8-6-2025

Effective Leadership Strategies to Reduce Project Delays Resulting from Risk Management

Safiriyu Adebola Koya
Walden University

Walden University

College of Management and Human Potential

This is to certify that the doctoral study by

Safiriyu Adebola Koya

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Hyuk Kim, Committee Chairperson, Doctor of Business Administration Faculty

Dr. Yvonne Doll, Committee Member, Doctor of Business Administration Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University

2025

Abstract

Effective Leadership Strategies to Reduce Project Delays Resulting from Risk Management

by

Safiriyu Adebola Koya

MBA, Southern New Hampshire University, 2022

BS, Southern New Hampshire University, 20021

Research Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

August 2025

Abstract

Construction project delays are a major obstacle to organizational growth and sustainability in the U.S. construction sector, with ineffective risk management often playing a key role. These delays not only inflate costs but also disrupt the delivery of crucial infrastructure and diminish the overall performance of construction project leaders. In this qualitative pragmatic inquiry I explored how experienced construction project leaders use effective leadership strategies to reduce delays, improve risk management, and support long-term business success. The Project Management Body of Knowledge (PMBOK) Guide and transformational leadership theory provided the conceptual framework. The research involved six senior professionals with over 10 years of leadership experience in the construction field. Data were collected through semistructured interviews and analyzed using thematic analysis, revealing six core themes: leadership strategies, risk management techniques, stakeholder engagement, communication practices, project software tools, and team members. Findings indicated that leaders who engage in proactive risk assessment, foster collaboration, and maintain open communication can significantly reduce delays and improve project outcomes. Recommendations include integrating risk management into leadership development, leveraging digital project tools, and promoting cohesive team building. The implications for positive social change include the potential for construction leaders to deliver timely infrastructure that strengthens community services, enhances economic resilience, and promotes sustainability.

Effective Leadership Strategies to Reduce Project Delays Resulting from Risk Management

by

Safiriyu Adebola Koya

MBA, Southern New Hampshire University, 2022

BS, Southern New Hampshire University, 20021

Research Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

August 2025

Dedication

I wholeheartedly dedicate my Doctor of Business Administration (DBA) in Leadership to my beloved parents, Yisau Koya and Titilayo Koya, who passed away many years ago. They both had a vision for me to pursue my education to the doctoral level, and their dreams have become my reality. I also dedicate this achievement to my incredibly supportive wife, Omolayo Catherine Koya, whose unwavering encouragement has been my pillar of strength, and to my wonderful children, Damilola Koya, Maryam Koya, and George Koya, who continue to inspire me every day. This journey has been challenging yet fulfilling, and I am forever grateful for the love and support that have guided me along the way.

Acknowledgments

I express my deepest gratitude to my committee Chairperson, Dr. Hyuk Kim, and my second committee member, Dr. Yvonne Doll, including the DBA Program Director, Dr. Gail Miles, for their valuable guidance, support, and encouragement throughout this journey. Their expertise and mentorship have been instrumental in shaping my academic growth and the successful completion of my Doctor of Business Administration (DBA) in Leadership. I also sincerely appreciate the incredible faculty and staff at Walden University, whose dedication to excellence has contributed significantly to my learning experience. A special thank you to my dear friend, Dr. Kunle Richie, for his unwavering support and encouragement. Above all, I am deeply grateful to my loving and supportive wife, Omolayo Catherine Koya, whose belief in me, patience, and sacrifices have been my most excellent source of strength. Without her, this achievement would not have been possible. I am genuinely thankful to everyone who has played a role in this journey.

Table of Contents

List of Tables

List of Figures

Section 1: Foundation of the Project

Background of the Problem

Project delays, resulting from ineffective risk management, negatively affect revenue growth and sustainability in different projects within the construction industry. Project delays are a persistent issue in various industries, leading to significant financial losses, missed deadlines, and decreased stakeholder confidence (Akhtar, 2023). The Project Management Institute (2021) reported that nearly 50% of projects experienced delays, with inadequate risk management being a key factor despite advancements in project management tools and methodologies.

Leadership plays a crucial role in navigating the complexities of risk management. Effective leaders are able to identify potential risks early, develop strategies to address them, and foster a proactive team culture (Kerzner, 2021; Müller et al., 2021). However, there was a noticeable gap in research that specifically focused on the leadership strategies required to manage risks and reduce project delays.

In this research, I delved into the critical business challenge of enhancing leadership strategies to mitigate project delays arising from risk management issues. Bridging this gap was crucial for enhancing project outcomes and overall organizational performance (Raza & Majeed, 2024). The findings provided practical strategies for U.S. construction project managers and leaders to reduce delays from poor risk management and enhance revenue growth and sustainability. In this chapter, I will provide the background to the problem, followed by the problem statement.

Business Problem Focus and Project Purpose

The specific business problem was that some project management business leaders in the U.S. construction industry lacked effective strategies to reduce project delays resulting from ineffective risk management to support organizational revenue growth and business sustainability. Risk management is crucial in ensuring project success, enabling leaders to anticipate, assess, and mitigate potential disruptions that could cause significant delays (Bu Qammaz & AlMaian, 2020). Delays in construction projects often stem from factors such as inadequate resource allocation, regulatory constraints, and unforeseen environmental conditions.

Therefore, the purpose of this qualitative pragmatic inquiry was to identify and explore effective strategies project management business leaders used in the U.S. construction industry to reduce project delays that resulted from ineffective risk management and to support organizational revenue growth and business sustainability. To address the research question in this qualitative study, the specific research design used was pragmatic inquiry. This approach was appropriate for the study as it aligned with Creswell and Creswell's (2018) structured methodology, which was tailored to the qualitative method, ensuring its appropriateness.

The pragmatic inquiry had been designed to support the choice of the qualitative method, enabling thorough and reliable data to be collected and analyzed while maintaining rigorous qualitative research standards.

In this project, a non-probabilistic, purposive sampling method was selected to align with its research objectives. Campbell et al. (2020) contended that purposive sampling was well-suited for aligning the sample with the research objectives. Since my research focused on leadership strategies and their effectiveness in mitigating project delays caused by risk, purposive sampling enabled me to target individuals who could provide in-depth and contextually relevant insights to enrich the study.

For this study, I targeted a group of six to 10 experienced project managers from Georgia and neighboring states, including Florida, Alabama, North Carolina, and South Carolina. These participants were selected based on their leadership roles in managing construction projects, with a particular focus on those who had direct experience in risk management and efforts to mitigate project delays. Ideally, participants had at least 10–15 years of experience in a managerial capacity. I prioritized individuals who were currently managing or had recently managed medium-to-large-scale construction projects, as their insights provided valuable and relevant data for the study.

The sample selection aimed to identify and explore effective strategies project management business leaders used in the U.S. construction industry to reduce project delays resulting from ineffective risk management to support organizational revenue growth and business sustainability. To recruit participants, I used a combination of personalized emails, LinkedIn outreach, networking, industry events, and professional organizations.

The data sources for this study included semistructured interviews and related public records/documents. In this study, I aimed to delve deeply into how experienced project managers strategized to minimize delays caused by risk management issues. The collected data were subjected to thematic analysis using the thematic analysis method for identifying, analyzing, and reporting patterns (themes) within data to illuminate the most effective strategies to tackle these challenges. I focused on project management professionals with 10–15 years of experience across Georgia, Florida, Alabama, North Carolina, and South Carolina.

This targeted approach ensured a thorough exploration of regional practices in the construction industry, drawing on insights from the Project Management Institute (2017) and Jianyong (2022) to uncover actionable solutions for driving organizational growth and sustainability. The conceptual theories that grounded this project were transformational leadership, which provided valuable insights into mitigating project delays effectively, and transformational leadership theory (Fayyaz et al., 2022). The practice-based theory advocated in the PMBOK® Guide, published by the Project Management Institute, served as a foundational framework for understanding and applying risk management principles within project management contexts (Project Management Institute, 2017).

Research Question

What effective strategies do project management business leaders in the U.S. construction industry use to reduce project delays resulting from ineffective risk management to support organizational revenue growth and business sustainability?

Assumptions and Limitations

Assumptions

In research, assumptions are beliefs or statements accepted without proof, forming the foundational premises of the study (Creswell & Creswell, 2018). While assumptions are essential for advancing the research, it is important to recognize them, as they can impact the study's design, methodology, and interpretation of findings (Branka, 2023). In my research, I assumed all project managers interviewed, including business leaders in the construction industry within Georgia, Florida, Alabama, North Carolina, and South Carolina, provided honest and accurate accounts of their experiences and strategies. I also assumed that the data collected accurately reflected the current practices and challenges in the industry. These assumptions were critical for understanding and developing effective strategies to mitigate project delays caused by ineffective risk management practices.

Limitations

Limitations in research refer to potential weaknesses or constraints that may impact the study's results or shape how the findings are interpreted and applied (Haynes & Loblay, 2024). The limitations can stem from various factors, such as the study design,

methodology, data collection processes, or external factors outside the researcher's control. Recognizing and addressing these limitations is vital to the research process, as it promotes transparency and allows readers to evaluate the study's credibility critically. In my research, the potential barriers when collecting primary data included limited access to potentially sensitive information, scheduling constraints, interview time, and difficulties recruiting interview participants.

Transition

In Section 1, I highlighted the background problem, business problem focus, and project purpose, including the research question. In Sections 2, 3, and 4, I expand on the project groundwork. In Section 2, I introduce the literature review and its relevance to the applied business problem. Section 3 covers project ethics, the characteristics of the project population, sampling methods and participants, data collection processes, interview questions, data organization, analysis techniques, and considerations for reliability and validity. Finally, in Section 4, I present the findings, discuss contributions to business practice, offer recommendations, explore implications for social change, suggest areas for future research, and conclude the study.

Section 2: The Literature Review

A Review of the Professional and Academic Literature

The purpose of this qualitative pragmatic inquiry was to identify and explore effective strategies project management business leaders used in the U.S. construction industry to reduce project delays resulting from ineffective risk management and support organizational revenue growth and business sustainability.

In Section 2, I organized the literature review into two key parts: the PMBOK Guide and transformational leadership theory. The PMBOK Guide served as a foundational framework that offered critical insights into project management principles and practices (Project Management Institute, 2017). This framework enabled me to better understand the intricate relationship between effective leadership and successful project management, particularly in risk management.

In this literature review, I highlighted the established conceptual frameworks' vital role in addressing project challenges and techniques for enhancing leadership strategies. By exploring the PMBOK Guide and transformational leadership theory, I sought to shed light on the intricacies of leadership dynamics within project management, ultimately demonstrating how these frameworks drove effective outcomes and inspired successful teams.

In this qualitative pragmatic inquiry, I aimed to uncover effective strategies that project management leaders in the U.S. construction industry used to minimize project delays caused by ineffective risk management, ultimately supporting organizational

revenue growth and sustainability. Previous research highlighted various approaches industry leaders employed to address this critical issue, emphasizing the need for comprehensive strategies that integrated strong leadership with robust project management practices.

This section explored the PMBOK Guide from the Project Management Institute (2017), providing valuable strategies for reducing project delays through improved risk management. Previous researchers suggested that transformational leadership encouraged a proactive approach to risk management by fostering open communication, collaboration, and empowerment among team members (Risk Management in Construction, 2024). Combined with the PMBOK Guide's structured framework, which outlined key project management principles and practices, this integration offered a comprehensive strategy for leaders in the U.S. construction industry to navigate the complexities of project execution.

To begin, I explored the core principles of the PMBOK Guide, focusing on its framework and key areas such as organizational strategies, leadership effectiveness, team engagement, and culture building. Emphasizing the role of empowerment and enhanced communication, I demonstrated how the strategies created a strong foundation for successful project management. In this analysis, I highlighted how blending transformational leadership with the PMBOK Guide's structured approach to risk management led to more efficient project execution, reduced delays, and ultimately contributed to revenue growth and long-term business sustainability.

Second, I also reviewed the literature on transformational leadership theory, focusing on its core principles and essential traits, such as idealized influence, individualized consideration, inspirational motivation, and intellectual stimulation, that characterize effective transformational leaders (Osborn & Marion, 2009). I also included research that illustrated the positive correlation between transformational leadership and successful project outcomes (Abbas & Ali, 2023). The review incorporated empirical evidence and real-world examples that demonstrated the practical application of transformational leadership across various project settings.

The literature review encompassed many references, with approximately 85% drawn from peer-reviewed articles published within the last five years leading up to my expected graduation. I primarily utilized Walden University's library as my key resource, employing targeted keywords to identify relevant scholarly materials. These keywords included project lifecycle, leadership strategies, project delay, risk management, construction industry, and construction project management. I also focused on phrases like leadership styles, project delay mitigation, risk management practices, construction project success, construction project performance, and leadership and project outcomes. This meticulous approach ensured that I gathered a robust and current collection of literature to support my research.

