



Critical Factors Driving Project Success within the Construction Industry: A Qualitative Insight

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Abstract

Pakistan's construction sector is plagued by challenging endeavor environments that require efficient management strategies for success. The present qualitative research looks at how risk management, communication management, organizational culture, and human resource management affect the success of the Pakistani construction industry. This study uses semi-structured interviews with project managers from diverse construction businesses to explore the industry's particular difficulties and tactics. Thematic analysis showed that thorough risk management measures are demonstrated to reduce project interruptions and postponements while successful communication management is vital in preserving transparency and sorting out disagreements. Furthermore, research has shown that a strong organizational culture emphasizing cooperation and shared values improves creativity and teamwork. In addition, strategic HRM methods, such as focused recruiting and developing competencies, assist in coordinating project teams and improving performance. The study provides significant information for Pakistani construction companies seeking to optimize their management processes, as well as laying the framework for subsequent studies on enhancing project accomplishments within emerging countries.

Keywords

Construction Project Success; Risk Management; Communication Management; Organizational Culture; Human Resource Management; Pakistan

Introduction

The construction sector contributes significantly to every country's prosperity, making important contributions to labor infrastructure, creating labor opportunities, and the general development of the economy (Alaloul et al., 2021). In emerging economies such as Pakistan, the building industry is essential for fulfilling the rising demand for residences, mass transit systems, and governmental amenities (Anwar et al., 2024). Regardless of their significance, building initiatives in Pakistan frequently confront major hurdles that impede their proper execution (Ullah et al., 2020). Excess expenditures, interruptions, project management deficiencies, and inadequate quality management have all been common complaints in the nation's construction industry (Memon et al., 2023).

The notion of construction project success includes more than just finishing a job on schedule and within budgetary constraints (Irfan et al., 2021). It contains numerous factors like satisfied stakeholders, compliance with security requirements, ecological concerns, and over a long period viability of the project (Zaleski & Michalski, 2021). In Pakistan, where fast urbanization and population expansion necessitate strong infrastructure development, accomplishing goals is considered a national priority (Menhas et al., 2019). Even so, the way toward achievement is plagued

with obstacles caused by a turbulent financial climate, compliance problems, a shortage of qualified workers, and insufficient technology improvements (Wood & Bischoff, 2020). The construction sector in Pakistan, although important to the nation's architecture and growth in the economy, confronts numerous severe hurdles that hamper the achievement of projects (Khaskheli et al., 2023). These challenges can cause interruptions, price hikes, and subpar quality, rendering it hard to finish projects on deadline and under budget (Kumar & Shrivastava, 2024). Addressing these problems is critical to increasing the achievement rate of construction endeavors throughout the entire nation (Ali et al., 2023).

Ecological standards and security requirements are frequently neglected in Pakistan's building sector (Hassan et al., 2021). Numerous initiatives have not succeeded in including ecologic techniques, severely affecting the surroundings (Xu et al., 2023). In addition, security norms are routinely violated, which leads to a large incidence of workplace accidents (Guo et al., 2011). The absence of ecological and security rules implementation remains a key barrier to maintaining ethical healthy construction initiatives (Howes et al., 2017). Political unrest and unpredictable financial circumstances in Pakistan increase the dangers to the building business (Adnan et al., 2024). Political shifts frequently result in modifications to policies, which cause postponement and sometimes cancellations of pending initiatives (Capano et al., 2020). Furthermore, rising prices, increased fuel expenses, and depreciation of currencies all contribute to economic instability, putting more pressure on existing restricted resources (Huawei, 2022). Construction enterprises must handle these outside constraints, which may give rise to halted projects (Nafe Assafi et al., 2024).

Maintaining high standards across the construction phase is still a concern in Pakistan (Saad et al., 2022). Quality assurances are frequently lacking, resulting in low building standards (Oyeyipo et al., 2022). The situation is exacerbated by the adoption of inferior supplies to minimize costs, which jeopardizes the longevity and safety of finished constructions (Ngo et al., 2024). The lack of rigorous supervision and reporting methods exacerbates these challenges, which leads to initiatives that do not match the requirements of the sector (Dwivedi et al., 2024). Pakistan's construction business faces an experienced labor shortage, which has an impact on entire quality and productivity (Memon et al., 2023). A dearth of technical instruction courses and limited possibilities for developing abilities result in a staff that is frequently unable to cope with the requirements of cutting-edge construction processes (Yan et al., 2024).

Over the past few decades, Pakistan has seen an increase in building operations, which has been fuelled by both government-funded construction initiatives and commercial investments in property (Safdar, 2024). The China-Pakistan Economic Corridor (CPEC), besides many additional large-scale initiatives, has accelerated the sector's growth (Tang, 2023). On the other hand, this surge has highlighted the flaws in conventional project execution methodologies, as well as the sector's inability to consistently provide excellent results (Sharma & Laishram, 2024). Recognizing what makes projects flourish, especially in Pakistan's specific socioeconomic and administrative climate, is critical to enhancing the sector's performance (Waheed et al., 2024).

