful management practices that reflect the cultural aspect that characterizes workers in the construction industry. Many previous works of literature have discussed the impact of traditional culture and its beliefs on the success or failure of project performance. The study showed that a lack of culture and awareness creates an imbalance in the work environment, leading to its weakness. Official holidays and the suspension of work due to government events, demonstrations, or weather reasons such as rain, for example, reinforce the spirit of laziness and inability to achieve the productivity required to complete the work within the specified period and cost.
4. The study showed that the lack of materials, equipment, and human capabilities has a tremendous impact on project delays, and they are the most important reasons that the construction industry suffers in Iraq. Resource management is critical in achieving success and reducing costs and risks in construction projects. Having the right people, equipment, and materials to complete the project efficiently is a major challenge, especially if there are changes to the project scope or schedule. To ensure success, project managers must communicate well with the teams and provide the appropriate numbers of skilled workers and necessary equipment. It includes monitoring other challenges, such as schedule changes or requirements. It requires rapid and effective adaptation to ensure that the project progresses efficiently, especially in residential complex projects in Iraq.

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