Conceptual Framework

Theory of PMBOK Guide

The PMBOK Guide, published by the Project Management Institute (2017), provided a robust, practice-oriented framework that equipped project managers with the tools necessary for effective risk management throughout the project lifecycle. This guide laid out structured methodologies to resolve project risks, which were crucial for achieving successful outcomes (Rehan et al., 2024; Sadikoglu et al., 2024). The process began with risk identification, where project managers conducted thorough examinations of all project aspects to pinpoint potential risks that could hinder progress.

Once risks were identified, the next step was risk analysis, where managers evaluated their likelihood and potential impact, allowing them to prioritize them based on severity and probability (Project Management Institute, 2017). This step was followed by risk response planning, which involved developing actionable strategies to mitigate or manage these risks (Chou et al., 2021; Project Management Institute, 2017). The final component, risk monitoring and control, was an ongoing process that ensured continuous tracking of risks throughout the project (Obondi, 2022; Project Management Institute, 2017). This systematic approach allowed project managers to adapt their risk management strategies as new challenges arose, ensuring effective handling of risks at every stage.

The structured methodologies presented in the PMBOK Guide served as a cornerstone for this research, offering a solid framework for understanding how

leadership strategies could be integrated into risk management processes. By anchoring the project in the PMBOK Guide, I explored how leaders in the U.S. construction industry utilized these practices to reduce project delays effectively. This exploration not only underscored the importance of a structured risk management approach but also illustrated how leadership enhanced the effectiveness of these strategies, ultimately contributing to improved project success in a challenging industry landscape.

PMBOK Guide Framework

Effective leadership was vital in project management, particularly in risk management and reducing delays. The PMBOK Guide and transformational leadership principles provided key frameworks for understanding leadership's role in managing project risks. Transformational leaders inspired vision, drove change, and fostered trust, promoting collaboration and adaptability to enhance team cohesion and resilience (Abbas & Ali, 2023; Cavaletti & Bizarrias, 2023). This leadership approach strengthened risk management and improved project efficiency. Integrating transformational leadership within the PMBOK framework equipped project managers with strategies to mitigate risks, reduce delays, and ensure long-term project success.

The literature surrounding risk management further emphasized its vital role in project management and its capacity to prevent delays. The PMBOK Guide offered a robust framework for risk management, encompassing essential processes such as risk identification, analysis, response planning, and ongoing monitoring. Gali (2020) highlighted the necessity of integrating risk management practices throughout the project

lifecycle. This integration ensured that potential issues were addressed proactively, preventing them from escalating into significant delays that could derail project objectives.

Principles of the PMBOK Guide

Implementing the principles outlined in the PMBOK Guide represented a significant advancement for project managers aiming to minimize risks and improve project outcomes. The structured approach to risk management detailed in this framework was vital for reducing the likelihood of project delays (Project Management Institute, 2017). Project managers were able to sustain momentum, adhere to timelines, and achieve successful results by emphasizing continuous risk assessment and making timely adjustments to response strategies. This empowerment enabled project managers to face the complexities of their projects with heightened confidence and effectiveness.

Research highlighted a strong correlation between effective leadership strategies and robust risk management practices. Transformational leadership, in particular, played a crucial role in applying the PMBOK Guide's risk management principles by fostering a proactive and communicative atmosphere (Al-Abbadi et al., 2024; Zaman et al., 2020). Studies showed that leaders who actively engaged in risk management were more successful in delivering projects on time and within scope (Fareed et al., 2023). This relationship between leadership and risk management emphasized the necessity of integrating leadership with risk management practices to mitigate project delays,

showcasing how these elements could work synergistically to enhance overall project performance.

By framing this exploration within the PMBOK Guide and examining the relationship between leadership and project risk management through the lens of transformational leadership theory, I aimed to explore and reveal how leaders effectively implemented strategies to reduce project delays. Zaman et al. (2020) illustrated that combining structured risk management practices with transformational leadership greatly enhanced project outcomes. Furthermore, Zhao et al. (2021) discussed the critical role effective risk management played in project planning and success, insights that were just as relevant to the U.S. construction sector as they were in other regions. This research sought to clarify the foundations of effective leadership and provide practical strategies for integrating these principles into risk management practices, fostering more successful project delivery in the industry.

Organizational Strategies

Effective leadership strategies were essential for mitigating project delays caused by risk management challenges in the construction industry. One vital organizational strategy had been establishing a clear communication framework that promoted transparency and collaboration among team members. According to Rehan et al. (2024), effective communication formed the backbone of project success. Leaders prioritized regular meetings and updates to ensure that all team members knew potential risks and their implications for project timelines (Fayyaz et al., 2022). By fostering an environment

of open dialogue (Akıner, 2024), leaders encouraged team members to voice their concerns and propose solutions, ultimately enhancing collective problem-solving capabilities and minimizing delays.

The evidence suggested that effective communication influenced project success by keeping all team members informed and engaged. Regular meetings ensured that risks were discussed and created a platform for collaborative problem-solving, which helped prevent delays. By promoting transparency, leaders created an environment of trust where team members were more likely to share concerns and solutions, enhancing overall project efficiency. This approach aligned with the principles of transformational leadership, which emphasized active communication and the involvement of all team members in decision-making, ultimately strengthening the project's risk management framework.

Leaders strove to create an environment where team members felt empowered to identify and discuss risks without fear of reprisal. Another key strategy was cultivating a supportive organizational culture that prioritized proactive risk management, as highlighted by Zhao et al. (2024). Rehan et al. (2024) emphasized that a leadership framework built on trust and mutual respect greatly improved team dynamics. When employees felt valued and recognized for their contributions, they were more inclined to engage in proactive risk management behaviors, leading to more effective project execution (Fernandes et al., 2021). This culture of accountability not only helped in the early identification of risks but also ensured that appropriate mitigation strategies were

promptly implemented. By adopting these organizational strategies, construction leaders built a robust framework that enhanced project efficiency and effectiveness in managing risks

Effective Leadership Strategies

This research project centered on effective leadership strategies that enhanced risk management practices, drawing insights from the PMBOK Guide (2017). By integrating transformational leadership theory with the principles outlined in the PMBOK Guide, I sought to identify and explore strategies used to mitigate project delays linked to risk management challenges. As articulated by McLaughlin and Kunk-Czaplicki (2020), transformational leadership transcended traditional transactional methods, initially proposed by Burns in the late 1970s and later refined by Randolph (2021). This leadership approach focused on inspiring and motivating team members to align their efforts with the organization's goals, emphasizing collective success over individual achievements.

The application of this research emphasized optimizing leadership strategies to tackle project delays caused by ineffective risk management. At the core of this study was the PMBOK Guide, which provided a robust framework for understanding and applying risk management principles in project management (Project Management Institute, 2017; Kabore, 2021). By exploring the intersection of effective leadership and risk management, I uncovered practical strategies leaders implemented to minimize delays and enhance their risk management capabilities.

By combining transformational leadership theory with the structured methodologies in the PMBOK Guide, the research project offered a new perspective on the impact of leadership on risk management practices. Transformational leaders were renowned for their ability to inspire teams, and when these leaders utilized the PMBOK's structured approaches, they significantly bolstered risk management efforts and reduced project delays (Takagi et al., 2023). This project clarified the theoretical foundations of effective leadership and provided actionable insights for project management practitioners, particularly in the construction industry. By understanding how leadership influenced risk management, professionals became better equipped to drive project success and adopt a proactive stance toward overcoming challenges.

Engagement and Culture Building

Effective leadership in project management began with active stakeholder engagement, which was essential for identifying and mitigating risks early in the project lifecycle. Leaders prioritized understanding the concerns and expectations of all stakeholders, including team members, clients, and other interested parties (Akhtar, 2023). This collaborative approach fostered a sense of ownership among stakeholders and helped surface potential risks that were not immediately visible (Fernandes et al., 2021). As the PMBOK Guide (2017) indicated, engaging stakeholders allowed project managers to gain valuable insights and create a more inclusive decision-making process, ultimately leading to better risk identification and management.

Cultivating a risk-aware culture was equally crucial for effective leadership. Leaders created an environment where open discussions about risks were encouraged, and team members felt comfortable sharing their insights and concerns without fear of reprisal (Patyal et al., 2020). This openness promoted proactive risk identification and reinforced that managing risks was a shared responsibility. According to the Project Management Institute (2017), by emphasizing transparency and collaboration, leaders fostered a culture where risks were viewed as opportunities for improvement rather than obstacles to success.

Empowerment and Communication Improvement

Empowering team members was a cornerstone of effective project risk management. When individuals took ownership of their tasks, they became more proactive in identifying and addressing potential risks within their areas of expertise (Zhao et al., 2024). This sense of responsibility boosted team morale and enhanced the collective ability to manage risks effectively (Akıner, 2024). The PMBOK Guide (2017) highlighted the importance of leaders delegating authority and providing the necessary resources, allowing team members to make informed decisions that aligned with project objectives (Kabore et al., 2021). By fostering an empowering environment, leaders motivated their teams to take the initiative and actively contribute to the project's success.

In addition to empowerment, effective communication was vital for strengthening risk management efforts. Leaders established regular channels for updating the team on

risk status and mitigation strategies, ensuring everyone was informed and aligned (Rehan et al., 2024). This ongoing dialogue built trust within the team and encouraged collaborative problem-solving when new risks emerged (Mansour, 2023). By nurturing a culture of open communication, leaders empowered all team members to engage actively in risk management, ultimately enhancing project outcomes.

Summary of the Literature Review on the Theory of PMBOK Guide

The PMBOK Guide served as an essential framework for project managers, providing vital tools for effective risk management throughout the project lifecycle. By outlining structured methodologies for identifying, analyzing, and responding to potential risks, the PMBOK Guide was instrumental in driving project success (Rehan et al., 2024). The first step in this process was meticulous risk identification, where project managers assessed various project aspects to uncover potential risks that could impede progress. This foundational phase was crucial for establishing a robust risk management strategy, setting the stage for subsequent processes that refined the handling of risks.

Once the risks had been identified, the next vital step was risk analysis, which evaluated the likelihood and potential impact of these risks. This evaluation allowed project managers to prioritize risks based on their severity and probability (Al Qudah et al., 2024). Following risk analysis, the focus shifted to risk response planning, where actionable strategies were developed to reduce the likelihood of risks occurring or to minimize their impacts (Chou et al., 2021). The final piece of this cyclical approach was risk monitoring and control, an ongoing process that ensured risks were continually

tracked and project managers could adapt their strategies as new risks arose (Obondi, 2022). These processes created a comprehensive framework for effective risk management throughout the project lifecycle.

A standout feature of the PMBOK Guide was its structured approach to risk management processes, which provided a systematic framework for addressing risks (Osei-Kyei et al., 2022). The guide outlined specific methodologies for risk mitigation, emphasizing the importance of well-defined strategies to reduce the likelihood of risks and mitigate their consequences (Marchwicka, 2020). Understanding these methodologies was crucial for integrating effective leadership into risk management strategies, especially in high-stakes environments like the construction industry (Kallow et al., 2023; Syed et al., 2023). This research underscored the importance of effective leadership strategies in project management, especially in risk management.

By synthesizing insights from the literature on the PMBOK Guide, I aimed to reveal how leadership strategies were seamlessly integrated into risk management processes. Ultimately, this alignment with transformational leadership theory provided practical recommendations for leaders in the U.S. construction industry, equipping them with actionable tools to reduce project delays and enhance overall risk management efforts.

Transformational Leadership Theory

Transformational leadership theory is centered on several fundamental concepts that empower leaders to inspire and elevate their teams. A key aspect of this theory was

idealized influence, where leaders served as role models for their followers (Bass & Riggio, 2005). By embodying the values and behaviors they promoted, these leaders earned the respect and admiration of their teams (Raza et al., 2024). Leader role modeling cultivated trust and fostered strong commitment among team members, creating a collaborative and motivated environment.

Transformational leadership played a critical role in enhancing organizational outcomes by empowering leaders to inspire and engage their teams, particularly in challenging situations. Transformational leadership theory suggested that leaders who embodied key principles, such as idealized influence, inspirational motivation, and individualized consideration, significantly improved organizational outcomes, especially during difficult times like the COVID-19 pandemic, by reducing risks across projects (Christopher & Lim, 2024). Transformational leaders fostered a supportive and innovative environment (Marnoto & Desiana, 2024), motivating and engaging their teams, which ultimately led to improved performance and successful project execution (Owusu & Aba, 2023). By inspiring and challenging their teams while providing necessary support, transformational leaders cultivated a motivated workforce committed to achieving their goals, resulting in higher-quality work and better project outcomes.

