

Midocean University

Management college

Project Management Department



Research Title

**The Impact of Strategic Project Management on the Success of
Construction Projects in the Contracting Sector in Riyadh**

Students preparation/

Ibrahim Abdullah Al Harbi (leader)

232001507

Burair Muhammed Alameer

232000827

Supervisor/

Dr. Alfaisal Abdelhameed Mohamed

Dr. Fayez Ali Jrad

2024

عنوان البحث

أثر الإدارة الإستراتيجية للمشاريع على نجاح المشاريع الإنشائية بقطاع المقاولات في مدينة الرياض

إعداد الطالبين/

برير محمد الامير

٢٣٢٠٠٨٢٧

إبراهيم عبد الله الحربي (قائد المجموعة)

٢٣٢٠٠١٥٠٧

إشراف/

د. فايز جراد

د. الفيصل عبد الحميد

العام الدراسي:

٢٠٢٤

Contents:

Declaration	v
Acknowledgment	vi
Abstract	vii
المخلص	viii

Chapter One:

Introduction	1
Study problem.....	2
Study importance.....	2
Objectives of the study.....	3
Study questions.....	5
Study hypotheses.....	5
Study model.....	6
Previous studies.....	8
Methodology	18
Study tools	18
Statical methods	18
The limits of the study	18

Chapter Two: Theoretical Framework

The concept of strategy	20
Project Management	22
Project Concept	22
Project Management Concept	23
Project constraints	24
Project Life Cycle	24

Construction Project and Construction Project Management	26
--	----

Chapter Three: Study Methodology and Procedures

Introduction	28
Research Methodology	28
Population and sample of the study	28
Data sources	28
Statistical methods	29
Study tool	29

Chapter Four: Analysis of results

Introduction	35
Characteristics of the study sample	35
Analysis of the questionnaire form	36
First Theme: strategic management:	
1-Strategic objectives	36
2-Strategy formulation	37
3-Evaluation	38
4-Strategy Implementation	39
The second axis: success of projects	41
Assignment test	43

Chapter Five: Findings, Recommendations and Proposals

Introduction	48
Result of the study	48
Recommendations	50
Propositions	50
References	51

Appendices	54
------------------	----

List of Tables

Table No.		Page No.
1.3	Level of approval of the study sample on the statement of the study tool	30
2.3	Correlation coefficients for the first axis statements	30
3.3	Correlation coefficients for second axis statement	32
4.3	Stability coefficients for the axis of the questionnaire form	34
5.4	Distribution of study sample according to its Characteristics	35
6.4	Arithmetic Mean, Standard Deviation, Ranking and level of approval of the phrases of the strategic objectives	36
7.4	Arithmetic Mean, Standard Deviation, Ranking and level of approval of strategy formulation Statements	37
8.4	Arithmetic Mean, Standard Deviation, Ranking and level of approval of Evaluation Statements	38
9.4	Arithmetic Mean, Standard Deviation, Ranking and level of approval of the statements of strategy implementation	39
10.4	Arithmetic Mean, Standard Deviation, Ranking and level of approval of the statements of success of projects	41
11.4	Results of Simple Linear Regression Model for Testing the Main Hypothesis	43
12.4	Results of Simple Linear Regression Model for Testing the first sub- hypothesis	44
13.4	Results of Simple Linear Regression Model for Testing the second sub- hypothesis	44

14.4	Results of Simple Linear Regression Model for Testing the third sub-hypothesis	45
15.4	Results of Simple Linear Regression Model for Testing the fourth sub-hypothesis	46

List of Figures

Figure No.		Page No.
1.1	Study variables	7

DECLARATION

We do hereby declare that this report is submitted to Midocean University as partial fulfilment of the requirements for the degree of master's in project management and was never submitted to any other universities for any degree. In addition, we do ensure that the work represented in this report is totally our own under the guidance of Dr. Alfaisal Abdelhameed Mohamed and Dr. Fayez Ali Jarad, except for the quoted sources of which have been appropriately acknowledged.

This report may be made available within Midocean University library and may be photocopied or loaned to other libraries for the purposes of consultation or study.

ACKNOWLEDGEMENTS

All praise to Allah the Almighty who gave us the ability, power, and knowledge to be able to reach to this stage in our studying journey and completing our master's degree.

Our sincerest appreciation is extended to our lovely parents, family, friends, and those who supported us and still supporting us in our studying journey. Thanks also go to our beloved and precious lecturers we have met through our studying journey. We sincerely appreciate the time they spent to share their knowledge and experiences to make us a better person. We also want to thank Dr. Alfaisal Abdelhameed Mohamed and Dr. Fayez Ali Jarad who have shared their suggestions and advises educationally and mentally throughout Final Project (PMG697) course of which guided us to complete the project.

Abstract

The study generally aimed to reveal and identify the impact of strategic management in its dimensions (environmental analysis, strategy formulation, strategy implementation, strategy evaluation) on the performance of construction projects in its dimensions (efficiency, adoption of innovation, sustainability) in the city of Riyadh.

The research is based on a descriptive and analytical approach, where it focuses on examining the theoretical foundations related to the topic by reviewing relevant Arabic and foreign references. The research also includes the implementation of a field study consisting in distributing questionnaires to different categories of the selected sample. The study population consisted of construction project managers in the Kingdom of Saudi Arabia, specifically in Riyadh. Due to the difficulty of conducting a comprehensive census of all members of the study population, the study used the simple random sample method to collect data. The number of members of the study sample was 394 individuals who answered the questionnaire questions.

The research concluded with several results, including high level of success of projects in the construction projects, where the value of the arithmetic average of the phrases axis success of projects 3.863 with a standard deviation of 0.910. And it was found that there is a strong positive correlation with statistical significance between strategic project management in its dimensions and the success of projects in the Kingdom at the significance level of 0.05. It was found that the independent variable (strategic project management) explains 78.9% of the changes that occur in the dependent variable (project success), and that the remaining changes are due to other variables that were not included in the model. It was found that whenever the level of strategic project management in its dimensions increases by 1%, the level of professional project success in construction projects in the Kingdom increases by 0.391%, which indicates the invalidity of the main hypothesis of the study.

At the end of this research, we recommended a number of recommendations, including adopt project management methods that integrate strategic aspects, such as strategic project portfolio management and strategic program management. And encourage companies to adopt a culture of learning and continuous improvement of strategic project management practices, which contributes to developing their competitive capabilities in the long term.

Keywords:

الملخص

هدفت الدراسة بشكل عام إلى الكشف والتعرف على أثر الإدارة الاستراتيجية بأبعادها (التحليل البيئي، صياغة الاستراتيجية، تنفيذ الاستراتيجية، تقييم الاستراتيجية) على أداء مشاريع الإنشاءات بأبعادها (الكفاءة، تبني الابتكار، الاستدامة) في مدينة الرياض.

ويعتمد البحث على المنهج الوصفي التحليلي، حيث يركز على فحص الأسس النظرية المتعلقة بالموضوع من خلال مراجعة المراجع العربية والأجنبية ذات الصلة. كما يتضمن البحث تنفيذ دراسة ميدانية تتمثل في توزيع الاستبيانات على فئات مختلفة من العينة المختارة. ويتألف مجتمع الدراسة من مديري مشاريع الإنشاءات في المملكة العربية السعودية وبالتحديد في مدينة الرياض. ونظرا لصعوبة إجراء إحصاء شامل لجميع أفراد مجتمع الدراسة، فقد استخدمت الدراسة أسلوب العينة العشوائية البسيطة لجمع البيانات. وبلغ عدد أفراد عينة الدراسة 394 فردا أجابوا على أسئلة الاستبيان.

وخلص البحث إلى عدة نتائج منها ارتفاع مستوى نجاح المشاريع في المشاريع الإنشائية حيث بلغت قيمة المتوسط الحسابي لعبارات محور نجاح المشاريع 3.863 بانحراف معياري 0.910. وتبين أن هناك علاقة طردية قوية ذات دلالة إحصائية بين إدارة المشاريع الإستراتيجية بأبعادها ونجاح المشاريع في المملكة عند مستوى دلالة 0.05. وتبين أن المتغير المستقل (إدارة المشاريع الإستراتيجية) يفسر 78.9% من التغيرات التي تحدث في المتغير التابع (نجاح المشروع)، وأن التغيرات المتبقية ترجع إلى متغيرات أخرى لم يتضمنها النموذج. وتبين أنه كلما ارتفع مستوى إدارة المشاريع الإستراتيجية بأبعادها بنسبة 1% فإن مستوى نجاح المشاريع المهنية في المشاريع الإنشائية في المملكة يرتفع بنسبة 0.391% مما يدل على عدم صحة الفرضية الرئيسية للدراسة.

وفي نهاية هذا البحث نوصي بعدد من التوصيات، منها تبني أساليب إدارة المشاريع التي تدمج الجوانب الإستراتيجية مثل إدارة محفظة المشاريع الإستراتيجية وإدارة البرامج الإستراتيجية. وتشجيع الشركات على تبني ثقافة التعلم والتحسين المستمر لممارسات إدارة المشاريع الاستراتيجية، مما يساهم في تطوير قدراتها التنافسية على المدى الطويل.

الكلمات المفتاحية:

[إدارة المشاريع الاستراتيجية – نجاح المشاريع – المشاريع الإنشائية].

Chapter One

Introduction:

Extend administration is exceptionally imperative in commerce and administration. Imperative and complex ventures require extraordinary abilities and strategies to carry them out effectively. Vital ventures have huge objectives that are implied to assist the organization reach its long-term vision and plans. These ventures are regularly associated to numerous parts of the organization and have an enormous effect on how well the company does by and large. So, to manage it well, you would like to have a clear vision and a great understanding of the organization's methodology and objectives.

Strategic projects are complex and risky, requiring specialized skills and resources. They face internal and external challenges, requiring efficient management to reduce risks. Strong leadership and coordination skills are crucial for successful project management. Success criteria differ from regular operational projects, focusing on achieving strategic objectives and enhancing competitive advantage. Specialized indicators and standards are necessary for performance measurement. Strategic project management requires distinguished skills and advanced practices for long-term goals and market position.

Strategic planning for construction projects aligns with organizational goals, improving operational efficiency and reducing wastage. It involves defining project objectives, linking them to priorities, and preparing for potential risks. Strategic project management also develops organizational capabilities by investing in technical and managerial competencies and promoting innovation. Regular monitoring and evaluation enhance future decisions, directing resources towards strategic priorities and enhancing decision-making processes. Overall, strategic project management is crucial for successful construction projects.

Strategic project management is crucial for the success of construction projects in the contracting sector in Riyadh. It aligns projects with organizational goals, improves operational efficiency, and enhances institutional building. By planning costs, scheduling, and managing risks, companies can reduce resource waste and achieve successful project implementation. Strategic monitoring and evaluation of projects also enhance future decision-making processes. This methodological framework helps contracting companies achieve sustainable success through strategic alignment, improved operational performance, and organizational capabilities.

Based on the above, this study analyzed the impact of strategic project management on the success of construction projects in the contracting sector in the city of Riyadh.

Study problem:

The issue of the ponder is that development companies depend on conventional vital venture administration frameworks, and this may result within the failure to realize tall levels of execution for development ventures. Hence, this consider pointed to illustrate the affect of applying key venture administration hones on the victory of development ventures in these companies.

To begin with, development companies that apply key extend administration are greatly vital for their part in accomplishing competitive advantage for organizations by progressing the productivity of arranging, execution and control of development ventures. In any case, these companies regularly confront challenges in maintaining tall levels of project victory.

Moment, there's a have to be get it the part of applying key extend administration hones in improving the victory of development projects at Aramco. It is accepted that these practices may contribute to making strides arranging, coordination and control of ventures.

