

Role of Project Management via Project Quality in Achieving Project Success:
“A Study of Sub-Contractors Group of Companies in Jeddah, KSA”

دور إدارة المشاريع من خلال جودة المشروع في تحقيق نجاح المشروع:
“دراسة عن مجموعة شركات مقاولين من الباطن في جدة، المملكة العربية السعودية”

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Introduction:

Project management has gained significant popularity as an administrative term and concept, not only in achieving business goals and purposes but also in contributing to the economic development of less developed countries (**Silva & Magano, 2023, p 67-91**). Many applications and programs in these countries, such as product development, real estate development, and infrastructure development, use project management to plan, coordinate, collaborate, train, and manage resources to achieve specific project objectives (**Lock, 2020**).

In recent times, there has been a noticeable and acceptable increase in the adoption of project management (PM) and associated methodologies. This increase is evident in the recognized benefits and features of implementing project management methodologies. One key aspect is that effective project management enhances and increases the success rates of projects, subsequently fostering organizational performance (**Dai, 2002**). Attention has been directed towards using the Project Management (PM) as a tool to improve and enhance this effectiveness, particularly by enabling the effective transfer of knowledge from successful projects/factors through providing a series of support services and features for various project management levels and stages (**Taboada & de Vass, 2023**).

However, literature on this important topic is largely anecdotal. **Kukah et al. (2023)** contributed to the experimental study of Critical Success Factors (CSFs) as decisive factors and probabilities of project success. He addressed around ten critical factors, including project mission, top management support, project schedule/plan, client involvement, technical tasks, communication, error identification, and resolution strategies. In addition to Bento's study, there are many other CSF lists mentioned in the literature, such as the **Kerzner Project Management Excellence Report (1987)**. Most of these lists focus on factors related to the project manager and the organization to which the project belongs. None of them directly include the issue of the effectiveness and Role of Project Management functions on project success.

Quality is considered a fundamental factor in assessing the success and sustainability of projects and project management practices. It plays a crucial and vital role in the project, as project specifications and performance metrics are largely based on time, cost, and quality, often referred to as the "iron triangle." (Patmawati & Asbari, 2023, p 21-26). Quality possesses diverse characteristics, both subjective and objective, with some aspects challenging or impossible to quantify.

The comprehensive approach to evaluating project quality and efficiency includes a set of metrics contributing to the success of traditional projects, such as cost, schedule, and safety. Additionally, it incorporates measures like customer satisfaction, leadership, employee engagement, teamwork, training, and responsiveness (Cobb, 2023). The dual system for measuring and defining project quality utilizes assessments known as "Traditional Project Quality" and "Contemporary Project Quality." While "Traditional Project Quality" deals with meeting and fulfilling client needs in terms of budget, schedule, metrics, and technical specifications, "Contemporary Project Quality" is more personal, relying on qualitative evaluations from clients and team members. It focuses on how the project meets their expectations in terms of goal delivery, values, peer reviews, customer expectations, collaboration, and high-quality outcomes.

In engineering or construction projects, similar procedures evaluate "Quality Assurance" as a means to manage construction quality during the project's design and construction phases.

Determining the project's success poses another challenge in understanding project management and, consequently, evaluating project performance (Aarseth & Andersen, 2013, p 103-132). Generally accepted is the notion that the success or failure of the project is determined by the convergence of the project's ability to achieve technical objectives within three constraints: scope, time, and cost; the project's perceived benefits to beneficiaries, sponsors, and the project team; and project execution.

According to this definition, the effective measurement of project success or failure can only occur upon its completion.

Research problem

Through reviewing the literature studies, it is concluded that there is a gap in the existing literature, particularly the lack of focus on the effectiveness role of Project Management via Quality functions on project success. While critical success factors (CSFs) have been identified in previous studies, there is a notable absence of direct inclusion of PM-related factors.

This research seeks to explore how the presence and functionality of PM contribute to the success rates of projects, considering factors such as project mission, top management support, project schedule/plan, client involvement, technical tasks, communication, error identification, resolution strategies, and the unique role of Project Management.

Theoretical Gaps

While prior studies have identified critical success factors (CSFs), there is a noticeable omission of direct consideration of PM-related factors. The study aims to delve into defining project quality, encompassing both traditional and contemporary perspectives.