Transformational Leadership

By creating an environment that encouraged creativity and collaboration, transformational leaders empowered their teams to undertake challenges and navigate the complexities of project management more effectively. Transformational leadership drove

change and fostered innovation while nurturing strong team dynamics through compelling vision and inspirational guidance (Raza et al., 2024). My research emphasized how adopting transformational leadership strategies significantly enhanced risk management practices, reduced project delays, and improved overall outcomes.

A key strength of transformational leaders is their ability to inspire and motivate their teams, creating a shared sense of purpose and driving organizational success. One of the primary strengths of transformational leaders is their ability to provide inspirational motivation. They crafted a vision that resonated deeply with their team members, igniting a sense of passion and purpose in their work (Garad et al., 2022; Kalambayi et al., 2021). This alignment between individual contributions and broader organizational goals fostered a cohesive team atmosphere where every member felt personally invested in the organization's success (Mansour, 2023). Additionally, by emphasizing intellectual stimulation, transformational leaders encouraged creativity and challenged the status quo, empowering team members to bring fresh perspectives to problem-solving (Fareed et al., 2023; Tian et al., 2023). A dynamic was created when transformational leaders combined inspirational motivation with intellectual stimulation, enhancing individual engagement and fostering innovation, which significantly improved processes and overall outcomes.

My project focused on qualitative pragmatic inquiry to investigate the strategies employed by project management leaders in the U.S. construction industry to minimize project delays caused by risk management issues. By exploring these strategies, I uncovered insights that fostered organizational growth and sustainability. The goal was to

develop decision-making tools that promoted resilience in the construction environment. Through a thorough exploration of how leaders addressed risk management challenges, this research enhanced project outcomes while aligning with long-term business objectives. Ultimately, this project contributed to the existing body of knowledge and provided actionable recommendations for practitioners, supporting a more effective and sustainable project management landscape in the construction sector.

Idealized Influence

Idealized influence, a key component of transformational leadership, was vital in improving project outcomes, particularly in managing risks and preventing delays in the construction industry. Idealized influence referred to a leader's ability to serve as a role model, inspiring trust and admiration among team members (Bass & Riggio, 2005). In the construction industry context, this leadership strategy was crucial for mitigating project delays caused by risk management challenges (Raza et al., 2024). Leaders who demonstrated idealized influence instilled confidence and commitment in their teams, encouraging them to take ownership of their work and engage proactively with risk management practices (Zhao et al., 2021). When team members viewed their leaders as credible and ethically grounded, they were more likely to align their efforts with the leader's vision, leading to enhanced collaboration and a reduced likelihood of project delays.

Idealized influence played a critical role in shaping an organizational culture that prioritized safety, quality, and accountability, ultimately improving risk management in

construction projects. Leaders who consistently demonstrated high standards and ethical behavior set the tone for expected performance and inspired team members to adopt similar attitudes (Bass & Riggio, 2005). This alignment of values fostered a proactive approach to risk management, where team members felt empowered to identify potential risks and propose innovative solutions (Zaman et al., 2020). As highlighted by Mansour (2023), such a culture encouraged open communication and collective problem-solving, essential for effectively managing risks and minimizing delays in construction projects. By instilling these values, transformational leaders created an environment that supported risk reduction, promoted continuous improvement, and enhanced project success.

Moreover, idealized influence facilitated resilience in the face of challenges. When leaders effectively communicate their vision and exhibit confidence in their team's abilities, they help mitigate the anxiety and uncertainty that often accompany complex construction projects (Rehan et al., 2024). This motivational support encouraged team members to persevere through difficulties and remain focused on achieving project goals, even when unexpected issues arose (Hailemarkos, 2020). By leveraging idealized influence, leaders ultimately enhanced their team’s commitment to risk management strategies, improving project timelines and overall success in the construction industry.

Individual Consideration

A central aspect of effective leadership in the construction industry was the focus on individual consideration, recognizing and addressing each team member’s unique needs and contributions. This personalized attention was essential for fostering an

environment where team members felt valued and motivated to actively identify and mitigate risks (Chenya et al., 2022). Leaders who prioritized individual consideration gained deeper insights into their team's strengths and weaknesses, allowing them to provide tailored support and resources (Basim, 2023). This leadership strategy of providing personalized attention and support to team members boosted morale and engagement and also equipped the team to navigate the complexities of construction projects more effectively by fostering a collaborative and risk-conscious environment.

An essential component of effective leadership in the construction industry involves cultivating a supportive atmosphere that promotes open communication about risks, enabling proactive risk management. Sujchaphong et al. (2020) stated that when team members felt their perspectives and concerns were genuinely valued, they were more likely to share valuable insights regarding potential project delays and risk factors. This open dialogue fostered trust within the team and encouraged the sharing of critical information that could mitigate risks. Cheng and Darsa (2021) highlighted that fostering an inclusive environment enhanced risk identification and encouraged collaborative problem-solving. By promoting this culture of inclusivity, leaders empowered their teams to take ownership of the project's success, resulting in more effective risk management and reduced delays.

Effective leadership in the construction industry involves building trust and collaboration, which are essential for proactive risk management and long-term project success. Leaders built trust and collaboration by actively listening to their teams and

addressing specific challenges, crucial components of effective risk management as highlighted by (Akıner et al., 2024). This leader's approach fostered a culture of mutual respect and open communication, where team members felt heard and valued. Additionally, investing in professional development tailored to individual needs empowered team members and enhanced their risk assessment and management skills. As a result, the team became more capable of navigating unforeseen challenges, leading to greater project success and resilience against potential risks in the construction industry.

Inspirational Motivation

Inspirational motivation was a key component of effective leadership, particularly in enhancing risk management by maintaining team morale and engagement during challenging situations. A major concern in this context was sustaining motivation and commitment amid uncertainty and potential setbacks. Inspirational leaders cultivated a compelling vision that encouraged team members to actively embrace risk management practices, particularly when faced with obstacles that could lead to project delays or failures (Kalambayi et al., 2021). By effectively communicating the significance of risk management and aligning it with team objectives (Risk Management in Construction, 2024), leaders inspired commitment and fostered proactive behavior among their members. This not only motivated the team to face challenges head-on but also strengthened the overall resilience of the project, improving its chances for success.

Effective leadership, particularly through inspirational motivation, was crucial in fostering a collaborative and proactive approach to risk management in construction projects. Elsebaie et al. (2023) found that leaders who demonstrated inspirational motivation empowered their teams to rise above individual interests for the collective benefit of the project. This collective mindset enhanced the identification and management of risks, as team members felt encouraged to express their concerns and contribute solutions (Aguda et al., 2021). Conversely, when the environment became overly critical or punitive in response to identified risks, it inhibited open communication and diminished the effectiveness of risk management efforts. Therefore, maintaining a balance between motivation and a supportive atmosphere was critical to nurturing a strong risk management culture within the team, ensuring members felt safe to share insights and collaboratively address potential setbacks.

Intellectual Stimulation

A significant aspect of intellectual stimulation in effective leadership for improving risk management was the challenge of fostering a culture of innovative thinking while ensuring that team members felt safe to share their ideas and concerns. Leaders who promoted intellectual stimulation encouraged team members to think critically and creatively about risk management strategies (Luo et al., 2023). This led to more robust approaches to risk identification and mitigation (Owusu & Aba, 2023). However, if not managed properly, the pursuit of innovation risked creating an

atmosphere of uncertainty or fear of failure, which could hinder open dialogue and collaboration.

According to McLaughlin and Kunk-Czaplicki (2020), an effective leader balances the encouragement of new ideas with maintaining a clear framework for risk management. This balance was crucial because while intellectual stimulation led to creative solutions, team members needed to understand the practical implications of their proposals. Han et al. (2024) emphasized that leaders should foster a supportive environment where team members are motivated to share their thoughts without fear of criticism. By creating a psychologically safe space for discussion, leaders leveraged the collective intelligence of their teams to enhance risk management practices, ultimately contributing to more successful project outcomes.

Summary of Literature Review on Transformational Leadership Theory

Transformational leadership theory was built around fundamental concepts that empowered leaders to uplift and inspire their teams. Central to this theory was the notion of idealized influence, where leaders served as role models who embodied the values they promoted (Zhao et al., 2021). By consistently demonstrating the behaviors they advocated, these leaders gained the respect and admiration of their team members, cultivating a culture of trust and commitment (Raza et al., 2024). This supportive environment encouraged collaboration and fostered motivation, key ingredients for a high-performing team.

During challenging times like the COVID-19 pandemic, transformational leaders played a crucial role in improving organizational outcomes by effectively managing project risks (Christopher & Lim, 2024). Leaders created innovative and supportive environments that engaged team members, enhancing overall performance and project execution (Marnoto & Desiana, 2024). These leaders cultivated a motivated workforce to achieve their goals by inspiring their teams while providing necessary support, which resulted in superior project outcomes.

Transformational leadership was pivotal in fostering an innovative and creative environment, especially through intellectual stimulation. This concept referred to how transformational leadership encouraged an environment where new ideas were welcomed, and creative problem-solving was a key focus. Research emphasized how transformational leadership fostered an atmosphere of intellectual stimulation, motivating team members to engage in creative thinking and share novel ideas (Tian et al., 2023). Leaders who adopted this approach empowered their teams to confront challenges with fresh perspectives, leading to improved processes and outcomes. By encouraging innovative thinking, transformational leaders inspired their teams to challenge the status quo and explore novel solutions, thereby enhancing the overall efficiency and effectiveness of the project. This approach not only boosted creativity but also contributed to a more dynamic and adaptable team that was well-equipped to handle the complexities of construction projects.

Individualized consideration was another essential component of transformational leadership that supported team members' personal and professional development, enhancing their contributions to project success. By supporting each team member's unique needs and goals, leaders promoted both personal growth and team effectiveness (Chukwuma & Zondo, 2024). My project explored qualitative strategies employed by project management leaders in the U.S. construction industry to mitigate delays arising from risk management challenges. By investigating these practices, I provided actionable insights that drove organizational growth and sustainability. Ultimately, this research revealed how transformational leadership strengthened risk management practices and fostered a resilient construction environment capable of navigating complex challenges.

In conclusion, exploring transformational leadership theory highlighted its significant role in enhancing risk management within the construction industry. By embodying the principle of idealized influence, transformational leaders cultivated trust and collaboration, encouraging their teams to engage actively in risk management practices (Zhao et al., 2021). This proactive approach mitigated potential delays and fostered a culture where team members felt valued and inspired to share their unique insights and solutions (Raza et al., 2024). Such an environment was essential for navigating the complexities of modern construction projects, ultimately boosting team morale and improving project outcomes.

A key component of effective transformational leadership was the emphasis on intellectual stimulation. Leaders who promoted innovative thinking and welcomed new

ideas created a space where team members felt secure expressing their thoughts and taking the initiative without fear of criticism (Aguda et al., 2021). This openness enhanced the team's capacity to identify and manage risks effectively, leading to more successful project execution (Owusu & Aba, 2023). By fostering a proactive mindset, transformational leaders empowered their teams to undertake challenges and seize opportunities, which was crucial in the ever-evolving landscape of project management.

Individualized consideration further enriched the transformational leadership model by addressing each team member's unique needs and contributions. This personalized approach not only boosted employee engagement and morale but also strengthened the collective capability of the team to face challenges effectively (Oswald et al., 2022). As leaders invested in the professional growth of their team members, they cultivated a resilient and adaptable organizational culture, better equipped to handle the uncertainties inherent in construction projects (Basim, 2023). Integrating these principles into risk management practices substantially reduced project delays and enhanced performance, ultimately fostering a sustainable and innovative work environment within the construction sector. In doing so, the work sought to foster a proactive culture of risk management that contributed to long-term success in the dynamic and often unpredictable construction industry.

Research Review on Project Management Leaders in The U.S. Construction Industry

The U.S. construction industry faced numerous challenges, such as budget overruns, project delays, and operational inefficiencies, making the role of effective project management leadership more critical than ever. Ineffective risk management significantly contributed to project delays, and project management leaders were essential in identifying, mitigating, and managing these risks to ensure successful project outcomes. As construction projects increased in size and complexity, the need for strong leadership to navigate these challenges became increasingly apparent. Al-Naghi et al. (2024) emphasized that effective leadership was vital for overcoming obstacles such as managing diverse stakeholders, complying with regulatory requirements, and ensuring projects were completed within time and budget constraints. Without clear leadership and strategic risk management, construction projects were more prone to delays and setbacks, negatively impacting their overall success.