Third, there's a require for an connected consider to assess the extent of application of vital venture administration hones and degree their affect on the victory of development ventures. By considering this investigate issue, analysts will be able to supply down to earth proposals to upgrade the application of vital extend administration hones in these ventures, which may contribute to moving forward the victory levels of development ventures.

The problem can be summarized by answering the following main question: What is the impact of strategic project management on the success of construction projects in the contracting sector in the city of Riyadh?

Study importance

The importance of the study appears from its theoretical importance and **practical importance**

First: The theoretical importance of the study:

The practical (theoretical) importance of the study appears as it is one of the studies that examines the impact of strategic management in its dimensions (environmental analysis, strategy formulation, strategy implementation, strategy evaluation) on the performance of projects in its dimensions (efficiency, innovation adoption, sustainability) in construction projects by returning to the special theoretical literature. On the subject, and according to the limitations of the current study, it is one of the rare studies that addressed the impact of strategic management in its dimensions (environmental analysis, strategy formulation, strategy implementation, strategy evaluation) on the success of construction projects in its dimensions (efficiency, adoption of innovation, sustainability) in the city of Riyadh, and thus there is a theoretical framework on the topic. Enriching the Arab library with studies on this matter.

The importance also appears in light of the Kingdom of Saudi Arabia's tendency to improve the work environment by encouraging investment in project performance, which increases economic growth, and the new direction of the economic and social development strategy that emphasizes the optimal exploitation of economic resources (Al-Zayyoud, 2020).

Second: Scientific (applied) importance:

The scientific (applied) importance lies in the fact that the Development and Employment Fund is one of the important and advanced bodies that constantly changes, and this change appears clearly in light of increasing competition, which requires finding workers capable of keeping pace with this change, which works to raise the performance of these projects for their contribution to supporting the growth of the national economy. El-Selenti et al., (2018). The practical (applied) importance lies in the results that have been reached, and its practical importance lies in the fact that it examines the issuance of important topics, which is the impact of strategic management on the success of construction projects in the city of Riyadh in the Kingdom of Saudi Arabia as a way to develop the performance and success of projects according to the results and recommendations of the study.

Objectives of the study:

The study generally aims to reveal and identify the impact of strategic management in its dimensions (environmental analysis, strategy formulation, strategy implementation, strategy evaluation) on the performance of construction projects in its dimensions (efficiency, adoption of innovation, sustainability) in the city of Riyadh.

Theoretical principles of the study:

1. The practical strategic management that includes designing, implementing, and evaluating plans with long-term impact, which aim to increase the value of the organization from the perspective of customer shareholders and society as a whole (Momani and Kanaan, 2020).
2. It is defined procedurally as a set of long-term procedures through which the organization seeks to achieve goals and modify the organization's directions to make the most appropriate decisions within the available capabilities. It includes the following dimensions (environmental analysis, strategy formulation, strategy implementation, strategy evaluation).
3. Environmental analysis: It is an analysis of the factors that surround the organization's environment and that affect it directly or indirectly when it carries out its activities and that affect decision-making in order to set goals (Khaloufi, (2019). It is procedurally defined as analyzing and studying the situation surrounding the Fund for Development and Operation and ensuring its Strengths and weaknesses, knowing opportunities and threats, and keeping up with developments to determine their position and the changes surrounding them to come up with the most appropriate successful decisions, and they were measured through dimensions and paragraphs.
4. Strategy formulation: It is a vision of the shape of the organization in the future as desired by managers. This picture includes the organization's position in the work environment in terms of its value and reputation. Of course, the ideal form of the organization cannot be determined except in light of exploiting its strengths. (Maran, 2015 and Derawi, 2019).
5. Procedurally, the formulation and arrangement of the appropriate strategy in the Development and Employment Fund is defined by selecting the best alternatives and analyzing them in accordance with the resources available to reach the main objectives, and they were measured through dimensions and paragraphs.
6. Strategy implementation: Organizations implement the strategy that was developed within the various stages and monitor its performance. (2018, Al-Aklabi) It is defined procedurally as the actual implementation of the strategic procedures of the Development and Employment Fund, and it was measured through dimensions and paragraphs.

7. Strategy evaluation is the monitoring process carried out by organizations that follow up their strategic plan and work to evaluate its strengths and weaknesses (Khaloufi 2019).
8. It is defined procedurally as an evaluation process of all procedures undertaken by the Development and Employment Fund to ensure that work is progressing according to the plan followed to correct errors, if any, and it was measured through dimensions and paragraphs.

Study questions

The first main question: What is the impact of strategic project management on the success of construction projects in the contracting sector in Riyadh? Several sub-questions branch out from it, as follows:

The first sub-question: How does strategic objectives affect the success of construction projects in the contracting sector in Riyadh?

The second sub-question: What is the impact of strategy formulation on the success of construction projects in the contracting sector in Riyadh?

The third sub-question: How does evaluation affect the success of construction projects in the contracting sector in Riyadh?

The fourth sub-question: How does strategy implementation affect the success of construction projects in the contracting sector in Riyadh?

Study hypotheses

Based on what was presented regarding the study's objectives, problem, and importance, we can determine the study's hypotheses through a main hypothesis that is:

The main hypothesis: There is no statistically significant effect at the significance level ($0.05 \geq \alpha$) of strategic project management on the success of construction projects in the contracting sector in the city of Riyadh. **The following sub-hypotheses emerge from this hypothesis:**

The first sub-hypothesis: There is no statistically significant effect at the significance level ($0.05 \geq \alpha$) of strategic objectives on the success of construction projects in the contracting sector in the city of Riyadh.

The second sub-hypothesis: There is no statistically significant effect at the significance level ($0.05 \geq \alpha$) of strategy formulation on the success of construction projects in the contracting sector in the city of Riyadh.

The third sub-hypothesis: There is no statistically significant effect at the significance level ($0.05 \geq \alpha$) of evaluation on the success of construction projects in the contracting sector in the city of Riyadh.

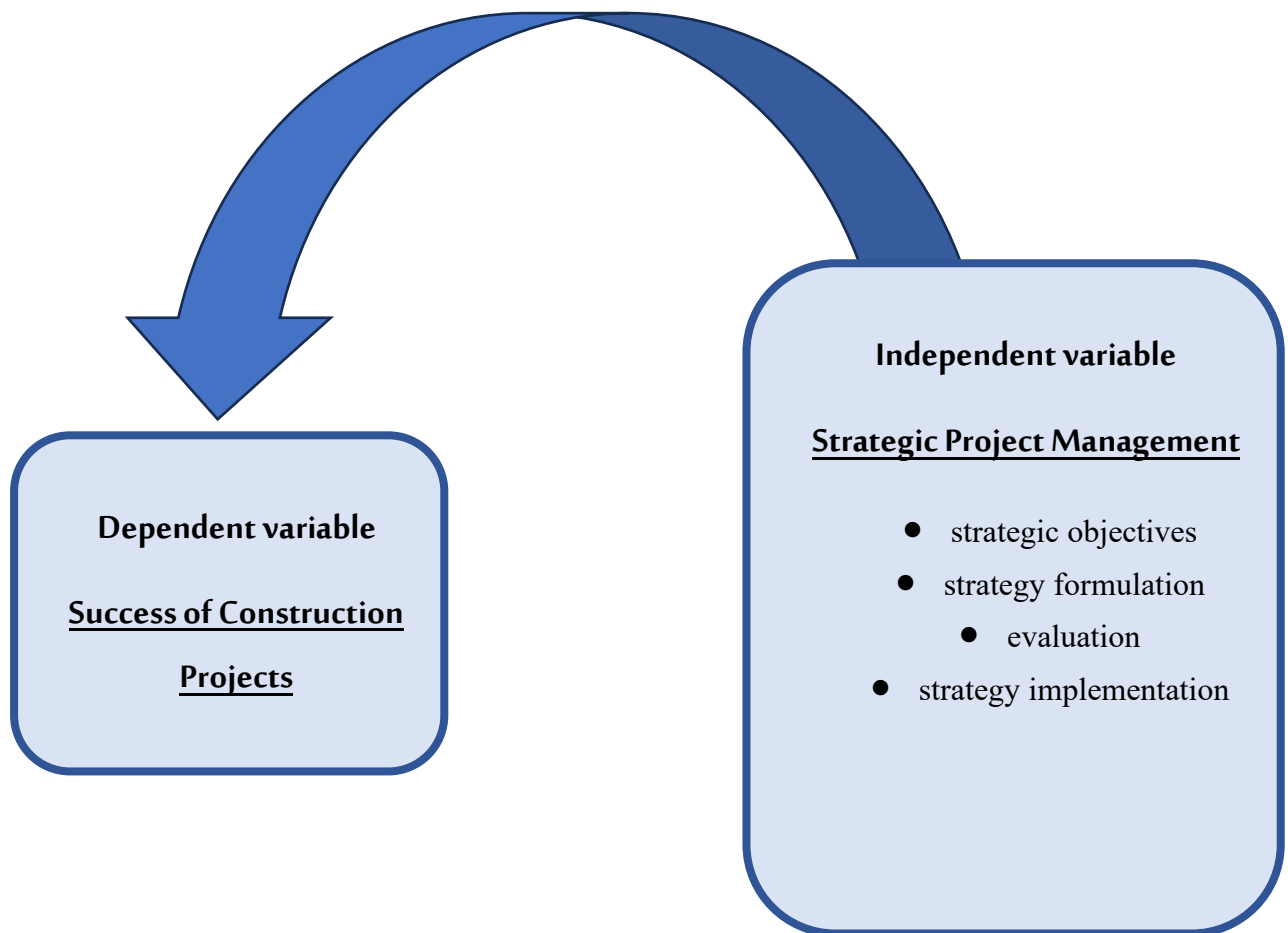
The fourth sub-hypothesis: There is no statistically significant effect at the significance level ($0.05 \geq \alpha$) of strategy implementation on the success of construction projects in the contracting sector in the city of Riyadh.

Study model

This model aims to identify the Impact of Strategic Project Management on the Success of Construction Projects in the Contracting Sector in Riyadh. It includes the following variables:

- **Independent variable:** Strategic Project Management. (strategic objectives, strategy formulation, evaluation, strategy implementation)
- **Dependent variable:** Success of Construction Projects.

Figure No. (1.1) Study variables



Source: Prepared by the researcher

Previous studies:

1. Study by Abdel Moatasem Ibrahim and Hayajna, Sufyan, (2020), entitled Integer Linear Programming in Urban Renewal Development Projects: An Iraqi-Case Study.

Iraq has suffered greatly from numerous conflicts and acts of devastation, especially during its invasion and occupation in 2003. Efficient use of resources has become essential given Iraq's current economic circumstances. This paper uses the construction of new homes in Iraq as a case study to explore the application of integer linear programming as a mathematical model in urban planning.

In order to minimise costs and complete the project within the allotted time frame, a mathematical model for the ideal distribution of subcontractors to execute (170) proposed houses with varying areas (150, 180, 200, 250, and 300 m²) and two execution levels (first degree and second degree) has been constructed.

Six subcontractors' tenders provided information on unit prices broken down by area and execution level as well as the duration of unit completion. Sensitivity analysis was performed using seven mathematical models for seven case studies. The constraints' shape evolved as a result of modifications to the needs and available resources; certain competition and decision-making constraints were removed, and other constraints were added.

With the use of the (Linprog) software, the mathematical model problem was solved using integer linear programming. The outcomes demonstrated the potential for successfully utilising integer linear programming and mathematical modelling to accomplish the best subcontractor assignment and the lowest execution cost within the allotted time frame. Additionally, the study's findings demonstrated how to give the project manager or work owner the ability to choose the best solution based on the needs of the business. The researcher suggests expanding the application of mathematical modelling to problem-solving in building projects.