It seeks to understand how quality, as a fundamental factor, influences project success.

Additionally, this research will consider the challenges in determining project success and the accepted notion that it hinges on the convergence of technical objectives, stakeholder perceived benefits.

Empirical Gaps

Lack of Research on Project Management and Success: While project Quality are inherent, there is a need for further empirical research.

This research will explore the metrics used for traditional project quality, including cost, schedule, safety, and client satisfaction, as well as the qualitative assessments involved in contemporary project quality, which rely on subjective evaluations from clients and design team members.

The effective measurement of project success or failure is recognized as a post-completion activity.

Overall, the research problem centers around bridging the gap in literature regarding the role of project management functions, the influence of quality on project success, and the challenges associated with determining project success in the realm of project management.

Main Research Question

Therefore, the above research problem can be formulated in the main question:

What is the Role of Project Management via Quality Functions on Project Success?

Research Significant

Theoretical and Empirical Significance of this research lies in its potential to bridge existing gaps and contribute to define and explore the role of project management functions, the influence of quality on project success, by studying the following:

Theoretical Significant

There is a theoretical gap that resides in the need for a dual system that comprehensively measures and defines project quality, encompassing both traditional and contemporary perspectives.

This research aims to address this gap by exploring the impact of a Project Management Via Quality on project success, taking into account various factors such as project mission, top management support, project schedule/plan, client involvement, communication, error identification, resolution strategies, and the unique role of PM services.

The findings will contribute to the following:

1. **Enhancement of Theoretical Framework:** Familiarizing oneself with the roles and tasks of project management in achieving project success contributes to the development and enhancement of the theoretical framework in project management studies. It provides a broader understanding of the key principles, plans, and methodologies contributing to the success of projects.
2. **Academic Progress:** The study adds value to the academic domain by exploring and analyzing theoretical foundations for the success and sustainability of project management. It allows scholars and researchers to explore, enhance, and develop theories associated with the effectiveness and impact of project management.
3. **Conceptual Clarity:** By delving into theoretical aspects, the study may contribute to achieving conceptual clarity regarding the dynamic factors and processes that play a vital role in determining project success. This conceptual clarity is crucial for building a strong theoretical foundation for project management practices.

Empirical Significance:

There is a Empirical gap in the existing literature stems from the insufficient attention given to the specific examination of Project Management (PM) functions in relation to project success. While prior studies have identified critical success factors (CSFs), there is a noticeable omission of direct consideration of PM-related factors.

This research seeks to understand how quality, as a pivotal factor, influences project success. It will investigate the metrics used for traditional project quality, including cost, schedule, safety, and client satisfaction, as well as the qualitative assessments involved in contemporary project quality, which rely on subjective evaluations from clients and team members.

The findings will contribute to the following:

1. **Project Management Improvement:** Understanding and acknowledging the role of project management in project success contribute to helping practitioners improve and develop project management processes. It assists in identifying and addressing optimal practices, overcoming weaknesses, ultimately leading to the development and enhancement of a comprehensive project management approach.
2. **Risk Mitigation:** The study aids project managers and teams in identifying and predicting expected damages, risks, and difficulties that may hinder project success. This proactive approach helps in identifying, mitigating, and reducing the severity of damages and risks, ensuring timely project completion within budgetary constraints and achieving desired outcomes.
3. **Efficient Resource Allocation:** Scientific insights gained from the study can lead to more efficient allocation of resources. Project managers can make informed decisions related to resource allocation, ensuring appropriate allocation for the right tasks, thereby increasing efficiency and minimizing resource wastage.

4. Stakeholder Satisfaction: Full awareness and understanding of the tasks and role of project management in success help in managing stakeholders' expectations and ensuring their satisfaction. Effective project management practices contribute to presenting and delivering projects that meet stakeholders' needs, fostering positive relationships.
5. Continuous Improvement: The practical impacts of this research support a culture of continuous improvement and development within organizations. By applying lessons learned from successful project management, organizations can adapt and evolve their project management practices remaining competitive and achieve sustainable success.