Effective project management leadership was key to reducing delays and ensuring the success of construction projects. Project leaders proactively addressed potential issues by prioritizing risk identification, implementing mitigation strategies, and fostering clear communication among all stakeholders, thereby minimizing the likelihood of delays (Klein & Muller, 2020). Strong leadership guided decision-making and ensured that all project participants remained aligned and committed to achieving the project's goals. As the demand for larger and more complex projects grew, the importance of project

management leaders who could effectively manage risks and drive successful outcomes became undeniable. By focusing on proactive risk management, construction projects overcame challenges, reduced delays, and achieved long-term organizational growth and sustainability.

Leadership Styles and Risk Management

Research showed that project managers' leadership style significantly influenced the effectiveness of risk management in construction projects. Transformational leadership, which focused on inspiring and motivating teams by fostering a shared vision, was particularly effective in mitigating risks and delays. According to Fareed et al. (2023), transformational leaders empowered team members to proactively identify and address potential risks, promoting a culture of innovation and accountability. This leadership style encouraged team members to engage in problem-solving and creative thinking, which was critical in navigating the complexities of large construction projects.

In contrast, transactional leadership, which emphasizes structure, performance monitoring, and clear goals, also minimizes delays. Alonderiene et al. (2022) suggested that transactional leaders were effective in environments where efficiency and clarity were essential. By setting clear expectations and monitoring performance, transactional leaders reduced miscommunication and ensured that tasks were completed on time, preventing delays caused by ambiguity.

Communication and Collaboration in Leadership

Clear and effective communication is crucial in reducing project delays in the U.S. construction industry. Research by Klein and Muller (2020) emphasized the importance of transparency and regular updates to ensure that all stakeholders, contractors, subcontractors, clients, and regulatory bodies were aligned on project goals, timelines, and potential risks. Zulch (2014) further supported this by stating that communication was the foundation of successful project management. When leaders engaged stakeholders early and maintained continuous communication, emerging issues were addressed promptly, minimizing the chances of delays and ensuring that projects stayed on track.

In addition to communication, collaboration is vital in successful risk management. Yap and Shavarebi (2022) argued that creating a collaborative environment improved project delivery by encouraging diverse input and learning. Rodrigues and Matos (2024) suggested that emotional intelligence in leadership strengthened the relationship between managers and their teams, improving decision-making and facilitating quicker responses to potential risks. Project managers addressed risks early by fostering an environment where team members felt empowered to share their knowledge and expertise, reducing delays and enhancing overall project outcomes.

Risk Management Strategies in the U.S. Construction Industry

Risk Identification and Prioritization

One of the key steps in effective risk management good identification and prioritization of risks during the project lifecycle. Project managers who adopted structured risk management tools, such as risk registers or SWOT analyses, were better equipped to assess potential threats and make proactive decisions that minimized delays and improved resource efficiency. According to Zarinjooei et al. (2025), these tools enabled leaders to recognize risks at the project's onset and evaluate the potential impact on timelines and budgets. Additionally, Alhammadi et al. (2021) highlighted that early risk identification allowed project managers to proactively address issues like supply chain disruptions, ensuring they could adjust schedules or find alternative suppliers before significant delays occurred.

Effective leaders who prioritized risk identification lay the groundwork for a proactive project management approach. By utilizing structured tools, project managers gained a deeper understanding of potential risks and allocate resources more efficiently (Okudan et al., 2021). This allowed project managers to address challenges like supply chain disruptions promptly, reducing the likelihood of delays. Moreover, incorporating risk management tools early in the lifecycle ensured smoother project execution by tackling risks before they escalated, ultimately contributing to better project timelines, budgets, and stakeholder satisfaction (Antić, 2023). This proactive strategy enhanced the

project's performance and strengthened the ability to meet organizational goals and ensure long-term success.

Proactive Risk Mitigation

Once risks had been identified, proactive mitigation strategies become crucial in reducing project delays. Contingency planning is one of the most effective methods for preparing for unforeseen disruptions. Armandoko et al. (2023) emphasized that a well-structured contingency plan involves having backup suppliers, subcontractors, and labor sources ready to address delays caused by unexpected issues. By planning for these possibilities, project managers minimized the impact of disruptions and kept projects on track. In addition to contingency planning, leveraging advanced technologies such as building information modeling (BIM) and project management software was vital for preventing delays. These technologies allowed project managers to visualize potential issues early, enabling proactive adjustments to plans and schedules. Aladayleh and Aladaileh (2024) highlighted that BIM improved team coordination and helped identify design clashes or scheduling conflicts ahead of time, ensuring smoother project execution. By using these tools, project managers anticipated challenges and took action before they escalated into delays.

Real-time Monitoring and Adjustments

Project managers in the U.S. construction industry increasingly utilize real-time monitoring tools to track key performance indicators (KPIs) such as labor productivity, material delivery, and project milestones. Mahmoud et al. (2020) emphasized that these

digital tools allowed project leaders to identify potential delays early, enabling them to make proactive adjustments to resources and schedules. This approach helped prevent minor issues from becoming major setbacks. According to Jayasinghe et al. (2023), regular status meetings and updates from team members played a crucial role in maintaining project momentum. By keeping all stakeholders informed and engaged, project managers swiftly addressed emerging challenges, ensuring projects stayed on track and on schedule.

Crisis Management and Adaptive Leadership

Unexpected challenges such as safety issues, regulatory changes, or natural disasters are common disruptions in construction projects, and project managers needed strong crisis management skills to navigate these hurdles effectively. Romanenko (2021) stressed that making quick, decisive decisions was critical in mitigating the impact of crises on project timelines. According to Seibel et al. (2023), leaders with robust crisis management abilities swiftly addressed unforeseen challenges and prevented major setbacks, ensuring that projects continued as smoothly as possible. Additionally, adaptive leadership played a crucial role in handling such challenges by allowing leaders to adjust strategies in response to evolving circumstances. Buzás and Faragó (2023) highlighted that adaptive leaders adjusted plans and inspired their teams to stay flexible and embrace change. This approach was essential in maintaining momentum during crises, helping to minimize delays and ensuring that projects remained on schedule despite unexpected disruptions.

Effective Risk Management Tools and Technologies

Project Management Software

Integrating project management software is a critical strategy for reducing delays in construction projects by improving coordination and tracking progress in real-time. Chaabouni et al. (2024) outlined a framework for selecting appropriate software tools, emphasizing how choosing the right tools streamlined project management. Margareta et al. (2017) highlighted that tools such as Microsoft Project and Oracle Primavera were essential for managing complex schedules and budgets effectively for large capital projects like construction.

Moreover, project management software like Procore, Microsoft Project, and Oracle Primavera P6 enables project managers to oversee schedules, budgets, and risks more efficiently, contributing to smoother project execution. Antić (2023) discovered that construction projects utilizing such software experienced fewer delays due to enhanced coordination, better resource allocation, and more accurate forecasting. By incorporating these tools, project managers ensured projects stayed on track and were completed on time.

Building Information Modeling (BIM)

BIM is an essential tool in the construction industry, allowing project managers to create digital representations of physical structures and visualize potential issues before construction begins. Wong et al. (2025) highlighted the critical factors influencing the adoption of BIM, using technological adoption frameworks to emphasize its importance.

BIM allowed teams to simulate various scenarios, as noted by Almayyahi et al. (2025), and also improved communication and coordination among project stakeholders, reducing misunderstandings and minimizing delays (Da Silva et al., 2024). By leveraging BIM, project managers ensured smoother execution and more efficient project delivery.

Risk Management Software

Risk management software, such as Aconex and RiskWatch, played a vital role in helping project managers track and assess risks throughout the lifecycle of construction projects. Haghighi and Ashrafi (2024) explained how integrating new methods like COPRAS under a cloud model and machine learning algorithms enhanced risk management processes. Additionally, Kepkep et al. (2024) emphasized the application of axiomatic and fuzzy axiomatic design principles in managing risks. These tools provided continuous risk monitoring and ensured real-time updates to stakeholders, enabling timely responses and minimizing the impact of risks, ultimately preventing delays and maintaining project momentum.

In summary, strong project management leadership was essential for mitigating risks and reducing delays in the U.S. construction industry. Effective project managers utilize transformational and transactional leadership strategies, clear communication, and collaboration to navigate challenges and keep projects on track. By proactively identifying risks and implementing strategies like contingency planning, they were better equipped to address potential delays before they escalated. Advanced technologies such as BIM and project management software like Microsoft Project and Oracle Primavera

P6 further enhanced their ability to coordinate resources, track progress, and ensure timely project completion.

Crisis management and adaptive leadership were crucial components in maintaining momentum and responding to unexpected challenges, such as safety issues or regulatory changes. Project managers who demonstrated flexibility and the ability to pivot when necessary quickly adjusted strategies to minimize delays. By employing these leadership strategies and tools, construction project leaders reduced delays, improved project outcomes, and ensured their projects' long-term sustainability and success.

Transition

In this literature review, I highlighted the PMBOK Guide as the fundamental conceptual framework selected as a resource in project management, particularly in addressing risk management challenges that led to project delays in the U.S. construction industry. The review illustrated how effective leadership strategies fostered a proactive and communicative work environment by emphasizing essential components such as risk identification, assessment, response planning, and transformational leadership's influence. The ideas from the literature suggested that integrating strong leadership with sound risk management practices enhanced project performance and promoted a culture of accountability and continuous improvement.

Section 3 covers project ethics and provides a comprehensive overview of the project population, including sampling methods and participant demographics. I outline the data collection processes, interview questions, and analysis techniques to ensure

reliability and validity. In Section 3, I explore the PMBOK Guide's risk management framework and practical applications. In Section 4, I present the research findings, discuss their implications for business practice and social change, and offer actionable recommendations and suggestions for future research.

Section 3: Research Project Methodology

In Section 3, I outline the research project methodology, detailing the approach and strategies that were employed to explore effective leadership practices for reducing project delays caused by ineffective risk management in the U.S. construction industry. In this section, I describe the research design, qualitative pragmatic inquiry, and explain how it aligned with the study's purpose of understanding the leadership strategies used by project management business leaders to enhance organizational efficiency.

The methodology section also includes a discussion of the participant selection process, data collection methods, and data analysis procedures. Additionally, I address ethical considerations and the steps taken to ensure the validity and reliability of the findings. Ultimately, this section provides a comprehensive roadmap for how the study was conducted to gain meaningful insights into reducing project delays and supporting business sustainability in the construction industry.

Project Ethics

As the researcher in this study, my role in the data collection process was to ensure a clear, unbiased, and ethical approach to gathering information from participants in the U.S. construction industry. I was committed to upholding the highest ethical standards in all research activities, guided by the Belmont Report's principles of respect for persons, beneficence, and justice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). Siddiqui and Sharp (2021) recommended critically reassessing and possibly revising the Belmont Report's principles

to better align with the evolving demands of modern research. For this study, I actively involved participants, seeking their perspectives on leadership strategies that helped reduce project delays caused by ineffective risk management.

Transparency and fairness were the foundation of participant engagement throughout this study. A comprehensive informed consent process ensured that participants clearly understood the study's purpose, procedures, and potential risks, as highlighted by Gyan (2020). The consent form explicitly outlined participants' rights, including their right to voluntary participation, the assurance of confidentiality, and the option to withdraw from the study at any time without penalty. These measures were in strict alignment with Walden University's ethical research standards (Walden University, 2020). If a participant decided to withdraw, their preferences regarding the handling of their data was honored, and all identifiable information was excluded from the analysis.

To protect confidentiality, all data were anonymized and securely stored for 5 years, after which it would be properly destroyed. The final report excluded any identifiable information to preserve anonymity. The Walden University IRB approval number is 03-28-25-1193793. While no monetary compensation was offered, participants were reassured that their insights were invaluable in advancing the understanding of effective leadership in construction risk management. This ethical framework underscored a commitment to integrity, prioritizing participants' rights while producing meaningful contributions to the field. As Serpico (2024) argued, the ethical evolution of research lies less in revising foundational documents like the Belmont Report and more

in enhancing our moral imagination. By aligning with the Belmont Report (1979) and Walden University's guidelines, this study exemplified a dedication to ethical and professional excellence in every aspect of the research process.

Nature of the Project

This study employed a qualitative methodology that was particularly effective for exploring the complex and subjective nature of leadership strategies in risk management within the U.S. construction industry. According to Ramanadhan et al. (2021) and Muller et al. (2021), combining this approach allowed for an in-depth investigation of participants' experiences, perceptions, and insights. The qualitative approach was essential for understanding how project management leaders addressed and mitigated delays caused by ineffective risk management (Ichsan et al., 2023). The methodology enabled the capture of rich, contextual data and provided flexibility to adapt to emerging themes throughout the research process. It was particularly well-suited for exploring the nuanced leadership strategies that contributed to the success of construction projects, allowing for a deeper understanding beyond merely quantifying variables.