2. Study by K.M.Alawi Al.M Shahri-Al & Al Balushi (2019), entitled Modeling Weather Effects on Construction Operations in the Sultanate of Oman.

One of the sectors known to be most sensitive to weather conditions is the building industry. Since manual labourers perform the majority of construction projects outside, these operations are regarded as weather-sensitive and subject to fluctuating weather patterns. The

productivity and efficiency of construction project activities can be directly impacted by severe weather conditions. Furthermore, it is well recognised that one of the primary causes of labour productivity declines in the construction sector, leading to project delays, cost overruns, and contractual disputes between contractors and project owners, is the influence of weather on the sector. Thus, it's critical to comprehend how bad weather affects building projects in order to prevent and minimise disputes and claims brought on by delays. Various weather conditions have an impact on the productivity and efficiency of construction workers. The following are some examples of meteorological conditions that affect construction workers in hot, dry areas: heatwaves, high temperatures, high relative humidity, and UV radiation. Due to heat stress, workers in the construction industry are susceptible to heat-related illnesses such as sunburn, cramps, heat exhaustion, and heatstroke. This will consequently impair construction workers' performance and may result in a brief work stoppage. As a result, there will be a significant delay in the project and a departure from the project schedule baseline as the construction process work slows down and the project schedule is impacted.

Oman has a hot, dry climate with scorching summers, mild winters, and little yearly precipitation. As a result, during periods of exceptionally hot weather, the productivity of construction workers may drop dramatically as some or all of the work may cease. In addition, labourers work fewer hours throughout the summer. All construction companies in Oman have been instructed by the Ministry of Manpower to cease work at all sites between 12:30 and 3:00 pm during the hot and muggy months of June through August. Project delays and cost overruns may result from Oman's hot summer months' low productivity and shortened workweeks. This study combined and simulated the impacts of hot weather on building project operations in Oman. The National Institute for Occupational Safety and Health's (NIOSH) suggested work/rest schedule was used to create a black box model for construction productivity. The model's output was the anticipated productivity in terms of working hours, which was derived from the daily meteorological temperature and relative humidity of Muscat. Three actual finished construction projects in Muscat served as real-world case studies for the model's application. The findings suggest that accounting for the effects of hot and muggy weather can result in a 3–38% extension of the project's length beyond what was originally scheduled. As such, it is critical to comprehend and pay close attention to how harsh weather affects the productivity of building projects.

3. Study by Al-Maghrabi, Imad Suleiman and Al-Sharbati Abdel Aziz Ahmed (2021), entitled The Impact of Situational Leadership Styles on Projects Performance: A Field Study on Jordanian Chemical Manufacturing Organizations.

This study set out to determine how Jordanian chemical manufacturing businesses' use of teaching, supporting, delegating, and directing situational leadership philosophies affected the cost, schedule, and quality of their projects.

In order to be finished, this study, which had managers with project management experience as its population, had to be applied to 98 chemical manufacturing enterprises. The total sample size in the study was 85 project managers. The questionnaire served as the main tool for data collection. After the validity, reliability, and normality of the instrument were confirmed, a descriptive analysis was carried out and the correlation between the variables was looked at. In the end, multiple regression analysis was employed to investigate the impact. The result shows that chemical manufacturing organisations apply project performance dimensions and situational leadership sub-variables. It also illustrates the strong correlation that exists between the situational leadership sub-variables and the project success aspects. In the end, it shows that situational leadership approaches positively impact project success, with mentoring and support having the greatest impact. Chemical manufacturing companies need to use situational leadership strategies. Consequently, if situational leadership is in line with the vision, mission, and objectives, performance will increase.

The focus of the present inquiry was the companies that produce chemicals in Jordan. As such, it implies that future researchers need collect additional data over a longer period of time in order to confirm the validity of the current model and measuring method. It further recommends carrying out similar studies on various industries both inside and outside of Jordan in order to ensure that the findings are applicable to a larger audience. This study is one of the few that examines the effects of situational leadership techniques on project performance. The study model was developed by fusing concepts from several sources to produce a fresh understanding of situational leadership and project performance.

4. Study by Abu Yahya Suleiman, Musa and Abdullah Saad Farhat Ibrahim, (2021), entitled Total Quality and Risk Management in Construction Projects in Jordan.

The study's goal was to investigate how quality and risk management affect building projects in Jordan. Fifty Amman-based construction enterprises made up the study population, while 69 workers in top and middle management positions within those companies made up the study sample. A questionnaire created especially to answer the study questions was developed using a descriptive and analytical methodology. The study yielded several conclusions, including:

The results showed that the degree of risk management application in the information system availability, communication system availability, and risk management planning dimensions was middle level, in line with the expectations of the study sample. The results showed that Jordan's application of Total Quality Management to construction projects was at a middle level based on expectations from the study sample about resource management, continuous improvement, and management support.

The study's recommendations were as follows:

Urge Jordanian construction companies to propose regulations that will aid the government in enforcing the quality policy across all levels of establishments. keeping an eye on how quality standards are being applied in construction projects. To increase interest in risk management throughout the project, encourage Jordanian construction companies to cultivate a culture of risk awareness and employee participation.

5. Study of the Monster, Ahmed Samih Musa and Al-Obaid Faydi, (2021). Titled Poor Planning Impact on Project Management Performance.

The purpose of this research is to determine how inadequate planning affects construction project implementation delays. The current study analyses the elements that lead to inadequate planning, which can affect the project's duration and cause the project's implementation to be delayed. A set of 325 engineers was the sample that the researcher used to administer a questionnaire. There were 38 scale measures and 10 sub-variables in the questionnaire. To analyse the data, the SPSS software was used. The study's findings revealed that 65.86% of participants said that engineering offices and contracting organisations struggle to comprehend the idea of planning. As a result, this will affect the project schedule and completion date. The study's findings indicate that 67.60% of officials in contracting organisations feel that employing the planning technique has a negative effect on their work. Consequently, this may lessen the significance of planning for these businesses. It has been

made clear that authorities save time by not preparing ahead since they believe it is a waste of effort. This has a detrimental effect on the project's projected completion date.

6. Study by Al-Youssef, Amna Ibrahim, Rawashdeh Tayseer, and Maher Rami Abdel Qader, (2021). Titled: Management of Green High-rise Building Project Using Energyplus Simulation Program: Abdoun Towers as a Case Study.

Jordan's greatest challenge is still energy consumption because of the country's limited resources and rising energy demand. Over time, Amman City's energy usage has gone up. The household sector accounts for 21.5% of total energy consumption, with the residential sector having the greatest proportion at 45.5% of electrical energy demand. While a few studies have looked at energy conservation in Jordan's residential sector, not many have done so with regard to flats in green high-rise buildings.

Therefore, by assessing an existing project in accordance with Jordan's Green Building Code, this study seeks to achieve a sustainable green design in the country's high-rise residential sector. The descriptive-analytical method will be the methodology employed. The stimulation software EnergyPlus will be used to calculate the annual energy performance. The majority of work in energy Plus is completed using Open Studio, a plug-in that lets you design and modify Energy Plus zones and faces using Sketchup 8 tools. This research will aid in the discovery of fresh design strategies for the implementation of green energy-efficiency initiatives. To lower the project's overall energy usage, a number of environmentally friendly, sustainable options were put forth, including installing a solar photovoltaic system, adding 50-inch horizontal shade devices to the towers, and adding 4 inches of thermal insulation to the building envelope. The findings indicated that the approved changes will result in a 27.15% decrease in the overall energy bill.

7. Study of Al-Aroud, Khalaf Abdel Majeed Salem Al-Hayashta, Ebada Youssef Abdallah, and Al-Tarawneh Khaled Awad Musa., (2022). Titled Critical Success Factors “CSFs” in the Management of Donor-Funded Development Projects in the Public Sector: Evidence from Jordan.

Projects that get funding from donors are highly valued by the government, civil society organisations, and the recipients themselves. Compared to other kinds of initiatives, education projects receive a disproportionate amount of money from public and private contributors. Non-governmental organisations require an efficient method to manage and regulate their performance since they must gauge the success of the projects they carry out.

Therefore, the purpose of this study was to look at how important success factors (CSFs) affect how well donor-funded projects are implemented in Jordan's public sector. Donor-funded initiatives help organisations in the community with the goal of fostering development. To gather information on the project management practices of Jordanian organisations, the study employed a survey methodology and an exploratory approach. 223 engineers and employees from the Ministries of Education, Public Works, and Housing who were working on donor projects made up the sample. The purpose of the questionnaire was to get pertinent data from the respondents. A descriptive statistical analysis was performed on the collected data. The study's conclusions demonstrate that the most important elements for a project's success are funding, information technology, employee involvement, and monitoring and assessment. When it comes to donor project execution, information technology was found to be the most effective crucial success factor. Information technology was considered essential for reducing administrative expenses and guaranteeing that most donor monies be directed into the project's main programmatic activities. There isn't a database that connects donations to the Ministries of Public Works and Education at this time. According to this article, e-government is the only way that CSF deployment can be successful (G2D).

8. Study by Marai Malik Muayyad Mahmoud and Al-Hammad, Fawaz Ali Farhan, (2021). Titled The Impact of Projects Management Strategies on the Implementation Quality: Case Study: Implemented Governmental Projects by the Ministry of Public Works and Housing in Jordan.

Using a case study of governmental projects carried out by the Ministry of Public Works and Housing (MOPWH) in Jordan, this study sought to clarify the effects of the project management strategies (PMS) as independent variables (inception, planning, implementation, monitoring and control, closure) on the project implementation quality (PIQ) as dependent variables (correlation, efficiency, effectiveness, the impact, sustainability, and project risk management).

The study population included all of MOPWH's strategic partners in governmental institutions, consultants, contractors, and service recipients (beneficiaries) in Jordan. Taking into account the kind of projects carried out each year, the study population could have included an infinite number of people. The study uses a quantitative methodology. As a result, 476 respondents who fully completed online surveys were included in the sample size; all of

the questions were suitable for statistical analysis. When analysing data with SPSS, the inference and descriptive statistics were employed.

The study's findings demonstrated that the PMS (inception strategy, planning strategy, implementation strategy, monitoring and control strategy, and closure strategy) had a statistically significant impact on PIQ (as the dependent variable). Specifically, the main findings showed that the PMS had a statistically significant influence on each of the PIQ approaches (correlation, efficiency, effectiveness, the impact, sustainability, and project risk management), but the impact of the inception strategy itself was not statistically significant. Additionally, the data showed that PMS and PIQ had a considerable alignment in their association.

The study's conclusions led to the formulation of a number of suggestions, the most significant of which is that MOPWH concentrate its monitoring and control approach on immediately addressing any disagreements that arise during the implementation phase without fear of legal repercussions. Furthermore, in light of the correlation results, MOPWH ought to prioritise considering the opinions of pertinent authorities in the project's design. Additionally, with regards to sustainability, MOPWH ought to confirm that the project has adequate funding to meet its goals and deliverables. Furthermore, MOPWH ought to arrange to investigate the project's conception process, as it did not influence PIQ, and concentrate on comprehending this connection.

9. Study by ElSherbiny, (2022). Titled The Strategic Human Resource Transformation: A Study on the Civil Service in Egypt.

This paper aims to shed light on the status quo of Egypt's civil service human resource ecosystem, to explore the Strategic Human Resource Transformation (SHRT) practices from different countries, and to articulate a guideline for Egypt's civil service SHRT national program to overcome the civil service challenges and bouncing towards effectiveness and sustainable HR management. To develop this paper, the desk research's approach and the comparative methodology were adopted. The results revealed that the governmental entities HR departments' practices are not coincided with the global HRM practices, and that the investments for human capital capacity building are very limited. The civil service law No.81 issued in 2016, The Central Agency for Organization and Administration (CAOA) law No. 118 issued in 1964 & amendments, Egypt's vision 2030 related civil service HR projects, and the ongoing projects are not adhered and insufficient to achieve true SHRT. The current civil

service HR infrastructure enabled Egypt to launch a SHRT national program that became imperative to complement Egypt's economic reform endeavors. The anchors, enablers, work streams and initiatives that constitute the program guideline were introduced.