Research Sub-Questions

1. What are the factors related to Project Management in Achieving Project Success?
2. What are the traditional metrics used to measure project quality?
3. How does project management contribute to achieving higher customer satisfaction?
4. How does project management methodologies (e.g., Agile) integrate with quality management practices to ensure project deliverables meet specifications?
5. How does effective quality management practices help to optimize project costs?
6. How does managing project quality contribute to staying on schedule and avoiding delays?
7. How does achieving high-quality project deliverables increased stakeholder satisfaction?
8. What role does project managers play in delivering projects on time and within budget?
9. How can the benefits of a strong project management and quality management synergy be measured within a project environment?
10. How does continuous improvement strategies be applied to refine project management and quality management for better project success?

Applying on random sample of Managers, Administrators, and Supervisors of group of companies in Jeddah, KSA according to (Age - Years of Experience - Position).

Research Objectives:

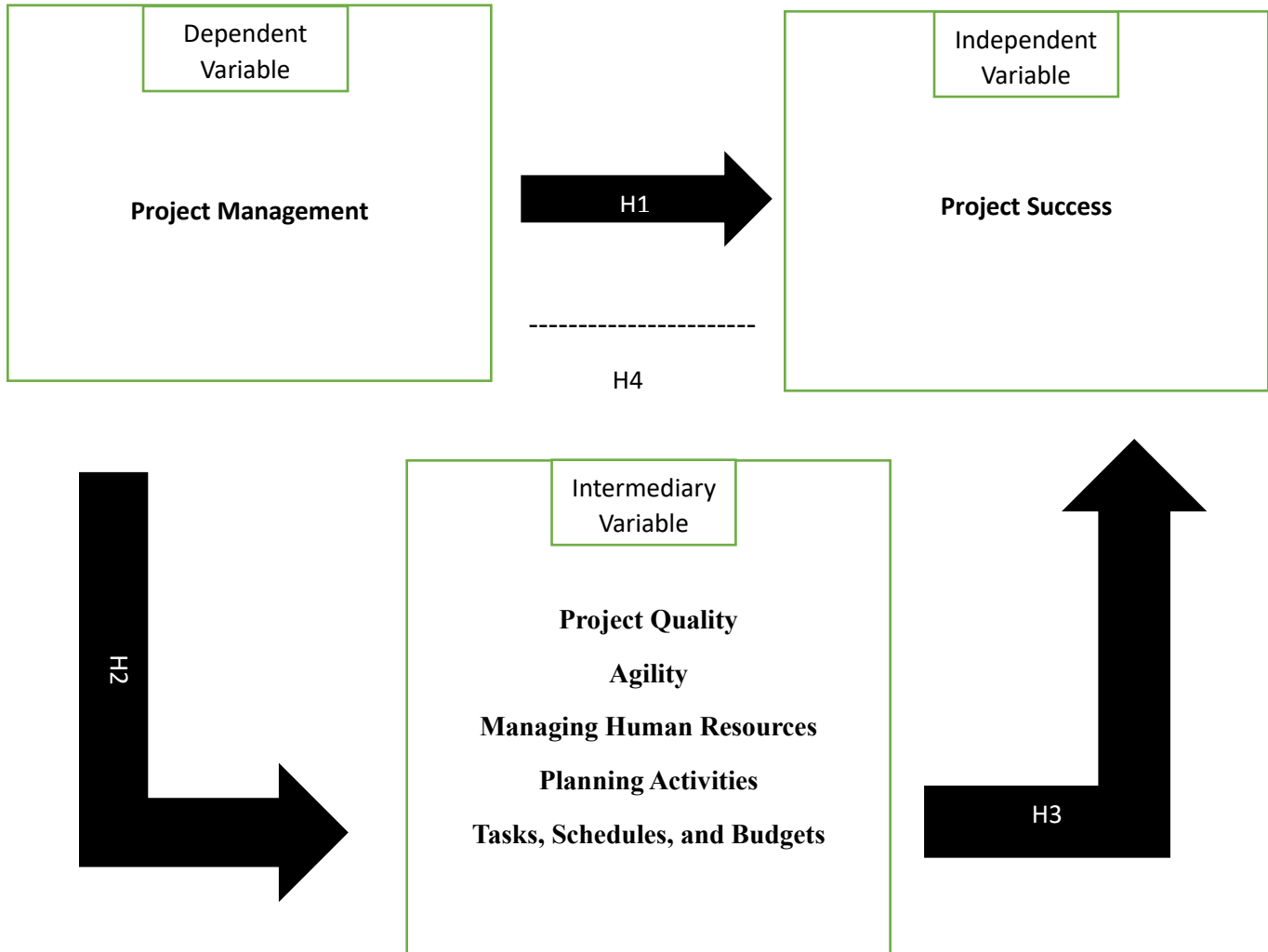
1. To identify the factors related to Project Management in Achieving Project Success.
2. To analyze the traditional metrics used to measure project quality.
3. To evaluate how project management contribute to achieving higher customer satisfaction.
4. To investigate how project management methodologies (e.g., Agile) integrate with quality management practices to ensure project deliverables meet specifications.
5. To Examine How can effective quality management practices help to optimize project costs.
6. To determine How project quality contributes to staying on schedule and avoiding delays.
7. To evaluate How does achieving high project quality increased stakeholder satisfaction.
8. To explore the role of project managers in delivering projects on time and within budget.
9. To prove the benefits of a strong project management and quality management synergy within a project environment.
10. To examine how continuous improvement strategies be applied for better project success.