The study's design was a pragmatic inquiry. Pragmatic inquiry designs emphasized actionable outcomes, aligning with the study's goal of discovering effective strategies to reduce project delays. Aguda et al. (2021) emphasized that this approach allowed for a detailed exploration of specific instances within the construction industry, providing a comprehensive understanding of how leadership practices were applied and assessed in risk management. Stockless and Brière (2024) suggested that encouraging

inclusion in a qualitative research project using a design-based methodology was vital. By combining a qualitative methodology with a pragmatic inquiry design, this research offered valuable insights into effective leadership strategies that could be applied across similar settings within the construction industry.

Population, Sampling, and Participants

For this study, the sample consisted of six project managers selected from the U.S. construction industry in Georgia and neighboring states, including Florida, Alabama, North Carolina, and South Carolina. The participants were chosen based on their leadership roles in managing construction projects, specifically those with direct experience in risk management and efforts to reduce project delays. This targeted selection ensured that the individuals involved had practical knowledge and expertise relevant to the research focus, allowing for a rich exploration of real-world strategies in construction project management.

The eligibility criteria for the participants included: (a) mid-to-senior-level professionals with titles such as project manager, senior project manager, or construction manager; (b) 10–15 years of experience working on construction projects across the selected states; and (c) experience overseeing diverse project types and implementing risk management strategies. As Khabbazi et al. (2022) outlined, the sample selection focused on individuals who had actively worked to mitigate delays through leadership decisions, allowing the study to gain insights into practical, real-world strategies.

To capture a broad spectrum of insights, participants represented various construction sectors, including residential, commercial, and infrastructure projects. This diversity in their project backgrounds offered a comprehensive view of leadership approaches and risk management practices across different project types. I considered several demographic characteristics, including 10–15 years of experience, managing different types of projects, and familiarity with risk management frameworks. Participants who were well-versed in structured risk management frameworks provided critical context for evaluating how these frameworks influenced decision-making and strategy implementation.

To gain access to participants, I employed a combination of professional networks, industry contacts, and targeted outreach. This included contacting industry associations like the Associated General Contractors of America (AGC) and using platforms like LinkedIn to connect with potential participants. Additionally, I sent formal invitations outlining the purpose of the study, confidentiality measures, and the benefits of participation, encouraging individuals with relevant expertise to take part.

The sampling method was purposeful, meaning participants were selected based on their leadership roles and experience in risk management and mitigating project delays (Gugiu et al., 2020). This non-random approach ensured the selected individuals possessed the necessary knowledge to contribute valuable insights (Campbell et al., 2020). The focus was on gathering in-depth qualitative data from professionals with direct experience in relevant construction projects.

The total of six participants aligned with qualitative research goals, focusing on rich, detailed insights while maintaining manageable data collection (Guest et al., 2020). This sample size allowed for the exploration of key themes while attaining data saturation. Thompson et al. (2024) similarly adopted a small sample strategy to explore focused topics. Interviews were conducted until data saturation was achieved, when no new themes or information emerged (Fontana et al., 2020). This process was monitored through iterative data collection and analysis to ensure the study remained focused and data-rich.

Data Collection Activities

A pragmatic inquiry, as outlined by Ramanathan et al. (2021), effectively guided data collection in this study. Data were collected from two primary sources: (1) semistructured interviews with project management business leaders in the U.S. construction industry with 15–20 years of experience, and (2) related public records and organizational documents. The interviews, lasting approximately 20 minutes, were conducted by me via Zoom, following participants' preferences, as per Omer et al. (2022). Only experienced interviewees were selected to provide in-depth knowledge and practical insights.

An interview protocol ensured consistency, structure, and comprehensiveness across all interviews. Using a standardized set of open-ended questions, the protocol facilitated deep exploration of participants' experiences while allowing flexibility for

follow-up questions (Ford et al., 2024). This approach ensured reliable and comparable data.

The interview protocol (Appendix A) guided each session, beginning with an introduction to the study's purpose and informed consent. Following Staller's (2022) recommendations, questions were clear and direct, and I used follow-ups to clarify or expand as needed (Engward et al., 2022). With consent, each session was audio-recorded and later transcribed verbatim for analysis.

Several techniques were employed to enhance the reliability and validity of the data collection process. Transcript review was conducted by sending participants a copy of their interview responses to confirm accuracy and ensure their perspectives were faithfully represented (Ford et al., 2024). Member checking, as defined by Sahakyan (2023), involves seeking participant feedback to validate the findings and interpretations, typically by returning the transcribed data or reviewing the transcripts for consistency and potential biases. These measures helped ensure the findings' credibility, validity, and trustworthiness.

Interview Questions

The interview questions were:

1. What strategies did you use to reduce project delays resulting from ineffective risk management to support organizational revenue growth and business sustainability?

2. What qualifications and experiences did you bring to your role that were relevant to construction project delay and risk management?
3. How did you develop an interest in leadership strategies for improving project delay and risk management, and what experiences shaped your understanding of these topics?
4. In your current or past positions, to what extent were you involved in implementing or overseeing leadership strategies to mitigate project delays and manage risks in construction projects?
5. What leadership practices or strategies did you find most effective in mitigating risks and reducing delays in construction projects?
6. How did you prioritize and assess risks in your projects and ensure the right measures were in place to mitigate them?
7. Can you describe a specific instance in which you successfully implemented a leadership strategy that helped minimize project delays due to risk management challenges?
8. How did you ensure team members were aligned with the risk management strategies and project objectives to minimize delays and achieve project goals?
9. What role did communication play in reducing delays, and how did you foster open and effective communication within your project teams regarding risks?

10. What other information would you like to share regarding the phenomenon of your project management leadership in reducing project delays resulting from ineffective risk management that has not yet been discussed?

Data Organization and Analysis Techniques

Effective data organization and analysis were crucial for extracting valuable insights from participants' responses and understanding their strategies. To explore participants' strategies and uncover meaningful insights, I used thematic analysis (Braun & Clarke, 2006) as the primary method for organizing and analyzing the collected data. This structured approach helped identify key patterns and themes in participants' responses, enabling a thorough understanding of the strategies used to mitigate project delays and manage risks. Effective data organization was essential for extracting meaningful insights from raw data, ensuring the analysis focused on the research objectives. Drawing from the work of Berg and Moon (2023), I also incorporated visualization tools like charts and graphs to facilitate a clearer interpretation of the data, enhancing the study's overall clarity and providing a more accessible presentation of the findings.

Data Organization Systems

To ensure effective data organization and tracking, I maintained research logs and reflective journals throughout the study to document my thoughts, decisions, and any shifts in understanding. Huang et al. (2024) emphasized the importance of systematic data organization in improving analytical accuracy, particularly through technologies like

data cubes for real-time analysis. Similarly, Qin et al. (2023) demonstrated how strong data organization bridges analytical skills with practical applications, further reinforcing its role in achieving research goals. Based on these insights, I established a comprehensive system that included cataloging and labeling participant responses, interview transcripts, and other data sources. This system ensured that all data were easily accessible for review and analysis. Additionally, I used a consistent naming convention to maintain clarity and minimize errors throughout the study.

Data Analysis Process

For data analysis, I used thematic analysis (Braun & Clarke, 2006), a flexible and well-suited method for identifying and exploring patterns within qualitative data. This approach allowed me to delve deeply into key themes across participants' experiences, ensuring that the insights gathered aligned closely with my research objectives. To complement this, I also incorporated template analysis (King, 2012), which was more structured around predefined themes but still permitted new themes to emerge during the analysis process. This combination of methods enabled a comprehensive and nuanced understanding of the data while allowing for structured and emergent insights.

Sequential Process for Data Analysis

The sequential process for data analysis in my study followed a structured approach similar to that outlined by Braun and Clarke (2006). First, I familiarized myself with the data by reviewing it comprehensively, as done by Lämsä et al., who examined log data to explore temporal differences in learning processes. Next, I performed initial

coding to identify key patterns and themes, a step inspired by Zabolotna et al.'s approach to analyzing knowledge construction and regulation in collaborative learning environments. The data analysis followed this logical, sequential process:

1. Familiarization with Data: I began by reading through all interview transcripts and other data sources to familiarize myself with the content.
2. Initial Coding: Using NVivo software, I applied open coding to the data to identify initial ideas or concepts. Each code represented a distinct feature of the data relevant to the research question.
3. Theme Development: Codes were grouped into broader themes that reflected the main patterns within the data. This involved iterative review and refinement to ensure themes were coherent and accurately represented the data.
4. Review and Refinement: I revisited the themes, constantly refining them to ensure they accurately captured the complexity of the data.
5. Final Analysis: The final stage involved interpreting the themes and identifying how they related to the research objectives and existing literature.

Focus on Key Themes and Literature Correlation

In my study, I engaged in an iterative coding and theme development process, following the approach outlined by Braun and Clarke (2006). This process helped refine and focus on the key themes, ensuring they were consistently tied to the research question. As Nii Laryeafio (2023) emphasized, understanding the strategies that leaders

used to mitigate delays and promote growth was crucial. Once the key themes were identified, I compared them with foundational and recent literature to ensure they aligned with existing knowledge and contributed to the current body of research. The conceptual framework guided the identification of themes and assisted in interpreting the findings within a broader theoretical context. By connecting the data with relevant literature, my analysis aimed to provide a deeper and more meaningful understanding of the research problem.

Data Storage and Security

To ensure the confidentiality and security of participant data, all raw data, including interview recordings and transcripts, were securely stored and protected from unauthorized access. Encryption of the data and regular backups safeguarded the information from potential threats, aligning with established data security protocols (Parvez et al., 2024). According to Jin (2024), robust data privacy practices, such as encryption and secure storage, were essential in maintaining the confidentiality of sensitive information. Data were securely stored in encrypted files and backed up regularly. In accordance with ethical guidelines, the data will be retained for five years.

The National Institutes of Health (2022) highlighted that retaining data for a defined period and ensuring its secure destruction afterward is essential for ethical research practices. Additionally, Wang et al. (2023) emphasized that such data management practices were crucial for maintaining the integrity and security of research data, especially when shared across different platforms or with external parties. These

practices ensured compliance with ethical guidelines, enhanced the credibility and reliability of the research process, and upheld the highest data security standards throughout its lifecycle.

Reliability and Validity

Reliability

Reliability in qualitative research ensured the consistency and dependability of the data collection and analysis processes, providing confidence that results could be reproduced under similar conditions (Declercq & van Poppel, 2023). To maintain reliability in this study, I adopted several strategies to ensure rigor and transparency.

First, clear and consistent data collection methods were employed. Semistructured interviews and publicly available organizational documents served as primary data sources. By utilizing a standardized interview protocol, I ensured that all participants were asked the same questions, minimizing variations in the data collection process. This approach aligned with the principles of reliability as described by Coleman et al. (2024), who emphasized consistency in qualitative evaluation. Second, I meticulously documented all steps of the research process. This included maintaining detailed records of interviews, transcription procedures, and data analysis. Such documentation enhanced transparency and allowed for potential replication of the study, reinforcing its dependability.

Additionally, member checking is widely recognized as a key strategy for enhancing the trustworthiness and quality of qualitative research (Kullman & Chudyk,

2025; Sahakyan, 2023). It involves inviting participants to review and validate the accuracy of the data, ensuring their perspectives are accurately represented. This process not only improves the credibility and reliability of the findings but also allows participants to clarify or expand on their responses, fostering deeper engagement and trust (Staller, 2022). By incorporating these practices, the study upheld strong standards of rigor and consistency.

Validity

Credibility

Several strategies were employed to ensure the study's credibility. Member checking was implemented to allow participants to review and verify the study's interpretations of their responses, ensuring the findings accurately reflected their perspectives (Rose & Johnson, 2020). Triangulation was used by analyzing data from various sources, including interviews and web documents, to strengthen credibility by cross-verifying the findings (Huang et al., 2024). These techniques fostered consistency and trust in the research outcomes, enhancing the overall credibility and reliability of the study.

Transferability

To ensure transferability, I provided detailed descriptions of the research context, participant characteristics, and the methods used for data collection and analysis. I also used an interview protocol to assist in transferability. This comprehensive documentation enabled readers and future researchers to assess whether the findings could be applied to

other settings or contexts (Guest et al., 2020). By offering sufficient context and detail, my goal for this project was to ensure that its findings could be meaningfully compared to other research in similar contexts, allowing for broader application and generalization.

Confirmability

Confirmability was ensured by maintaining an audit trail throughout the research process, documenting each step of data collection and providing a detailed analysis process. This transparency allowed for an objective review of the findings, minimizing researcher bias (Barth-Cohen et al., 2023). Additionally, reflexivity was practiced, acknowledging and mitigating any personal biases or assumptions that may have influenced the data collection and analysis process, ensuring the findings were grounded in the participants' experiences and perspectives.