Cost, duration, and quality are commonly used metrics to assess the performance of building projects worldwide (Abid et al., 2021; Raouf & Al-Ghamdi, 2023). However, in Pakistan, where sociopolitical instability, shifting expenses for materials, and lack of workers are common, standard measures merely do not convey the complexities of project performance (Ali & Rasool, 2024). A larger, more holistic perspective is required, one that considers successful stakeholder administration, risk minimization, compliance with laws and regulations, and ecological responsibility (Koc et al., 2023). The growing variety of construction projects, combined with the requirement for openness and accountability, has made it critical to recognize and comprehend the aspects that make up project success in the Pakistani environment (Khahro et al., 2023).

In Pakistan, determining the effective completion of construction initiatives extends over the standard criteria of finishing projects on schedule, within budgetary constraints, and to the required quality (Zaray et al., 2023). Although these factors persist significantly, the nation's specific socioeconomic, governing, and infrastructure difficulties need a more comprehensive strategy for project accomplishment (Almarri & Boussabaine, 2023). This involves client fulfillment, compliance with safety and ecological regulations, long-lasting longevity of the project, and efficient handling of risks (Raouf & Al-Ghamdi, 2021). Thus, in Pakistan's construction sector, success is a multifaceted notion that includes typical project administration measures as well as complex criteria such as

satisfaction among stakeholders, adherence to regulations, managing hazards, and longevity (Charles et al., 2022). Considering the industry's constraints, a comprehensive assessment of project success is required to guarantee that construction projects do not solely achieve quick goals but additionally serve the nation's future growth and sustainability (Chan et al., 2010; Sulaiman et al., 2020).

Considering these barriers, recognizing the important aspects determining the accomplishment of Pakistan's construction projects is imperative (Maqbool & Sudong, 2018). This study aims to investigate the primary factors and constraints to successful construction projects in Pakistan. The present research aims to improve the execution of projects in the country by examining risk management, communication management, organizational culture, and human resource management influencing construction results. The results of this study will help administrators, project executives, and professionals in construction understand the techniques and procedures needed to enhance the effectiveness of construction projects in Pakistan. In addition, it will emphasize the necessity of implementing cutting-edge leadership approaches and technological advances to tackle corporate difficulties, which could lead to the long-term growth of the nation's infrastructure.

With the aforementioned discussion in mind, the purpose of the research is to look into the elements that lead to the success of construction endeavors in Pakistan, especially in light of the industry's specific problems. The research questions that will dictate the research are as follows:

- What key elements affect the construction projects' success in Pakistan?
- What hurdles do regulatory structures and legislative initiatives have for construction project results in Pakistan?
- How do managerial methods influence the timely and economically feasible conclusion of building projects in Pakistan?
- What are the most effective ways to ensure ecological viability and safety compliance in Pakistan's construction industry?
- How much do risk management methods affect the sustainability and resilience of construction initiatives in Pakistan?
- What integral part do financial strategy and allocation of funds contribute to effectively executing Pakistani construction projects?
- How does the participation of stakeholders affect the general effectiveness of construction projects in Pakistan?

The following questions are intended to thoroughly examine what elements lend to accomplishing construction endeavors in Pakistan while tackling the problems and nuances unique to Pakistan's construction environment.

The present paper has been split into sections: introduction, literature review (theoretical and empirical), research methodology, developing themes and significant outcomes, discussion, and conclusion.

Theoretical Background

Given that the current study looks into the effect of risk management, communication management, an organization's culture, and human resource management on construction project success in Pakistan, the subsequent sections provide a theoretical foundation for the above concepts.

Construction Project Success

Construction project success can be measured by meeting project objectives such as money, time, performance, and satisfaction with stakeholders (Ingle & Mahesh, 2022). The so-called Iron Triangle (or simply Triple Constraint) framework extensively assesses project success using the aforementioned critical criteria (Albert et al., 2017).

Risk Management

Risk management is an important part of project management that entails detecting, evaluating, and minimizing any risks that could jeopardize project success (Chapman, 2001). Theoretical structures such as the Project Management Body of Knowledge (PMBOK) stress risk management as an organized strategy for improving decisions and mitigating ambiguity (Cerezo-Narváez et al., 2022). Successful risk management in construction endeavors guarantees that unanticipated obstacles, like price hikes or postponements, are addressed actively, enhancing the project's chances of success (Okenyi et al., 2023).

Communication Management

Communication management is the procedure of organizing, carrying out, and tracking communication within an endeavor that guarantees data is successfully communicated to stakeholders (Ziek & Anderson, 2015). Theories such as Shannon and Weaver's Communication Model emphasize the necessity of straightforward paths and feedback systems (Kubota, 2019). In construction, good communication management reduces misconceptions, unifies stakeholders around the task's objectives, and allows for rapid choice-making (Johnson, 2022).