10. Study by Sidahmed, Mohamedelfatih Firagoun, (2021). Titled The Impact of Strategic Mmanagement on the Growth of Sudatel Group Inc.

The objective of this paper is to determine the impact of strategic management as a quality criteria on the growth of Sudatel Group Inc. This paper uses descriptive analytical approach in conducting the research, it depends mainly on data collection from primary sources through distributing of 40 questionnaire on employees and managerial staff of the Sudatel Group head quarter with two returned invalid makes the total of 38 valid sample. The result of the study shows most of the participants agreed to most of the questions of the questionnaire. Paper recommend that in order to reach the ultimate benefits of strategic management as a quality criteria in organizational growth company need to address the issue of needing an integrated resource system and the importance of have a resource pool to draw from when working on multiple projects also company need to work on finding a solid strategic partner and also company need to start exercising the long term thinking strategy and finally company should try sometimes to practice a risk taking experimentation.

11. Study by ElSherbiny, (2021). Titled The Effect of a Sustainable Balanced Scorecard for Strategic Decision-Making Under Uncertain Competitive and Climate Conditions Evidence from Iraq.

The present study attempts to use a complex sustainability balanced scorecard to provide a new paradigm in order to make strategic decisions in a tumultuous world (BSC). The fuzzy TOPSIS approach is used to pick environmental variables, which are then applied to a complex BSC model for an organization. The model of making decision is divided into three major scripts: "optimistic" (economical development script), "realistic" (normal long-term economic condition), and "pessimistic" (maintenance of existing penalty situation script), as well as two interior politics: generation increase and productivity maximization. For the hierarchical BSC model, the model is independently simulated in each situation and strategy, and every significant feature of the organization is studied, for the bulk of income and long-term viability. The findings suggest that in each case, a particular strategy is favored, which may aid strategic managers in making decisions in volatile and chaotic situations. Due to the growing sophistication of companies in today's competitive world, performance assessment

frameworks must be proposed. One of the most commonly used approaches for measuring project efficiency that can be adapted to particular situations is the "Balanced Scorecard (BSC)" approach.

12. Study by Abu Amra,, (2020). Titled The Impact of Strategic Ambidexterity on Projects Management in Jordanian Contracting Companies.

This study aimed to identify the impact of strategic ambidexterity in project management in Jordanian contracting companies. The study population consisted of all managers of senior and middle management in Jordanian contracting companies classified as first-class in the Jordanian capital, Amman, numbering (180) companies. The study relied on a proportional stratified random sample from the study population consisting of (720) managers, where the size of the study sample was (251) managers. To achieve the objectives of the study, the descriptive analytical method and the sampling/survey strategy were used. A questionnaire was developed to collect data and analyzed using the Statistical Package for the Social Sciences (SPSS) program. Many statistical methods were used, including: arithmetic averages, standard deviations, and multiple and simple regression, to analyze the study data. The results of the study showed a statistically significant effect of strategic ambidexterity in its dimensions (exploring opportunities, exploiting opportunities, avoiding threats) on project management in its combined dimensions (project scope management, project schedule management, project cost management, project quality management) in Jordanian contracting companies. In light of the findings of the study, a set of recommendations were presented, including: - The necessity of working to allocate specialized administrative units in Jordanian contracting companies to adopt a culture of strategic thought to enhance strategic ingenuity activities because of their major role in achieving their goals and the success of their projects. - Introducing all employees of Jordanian contracting companies at their administrative levels to the importance of strategic ingenuity and its benefits, and working to stimulate the entrepreneurial spirit among employees and provide them with many new skills and training courses. -The need to emphasize increased attention to the importance of prior prediction of the threats and risks surrounding its projects by developing scenarios and plans in advance, determining their importance and the priority of responding to them, and allocating the necessary resources to avoid them.

13. Study by Al-Najjar, (2019). Titled Impact of Strategic Vigilance on Projects Management in Jordanian Telecommunication Companies.

The study aimed to identify the impact of strategic vigilance on project management in Jordanian telecommunications companies. The study relied on the descriptive analytical approach, targeting employees at the senior and middle management levels in Jordanian telecommunications companies, which employ (217) employees. The study adopted a proportional stratified random sample. The size of the study sample was (153) employees, and the study reached the following results:

- * There is a statistically significant effect at a significant level ($p \leq 0.05$) of strategic alertness in its dimensions (competitive alertness, technological alertness, commercial alertness, and environmental alertness) in project management in all its fields. Combined (project scope management, project schedule management, project cost management, project quality management, project integration management, project resource management, project communications management, project risk management, project procurement management, and project stakeholder management) in Jordanian telecom companies .
- * There is a statistically significant effect at a significant level ($p \leq 0.05$) for strategic vigilance in its combined dimensions (competitive vigilance, technological vigilance, commercial vigilance, and environmental vigilance) in the areas of achieving project management goals in its combined dimensions (project scope management, project schedule management, Project cost management and project quality management in Jordanian telecommunications companies.
- * There is a statistically significant effect at a significant level ($p \leq 0.05$) for strategic vigilance in its combined dimensions (competitive vigilance, technological vigilance, commercial vigilance, and environmental vigilance) in the areas of project management methods in their combined dimensions (project integration management, project resource management, and project communications management). , project risk management, project procurement management, and project stakeholder management) in Jordanian telecommunications companies. The study presented a set of recommendations, including:

- Enhancing interest in strategic vigilance information because of its importance as a strategic information resource, through establishing units or cells for strategic vigilance in Jordanian telecommunications companies to ensure the organizational arrangements that guarantee their work, and publicizing the importance of this information to all administrative levels by preparing Qualification courses in this field.
- Enhancing interest in environmental vigilance in Jordanian telecommunications companies, which constitutes all other types of strategic vigilance that are not included in the other main types, such as legislative vigilance, political vigilance, legal vigilance, social vigilance, organizational vigilance, and others, through attention to legislation, laws, and environmentally friendly products, and enhancing employee awareness of matters related to

these areas. By encouraging participation in relevant seminars and conferences. - Promoting interest in international standards for project management in Jordanian telecommunications companies, especially project risk management, and project scope management by motivating employees to obtain accredited international certificates in this field, and encouraging them to participate in training courses and workshops held in the field of project management.

Methodology:

The research is based on a descriptive and analytical approach, as it focuses on examining the theoretical foundations related to the subject through reviewing relevant Arab and foreign references. The research also includes implementing a field study, which consists of distributing questionnaires to different categories of the selected sample.

Study tools:

The research tool is defined as “the means by which the process of collecting data is carried out with the aim of answering its questions. In collecting data, researchers will rely on the questionnaire, which is defined as a specific formula of paragraphs and questions aimed at collecting data from research individuals.”

Statistical methods:

The research used the statistical program SPSS to analyze the study data through the following statistical methods:

- The Cronbach coefficient to calculate the level of stability of the study tool
- Pearson correlation coefficient to determine the level of internal consistency and validity of the study tool and to identify the relationship between the study variables
- Proportions and frequencies to describe the characteristics of the study sample
- The arithmetic mean and standard deviation to describe the level of response of the study sample members to the statements of the study tool
- A simple linear regression equation to measure the effect between study variables.

The limits of the study:

Spatial boundaries: represented by construction projects in Riyadh, in the Kingdom of Saudi Arabia.

Time limits: This study took in 2024.

Human limits: The target group was represented by the leaders of the surveyed institutions, and was limited to the categories of senior and middle management of projects (general managers, deputy general managers and their assistants, department directors, department heads, and team leader).

Study limitations:

The results of this study were determined by the degree of objectivity of the answers of the respondents in the study sample. The scarcity of references and sources was also identified in some variables, especially strategic risk management. There was poor cooperation in filling out the questionnaire, which required a great deal of effort and time from the researcher.

Chapter Two

Theoretical Framework

The concept of strategy

Strategic management has been defined as: “The organization’s determination of its long-term goals and objectives, and the allocation of resources to achieve them.” Strategy has also been defined as a pattern of main goals and objectives, foundations, plans, policies, and philosophies in order to achieve the goals desired by the organization. Others saw strategy as: "A comprehensive set of actions or activities that lead and direct the use of the organization's resources to achieve its vision and goals, and enable it to achieve a sustainable competitive advantage. The strategy begins by identifying the organizational goals and their relative importance as primary long-term goals and secondary goals through a business plan that can develop a competitive advantage, then identifying and analyzing the environment in terms of market characteristics and working to meet customer needs with products of better value than competitors by searching for the features and price that customers prefer, and identifying competitiveness and finding and enhancing strengths. (Winch, 2022).

Environmental analysis and the organization's ability to identify and select the products and markets in which it competes, and dimensions of winning and achieving success such as price or quality, with the development of a special plan for the product and market to search for an opportunity to excel in some of the preferential dimensions of the product by customers such as speed and reliability in preparation, flexibility in diversity and meeting requirements and volume changes. The strategy is implemented when the company relies on organizational policies and practices that are consistent with its strategy, and translates them into actions that confirm the effectiveness of the organizational strategy. Based on the above, the sequence of the strategic process can be divided into levels The following: (Torres, 2020)

- Formulating the vision and mission of the organization: The vision is a statement that provides an answer to the future direction of the organization, and the mission is the framework that describes the nature of the organization's work and the reason for its existence, clarifies its goals, defines its identity, and its overall direction, and the organization's message is supposed to be an honest expression of the organization's vision.

- Formulating goals: After the decision is made regarding the organization's basic mission, its goals can be determined, as these goals help direct the efforts of capabilities and leadership.
- Formulating strategies: Strategies are the means used by the organization to achieve its goals, as they clarify the method and style chosen by the organization to manage the influence of external forces.

In this context, strategic management can be defined as setting future plans for the organization, determining its long-term goals, and choosing the appropriate implementation pattern in an effective manner. Strategic management also means a set of administrative decisions that determine the organization's long-term performance, and formulation includes implementation, evaluation, and control. (Ekemezie, 2024).

It is important in many organizations to distinguish between the following levels of strategy: organizational strategy and business strategy. At the highest level of the organization, organizational strategy is the long-term plan that leads to identifying the industries and markets in which the organization will compete, investment, vertical integration, acquisition, diversification, new projects, and resource allocation of business units. The third level of strategy is concerned with functions and is called operational strategy, which supports the achievement of the organization's plans and business, and various strategies, such as (production or operations, marketing, individuals, finance, research and development). Second: The importance of operations and operations strategy. (Kadykova, 2020).

Most organizations can be described as seeking to achieve products through production systems that transform inputs such as materials, labor, and equipment into outputs in the form of goods or services or a mixture of both, through functional units divided into several functions, each with its own employees and responsibilities. The three basic functions of marketing, finance, and operations are functions that interact with each other. The demand for products drives the operations function, and the requirements for facilities, utilities, equipment, and human resources drive the financial function. Accounting and financial policy affect decisions related to operations, which in turn directly affect future demand for products and the availability of financial resources. (Ekemezie, 2024).

Operations management: It means how the organization produces and delivers the required goods and services, which is the reason for its existence. Operations are described

as the part of the organization concerned with the activities of production and delivery of goods and services. It is considered a process and a way of thinking. Others have emphasized that operations management is the activities, decisions, and responsibilities of managing the resources allocated to the production and delivery of goods and services. Operations management involves the planning, design and operation of production systems to achieve the organization's goals. The success of operations in achieving their goals is viewed from the perspective of their ability to provide the community's requirements for products and services in quantity, quality and delivery. The main goals of businesses are to earn a steady and increasing flow of profits and to maintain long-term demand for their products. (Kadykova, 2020).