Research Hypotheses

1. The main hypothesis of this study predicts a statistically significant positive relationship between effective project management and project quality towards project success.
2. There is a statistical significance positive relationship between project quality and project success as an intermediary variable that enhances effective project management.
3. There is a statistical significance positive relationship between Agility and project success as an intermediary variable that enhances effective project management.
4. There is a statistical significance positive relationship between Managing the Human Resource and project success as an intermediary variable that enhances effective project management.
5. There is a statistical significance positive relationship between “Planning Activities, Tasks, Schedules and Budgets” and project success as an intermediary variable that enhances effective project management.

Research Model

The figure below shows the relationships between all variables in this study.



The suggested industry for the empirical study

The population of this study will be focus on Group of subcontractors' companies in Jeddah, KSA. Subcontractor companies play a crucial role in project success by contributing to various aspects of the execution process. Here's a breakdown of their significance:

- **Specialized Expertise:** Subcontractors often bring specialized skills, knowledge, and experience in specific trades or tasks. This allows project managers to leverage expertise that might not be readily available within their core team. For instance, an electrical contractor on a construction project can handle complex wiring tasks efficiently.
- **Efficiency and Resource Management:** By delegating specific tasks or project phases to subcontractors, project managers can improve overall efficiency. This frees up their in-house team to focus on core competencies and project coordination. Additionally, subcontractors often have their own equipment and resources, reducing the need for the main contractor to invest in everything themselves.
- **Cost-Effectiveness:** Hiring subcontractors can be cost-effective, especially for specialized tasks. Subcontractors may already have the necessary equipment and trained personnel, leading to potentially lower costs compared to the main contractor building that capacity themselves.
- **Schedule Management:** By working with multiple subcontractors, projects can potentially progress on different fronts simultaneously. This can expedite the overall project timeline, especially for large or complex projects with various tasks running in parallel.
- **Risk Mitigation:** Qualified subcontractors with a proven track record can help mitigate risks associated with specific tasks. Their expertise allows them to identify and address potential issues within their area of responsibility, reducing the overall project risk for the main contractor.
- **Innovation and Problem-Solving:** Subcontractors can bring fresh perspectives and innovative approaches to project challenges. Their specialized knowledge can contribute to creative solutions and improved project outcomes.

Overall, subcontractor companies are valuable partners in achieving project success. By leveraging their expertise, managing them effectively, and fostering collaboration. Project managers can significantly increase their chances of delivering projects on time, within budget, and to high quality standards.

Here are the suggested companies:

First Company: Modern Building Leaders - MBL

MBL was established in 2011 and, from the beginning, has been able to offer a full spectrum of integrated and turnkey engineering, procurement and construction services.

They have successfully delivered increasingly large and more complex projects for many public sector, private and public-private partnership clients in Saudi Arabia.

The group includes specialists in each major trade, including earthwork, concrete, steel, finishing, fitting-out, marine works, electro-mechanics and low current systems.

Second Company: First Fix

First Fix is a local market dealer delivering world class projects via end to end solutions that provide integrated design, engineering and construction disciplines of mechanical, electrical & plumbing (MEP) through people, innovation and passion.