Organization Culture

Organizational culture alludes to the common principles, ideologies, and standards that influence individual behavior inside an organization (Abbas & Dogan, 2022). The Competing Values Framework (CVF) is frequently utilized to analyze several cultural forms, including structure, family, marketplace, and partisanship (Roman-Velazquez, 2004). A favorable organizational culture in construction endeavors promotes cooperation, creativity, and staff motivation, all of which are required to meet project goals and ensure a sustainable future (Martens & Carvalho, 2017).

Human Resource Management

Human resources management is the tactical oversight of individuals to maximize their efficiency and help accomplish organizational objectives (Agustian, 2023). In project-oriented environments, HRM guarantees that staff are properly taught, inspired, and involved (Ahmed et al., 2024). According to the Resource-Based View (RBV) philosophy, human resources are crucial resources that give organizations an edge over rivals (Malhotra et al., 2024). Through Human Resources Management, organizations are prepared to face difficulties and collaborate effectively (Greer & Stevens, 2015).

Such theoretical background provides an appropriate structure to comprehend the linkages between the above factors along with how they affect construction project success. Efficient risk management, optimistic communication management, a favorable organizational culture, and strategic HRM practice participation are all aspects that contribute to construction project success.

Research Framework and Hypothesis Development

Risk management is a relatively young discipline, and many emerging economies' construction sectors lack a basic risk management framework (Gao et al., 2013). In Pakistan, construction has become a high-risk sector with an inadequate track record for risk management (Ayat et al., 2023). Even so, as rivalry and development activity expands, it is rapidly becoming more important (Wang & Wang, 2024). According to Abas et al. (2022), assessing crucial risk and success elements is necessary for the effective implementation of construction projects in Pakistan. Nawaz et al. (2019) The investigation shows that risk management (RM) is being done at an elementary level in the local area and its impact on project success (PS). The findings also show that there exists a stronger association between efficient RM and PS. The results illustrate the significance of risk management approaches, their application, implications, and impact on the achievement of construction projects through a contractor's viewpoint, thereby influencing vital project stakeholders to utilize risk management. Urbański et al. (2019) compared how risk management affects project planning and success in Pakistan and the United Kingdom's construction industries. The purposive sampling approach has been utilized to achieve an adequate sample size, and project managers were selected. The quantitative evaluation used PLS-SE modeling. The study found that effective project planning significantly impacts project success. Risk management has a strong moderating effect on the association between project planning and success in construction enterprises, even across various countries. Tahir et al. (2019) disclosed the present condition of formalized risk management strategy implementation in Pakistan. Particularly, a survey via questionnaire instrument has been employed to determine the present methods and techniques utilized to detect, analyze, and manage risks on construction projects. The study identified 40 risks that commonly occur in the Pakistani construction business. Overall, this survey indicated that an overwhelming number of Pakistani construction enterprises continue dealing with risk management in an ad hoc fashion. Lodhi et al. (2019) indicated that effective risk management, tracking, and disclosure considerably improve project success. The effect of recognizing and evaluating risks hadn't been substantial. This article can assist engineering consulting companies in identifying the influence of current risk variables on project success and taking corrective steps to improve the whole risk management process.

Hypothesis 1 (Hyp1): Risk management beneficially affected the successful construction projects.

As the projects progress, communication breakdowns or misconceptions undoubtedly culminate in a huge increase in inefficient expenditures (Koshe & Jha, 2016). Interaction allows team members to work successfully jointly to complete their objectives and reduce the likelihood of disputes (Weingart et al., 2023). Lack of communication significantly impacted project success. Communication elements had a significant impact on project success (Rehan et al., 2024). The study conducted by Malik et al. (2023) indicated that communication elements had an important and advantageous effect on the project's achievement in Pakistan. The findings demonstrated that communication parameters had an important and beneficial connection with stakeholder involvement. In addition, the findings revealed that stakeholder participation interacts with communication elements and project success, hence boosting the endeavor's performance.

Hypothesis 2 (Hyp2): Communication management beneficially affected the successful construction projects.

Culture has a significant impact on how people and organizations work every day of their lives. Businesses encounter several challenges, the majority of which are caused by disputes that arise from the diversity of cultures. Organizational culture is crucial for each company's development and ultimate achievement. Khalid and Janjua (2021) found that organizational culture has considerable effects on the effectiveness of projects, customer effect, team effect, direct organizational success, and future strategy. Support from upper management plays a crucial role in project success, except in future planning. This investigation adds to the resource-based hypothesis by identifying organizational culture and top management support as key factors in project success. Kayani (2023) showed that all organizational cultural characteristics had a substantial beneficial effect on the organizational dedication of hotel sector workers. Muneer et al. (2022) did research to better understand the linkages of organizational culture and project success in the Pakistani construction sector. The study additionally aimed to show how project manager competencies played a moderating impact on the correlations outlined above. Based on the research's outcomes, organizational culture, efficient interaction, and a clear grasp of the project's purpose all affect the success of a construction endeavor. Furthermore, the analysis of moderating project manager competencies demonstrated that project managers may have a significant part in reducing the detrimental impact of these distinct factors. Furthermore, previous research has indicated that company culture influences different phases of a project (Battistella et al., 2024). The majority of individuals feel that culture is an important aspect of working conditions (McKellar et al., 2023).