The focus should be on the ultimate goals and not just taking into account the goal of reducing costs and over-emphasizing it, which can lead to decisions that contradict the organization's goals. This means that operations decisions must be made and implemented in a way that achieves the organization's comprehensive and overall goals such as profitability and growth. The author himself defined operations goals as the things that the operations function must implement correctly, which when combined with the efforts of other functions will help the company excel in achieving its overall goals. (Winch, 2022).

Project Management

A broad presentation will be given starting with defining the project, then project management and its definition, followed by project constraints, then the project life cycle which includes the stages of the project life cycle and ending with defining construction projects and managing construction projects. (Kadykova, 2020).

Project Concept

Projects vary in size, complexity, uniqueness and originality. The concepts and definitions of the project have varied and differed according to the viewpoints of researchers in the field of project management and according to the purpose for which the project will be established. The following presents some definitions of the project as follows: (Winch, 2022)

1. A temporary effort undertaken to manufacture a product or provide a unique service.
2. It is a temporary endeavor, and a special task that has not been done before.

3. A means of achieving specific goals through the organization, a work team, or an individual carrying out interconnected and non-routine activities governed by a specific beginning and end according to the planned cost, time, and quality standards.
4. A collective effort to achieve a specific goal through a set of tasks.
5. It can also be defined as a series of activities and tasks that have a specific goal, and are accomplished within specific specifications and for a specific period of time, beginning and end, and with specific funding.

It is concluded from this that the project is temporary, has a specific beginning and end, and has clear and specific goals and results, represented by providing a product or service upon completion of the project, to achieve complete satisfaction of the requirements and desires of the project client, and in order to obtain the required results, there must be effective project planning that converts the goals into tangible activities and forms work groups for these activities, schedules these activities, and determines the resources necessary to implement them. (Kadykova, 2020).

Project Management Concept

Project management can be defined as the art of coordinating and directing the use of project resources and available sources in a systematic manner, using modern techniques, to achieve previously agreed upon goals, and the skill of applying various standards, methods, tools and techniques, which ensure the correct implementation of all operations, to complete the project in the shortest possible time and cost and the highest possible quality. (Winch, 2022).

It can also be defined as the process of organizing a group of individuals within a specific organizational framework and specific foundations and rules to achieve the expected goals through the optimal exploitation of resources based on many methods and techniques that achieve efficiency and effectiveness. Successful project management requires proper planning of project activities, and focuses on realistic scheduling of work to ensure the credibility of the project. The value of project management lies in its success, which includes customer satisfaction, the success of the organization's business and the achievement of long-term benefits. (Torres, 2020).

Project constraints

Projects in general are subject to a set of constraints and variables that affect the course of their implementation. It is noteworthy that the main project objectives (time, cost, and scope) constitute the project's triple constraints. However, it was found that the most common and most widely used performance measures for the project are based on time, cost and quality to form the heads of the iron triangle, and important links have been found Between time, cost and quality, to form the heads of the iron triangle, and these links were stronger than the links between time, cost and scope. Therefore, time, cost and quality represent the basic determinants that determine the nature of the construction project and affect the success of project implementation. (Winch, 2022).

During the implementation phase, a deficiency or increase in one of these constraints occurs, which in turn leads to a deficiency or increase in the other end, as there is a close relationship between the three elements of time, cost and quality, and any change that occurs to one of these elements is directly reflected in another element. When trying to adhere to the schedule and reduce the time period, this requires increasing resources to complete it on time, which leads to an increase in the budget and cost and vice versa. The project plan must be able to balance these three elements, and the project manager must be skilled in assessing the situation and dealing with changes in project requirements well in order to achieve the success of the project. (Kadykova, 2020).

The planning process plays an important role in controlling project constraints, and preparing solid plans ensures the possibility of finding a balance between these constraints and achieving project success. There must be effective management that is responsible for controlling and supervising project constraints with the utmost care to complete the project within the specified time frame, allocating a sufficient budget to complete the project, and determining quality policies to enable the project to achieve the goals for which it was established. (Torres, 2020).

Project Life Cycle

The project life cycle provides the basic framework for project management and means the distinct stages that each project goes through, and each stage begins and ends within a specific period of time according to the established time plan. The project life begins slowly and then accelerates with the progress of the work stages until it reaches the peak,

then begins to decline until the time of completion and delivery of the project. Each project in general, whether related to the construction sector or another sector, goes through different stages of development. This development process is called the "project life cycle" and it differs from one project to another, and can be divided into the following stages: (Kadykova, 2020).

1. Presentation and definition stage

This is a crucial and important stage in the life of the project; it focuses on understanding the project idea that is generated by identifying the need for work and the necessity of establishing the project either to solve a problem or seize an opportunity. Through this step, the project can be visualized, its objectives and required main achievements can be determined, the opportunity to complete the project can be estimated and whether it is possible by conducting a feasibility study, which determines the optimal solution to meet the project needs and evaluates all areas of this solution to identify the expected concerns and risks, which helps in the decision-making process to proceed with the project or cancel the idea. At this stage, the project manager needs to collect more information to be able to define the project idea in detail, and in order for it to be successful in the subsequent stages of the project. (Jang, 2021).

2. Planning and Design Phase

The aim of the project planning phase is to prepare a structure for implementing and controlling the project. This phase includes preparing detailed plans and designs at the required level, preparing the project budget, identifying the necessary resources, scheduling important activities, converting objectives into tangible activities, and forming working groups for these activities. It ensures that objectives are achieved, and includes studying the project in detail and from several aspects, including the technical study of the project in terms of its feasibility, in addition to the financial and economic study and various sources of funding. Comprehensive planning in the early stage of the project life cycle represents one of the important factors in its success. Due to the responsibility that falls on the project manager to achieve complete satisfaction of stakeholders, and to pay attention to how to implement the project correctly, this highlights the important role of planning, as it constitutes about 48% of all operations that the project manager must perform correctly during the project life cycle. (Albtoush, 2022).

3. Implementation Phase

This is the phase of implementing the project and the actual implementation of the plans on the ground. This phase includes implementing the project plan, in addition to supervising and monitoring the implementation and preparing the necessary reports on the progress of the project and comparing what has been implemented with what has been planned, and controlling the time, cost and quality of work. In this phase, human resources and other resources are coordinated to implement the plan. Therefore, all materials required to implement the project must be secured and the work team must be prepared to start implementing the project plans. The implementation phase is considered the longest phase of the project. (Albtoush, 2022).

4. Project Completion Phase

The project completion phase is one of the most important and most neglected phases of the project life cycle, as the motivation during this phase is the lowest among all the phases of the project life cycle, enthusiasm fades, and the project manager's attention and focus are focused elsewhere and the project team is preoccupied with other issues. However, the importance of this phase should not be underestimated; as this phase formalizes the acceptance and completion of the project in an organized manner, and is considered the final destination for all previous efforts. It is the phase of completing and delivering the project, after analyzing the project performance, evaluating the implementation process and determining the extent to which it matches the intended objectives, and taking the necessary measures to address deviations. (Jang, 2021).

This stage includes meeting the achievement standards, delivering the specified outputs and results to its users, ensuring their satisfaction and fulfilling all their needs, stopping the implementation process and dissolving the project team, and submitting final reports by the project manager to the main stakeholders to document the completion of the project and allocating the remaining resources for future projects. (Albtoush, 2022).

Construction Projects and Construction Project Management

The construction sector is one of the most widespread sectors in practice, and consists of a group of works related to buildings and engineering constructions of all kinds, in addition

to maintenance work. It is also considered one of the vital sectors contributing to the development process in Jordan, and its importance appears in that it is one of the important sectors that play an important role in economic growth and development of the national economy, raising the standard of living for individuals and improving the quality of life, by creating job opportunities in many fields. (Jang, 2021).

It must be given attention in order to achieve sound economic growth. The construction sector poses a major challenge compared to other sectors, due to its dynamic, fragmented and complex nature; because it requires the participation of different parties and successful management of operations. The engineering nature of construction projects requires departments to develop the necessary plans to control project activities. Construction projects facing the triple project challenges and constraints of time, cost and quality require skillful management to balance them. (Malik, 2021).

Construction projects are defined as a set of operations, events and engineering activities that are linked to each other, and which require good planning that seeks to complete these activities and works within the specified time and required budget without any interference between them. Construction projects are characterized by complexity, uncertainty, long implementation periods and multiple stages in which many changes may occur and make them more vulnerable to multiple risks. The future requires that construction projects be implemented with high efficiency, and that these projects provide sustainable solutions that keep pace with new technology. Construction project management is defined as the use of knowledge, methods and experience to achieve the required goals within the project's parameters of time, cost and quality, through the application of planning, organization, monitoring and implementation processes. The project is managed from the beginning of its conception until the end of its implementation. Sound project management is an important pillar for the success of construction companies. (Narayan, 2019).

Chapter Three

Study Methodology and Procedures

Introduction

This chapter deals with the field study by identifying the study methodology, the study population and sample, the study tool, data collection sources, statistical methods used in the study, and calculating the validity and stability of the study tool.

Research Methodology:

The research is based on a descriptive and analytical approach, where it focuses on examining the theoretical foundations related to the topic by reviewing relevant Arabic and foreign references. The research also includes the implementation of a field study consisting in distributing questionnaires to different categories of the selected sample.

Population and sample of the study

The study population consisted of construction project managers in the Kingdom of Saudi Arabia, specifically in Riyadh. Due to the difficulty of conducting a comprehensive census of all members of the study population, the study used the simple random sample method to collect data. The number of members of the study sample was 394 individuals who answered the questionnaire questions.

Data sources:

The data and information of this study were collected depending on the following methods:

I. Primary sources:

A search tool is defined as "the means by which data is collected to answer their questions. The researchers will rely on the questionnaire to collect the data, which is defined as a specific form of paragraphs and questions aimed at collecting data from research subjects.

II. Secondary sources:

It includes data and information found in books and references, theses, working papers, journals, periodicals, scientific conferences and workshops, in addition to

published and unpublished reports that dealt with the subject in various relevant institutions.

Statistical methods:

The research used the statistical program SPSS to analyze the study data through the following statistical methods:

- Cronbach coefficient to calculate the level of stability of the study instrument
- Pearson's correlation coefficient to determine the level of internal consistency and the validity of the study tool and to identify the relationship between the study variables
- Ratios and frequencies to describe the characteristics of the study sample
- The arithmetic mean and standard deviation to describe the level of response of the study sample members to the statements of the study tool
- Simple linear regression equation to measure the effect between study variables.

Study Tool

The questionnaire was worked on to suit the variables of the study by reviewing previous studies related to the subject of the study, as it consisted of three sections :

- **The first section:** which is the part related to the demographic variables of the members of the study sample..
- **Section Two:** Includes statements related to the first axis, strategic management, and its dimensions (strategic objectives, strategy formulation, evaluation, strategy implementation), and includes 20 paragraphs.
- **Section III:** It included phrases related to the second axis, which is the success of projects, and included 10 paragraphs.

The five-point Likert scale, consisting of very agree (5), agree (4), neutral (3), disagree (2), and very disagree (1), was used to answer the questions of the study axes.