Data Saturation

To ensure data saturation, the interviews continued until no new themes or insights emerged from the data. This process guaranteed that I captured a comprehensive range of perspectives and experiences related to the research question. By reaching saturation, I ensured that the project findings were robust and reflected the full scope of participants' experiences, thus enhancing the completeness and depth of the research.

Transition and Summary

In Section 3, I provided a comprehensive overview of the research methodology and design, emphasizing the qualitative approach and pragmatic inquiry used to explore leadership strategies in the U.S. construction industry. Data collection methods included

conducting semistructured interviews with experienced construction project managers and analyzing relevant organizational documents. I also discussed the data analysis process, following the thematic analysis methods of Braun and Clarke (2006), while ensuring adherence to ethical guidelines to maintain reliability, validity, and integrity throughout the research.

This study explored project management leaders' leadership strategies to reduce delays caused by ineffective risk management in the U.S. construction industry. Through semistructured interviews and the review of web documents, data were collected and analyzed using thematic analysis. Ethical considerations such as informed consent and participant confidentiality were carefully observed. In Section 4, I present the findings, interpret the results, and discuss the implications for improving project management practices and ensuring long-term sustainability in construction projects.

Section 4: Findings and Conclusions

Presentation of the Findings

The purpose of this qualitative pragmatic inquiry study was to explore how project management leaders in the U.S. construction industry successfully reduce project delays resulting from ineffective risk management. Delays in construction projects can significantly hinder organizational revenue and long-term business sustainability. Guided by a pragmatic inquiry study, the central research question asked: *What effective strategies do project management business leaders in the U.S. construction industry use to reduce project delays resulting from ineffective risk management to support organizational revenue growth and business sustainability?*

To address this question, I conducted in-depth, semistructured interviews with six experienced construction project managers. Data collection continued until saturation was reached, and the participants collectively offered rich, practice-based insights grounded in their real-world experiences. Through thematic analysis, six central themes emerged: (1) leadership strategies, (2) risk management approach, (3) stakeholder engagement, (4) communication, (5) project software tools, and (6) team members.

These findings are deeply rooted in the study's conceptual framework, the PMBOK Guide, published by the Project Management Institute (2017), and which is built on the principles of transformational leadership theory (Bass & Riggio, 2005) and risk management objectives (Risk Management in Construction, 2024). Participants consistently described how they motivate and align their teams around a shared vision,

embrace proactive planning, and foster trust-based communication, all hallmarks of transformational leadership. At the same time, their approaches to risk identification, assessment, and mitigation reflected structured risk management practices that prioritize both foresight and adaptability.

For example, several participants emphasized the importance of visionary leadership in navigating uncertainty and instilling confidence in their teams, clearly demonstrating the idealized influence and inspirational motivation components of transformational leadership. Others described mentoring junior staff and encouraging open dialogue around potential project threats, aligning with individualized consideration and intellectual stimulation, respectively.

On the risk management side, participants outlined detailed strategies for identifying early warning signs of project delays and employing contingency plans. These practices reflect the systematic, forward-looking approach embedded in risk management frameworks, particularly the importance of continuous monitoring and stakeholder alignment to ensure responsiveness to evolving risks.

The frequent emphasis on communication and team collaboration also links both conceptual pillars. Participants noted that maintaining open lines of communication among internal teams, subcontractors, and clients was essential in keeping projects on track. The communication and team collaboration support the notion that effective leadership and sound risk management are not isolated competencies but interconnected and mutually reinforcing elements of successful project execution.

The findings of this study demonstrate how transformational leadership behaviors, when coupled with disciplined risk management strategies, can empower project leaders to navigate uncertainty, mitigate delays, and promote organizational resilience in the construction industry. These insights provide practical implications for current and aspiring project managers seeking to strengthen their leadership impact and minimize disruptions caused by risk.

To provide deeper context for the insights gathered, I collected demographic information from each participant, as shown in Table 1. The data came from semistructured interviews with six experienced project management professionals, leaders from the U.S. construction industry and related fields, each with 15 to 20 years of hands-on experience. These individuals shared valuable perspectives on leadership, risk management practices, and a variety of project types, reflecting a strong familiarity with established risk management frameworks and real-world project challenges.

Table 1

Participant Demographics

Participant ID	Education/certification background	Years in project management	Years in leadership	Job title
P1	Bachelor with (PMP	12	10	Project manager
P2	Master's with (PMP)	15	12	Group project manager/deputy CEO
P3	Master's with (EPPM)	12	10	Project manager/ scheduler lead
P4	Master's with (SPM)	15	10	Regional project manager
P5	2 masters' with (PMP)	15	10	Leader/senior project manager & scheduling Analyst
P6	PhD	15	12	project director

Figure 1

Participant Demographics

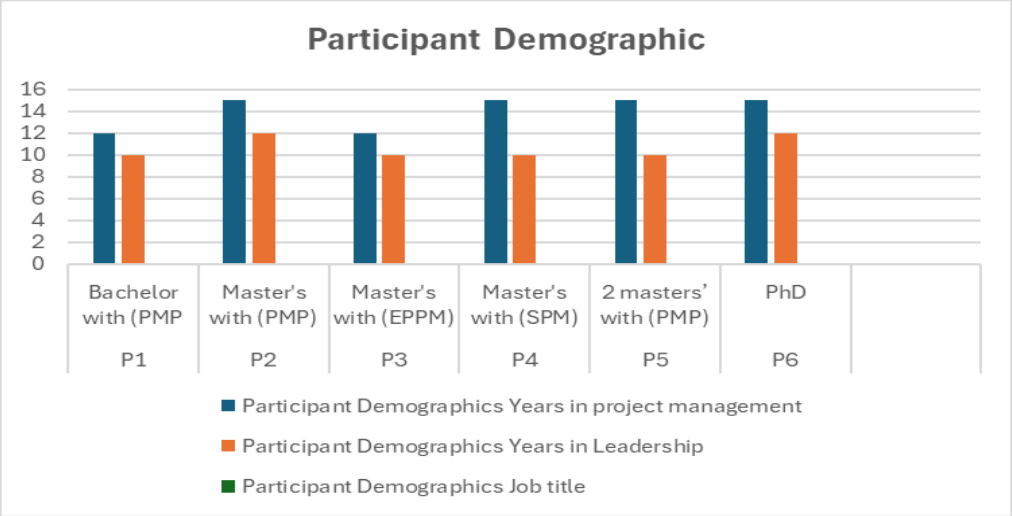
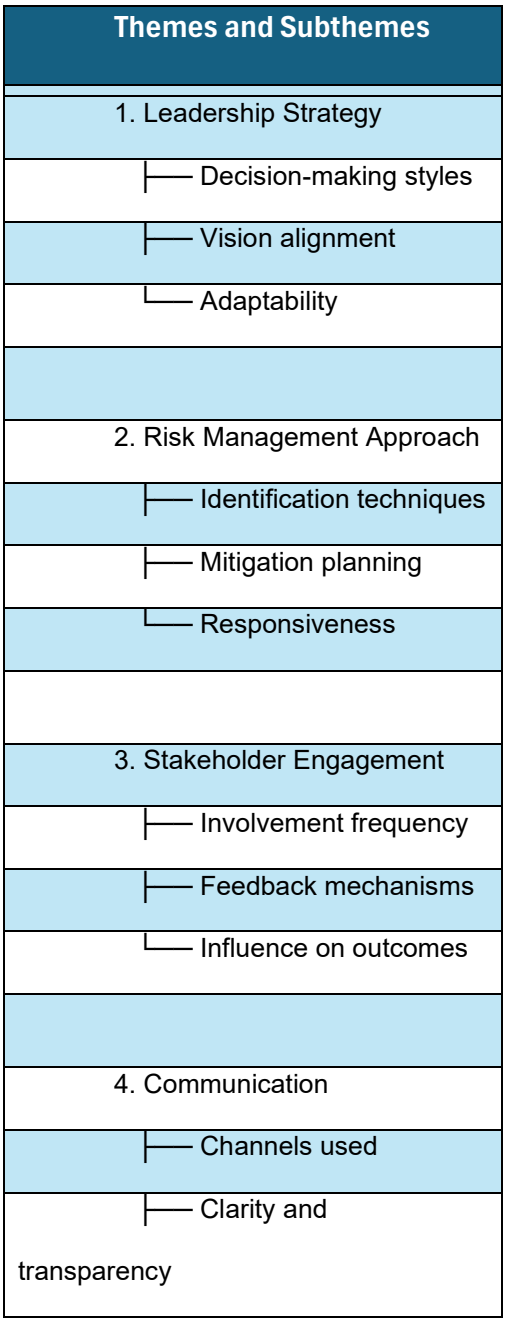


Figure 1 presents the demographic background of the participants, offering a well-rounded view of who they were and helping to contextualize their insights within a broader professional and societal framework. Each participant willingly gave informed consent before joining an audio-only Zoom interview. To ensure their privacy and protect their identities, I assigned each person a pseudonym: P1, P2, P3, P4, P5, and P6, which allowed me to reference their input while maintaining confidentiality throughout the study.

``

Figure 2

Themes and Subthemes

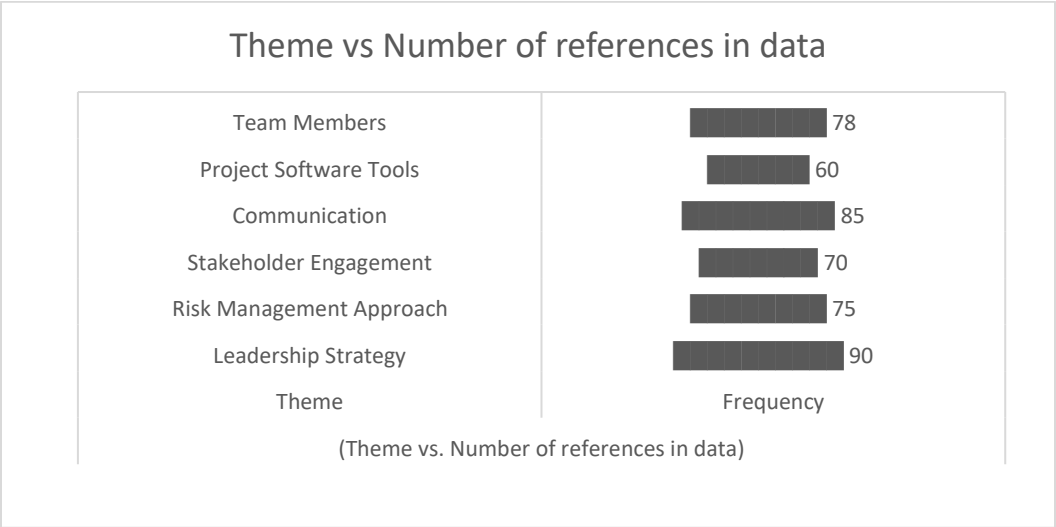


└── Conflict resolution
5. Project Software Tools
├── Tool effectiveness
├── User adoption
└── Integration with workflow
6. Team Members
├── Roles and responsibilities
├── Collaboration
└── Skill diversity

In my analysis, I identified five key themes that consistently stood out across the data: leadership strategies, risk management techniques, stakeholder engagement, communication practices, and the use of project software tools, all of which play a critical role in managing delays and improving project outcomes. These themes, along with their corresponding subthemes, are detailed in Figure 2, while Figure 3 visually illustrates how frequently each theme appeared in the collected data, highlighting their relative importance in real-world project management scenarios.

Figure 3

Themes vs the Number of References in the Data



Based on the semistructured interviews with six seasoned professionals in the construction industry, six recurring and interrelated themes emerged as essential in addressing project delays and improving overall performance: (1) Leadership Strategies, (2) Risk Management Techniques, (3) Stakeholder Engagement, (4) Communication Practices, (5) Project Software Tools, and (6) Team Members. Each participant (P1–P6) provided valuable, nuanced insights that reflected both the challenges and practical solutions they encountered. The analysis below synthesizes these themes across the interviews while preserving participant anonymity through pseudonyms.

Theme 1: Leadership Strategies

A dominant theme that consistently surfaced across all interviews was the strategic role of leadership in mitigating delays. Participants described leadership not just as a managerial function, but as a proactive, intentional practice grounded in vision,

accountability, and empowerment. For example, P1 highlighted how his leadership strategy is rooted in lessons learned from complex, high-stakes projects. He empowers team members through clear roles and regular risk reviews, reinforcing a culture of accountability. Similarly, P2 viewed leadership as central to aligning project goals with business strategy, highlighting that effective leaders anticipate disruptions and drive continuous improvement through data-informed decisions.