Hypothesis 3 (Hyp3): Organizational culture beneficially affected the successful construction projects.

Considering Pakistani settings and situations, the significance of project-oriented organizations cannot be overstated (Ali et al., 2020). Surprisingly human resources management functions in Pakistan's expanding economy date back to the beginning of the 1960s, when the authorities focused on institutional building (Khan & Ahmad, 2011). Pakistan has experienced numerous challenges throughout this period of growth, and as a result, progress in the establishment of effective organizations has been modest (Anwar et al., 2017). The acknowledgment of HRM strategies by professional groups continually grew as soon as it was understood that people perform an essential part in the accomplishment of any enterprise in Pakistan (Elahi et al., 2020). The study of the connection between Human Resources strategies and interpreted project success in project-oriented organizations is intriguing in Pakistan (Khan et al., 2015). According to the research findings of WAH (2022), 3 of the 4 human resource management indicators ("recruitment & selection, training & development, and performance appraisal") had an encouraging and notable effect on project success, while compensation had no significant effect in Pakistan. The research's conclusions are thought to be very valuable for POF administration specifically, as well as the overall Ordnance Industry. This research is equally valuable for various manufacturing organizations in Pakistan.

Hypothesis 4 (Hyp4): Human resource management beneficially affected successful construction projects.

Figure 1 shows the research's conceptual framework. Risk management, communication management, and organizational culture, and human resource management, function as independent variables. Whereas construction project success works as a dependent variable. In this study, the characteristics that affect the success of a construction project are examined.

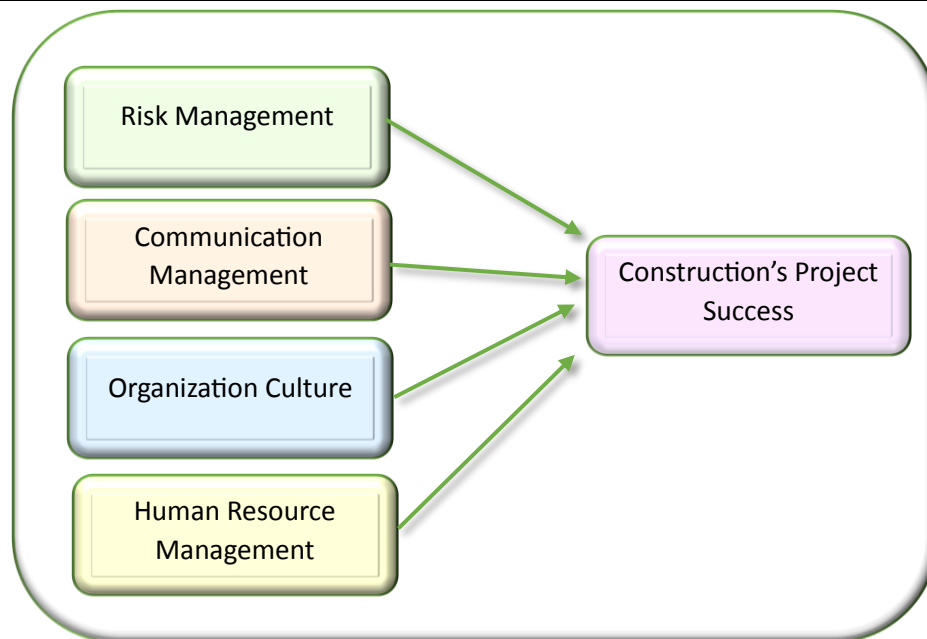


Figure 1. Conceptual Framework

Research Methodology

Research Design

This section provides a sequential plan for conducting a qualitative study to investigate the connection between risk management, organizational culture, communication management, and human resource management on construction project success in Pakistan. Purposive sampling has been utilized to choose respondents, ensuring a diverse sample of persons with expertise or knowledge in the construction project. Semi-structured interviews are used to explore the in-depth data. Such an exploratory method provides a comprehensive knowledge of how these elements work and leads to project success within the particular circumstances construction sector in Pakistan.

Data Collection Method, Sampling Strategy, and Procedure

The data for the present research was gathered by utilizing semi-structured interviews. This approach is often considered to be worthwhile in qualitative studies for probing respondents the ideas, emotions, and observations of the respondents in depth (Schatz, 2012). The study sample is a group of individuals with similar characteristics. A total of 50 interviews were conducted with project managers in the construction industry, with 30 to 35 legitimate responses collected. Surveys for data gathering were done in three months, starting in January 2024 and ending in April 2024. Furthermore, questions are easy to understand and comprehend. Questions were asked to participants by utilizing the semi-structured interview method. A semi-structured interview strategy is employed as it integrates flexibility and framework, permitting academics to investigate crucial subjects while responding to respondent replies (Adeoye-Olatunde & Olenik, 2021). It provides more comprehensive knowledge by examining unanticipated themes that arise throughout the talk (Gugiu & Rodríguez-Campos, 2007). Such a strategy also preserves uniformity throughout interviews, guaranteeing that data is comparable. These types of interviews are especially beneficial for investigating complicated issues because they blend directed questions with open-ended discourse, resulting in a deeper gathering of information and a better comprehension of respondents' viewpoints. Purposive sampling was used to identify volunteers with substantial expertise in managing construction projects. This sampling strategy assures that those taking part have the useful information and expertise to deliver significant responses to the research inquiries posed by the study (Campbell et al., 2020). Semi-structured interviews lasted roughly 40-50 minutes apiece. Furthermore, focus groups were formed to promote lively debates and gather varied opinions.