The study divided the direction of approval of the study sample members on the statements of the study axes into levels by applying the following:

Scale range = highest number in scale (5) – lowest number in scale (1) = 4

Level range = scale range / number of levels (5) = 0.80

Table (1.3) Levels of approval of the study sample on the statements of the study tool

Level	Grade
Very low	1 – 1.79
Low	1.80 – 2.59
Medium	2.60 – 3.39
High	3.40 – 4.19
Very high	4.20 – 5.00

Believe the study tool

The validity of the questionnaire statements was calculated by determining the level of internal homogeneity by identifying the statistical significance of the Pearson correlation coefficients between the degree of the statement and the total degree of the axis to which the statement belongs, and the results were as follows:

First Theme: strategic management

Table (2.3) Correlation coefficients for the first axis statements

M	Ferry	Pearson correlation coefficient	Mr
strategic objectives			
1	The project management company seeks to achieve the strategic objectives of the construction project.	0.839**	0.000

2	The project management company analyzes the opportunities or constraints in the external environment of the project.	0.556**	0.000
3	The project management company allocates available resources for alternative uses and increases efficiency.	0.911**	0.000
4	The project management company is keen to invest in the capabilities it possesses in order to achieve a competitive advantage.	0.663**	0.000
5	The project management company seeks to make strategic decisions for the fund to achieve the desired objectives.	0.892**	0.000
strategy formulation			
6	The project management company effectively implements the established policies.	0.853**	0.000
7	The project management company seeks to develop awareness of the strategies.	0.760**	0.000
8	The project management company develops information systems to adequately implement the strategy.	0.523**	0.000
9	The project management company develops employees to increase their motivation at work.	0.883**	0.000
10	The project management company continuously monitors the achievement of the set annual objectives.	0.800**	0.000
Evaluation			
11	The project management company continuously reviews the internal and external elements affecting the fund's work.	0.559**	0.000
12	The project management company measures its performance to avoid shortcomings in the fund's work.	0.806**	0.000

13	The project management company aims to take corrective actions on an ongoing basis.	0.849**	0.000
14	The strategy evaluation process is important in the project management company because it highlights the degree to which the overall plans are achieving the desired results.	0.827**	0.000
15	The strategy evaluation process is important in the project management company as it develops the inputs for new strategic planning.	0.828**	0.000
strategy implementation			
16	The strategy is implemented according to the plan set by the company managing the project.	0.725**	0.000
17	The implementation of the strategy is reviewed to ensure that it is within the required levels.	0.733**	0.000
18	The strategy is modified if loopholes are found.	0.829**	0.000
19	The strategy implementation aims to improve the work environment in the company managing the project.	0.791**	0.000
20	Staff are trained to implement the strategy appropriately.	0.804**	0.000

**** Statistically significant at 0.01**

It was found that all correlation coefficients for all the phrases of the axis of the strategic management were statistically significant at a significant level (0.01), which means that the phrases of the axis of the vocational strategic management have the sincerity of internal consistency and are valid for the purposes of the study.

The second axis: success of projects

Table (3.3) Correlation coefficients for second axis statements

M	Ferry	Pearson correlation coefficient	Mr
1	Construction workers are keen to perform the tasks required of them with high quality.	0.585**	0.000
2	Work is being done on time to improve the construction environment in Riyadh.	0.767**	0.000
3	Construction workers and managers are making clear efforts to help increase the number of construction projects.	0.691**	0.000
4	Workers help project owners correct errors resulting from their inability to manage construction projects.	0.692**	0.000
5	Construction company employees have the competence to develop construction projects.	0.947**	0.000
6	Construction project management companies aim to know the benefits that construction projects provide in achieving the desired development.	0.902**	0.000
7	Construction project management companies ensure that the project continues to operate.	0.805**	0.000
8	Construction project management companies are interested in construction projects that contribute to protecting the environment.	0.895**	0.000
9	The project management company coordinates with the relevant authorities to find a formula through which construction projects can be supported.	0.920**	0.000
10	Senior management is trying to find the obstacles that limit the ability of construction projects to achieve sustainability.	0.521**	0.000

**** Statistically significant at 0.01**

It was found that all correlation coefficients for all project success axis statements were statistically significant at a significance level of (0.01), which means that the project success axis statements enjoy internal consistency validity and are valid for the purposes of the study.

Stability of the study instrument:

Cronbach alpha coefficient was calculated for the statements of the questionnaire axes and the results were as follows:

Table (4.3) Stability coefficient for the axes of the questionnaire form

Axles	Alpha Cronbach Laboratories	Number of ferries
strategic management	0.961	20
project success	0.919	10
Total Questionnaire Form	0.972	30

It is found that the value of the stability coefficient Alpha is greater than 0.7 for all axes of the questionnaire form, which confirms the validity and correlation of the statements of the axes of the questionnaire and the high level of stability of the study tool, which allows the tool to be used for the purpose of the study.

Chapter Four

Analysis of results

Introduction

In this chapter, we will deal with the analysis of the study data by analyzing the questionnaire form, identifying the characteristics of the study sample, analyzing the study axes , and testing the study hypotheses in order to achieve the objectives of the study and reach the results and recommendations of the study.

Characteristics of the study sample

Table (5.4) Distribution of Study Sample According to its Characteristics

Property	Categories	Number	%
Genre	male	340	86.1
	female	55	13.9
Lifetime	Less than 30 years	260	65.8
	From 30 to less than years old 40	55	13.9
	From 40 to less than years old 50	30	7.6
	years and above 50	50	12.7
Qualification	secondary	112	28.4
	Bachelor	174	44.1
	Master	76	19.2
	Doctor	33	8.4

Analysis of the questionnaire form

First Theme: strategic management

1- Strategic objectives

Table (6.4) Arithmetic Mean, Standard Deviation, Ranking and Level of Approval of the Phrases of the strategic objectives

Ferry	Arithmetic mean	Standard deviation	Order	Approval level
The project management company seeks to achieve the strategic objectives of the construction project.	3.835	1.298	5	High
The project management company analyzes the opportunities or constraints in the external environment of the project.	4.025	0.4	1	High
The project management company allocates available resources for alternative uses and increases efficiency.	3.861	0.979	4	High
The project management company is keen to invest in the capabilities it possesses in order to achieve a competitive advantage.	3.861	0.808	2	High
The project management company seeks to make strategic decisions for the fund to achieve the desired objectives.	3.861	0.839	3	
Average	3.889	0.947		High

The **strategic objectives statements** were **arranged** in terms of relative importance (the largest arithmetic mean value) from the point of view of the study sample. It was found

that the statement (**The project management company analyzes the opportunities or constraints in the external environment of the project.**) is the most important statement with a value of 4.025, a standard deviation of 0.400, and a high degree of agreement, while the statement (**The project management company seeks to achieve the strategic objectives of the construction project.**) is the least important statement with a value of 3.835, a standard deviation of 1.298, and a high degree of agreement. When studying the **strategic objectives** statements, it was found that all statements have a high level of agreement, which indicates a high level of **strategic objectives** applied in construction projects, as the arithmetic mean value reached 3.889 with a standard deviation of 0.947.

2- Strategy formulation

Table (7.4) Arithmetic Mean, Standard Deviation, Ranking and Level of Approval of strategy formulation Statements

Ferry	Arithmetic mean	Standard deviation	Order	Approval level
The project management company effectively implements the established policies.	3.544	1.158	4	High
The project management company seeks to develop awareness of the strategies.	3.772	1.223	2	High
The project management company develops information systems to adequately implement the strategy.	3.165	1.269	5	medium
The project management company develops employees to increase their motivation at work.	3.671	1.089	3	High
The project management company continuously monitors the achievement of the set annual objectives.	3.937	0.934	1	High
Average	3.618	1.134	High	

The statements **of the strategy formulation were arranged** in terms of the degree of materiality (the value of the largest arithmetic mean) from the point of view of the study sample. It was found that the phrase (**The project management company continuously monitors the achievement of the set annual objectives**) is the most important phrase with a value of 4.025 and a standard deviation of 0.400 and a high degree of approval while the phrase (**The project management company continuously monitors the achievement of the set annual objectives.**) are the least important phrases with a value of 3.835 and a standard deviation of 1.298 and a degree of average approval and when studying the phrases **of the strategy formulation**, it was found that four phrases at the high level of approval and one phrase at the level of approval average, which shows the high level **of strategy formulation** applied in construction projects, where the arithmetic mean value was 3.618 with a standard deviation of 1.134.

3- Evaluation

Table (8.4) Arithmetic Mean, Standard Deviation, Ranking and Level of Approval of Evaluation Statements

Ferry	Arithmetic mean	Standard deviation	Order	Approval level
The project management company continuously reviews the internal and external elements affecting the fund's work.	3.608	1.259	5	High
The project management company measures its performance to avoid shortcomings in the fund's work.	3.797	1.000	2	High
The project management company aims to take corrective actions on an ongoing basis.	4.000	0.901	1	High
The strategy evaluation process is important in the project management company because it highlights the degree to which the	3.722	1.313	3	High

overall plans are achieving the desired results.				
The strategy evaluation process is important in the project management company as it develops the inputs for new strategic planning.	3.696	0.878	4	High
Average	3.765	1.070	High	

The Evaluation statements were arranged in terms of the degree of relative importance (the value of the largest arithmetic mean) from the point of view of the study sample, it was found that the phrase **(The project management company aims to take corrective actions on an ongoing basis)** is the most important phrases with a value of 4.000 and a standard deviation of 0.901 and a high degree of approval while the phrase **(The project management company continuously reviews the internal and external elements affecting the fund's work)** are the least important phrases with a value of 3.608 and a standard deviation of 1.259 and a high degree of approval and when studying the phrases of the **Evaluation**, it was found that all the phrases are at the high level of approval, which shows the high **Evaluation** applied in construction projects where the value of the arithmetic mean was 3.696 with a standard deviation of 0.878.

4- Strategy implementation

Table (9.4) Arithmetic mean, standard deviation, ranking and level of approval of the statements of strategy implementation

Ferry	Arithmetic mean	Standard deviation	Order	Approval level
The strategy is implemented according to the plan set by the company managing the project.	3.899	0.881	3	High

The implementation of the strategy is reviewed to ensure that it is within the required levels.	3.937	1.012	2	High
The strategy is modified if loopholes are found.	3.620	1.096	5	High
The strategy implementation aims to improve the work environment in the company managing the project.	3.633	1.083	4	High
Staff are trained to implement the strategy appropriately.	4.000	0.828	1	High
Average	3.818	0.980	High	

The phrases **of strategy implementation were arranged** in terms of the degree of relative importance (the value of the largest arithmetic mean) from the point of view of the study sample shows that the phrase (**Staff are trained to implement the strategy appropriately**) is the most important phrase with a value of 4.000 and a standard deviation of 0.828 and a high degree of approval while the phrase (**The strategy is modified if loopholes are found**) are the least important phrases with a value of 3.620 and a standard deviation of 1.096 and a high degree of approval and when studying the phrases **of strategy implementation**, it was found that all the phrases are in the high level of approval, which shows the high level **of strategy implementation** applied in the construction projects, where the value of the arithmetic mean 3.818 with standard deviation 0.828.

It is clear from the above that the level of strategic management applied in construction projects in the Kingdom of Saudi Arabia, specifically Riyadh, is high, as the arithmetic mean value of the phrases of the strategic management axis reached (3.727) with a standard deviation of (1.032).