This theme was reinforced by P3, who argued that leadership must go beyond technical proficiency to cultivate a culture of ownership and risk awareness. P3's philosophy," risk as a lens for decision-making," demonstrates how leadership can be a powerful force in transforming risk management from a checklist into a daily practice. P4 and P6 echoed this sentiment by emphasizing foresight and adaptability. Their leadership styles focus on bridging planning and execution, empowering cross-functional teams, and maintaining project momentum through agile responses to delays. These practices reflect Bass and Riggio's (2005) theory of transformational leadership, where leaders inspire, empower, and support team autonomy to navigate uncertainty.

Moreover, P5 articulated a holistic approach to leadership that weaves communication, collaboration, and consistency into project execution. He described leadership as being about systems, relationships, and behaviors that promote resilience and prevent problems. This idea aligns with Owusu and Aba Ochili's (2023) project policy on leadership in complex projects, where project outcomes depend not only on technical control but on the leader's ability to build trust and facilitate adaptive systems.

Across all narratives, leadership strategies that combined emotional intelligence, strategic foresight, and participatory governance were key in maintaining schedule integrity and project alignment.

Theme 2: Risk Management Techniques

Risk management emerged as a central theme throughout the study. Kallow et al. (2023) highlighted its critical role in driving project success, framing it not as a reactive measure but as a proactive and essential element of project planning and execution. Participants consistently underscored the importance of early risk identification, structured assessment processes, and continuous review. For instance, P1 shared their use of a dynamic risk register to evaluate and prioritize potential issues, enabling timely interventions before they could escalate into significant delays. Similarly, P2 described leveraging tools such as the Critical Path Method and risk matrices to develop targeted mitigation strategies and adapt project plans when risks materialized.

Both P3 and P4 emphasized embedding risk management into the project culture. P3's method was continuous and real-time, using earned value management (EVM) and Power BI to flag deviations early. P3's approach encouraged transparency and shared learning, which aligns with the literature advocating integrated and participatory risk processes (Zhang & Hou, 2023). P4's experience reinforced the need for contingency planning and adaptive frameworks. When COVID-related disruptions threatened his timeline, he used prior planning and stakeholder coordination to swiftly pivot and

maintain progress, showing that proactive risk frameworks are vital in volatile environments.

The importance of team involvement in risk management was particularly highlighted by P5 and P6. Both insisted that risk ownership must be shared, not confined to leadership. P5's approach involved collaborative development of the risk register, incorporating inputs from clients, engineers, and contractors. This inclusivity ensured that all parties were aligned and prepared for risk responses. P6 detailed real-time tracking of risk indicators using software tools and scenario planning, especially during disruptions like supply chain delays. These practices reflect the findings by Alijabham (2023), who argues that cross-disciplinary and technology-integrated risk management leads to better control over project timelines and budgets.

Theme 3: Stakeholder Engagement

Stakeholder engagement surfaced as a vital yet multifaceted factor in minimizing delays and fostering overall project cohesion. Fernandes et al. (2021) emphasized the significance of incorporating stakeholder perspectives into risk management strategies. Participants described stakeholder engagement not as a one-time task but as a continuous process grounded in transparency, responsiveness, and mutual trust. P2 underscored the value of early involvement, particularly when unexpected site conditions necessitated a re-sequencing of activities. By facilitating collaborative discussions among stakeholders, they were able to minimize downtime and swiftly realign project priorities. This example

demonstrates how inclusive and adaptive engagement practices can effectively manage disruptions and sustain project momentum.

Similarly, P5 detailed how involving stakeholders in risk discussions at the planning stage helped foster collective accountability. P5 emphasized that clients, architects, and contractors all have different risk perceptions, and aligning these early helps prevent surprises and rework. This reflects Owusu and Aba Ochili's (2023) assertion that stakeholder engagement is not just about communication but about cultivating shared ownership and mutual accountability. P6's experience echoed this: by involving engineering, procurement, and construction leads in navigating a supply disruption, he ensured buy-in and enabled rapid reconfiguration of work schedules.

Furthermore, P3 and P4 noted that stakeholder engagement was not limited to clients but extended to internal team members and subcontractors. P3's example of bringing together multiple parties to handle supplier delays showed how open dialogue and joint decision-making preserved the project timeline. P4 highlighted structured coordination with authorities during COVID disruptions, proving that formal engagement mechanisms, such as regulatory coordination and structured feedback loops, are essential in high-risk environments. Effective stakeholder engagement, as described by participants, aligns with PMI's (2017) best practices: building influence, managing expectations, and enabling timely decisions.

Theme 4: Communication Practices

Effective communication consistently emerged as the foundation for risk mitigation, stakeholder coordination, and team alignment. Rehan et al. (2024) emphasized that strong leadership and a well-defined communication framework are essential drivers of project success. Participants echoed this view, noting that clarity, consistency, and transparency in communication are critical in preventing misunderstandings and enabling timely decision-making. Both P1 and P2 highlighted the value of structured communication plans and regular updates. P1 specifically pointed to the use of tools such as video conferencing and scheduled status meetings, which proved especially effective in keeping geographically dispersed teams aligned and collaborative during high-pressure phases of the project.

P5 provided a detailed account of using meeting minutes, daily briefings, and documented follow-ups to ensure continuity and accountability. He emphasized that documentation is not just administrative support for decision tracking, transparency, and learning. This reflects Kerzner's (2021) assertion that disciplined communication builds project maturity and enables real-time adjustments. P3 described communication as a cultural pillar, where open, honest dialogue empowered team members to raise concerns without fear. This fostered a culture of early detection and proactive action, reducing delays caused by unnoticed issues.

Furthermore, P4 and P6 illustrated how communication is linked directly to trust and confidence. P4's use of structured meetings helped maintain alignment during

pandemic-related disruptions, while P6 noted that consistent updates helped reassure stakeholders and keep morale high during unpredictable project phases. These practices align with Turner's (2020) research, which found that communication structures, when designed to support transparency and participation, are instrumental in achieving project goals and mitigating scope creep. Across participants, communication was more than information sharing; it was a leadership tool that supported alignment, engagement, and accountability.

Theme 5: Project Software Tools

All six participants highlighted the use of project management software as a key enabler of control, visibility, and responsiveness throughout the project lifecycle. Commonly used tools included Oracle Primavera P6, ProCore, Power BI, Microsoft Project, and EVM platforms. These technologies supported functions such as progress tracking, schedule variance analysis, and proactive risk monitoring. Margreta and Victor (2017) demonstrated how MS Project and Primavera P6 could be applied effectively to manage schedules in a streamlined manufacturing context. P1 emphasized the value of Primavera P6 in managing complex timelines and enhancing team coordination, while P3 described leveraging Power BI for real-time risk visualization, which allowed the team to respond to potential issues before they escalated.

P5, with his background in scheduling and regulatory compliance, highlighted the importance of data-driven tools in informing strategic decisions. P5 shared how his work at Southern Company Gas involved close tracking of statewide pipeline projects, which

required both granular data and high-level dashboards. These insights align with Okudan et al.'s (2021) findings that software-enabled visibility improves forecasting accuracy and resource allocation. P6 echoed this, noting that software platforms supported scenario planning and adaptive reallocation of work during severe weather disruptions.

Additionally, P2 and P4 described using software not only for tracking but also for collaboration. P2 used tools to structure reporting and promote alignment among multiple stakeholders, while P4 integrated software with risk frameworks to flag early warning signs. These examples support PMI's (2017) emphasis on the role of digital integration in modern project environments. Through interviews, software tools were not viewed as standalone solutions, but as critical infrastructure embedded within leadership, communication, and risk strategies.

Theme 6: Team Members

The final theme, team members were seen as central to project success, especially when it came to managing risk and avoiding delays. Participants highlighted the need for skilled, engaged, and empowered teams. P1, P3, and P5 discussed fostering a culture where team members feel ownership over outcomes. P3 stated that everyone on the team should understand their role in managing risk, not just leadership, and promoted environments where team members could speak up without hesitation.

P4 emphasized team accountability and cross-functional collaboration to anticipate and mitigate delays. He described how empowering teams to own parts of the risk management process led to more agile responses. This aligns with Barendsen et al.'s

(2021) research, which shows that distributed leadership and team empowerment improve adaptability and decision-making. P6's leadership model emphasized enabling team responsiveness through regular check-ins, transparent expectations, and shared risk assessments.

Moreover, P2 described team coordination as a leadership function. He intentionally built cultures where team members were encouraged to raise issues early and contribute to strategic planning. This proactive mindset was echoed by P5, who insisted that teams should be part of ongoing risk reviews and not just involved during execution. These insights highlight that strong teams are not formed by default; they are built through leadership practices that value communication, inclusion, and capability development (Rehan et al., 2024). Through all the interviews conducted, empowered teams were described as essential to maintaining project momentum, managing uncertainty, and ensuring long-term success.

Business Contributions and Recommendations for Professional Practice

This qualitative pragmatic inquiry study offers a valuable contribution to professional business practice by uncovering leadership strategies that help reduce project delays in the U.S. construction industry, delays that are often rooted in poor risk management. Drawing from the insights of six experienced project leaders, my study bridges theory and practice by presenting real-world approaches to managing complex project dynamics. The findings underscore the critical role of adaptive leadership in navigating uncertainty, enhancing risk response, and promoting timely project

completion. These strategies not only help keep projects on track but also contribute directly to improved financial performance and organizational efficiency within construction firms.

Beyond mitigating delays, the project participants emphasized how effective communication, stakeholder collaboration, team empowerment, and the strategic use of project management software play a pivotal role in project success. These elements, when aligned under strong leadership, create a cohesive operational environment where teams are engaged, informed, and accountable. For practitioners, the practical implications of this research offer a blueprint for fostering resilient project environments that drive client satisfaction and long-term business sustainability. By integrating these insights into everyday practice, construction leaders can cultivate more agile and productive teams, ultimately positioning their organizations for continued growth in a competitive industry.

Applicability of Findings to Professional Practice

The findings from this research are directly applicable to the professional business context, particularly within industries that rely heavily on project-based work, such as construction, engineering, infrastructure development, and utilities. Project delays often translate into increased costs, loss of client trust, and reduced profitability. By demonstrating how proactive leadership, when integrated with structured risk management and strategic communication, can prevent such delays, this research offers a practical framework for business leaders to enhance operational efficiency.

Moreover, the study fills the gap in the existing literature and practice: the lack of integration between leadership behaviors and real-time risk management techniques. Most traditional risk frameworks are technical and compliance-driven, whereas this study emphasizes dynamic, people-centered leadership that transforms risk into a shared responsibility across teams. This insight aligns with and extends the growing body of knowledge advocating for leadership agility and adaptive project governance in complex, uncertain environments (PMI, 2021; Turner & Müller, 2021). The study also contributes to a deeper understanding of how effective stakeholder engagement and communication practices are not just ancillary activities but core mechanisms through which risk is mitigated and value is delivered. For example, participants emphasized that involving clients and subcontractors in risk identification builds mutual accountability and ensures timely responses to emerging threats. These practices, according to Sahakyan (2023), when institutionalized, can improve stakeholder satisfaction, enhance organizational reputation, and foster repeat business, key drivers of business sustainability.

Closing Gaps in Business Practice and Knowledge

This research fills critical gaps in both academic and applied business knowledge. While much of the existing literature on project delays centers around technical causes (e.g., resource shortages, weather, scope changes), this study highlights human and strategic dimensions, leadership, communication, and empowerment as the levers of timely project delivery. By bringing voice to experienced practitioners, the research

reframes delay management as a leadership challenge rather than a purely operational issue.

Additionally, the project addresses a common shortfall in business practice: the failure to continuously involve frontline team members and stakeholders in risk mitigation. The participants' accounts revealed that shared ownership, regular feedback loops, and collaborative decision-making are more effective in managing uncertainty than traditional top-down approaches. These findings have direct implications for how organizations structure project governance, design training programs, and evaluate leadership performance.

Recommendations for Business Leaders

Based on the study's findings, the following concrete, actionable recommendations are provided for business leaders, especially those in project-intensive sectors like construction:

(1) Institutionalize Collaborative Risk Management: Business leaders should embed risk management as a continuous, participatory practice rather than a static planning activity. This involves creating cross-functional risk review sessions, integrating risk updates into regular meetings, and maintaining a dynamic risk register accessible to all team members.

(2) Develop Leadership Training on Risk-Informed Decision-Making: Leadership development programs should include modules on proactive risk identification, adaptive decision-making, and emotional intelligence. Leaders

should be trained to facilitate open communication, delegate ownership, and respond quickly to emerging issues.

(3) Invest in Integrated Project Management Technologies: Organizational leaders should adopt and train staff on software tools like Oracle Primavera P6, Power BI, and ProCore that offer real-time tracking of project risks, progress, and resource allocation. These tools should be used not just for reporting but for collaborative planning and forecasting.