- **Risk Management**-evaluated uses questions about recognizing hazards, inspection, and measures to mitigate them (Aven, 2016).
- **Communication Management**-assessed using questions about the exchange of knowledge, ways to communicate, and response methods (Einwiller & Boenigk, 2012).

- **Organizational Culture**-assessed utilizing measures that concentrate on common principles, perspectives, and organizational standards (Linnenluecke & Griffiths, 2010).
- **Human Resource Management**-examined utilizing questions centered on HR procedures, staff training, and how to allocate resources (Lepak et al., 2016).
- **Construction project success**-measured using metrics such as finishing the project on duration, financial compliance, specifications for quality, and consumer endorsement (Han et al., 2012).

Interview Protocol

A checklist for interviews was created, which included open-ended questions designed to gather thorough comments regarding every variable's involvement in construction project success. Principal inquiries aimed toward comprehension:

- How risk management approaches are applied and perceived in present endeavors.
- The impact of organizational culture on collaborative behavior, project management, and making choices.
- Communication management solutions and their efficiency in project collaboration.
- The contribution of HRM in facilitating or impeding the effective execution of projects.

Data Analysis

Thematic analysis was utilized to examine transcriptions from interviews and focus group talks. It is a qualitative analysis approach for identifying, analyzing, and reporting themes (patterns) under a dataset (Vaismoradi et al., 2013). It takes a methodical strategy to interpret extensive qualitative information by categorizing it into useful groups (Vaismoradi et al., 2016). Throughout the thematic evaluation, academics first familiarise themselves with the data, subsequently construct initial codes, and finally combine such codes into themes that encapsulate essential findings related to the study questions.

The method included:

- **Familiarisation:** Transcripts have been reviewed several times to get an understanding of the data.
- **Coding:** Significant phrases were underlined, and preliminary codes were created to classify pertinent concepts.
- **Theme Development:** Relevant codes were combined to form entire concepts and subtopics that depict the links across the variables investigated in the research.
- **Review and Refinement:** Themes have been evaluated in connection to the full sample and revised to guarantee consistency and representation.

Figure 2 provides an accessible road map and explains the research approach employed in the present research.

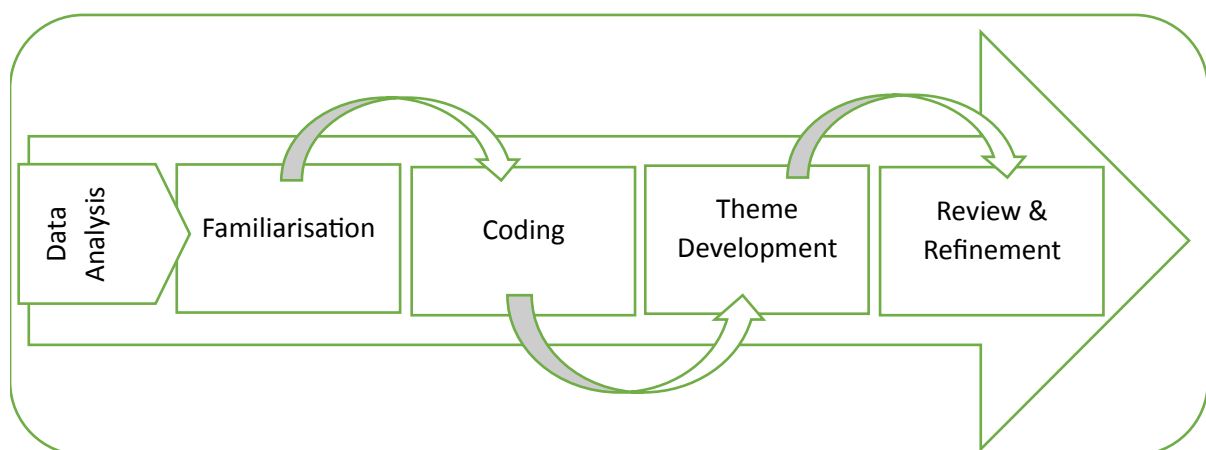


Figure 2. Data Analysis Method

Validity and Reliability

To improve the research's validity, information was gathered from different sources i.e., personal interviews and focus groups (Lambert & Loiselle, 2008). Participant verification was

carried out, in which initial outcomes were discussed with respondents to validate their interpretation. A peer review was also used to confirm the consistency of the thematic classification and analysis.

Ethical Considerations

The applicable review board for the institution provided ethical authorization (Arifin, 2018). Respondents received detailed information regarding the research's goal and processes and were ensured of their privacy and obscurity (Munhall, 1988). Authorization was sought before the assessment interviews, and respondents received the right to cancel their participation at any time without penalty.