The second axis: success of projects

Table (10.4) Arithmetic mean, standard deviation, ranking and level of approval of the statements of success of projects

Ferry	Arithmetic mean	Standard deviation	Order	Approval level
Construction workers are keen to perform the tasks required of them with high quality.	4.291	0.679	1	Very high
Work is being done on time to improve the construction environment in Riyadh.	3.924	1.078	4	High
Construction workers and managers are making clear efforts to help increase the number of construction projects.	3.899	0.964	5	High
Workers help project owners correct errors resulting from their inability to manage construction projects.	4.013	0.820	3	High
Construction company employees have the competence to develop construction projects.	3.937	0.786	6	High
Construction project management companies aim to know the benefits that construction projects provide in achieving the desired development.	4.013	0.647	2	High
Construction project management companies ensure that the project continues to operate.	3.658	1.043	8	High
Construction project management companies are interested in construction projects that contribute to protecting the environment.	3.608	0.975	9	High

The project management company coordinates with the relevant authorities to find a formula through which construction projects can be supported.	3.544	1.042	10	High
Senior management is trying to find the obstacles that limit the ability of construction projects to achieve sustainability.	3.747	1.062	7	High
Average	3.863	0.910	High	

The phrases **of the success of projects** were arranged in terms of the degree of relative importance (the value of the largest arithmetic mean) from the point of view of the study sample, it was found that the phrase **(Construction workers are keen to perform the tasks required of them with high quality)** is the most important phrase with a value of 4.401 and a standard deviation of 0.631 and a very high degree of approval, while the phrase **(The project management company coordinates with the relevant authorities to find a formula through which construction projects can be supported)** is the least important phrases with a value of 3.919 and a standard deviation of 0.913 and a high degree of approval and when studying the phrases **of success of projects**, it was found that one phrase at the level of approval is very high and nine phrases in the level of approval high, which shows the high level **of success of projects** in the construction projects, where the value of the arithmetic average of the phrases axis success of projects 3.863 with a standard deviation of 0.910.

Assignment test

Main hypothesis: There is no statistically significant effect at the significance level ($0.05 \geq \alpha$) of strategic project management on the success of construction projects in the contracting sector in the city of Riyadh.

Table (11.4) Results of Simple Linear Regression Model for Testing the Main Hypothesis

Model Summary						
Correlation coefficient R			Coefficient of determinationR2		R-2 Adjusted	
0.888			0.789		0.788	
ANOVA Variance Analysis						
Prototype		Sum of squares	Degrees of FreedomDf	Average squares	F	Sig F
Regression Regression		15271.894	1	15271.894	1467.490	0.000
Residual		4089.879	393	10.407		
Total Total		19361.772	394			
Dependent variable	prototype	B	Standard error	Beta	T	Sig T
project success	Constant	9.101	.788		11.553	.000
	strategic project management	.391	.010	.888	38.308	.000

It is clear from Table (11) that there is no statistically significant effect at the significance level ($0.05 \geq \alpha$) for strategic project management on the success of construction projects in the contracting sector in the city of Riyadh at the significance level of 0.05, as the value of (Sig F) = 0.000, which is a value less than 0.05, meaning that the calculated value of F is greater than the tabular value of F. It was found that there is a strong positive correlation with statistical significance between strategic project management in its dimensions and the success of projects in the Kingdom at the significance level of 0.05. It was found that the independent variable (strategic project management) explains 78.9% of the changes that occur in the dependent variable (project success), and that the remaining changes are due to other variables that were not included in the model. It was found that whenever the level of strategic project management in its dimensions increases by 1%, the level of professional project success in construction projects in the Kingdom increases by 0.391%, which indicates the invalidity of the main hypothesis of the study.

The first sub-hypothesis: There is no statistically significant effect at the significance level ($0.05 \geq \alpha$) of strategic objectives on the success of construction projects in the contracting sector in the city of Riyadh.

Table (12.4) Results of the simple linear regression model for testing the first sub-hypothesis

Model Summary						
Correlation coefficient R			Coefficient of determinationR2		R-2 Adjusted	
0.822			0.676		0.675	
ANOVA Variance Analysis						
Prototype		Sum of squares	Degrees of FreedomDf	Average squares	F	Sig F
Regression Regression		13080.270	1	13080.270	819.362	0.000
Residual		6281.502	393	15.983		
Total Total		19361.772	394			
Dependent variable	prototype	B	Standard error	Beta	T	Sig T
project success	Constant	9.991	1.021		9.783	.000
	strategic project management	1.473	.051	.822	28.607	.000

Table (12) shows that there is a statistically significant direct effect of the strategic objectives on the projects success at the level of 0.05, where the value of (Sig F) = 0.000, which is a value less than 0.05, meaning that the calculated F value is greater than the tabular F value, and it was found that there is a strong positive correlation with statistical significance between the strategic objectives and the projects success. At a significant level of 0.05 and it turned out that the independent variable (strategic objectives) explains 67.6% of the changes that occur in the dependent variable (projects success) and that the rest of the changes are due to other variables that were not included in the model and it was found that the higher the level of strategic objectives by 1%, the greater the level of projects success by 1.473%, which shows the invalidity of the first sub-hypothesis of the study

The second sub-hypothesis: There is no statistically significant effect at the significance level ($0.05 \geq \alpha$) of strategy formulation on the success of construction projects in the contracting sector in the city of Riyadh.

Table (13.4) Results of Simple Linear Regression Model for Testing the Second Sub-Hypothesis

Model Summary						
Correlation coefficient R			Coefficient of determinationR2		R-2 Adjusted	
0.843			0.711		0.710	
ANOVA Variance Analysis						
Prototype		Sum of squares	Degrees of FreedomDf	Average squares	F	Sig F
Regression Regression		13768.690	1	13768.690	967.462	0.000
Residual		5593.083	393	14.232		
Total Total		19361.772	394			
Dependent variable	prototype	B	Standard error	Beta	T	Sig T
project success	Constant	15.352	.772		19.881	.000
	strategic project management	1.287	.041	.843	31.104	.000

Table (13) shows that there is a statistically significant direct effect of the strategy formulation on the project success at the level of 0.05, where the value of (Sig F) = 0.000, which is a value less than 0.05, meaning that the calculated F value is greater than the tabular F value, and it was found that there is a strong statistically significant direct correlation between the strategy formulation and the project success. At a significant level of 0.05 and it turned out that the independent variable (strategy formulation) explains 71.1% of the changes that occur in the dependent variable (project success) and that the rest of the changes are due to other variables that were not included in the model and it was found that the greater the level of strategy formulation by 1%, the greater the level of project success by 1.287 % of which shows the invalidity of the second sub-hypothesis of the study.

The third sub-hypothesis: There is no statistically significant effect at the significance level ($0.05 \geq \alpha$) of evaluation on the success of construction projects in the contracting sector in the city of Riyadh.

Table (14.4) Results of Simple Linear Regression Model for Testing the Third Sub-Hypothesis

Model Summary		
Correlation coefficient R	Coefficient of determination R²	R² Adjusted
0.870	0.757	0.757

ANOVA Variance Analysis						
Prototype		Sum of squares	Degrees of FreedomDf	Average squares	F	Sig F
Regression Regression		14663.636	1	14663.636	1226.616	0.000
Residual		4698.136	393	11.955		
Total Total		19361.772	394			
Dependent variable	prototype	B	Standard error	Beta	T	Sig T
project success	Constant	13.146	.748		17.569	.000
	strategic project management	1.354	.039	.870	35.023	.000

Table (14) shows that there is a statistically significant direct effect of the evaluation on the project success at the level of 0.05, where the value of (Sig F) = 0.000, which is a value less than 0.05, meaning that the calculated F value is greater than the tabular F value, and it was found that there is a strong positive correlation with statistical significance between the evaluation and project success. At a significant level of 0.05 and it turned out that the independent variable (evaluation) explains 75.7% of the changes that occur in the dependent variable (project success) and that the rest of the changes are due to other variables that were not included in the model and it was found that the greater the level of evaluation by 1%, the greater the level of project success by 1.354%, which shows the invalidity of the third sub-hypothesis of the study.

Fourth sub-hypothesis: There is no statistically significant effect at the significance level (0.05 $\geq$ a) of strategy implementation on the success of construction projects in the contracting sector in the city of Riyadh.

Table (15.4) Results of Simple Linear Regression Model for Testing the Fourth Sub-Hypothesis

Model Summary					
Correlation coefficient R		Coefficient of determinationR2		R-2 Adjusted	
0.784		0.615		0.614	
ANOVA Variance Analysis					
Prototype	Sum of squares	Degrees of FreedomDf	Average squares	F	Sig F
Regression Regression	11908.752	1	11908.752	637.952	0.000

Residual		7453.020	393	18.964		
Total Total		19361.772	394			
Dependent variable	prototype	B	Standard error	Beta	T	Sig T
project success	Constant	12.224	1.076		11.357	.000
	strategy implementation	1.383	.055	.784	25.059	.000

Table (15) shows that there is a statistically significant direct effect of strategy implementation on the project success at the level of 0.05, where the value of (Sig F) = 0.000, which is a value less than 0.05, meaning that the calculated F value is greater than the tabular F value, and it turned out that there is a strong statistically significant positive correlation between strategy implementation, project success. At the level of significance 0.05 and it turned out that the independent variable (strategy implementation) explains 61.5% of the changes that occur in the dependent variable (project success) and that the rest of the changes are due to other variables did not enter into the model and it was found that the higher the level of strategy implementation by 1%, the greater the level of project success by 1.383 %, which shows the invalidity of the fourth sub-hypothesis of the study.

Chapter Five

Findings, recommendations and proposals

Introduction

In this chapter, we will address the results of the study through the analysis of data related to the study axes, which were obtained through the questionnaire tool represented in the electronic questionnaire form and the test of study hypotheses in order to achieve the objectives of the study, as well as the chapter deals with a set of recommendations recommended by the study and a set of proposals for studies and research that can be conducted in the future.

Results of the study

- ✓ The high level of agreement, which indicates a high level of strategic objectives applied in construction projects, as the arithmetic mean value reached 3.889 with a standard deviation of 0.947.
- ✓ The high level of strategy formulation applied in construction projects, where the arithmetic mean value was 3.618 with a standard deviation of 1.134.
- ✓ high level of approval, which shows the high Evaluation applied in construction projects where the value of the arithmetic mean was 3.696 with a standard deviation of 0.878.
- ✓ high level of approval, which shows the high level of strategy implementation applied in the construction projects, where the value of the arithmetic mean 3.818 with standard deviation 0.828.
- ✓ the level of strategic management applied in construction projects in the Kingdom of Saudi Arabia, specifically Riyadh, is high, as the arithmetic mean value of the phrases of the strategic management axis reached (3.727) with a standard deviation of (1.032).
- ✓ high level of success of projects in the construction projects, where the value of the arithmetic average of the phrases axis success of projects 3.863 with a standard deviation of 0.910.
- ✓ It was found that there is a strong positive correlation with statistical significance between strategic project management in its dimensions and the success of projects in the Kingdom at the significance level of 0.05. It was found that the independent

variable (strategic project management) explains 78.9% of the changes that occur in the dependent variable (project success), and that the remaining changes are due to other variables that were not included in the model. It was found that whenever the level of strategic project management in its dimensions increases by 1%, the level of professional project success in construction projects in the Kingdom increases by 0.391%, which indicates the invalidity of the main hypothesis of the study.

- ✓ It was found that there is a strong positive correlation with statistical significance between the strategic objectives and the projects success. At a significant level of 0.05 and it turned out that the independent variable (strategic objectives) explains 67.6% of the changes that occur in the dependent variable (projects success) and that the rest of the changes are due to other variables that were not included in the model and it was found that the higher the level of strategic objectives by 1%, the greater the level of projects success by 1.473%, which shows the invalidity of the first sub-hypothesis of the study.
- ✓ It was found that there is a strong statistically significant direct correlation between the strategy formulation and the project success. At a significant level of 0.05 and it turned out that the independent variable (strategy formulation) explains 71.1% of the changes that occur in the dependent variable (project success) and that the rest of the changes are due to other variables that were not included in the model and it was found that the greater the level of strategy formulation by 1%, the greater the level of project success by 1.287 % of which shows the invalidity of the second sub-hypothesis of the study.
- ✓ It was found that there is a strong positive correlation with statistical significance between the evaluation and project success. At a significant level of 0.05 and it turned out that the independent variable (evaluation) explains 75.7% of the changes that occur in the dependent variable (project success) and that the rest of the changes are due to other variables that were not included in the model and it was found that the greater the level of evaluation by 1%, the greater the level of project success by 1.354%, which shows the invalidity of the third sub-hypothesis of the study.
- ✓ It turned out that there is a strong statistically significant positive correlation between strategy implementation, project success. At the level of significance 0.05 and it turned out that the independent variable (strategy implementation) explains 61.5% of the changes that occur in the dependent variable (project success) and that the rest of the changes are due to other variables did not enter into the model and it was found

that the higher the level of strategy implementation by 1%, the greater the level of project success by 1.383 %, which shows the invalidity of the fourth sub-hypothesis of the study.