Company size:

5,001-10,000 employees

Specialties:

Low Voltage Solutions, MEP engineering, Civil Infrastructure, Mechanical, Electrical, and Plumbing

Third Company: Power Center

Power Center Factory is a reputed “Medium/Low Voltage Switchgear, manufacture in the kingdom of Saudi Arabia, made in accordance with latest IEC standards & established in 1990 to meet current digital technologies using IOT platform to deliver enhanced efficiency, reliability and safety, of growing contraction industries demand of electrical distribution systems in production & control filed.

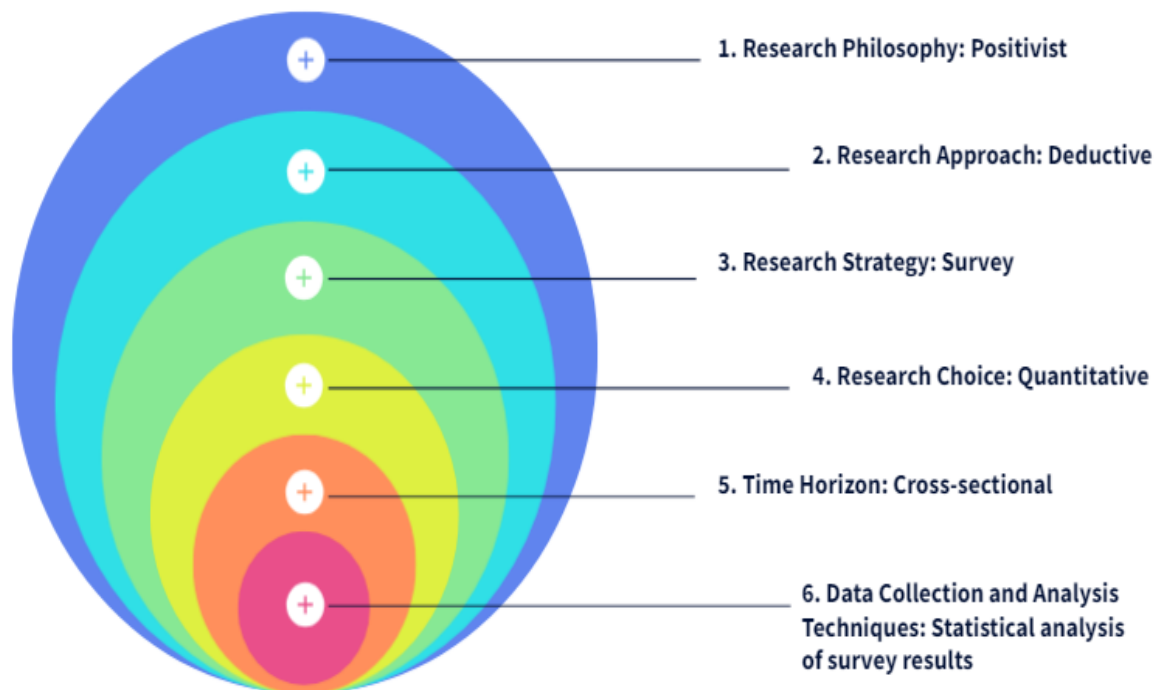
Power Center is partner and authorize to manufacture, assembly, test and supply of Medium & Low Voltage equipment and systems governed by Certification and validation policy of Schneider and Legrand as per of IEC standards.

Research Methodology

In this study, the researcher will rely on the descriptive analytical research methodology. The design will be quantitative. Each variable in the study will also have its own section in an electronic questionnaire distributed to the research sample, the figure below shows more details.

1. Research Philosophy: Positivist
2. Research Approach: Deductive
3. Research Strategy: Survey
4. Research Choice: Quantitative
5. Time Horizon: Cross-sectional
6. Data Collection and Analysis Techniques: Statistical analysis of survey results

RESEARCH ONION DIAGRAM



Suggested Project Structure

The following figure indicates the suggested structure for the final graduation project 1.

- Chapter 1: Introduction
- Chapter 2: Literature Review
- Chapter 3: Research Methodology
- Chapter 4: Statistical Analysis
- Chapter 5: Findings` Discussion and Conclusion



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Modern Building Leaders – MBL Company

<https://www.mbl.com.sa/>

First Fix Company

<https://www.firstfix-ksa.com/>

Power Center Factory

<https://powercenter.com.sa/>