The following qualitative technique offers an effective structure to comprehend the intricate dynamics of risk management, organizational culture, communication management, human resource management, and construction project success. Figure 3 visually illustrate the methodological framework utilized in this study.

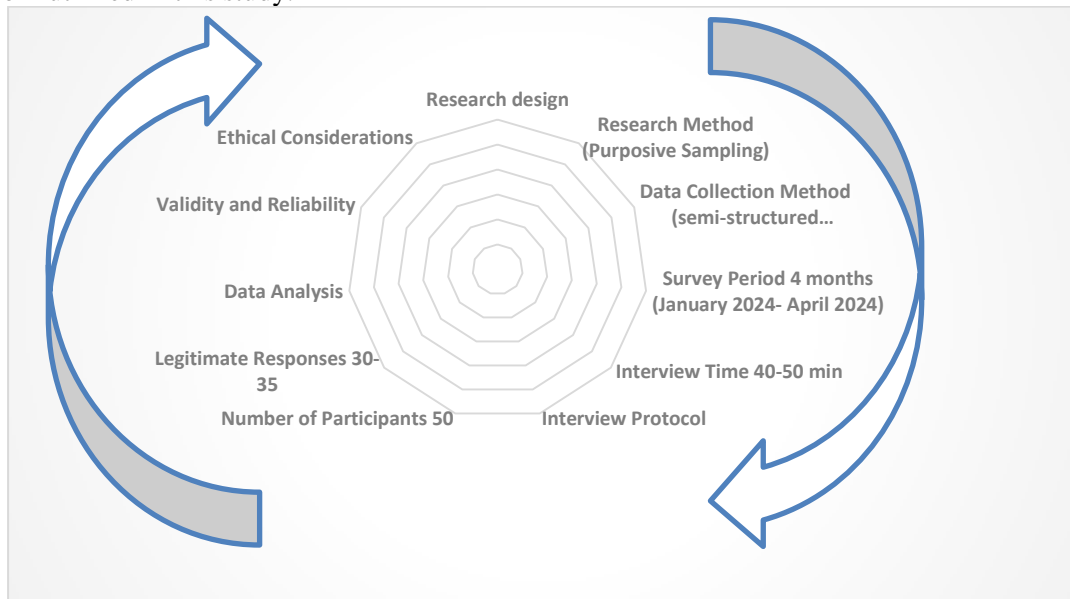


Figure 3. Methodological Framework

Developing Themes and Significant Outcomes

The research showed many distinct trends that emphasize the intricate relationships of risk management, communication management, organizational culture, and human resource management with construction project success. Every concept provides a distinct viewpoint regarding the way such components contribute to the construction project's achievement.

Key Themes and Outcomes

Utilizing Risk Management: To Maintain Project Sustainability

- **Ensure Effectively Completion of Operations:** Respondents reported that proactive risk management improves project durability by taking steps to address possible risks. They emphasized preemptive detection and reduction of risks as a critical component of project success, implying that with no competent risk management, venture results are susceptible to reverses. The data indicated that handling risks is critical to ensuring the success of construction initiatives since it entails recognizing, evaluating, and handling any risks that may affect the project's goals.
- **Develop Preventative Measures:** Participants shared that construction projects are naturally vulnerable to a variety of ambiguities, notably overinflated costs, interruptions, security hazards, and lack of resources. They said that efficient risk management enables team members to foresee these difficulties and devise proactive solutions to mitigate the effects. The data showed that completing extensive risk evaluations, developing backup strategies, and consistently assessing possible hazards during the project's duration.
- **Improving overall Projects' Durability and Success Rate:** Interviewees perceived that by carefully managing risks, project managers may minimize the possibility of delays, keep project timelines on track, and guarantee that resources are deployed effectively. Furthermore, they said that risk management improves making choices by giving a disciplined strategy for

dealing with unforeseen scenarios, enhancing the general durability and success rate of construction initiatives. The data found that risk management via planned personnel and training, projects tends to be more robust to unanticipated interruptions.

- **Effective Project Execution:** Respondents shared that risk management has been shown to have a directly beneficial effect on project success, demonstrating that preventive detection and reduction of risks lead to more effective project implementation. They indicate that projects with defined risk control strategies had fewer complications and price overruns.