Recommendations

- ✓ Organizations operating in the construction sector should give greater priority to strategic planning and its implementation at the project level, including setting strategic objectives and drawing up plans to achieve them.
- ✓ Companies should enhance their capabilities in analyzing the internal and external environment of projects, and accurately identifying strengths, weaknesses, opportunities and threats, to effectively direct their strategic efforts.
- ✓ Train and qualify leaders working in construction projects on modern strategic management practices, which contributes to enhancing the ability of organizations to successfully achieve their project objectives.
- ✓ Adopt project management methods that integrate strategic aspects, such as strategic project portfolio management and strategic program management.
- ✓ Encourage companies to adopt a culture of learning and continuous improvement of strategic project management practices, which contributes to developing their competitive capabilities in the long term.
- ✓ Integrate innovation initiatives into the strategic management of construction projects, to develop new solutions and technologies that improve the success of projects.

propositions

- ✓ Expanding studies and research related to strategic project management within Riyadh.
- ✓ Expanding studies and research related to factors affecting the success of construction projects in the Kingdom of Saudi Arabia, specifically in Riyadh.

References:

- Abd, Moatasem Ibrahim, and Hayajna, Sufyan. (2020). *Integer Linear Programming in Urban Renewal Development Projects: An Iraqi-Case Study* (Unpublished Master's Thesis). Al-Israa Private University, Amman.
- Abu Amra, Hana Mazen Mustafa, and Khashman, Ayser Muhammad Ali. (2020). *The impact of strategic ambidexterity on project management in Jordanian contracting companies* (unpublished master's thesis). International Islamic Sciences University, Amman.
- Abu Yahya, Suleiman Musa, and Al-Abdullah, Saad Farhan Ibrahim. (2021). *Total Quality and Risk Management in Construction Projects in Jordan* (Unpublished Master's Thesis). Al-Israa Private University, Amman.
- Al-Aroud, Khalaf Abdul Majeed Salem, Al-Habashna, Ebada Youssef Abdullah, and Al-Tarawneh, Khaled Awad Musa. (2022). *Critical Success Factors "CSFs" in the Management of Donor-Funded Development Projects in the Public Sector: Evidence from Jordan* (Unpublished Master's Thesis). Mu'tah University, Mu'tah.
- Al-Balushi, Hajer Ali, Al-Shahri, M., and Al-Alawi, M. K. (2019). *Modeling Weather Effects on Construction Operations in the Sultanate of Oman* (Unpublished Master's Thesis). Sultan Qaboos University, Muscat.
- Albtoush, A. F., Doh, S. I., Rahman, R. A., & Al-Momani, A. H. (2022). *Critical success factors of construction projects in Jordan: An empirical investigation*. Asian Journal of Civil Engineering, 23(7), 1087-1099.
- Alheet, A, Al Adwan, A, Areiqat, A, Zamil, A (2021). "Impact of Strategic Planning and Continuous Improvement on the Effectiveness of Administrative Decision", Journal of Management Information and Decision, Science, 1(1), 16-35.
- Al-Maghrabi, Imad Suleiman, and Al-Sharbati, Abdulaziz Ahmed. (2021). *The Impact of Situational Leadership Styles on Projects Performance: A Field Study on Jordanian Chemical Manufacturing Organizations* (Unpublished Master's Thesis). Middle East University, Amman.

- Al-Najjar, Muhammad Fayez Jumah, and Al-Shawabkeh, Khaled Mahmoud Suleiman. (2019). *The impact of strategic vigilance on project management in Jordanian telecommunications companies* (unpublished master's thesis). International Islamic Sciences University, Amman.
- Al-Wahsh, Ahmed Samih Musa, and Al-Obaid, Faydi. (2021). *Poor Planning Impact on Project Management Performance* (Unpublished master's thesis). Al-Israa Private University, Amman.
- Clay, Di and Justin C and Donald N (2020) "*Linking the formal strategic planning process, planning flexibility and innovativeness to firm performance*", Journal of Business research, 67(1), 1-30.
- Ekemezie, I. O., & Digitemie, W. N. (2024). *Best practices in strategic project management across multinational corporations: a global perspective on success factors and challenges*. International Journal of Management & Entrepreneurship Research, 6(3), 795-805.
- ElSherbiny, A. (2022). *The Strategic Human Resource Transformation: A Study on the Civil Service in Egypt*. Egyptian Journal of Development and Planning, Volume 30, No. 1, 119-140.
- Espinosa, P., Fernandez, I & Tudela, P. (2021). "*Digital to Promote Digital Entrepreneurship*": The Relation with open innovation. Journal of Open University Technology, Market, and complexity
- Fodal, Y and, Barhem, B and, Elbanna, S (2019) "*The mediating role of the strategic planning on the relationship between slack resources and organizational performance, management decision*" Vol53, No. 5. Gomez, H., Navarro, V., Badenes, R., & Quilis, J. (2020). "Customer relationship management": Digital transformation and sustainable business model innovation. Economic Research, 33(1), 2733-2750.
- Jang, J., Ahn, S., Cha, S. H., Cho, K., Koo, C., & Kim, T. W. (2021). *Toward productivity in future construction: Mapping knowledge and finding insights for achieving successful offsite construction projects*. Journal of Computational Design and Engineering, 8(1), 1-14.

- Kadykova, I., Khvostichenko, V., & Khudiakov, I. (2020). *Application of convergent approach in strategic project management*. Herald of Advanced Information Technology, (3 (2)), 83-94.
- Malik, S., Taqi, M., Martins, J. M., Mata, M. N., Pereira, J. M., & Abreu, A. (2021). *Exploring the relationship between communication and success of construction projects: The mediating role of conflict*. Sustainability, 13(8), 4513.
- Marai, Malak Muayyad Mahmoud, and Al-Hammad, Fawaz Ali Farhan. (2021). *The Impact of Projects Management Strategies on the Implementation Quality: Case Study: Implemented Governmental Projects by the Ministry of Public Works and Housing in Jordan* (Unpublished Master's Thesis).
- Michael E. Porter (1980). "Competitive Strategy" Book line Research in Business and Management, Harvard Business Review. Ch1. (5-36).
- Narayan, S., & Tan, H. C. (2019). *Adopting big data to forecast success of construction projects: A review*. Malaysian Construction Research Journal, 6(1), 132-143.
- Saleh, Falah Hadi, Al-Attabi, Raad Eidan Obaid, and Ali, Ali Razzaq. (2021). *The Effect of a Sustainable Balanced Scorecard for Strategic Decision-Making Under Uncertain Competitive and Climate Conditions Evidence from Iraq*. Journal of Management and Economics, No. 128, 215-237.
- Sidahmed, M. F., and Elhakeem, M. H. S. (2021). *The Impact of Strategic Mmanagement on the Growth of Sudatel Group Inc*. Total Quality Management Journal, Volume 22, Issue 1, 86-107.
- Torres, A., Arguimbau, M., Bermejo-Martin, J., Campo, R., Ceccato, A., Fernandez-Barat, L., ... & Barbe, F. (2020). *CIBERESUCICOVID: a strategic project for a better understanding and clinical management of COVID-19 in critical patients*. Archivos de bronconeumologia, 57, 1-2.
- Walter, A (2020). *Organizational agility: "defined and somewhat confusing" systematic literature review. and conceptualization*. Management Review Quarterly. 1(1); 5-25.
- Winch, G. M., Maytorena-Sanchez, E., & Sergeeva, N. (2022). *Strategic project organizing*. Oxford University Press.

Appendices

Peace be upon you and God's mercy and blessings, and after:

The researcher is conducting a study entitled "The Impact of Strategic Project Management on the Success of Construction Projects in the Contracting Sector in Riyadh" in order to obtain a Master's degree in Management from Mid-Ocean University.

Given your knowledge and expertise in this field, I present to you the attached questionnaire, hoping that you will kindly express your opinion on its paragraphs, and the extent of its suitability for the purposes of the study, and if the paragraphs are valid, invalid, or need to be modified and what it is, and the proposed modification, noting that the answer to the paragraphs will be with a degree (strongly agree, agree, neutral, disagree, strongly disagree).

Thank you for your cooperation and efforts, and may God reward you.

Academic degree: Master Degree

Specialization: Project Management

Mobile number: 0547308058 / 0599233328

Supervising doctor: **Dr. Alfaisal Abdelhameed Mohamed / Dr. Fayez Ali Jrad**

Researcher: Ibrahim Abdullah Al-Harbi / Burair Muhammed Alameer

Demographic information

1. sex

Male

☐

female

☐

2. Age

Less than 30

☐

From 30 to 40

☐

From 40 to 50

☐

From 50 or more

☐

3. Qualification

Medium

☐

Bachelor

☐

Graduate

☐

First Theme: strategic management

No.	Phrase	Strongly agree	agree	natural	disagree	Strongly disagree
1. strategic goals						
1	The project management company seeks to achieve the strategic objectives of the construction project.					
2	The project management company analyzes the opportunities or constraints in the external environment of the project.					
3	The project management company allocates available resources for alternative uses and increases efficiency.					
4	The project management company is keen to invest in the capabilities it possesses in order to achieve a competitive advantage.					

5	The project management company seeks to make strategic decisions for the fund to achieve the desired objectives.					
2. Strategy formulation						
6	The project management company effectively implements the established policies.					
7	The project management company seeks to develop awareness of the strategies.					
8	The project management company develops information systems to adequately implement the strategy.					
9	The project management company develops employees to increase their motivation at work.					
10	The project management company continuously monitors the achievement of the set annual objectives.					
3. Evaluation						
11	The project management company continuously reviews the internal and external elements affecting the fund's work.					
12	The project management company measures its performance to avoid shortcomings in the fund's work.					
13	The project management company aims to take corrective actions on an ongoing basis.					
14	The strategy evaluation process is important in the project management company because it highlights the degree to which the overall plans are achieving the desired results.					

15	The strategy evaluation process is important in the project management company as it develops the inputs for new strategic planning.					
4. Strategy implementation						
16	The strategy is implemented according to the plan set by the company managing the project.					
17	The implementation of the strategy is reviewed to ensure that it is within the required levels.					
18	The strategy is modified if loopholes are found.					
19	The strategy implementation aims to improve the work environment in the company managing the project.					
20	Staff are trained to implement the strategy appropriately.					

Second Theme: Project Success

No.	Phrase	Strongly agree	agree	natural	disagree	Strongly disagree
1. Efficiency						
1	Construction workers are keen to perform the tasks required of them with high quality.					
2	Work is being done on time to improve the construction environment in Riyadh.					
3	Construction workers and managers are making clear efforts to help increase the number of construction projects.					
4	Workers help project owners correct errors resulting from					

	their inability to manage construction projects.					
5	Construction company employees have the competence to develop construction projects.					
2. Sustainability						
6	Construction project management companies aim to know the benefits that construction projects provide in achieving the desired development.					
7	Construction project management companies ensure that the project continues to operate.					
8	Construction project management companies are interested in construction projects that contribute to protecting the environment.					
9	The project management company coordinates with the relevant authorities to find a formula through which construction projects can be supported.					
10	Senior management is trying to find the obstacles that limit the ability of construction projects to achieve sustainability.					