Communication Management: A Gateway for Collaboration

- **Bridge for Successful Cooperation and Knowledge Transmission:** According to interviewees, communication management developed as a key issue, serving as an interface for productive collaboration and knowledge transmission. Respondents said that organized communication mechanisms reduce misconceptions and optimize project methods of operation, implying that effective communication networks are essential for the alignment of project teams.
- **Eliminating Misconceptions and Preventing Financial Losses:** Participants shared that communication management is crucial to the successful completion of a construction endeavor because it guarantees that all stakeholders receive information timely. They said that in construction projects, where distinct groups frequently collaborate on interdependent activities, efficient communication management promotes an acute awareness of the project's objectives, duties, and duties. They indicated that communication management aids in reducing misconceptions, avoiding monetary losses, and resolving concerns promptly.
- **Maintaining Favourable Working Conditions:** The data indicated that developing formal communication avenues and processes allows project managers to expedite the delivery of knowledge, rendering it simpler to collaborate on operations, provide updates, and report growth. Furthermore, respondents observed that effective communication management promotes cooperation and trust, both of which are necessary for dispute resolution and sustaining favorable working conditions. They said that when communication is well handled, teams can react efficiently to changes, coordinate activities towards common goals, and eventually enhance the results of projects concerning time, money, and quality.
- **Offer Dispute Settlement Strategies:** Respondents also shared that improved collaboration, less inadequate communication, and faster-resolving issues abilities, all of which improve project achievement and achievement in business. They shared that creating open communication pathways and encouraging transparency is critical. The data suggested that communication management helps to provide feedback, dispute resolution tactics, and periodic team conferences, which guarantee that knowledge circulates efficiently throughout the project.

Organizational Culture: A driving force in enhancing Team Performance

- **Encourages Effective Communication and Teamwork:** Participants highlighted that an enthusiastic organizational culture has been shown to improve team efficiency by encouraging cooperation and accountability among members. They emphasized how good cultural traits like reliability, common principles, and straightforward discussion foster unity among employees, guaranteeing that project goals can be accomplished quickly.
- **Modifies Team Member's Behaviors, Beliefs, and Communication:** Respondents shared that organizational culture has a substantial impact on construction project achievement because it shapes every team member's behaviors, mindsets, and communication. They said that in construction, where projects are frequently complicated and need close interaction between various interested parties, an uplifting and encouraging organizational culture promotes successful communication, faith, and teamwork.
- **Fostering Inventiveness:** The outcomes suggested that a solid culture supports commitment to security norms, fosters resolving issues inventiveness, and improves the overall effectiveness of projects. Respondents perceived that when a corporation's principles and standards fit with the goals of the project, a shared sense of mission emerges, motivating individuals to execute to the best of their abilities. Furthermore, they said that a culture that values continually gaining knowledge and adaptation enables teams to negotiate unforeseen difficulties and risks more successfully.

- **Remove Communication Impediments:** Participants indicated that creating a healthy organizational culture is critical to guaranteeing the endeavor's objectives can be accomplished on duration, within budgetary constraints, and to the desired quality norms, which leads to project success in the construction sector. Respondents shared that a strong organizational culture improves how communication works amongst the endeavor's workforce. This research discovered that aligning cultures eliminates communication obstacles, allowing groups to communicate data and function with greater efficiency, resulting in project success.

Strategic Function of HRM

- **Effectively Manage Project Team:** Respondents reported that HRM is essential for the accomplishment of construction endeavors because it efficiently manages the staff, improves interaction, and ensures employees perform at their best. They noted that in construction tasks, where varied teams frequently work under tight schedules and complicated situations, HRM is critical for matching worker talents to project objectives. This entails finding qualified candidates, offering essential guidance, and cultivating a healthy organizational culture.
- **Lessening Conflicts and Cultivating a Peaceful Environment:** Interviewees shared that in construction tasks, adequate HRM methods additionally assist in regulating the dynamics of teams, minimizing disputes, and establishing a harmonious atmosphere at work, all of which help with attaining the project's objectives. In addition, efficient human resources management guarantees that assigned tasks and responsibilities are readily apparent, resulting in improved collaboration and fewer project holdups.
- **Improve Project Functioning:** Participants described that HRM, by focusing on motivation among workers and happiness, helps to increase productivity, fewer layoffs, and better results from projects, making it a key component of success in the construction business. Moreover, HRM approaches have been frequently perceived to improve the efficient functioning of projects. Thus, such a theme demonstrates how HRM's strategic involvement, including training, allocation of resources, and staff involvement, enhances the effect of additional project-management approaches, resulting in improved project performance.
- **Upsurge Success Rates:** Numerous participants shared that successful human resources management procedures increase worker participation and happiness, which directly correlates to improved project success rates. They said that when HRM policies are matched with the organization's values, like promoting teamwork, giving chances for career advancement, and cultivating a supportive atmosphere, the project group's enthusiasm and efficiency improve dramatically. They noted that cooperation guarantees all team workers stay committed, resulting in the effective implementation of projects with favorable achievements.
- **Enhance Project Visibility:** Several respondents indicated that human resources management strategies guarantee that teams are well-equipped and prepared to appropriately manage project uncertainty. They perceived that executive management and strategy implementation may have a stronger influence on project visibility, emphasizing the importance of project managers establishing straightforward goals and responsibility descriptions. Moreover, they suggest that a beneficial impact, where HRM increases the capacities of team members to cope with uncertainty, contributes to a superior projected result.

The above themes and data, taken together, imply that the achievement of construction projects in Pakistan is the product of integrated effective management techniques, not separate tactics. HRM develops as a key catalyst, enhancing the effect of risk management, culture, and communication management on the success of the project.

Discussion

The findings of the present qualitative research show that risk management, communication management, organizational culture, and human resource management play an important role in improving the effect of significant project management elements on construction project success within the Pakistani construction sector. This qualitative study utilized purposive sampling to choose respondents and semi-structured interviews method to gather data.

Risk Management (RM) and Construction Project Success (CPS) Respondents addressed the importance of good risk management in the construction business because of its fundamental risks (El-Sayegh et al., 2021). They concluded that proactive detection and reduction of risk measures improve the project's performance by reducing interruptions and expenditure overruns (Islam et al., 2024). The necessity to possess a strong risk management structure was mostly noted since it allows projects to stay on course despite unanticipated problems (Smith & Merritt, 2020). Even so, respondents emphasized that the adoption of risk management strategies is frequently dependent on the project leader's skill and the company's dedication to continual development (Ferreira de Araújo Lima et al., 2021).

Communication Management (CM) and Construction Project Success (CPS) Successful communication with management is now recognized as a critical factor influencing building project success (Wuni & Shen, 2020). The respondents emphasized the need for open communication lines, timely sharing of knowledge, and frequent review systems in project collaboration (Zwikael et al., 2023). The investigation indicated that interaction breakdowns, which are frequently caused by ambiguous positions or limited adoption of technologies, can considerably impede project development (Daramola et al., 2024). Respondents reported that using organized interpersonal strategies and digital technologies can help solve problems and increase collaboration among teams, leading to improved results (Boeker et al., 2021).

Organizational Culture (OR) and Construction Project Success (CPS) The study discovered that a healthy organizational culture promotes cooperation, a common goal, and powerful cohesiveness among teams, all of which are necessary for a successful project (Mariam et al., 2022). Respondents emphasized that an atmosphere of support, with transparent interactions and fewer organizational hurdles, fosters a more flexible project atmosphere (Fu et al., 2022). In contrast, organizations with established frameworks experienced delayed decisions and an absence of trust, resulting in diminished effectiveness of projects (Bjorvatn & Wald, 2020). It was observed that organizational culture influences staff behavior and perspectives, which ultimately influence the outcome of the project (Cherian et al., 2021).

Human Resource Management (HRM) and Construction Project Success (CPS) Efficient HRM strategies including the allocation of resources, training, and employee performance management can greatly improve the results of the projects (Gurmu, 2021). HRM approaches such as efficient resource allocation, ongoing training, and motivation for workers were identified as critical accelerators of project success (Al-Taweel, 2021). Respondents agreed that HRM affects how teams react to problems and possibilities, hence amplifying the effect of successful project outcomes (Ren et al., 2021).

In summary, the qualitative outcomes highlight the importance of a comprehensive strategy for overseeing construction endeavors in Pakistan. The linkage between risk management, communication management, organizational culture, and human resource management, shows that organizations must invest in all of these sectors at the same time to produce consistently successful projects. This study adds to our awareness of the elements that influence project results and has practical implications for project supervisors and HR experts in the construction industry.

Conclusion

The purpose of the present research is to investigate the effect of risk management, communication management, organizational culture, and human resource management on the success of construction endeavors in Pakistan. This study sought to give information regarding how the aforementioned factors may affect the successful execution of key project management aspects, consequently enhancing the successful completion of the project. To acquire an improved awareness of project managers' perspectives and firsthand knowledge, data is gathered via semi-structured interviews with project managers in Pakistani construction sectors. Thematic analysis was used to uncover emergent themes and trends in the transcripts of the interviews. The research results demonstrated that managing hazards is an important factor in the achievement of project objectives, particularly when the project participants are prepared with the necessary skills.

The findings suggested that risk management, communication management, organizational culture, and human resource management all had a substantial effect on construction project success. Communication management increased the flow of knowledge and cooperation, lowering the risk of misunderstanding and interruptions to the project. Furthermore, organizational culture created a

favorable working atmosphere, which improved teamwork and overall endeavor effectiveness. HRM's engagement like providing training on recognizing risks and leadership, improved teams' entire preparation for confronting unexpected obstacles, leading to more accurate projected outputs. These results imply that Pakistani construction businesses ought to investigate incorporating HRM practices into their construction project management frameworks. Organizations can meet their project goals while also developing a sustainable plan to handle complicated construction projects.

The report emphasizes the importance of HRM as an important collaborator in ensuring the achievement of construction projects. Construction organizations ought to make investments in human resources management procedures like workforce development, training initiatives, and open channels of interaction to make sure team members are prepared to face issues. HRM participation in the development and implementation of projects can result in greater resource harmony, higher motivation among staff members, and, eventually, effective project achievements. Although this research proposes useful information, its scope is only applicable to Pakistan's construction projects. Further studies could expand the current investigation to include additional emerging economies or investigate the effect of these factors in multiple industries.

In general, the present study adds to the current literature by proving that these factors and essential project management techniques considerably improve construction project success. Risk management, communication management, organization culture, and human resource management should be viewed as crucial factors of construction companies' project management techniques to accomplish not just only temporary project objectives, but also long-lasting organizational growth and viability.

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