(4) Strengthen Stakeholder Engagement Strategies: Create structured engagement plans that involve clients, regulatory bodies, suppliers, and internal teams throughout the project lifecycle. Use formal mechanisms such as stakeholder workshops, feedback surveys, and decision reviews to align expectations and reduce miscommunication.

(5) Create a Culture of Accountability and Empowerment: Leaders should promote a culture where team members at all levels feel responsible for project success. This includes clarifying roles, encouraging feedback, and recognizing contributions to proactive problem-solving. Empowered teams respond faster and more effectively to risk events.

(6) Integrate Project Insights into Organizational Strategy: Lessons learned from delay management should be captured, codified, and shared across projects. Leaders should ensure that post-project reviews inform broader strategic planning and help identify systemic weaknesses in organizational processes.

Who Should Pay Attention

The findings and recommendations of this study are especially relevant for:

- C-suite executives (e.g., CEOs, COOs) in construction and infrastructure firms who are responsible for profitability and strategic growth.
- Project directors and managers overseeing multi-million-dollar portfolios.
- HR and L&D departments that are tasked with leadership development and training.
- Policymakers and regulators who are interested in improving project delivery standards and reducing economic waste in public-private infrastructure ventures.

Dissemination of Results

To maximize the impact of these findings, the results should be disseminated through:

- Professional conferences and seminars, such as those hosted by the Project Management Institute (PMI), American Society of Civil Engineers (ASCE), and Construction Management Association of America (CMAA).
- Academic journals and practitioner publications, particularly those focusing on project management, business strategy, and organizational leadership.
- Corporate training programs, where findings can be incorporated into leadership development curricula.

- Webinars, white papers, and internal knowledge-sharing platforms within organizations to drive adoption at the operational level.

In conclusion, this research delivers meaningful, practice-oriented insights that not only address the causes of project delays but also offer a roadmap to improved business performance through enhanced leadership, risk management, and stakeholder engagement. By translating theory into actionable strategies, this study supports both the immediate goal of project timeliness and the long-term objective of sustainable business growth.

Implications for Social Change

The implications of this study for social change are both meaningful and far-reaching. By identifying leadership strategies that effectively minimize project delays through improved risk management in the U.S. construction industry, my research contributes to more efficient use of time, labor, and financial resources. This enhanced efficiency not only benefits project stakeholders but also leads to faster and more reliable infrastructure development, an essential factor in meeting the growing needs of communities. Luo et al. (2023) highlighted the importance of the effects of organizational leadership on project citizenship. As construction projects are completed on time and within budget, public and private sectors alike can redirect saved resources to other vital areas, ultimately promoting economic stability and resilience.

Moreover, the ripple effects of these improvements extend well beyond the construction site. When infrastructure projects are executed efficiently and sustainably,

they contribute positively to the social and environmental fabric of surrounding communities. Improved project delivery reduces waste, minimizes disruptions, and supports the creation of safer, more livable environments. These outcomes align with broader goals of social equity, environmental responsibility, and long-term community development (McLaughlin & Kunk-Czaplicki, 2020). As such, the findings of this study not only support better business practices but also foster positive change on a societal level.

First, mitigating delays in construction projects contributes directly to the timely completion of essential infrastructure such as hospitals, schools, transportation systems, and affordable housing. These types of projects are foundational to community well-being and public service delivery. Prolonged delays often result in cost overruns, decreased access to vital resources, and diminished public confidence (Farid et al., 2020). This research empowers project leaders with practical strategies to proactively address and minimize such risks, thereby enabling faster and more reliable service delivery to communities. The outcome is improved public welfare and a reduction in socioeconomic disparities caused by inaccessible or delayed infrastructure.

Second, the implementation of effective risk management and leadership practices contributes to broader economic sustainability. Projects that stay on schedule and within budget reduce capital waste, minimize financial risk, and bolster employment stability across the construction value chain, from planners and contractors to local suppliers and vendors (Erol et al., 2022). Moreover, organizations that operate efficiently can reinvest

cost savings into workforce development, green innovation, and community outreach initiatives. This reinvestment fosters economic resilience, strengthens local economies, and promotes upward mobility, particularly in underserved or economically vulnerable regions.

Finally, the study highlights the importance of fostering ethical, transparent, and inclusive project environments. Project leaders who engage team members and stakeholders in collaborative decision-making processes contribute to more equitable workplace cultures. This shift promotes accountability, trust, and shared ownership of project outcomes (Christopher & Lim, 2024). As these values become embedded in organizational practice, the construction industry becomes not only more effective but also more humane, promoting diversity, inclusion, and ethical leadership as standard components of professional excellence.

In summary, this study contributes meaningfully to social change by advancing leadership and risk management strategies that improve construction outcomes and community impact. The ripple effects of these improvements include faster access to infrastructure, economic opportunity, and enhanced workplace equity. As construction leaders adopt more strategic and inclusive practices, they help pave the way for a more sustainable and socially responsible industry, one that delivers tangible benefits for both organizations and the communities they serve.

Recommendations for Further Research

Building upon the findings of this qualitative pragmatic inquiry, several opportunities exist for future research to further advance knowledge and practice in construction project management and broader business leadership. These recommendations are especially relevant in addressing the limitations noted in Section 1 and can help expand the applicability, generalizability, and depth of future investigations.

Expand Sample Size and Geographic Diversity

One key limitation of this study was its small sample size of six participants, all with extensive experience in the U.S. construction sector. While this purposive sample provided rich, in-depth insights, the limited number of voices restricts generalizability. Future research should expand the sample size and include a broader geographic representation across the United States and potentially internationally to compare how leadership strategies vary by region, company size, or cultural context. A more diverse participant pool would strengthen the reliability of findings and offer nuanced perspectives applicable to a global construction environment.

Incorporate Quantitative or Mixed-Methods Approaches

This study was purely qualitative in nature, relying on interviews to capture expert insights. To build on this work, future research could integrate a mixed-methods approach that combines qualitative interviews with quantitative surveys or project performance data. This would allow researchers to measure the statistical significance of leadership strategies on project delay reduction and organizational performance, thereby

producing findings that are both contextually rich and empirically robust. Quantitative metrics like EVM, delay indices, or budget variances could be used to validate or contrast qualitative observations.

Study Leadership Strategies Across Sectors and Roles

Another limitation of the current study is its focus on senior-level professionals with project leadership experience. Future research could explore how mid-level managers, field supervisors, or project coordinators perceive and apply risk management and leadership strategies in their roles. Additionally, similar studies could be conducted in related sectors, such as energy, transportation, or technology, to explore whether leadership and risk management strategies translate effectively across different industries. This would not only extend the reach of the research but also test its applicability in diverse business contexts.

Examine the Role of Technology Adoption and Digital Tools

The findings revealed that software tools like Oracle Primavera, MS Project, Procore, and Power BI were integral to project monitoring and communication. Future researchers should investigate the impact of emerging technologies, such as artificial intelligence, machine learning, or digital twins, on improving leadership decision-making and reducing delays in project environments. A longitudinal study on how digital transformation influences organizational resilience and revenue growth would provide valuable insight for business leaders navigating the ongoing digital evolution.

Investigating the Organizational Culture Dimension

In this project, I addressed cultural aspects such as accountability, team empowerment, and proactive engagement; I did not thoroughly examine organizational culture as a distinct variable. Future researchers could investigate how a firm's internal culture, specifically its core values, communication practices, and leadership development frameworks, affects the effectiveness of project risk management (Abbasi & Khalilzadeh, 2021). Gaining deeper insight into the cultural factors that drive successful project teams may enable organizations to institutionalize these practices more effectively.

By addressing these areas, future research can deepen our understanding of how effective leadership mitigates risk, reduces project delays, and contributes to long-term business sustainability. Researchers, construction firms, academic institutions, and policy makers can all benefit from these expanded investigations, which may be issued through academic publications, industry conferences, leadership training programs, and cross-sector workshops.

Conclusion

My doctoral study set out to explore and identify effective leadership strategies that project management business leaders in the U.S. construction industry use to reduce project delays resulting from ineffective risk management. Through in-depth qualitative interviews with seasoned professionals, this research uncovered key themes, leadership strategies, risk management techniques, stakeholder engagement, communication

practices, project software tools, and team dynamics that are crucial to improving project outcomes, supporting organizational revenue growth, and ensuring long-term business sustainability.

The findings of this study highlight that proactive leadership, embedded risk-awareness cultures, and strategic stakeholder alignment are not only valuable but necessary for organizations seeking to navigate the complexities of modern construction projects. Effective use of communication and project management tools, coupled with inclusive decision-making and shared accountability, emerged as consistent factors driving success. This research contributes to the existing body of knowledge by offering a practical framework for construction leaders to transform risk from a reactive challenge into a manageable, strategic opportunity.

Therefore, the insights gained from this study serve as both a call to action and a roadmap for business leaders committed to improving project performance and organizational resilience. By applying the strategies illuminated in this study, business leaders can foster more agile, transparent, and risk-conscious environments, ultimately enabling their teams to deliver projects on time, within scope, and with greater stakeholder satisfaction. As the industry continues to evolve, leadership rooted in foresight, communication, and collaboration will remain pivotal to achieving sustainable growth and competitive advantage.

References

Abebe Demissew, & Fasika Abiy. (2023). Causes and impacts of delays in Ethiopian public construction projects (Case on Debre Markos University construction projects). *Advances in Civil Engineering*, *2023*, 1-14 https://doi.org/10.1155/2023/6577676

Abbas, M., & Ali, R. (2023). Transformational versus transactional leadership styles and project success: A meta-analytic review. *European Management Journal, 41*(1), 125–142. https://doi.org/10.1016/j.emj.2021.10.011

Abbasi, F., & Khalilzadeh, M. (2021). The model of human resource management strategies for Iranian project-based construction organizations. *Jordan Journal of Civil Engineering, 15*(2). 266–276 https://www.proquest.com/scholarly-journals/model-human-resource-management-strategies/docview/2587728770/se-2

Abedi, E. A. (2024). Internet-mediated phone interviews for remote qualitative educational research in the Global South during COVID–19: A researcher's and participants' experiential reflections. *International Journal of Social Research Methodology*, 1–16. https://doi.org/10.1080/13645579.2024.2421766

Aguda, R., Bonilla, S., Hmida, J. B., & Revellame, E. D. (2021). Challenges and opportunities in developing project management decision-making tools. *Journal of Engineering, Project & Production Management*, *11*(2), 127–138. https://doi.org/10.2478/jeppm-2021-0013.

Akıner, M. E., Akıner, İ., & Yitmen, İ. (2024). Predicting the critical organizational behavior and culture of the Turkish construction industry's occupational groups for determining the success of the construction business. *Heliyon*, *10*(12), 1–15 https://doi.org/10.1016/j.heliyon.2024.e33197

Akhtar, T., Shabbir, R., & Cheema, S. (2023). Studying the strategies to manage different types of risks related to construction projects. *Journal of Development & Social Sciences (JDSS)*, *4*(4), 320–329. https://doi.org/10.47205/jdss.2023(4-IV)29.

Afzal, F., & Tumpa, R. J. (2024). Exploring leadership styles to foster sustainability in construction projects: A systematic literature review. *Sustainability (2071-1050)*, *16*(3), 971. https://doi.org/10.3390/su16030971

Aladayleh, K. J., & Aladaileh, M. J. (2024). Applying analytical hierarchy process (AHP) to BIM-based risk management for optimal performance in construction projects. *Buildings, 14*(11), 3632. https://doi.org/10.3390/buildings14113632

Al Qudah, S. M. A., Fuentes-Bargues, J. L., & Ferrer-Gisbert, P. S. (2024). Bibliometric analysis of the literature on risk management in the construction sector: Exploring current and future trends. *Ain Shams Engineering Journal*, *15*(8), 1–9. https://doi.org/10.1016/j.asej.2024.102843

Al-Naghi, A. M., Alaghbari, W., & Barakat, T. (2024). Impact of leadership skills on the success of large and medium construction projects management in Yemen. *International Journal of Construction Management*, 1–11. https://doi.org/10.1080/15623599.2024.2417340

Al-Abbadi, L., Alshawabkeh, R., Rumman, A. A., & Alsmairat, M. A. K. (2024). The impact of strategic thinking on organizational excellence: An empirical examination in Jordan's ICT sector. *International Journal of Data and Network Science*, *8*(2), 1169–1178. https://doi.org/10.5267/j.ijdns.2023.11.017

Alonderiene, R., Muller, R., Pilkiene, M., Simkonis, S., & Chmieliauskas, A. (2022). Transitions in balanced leadership in projects: The case of horizontal leaders. *IEEE Transactions on Engineering Management, Engineering Management, IEEE Transactions on, IEEE Trans. Eng. Manage*, *69*(6), 3339–3351. https://doi.org/10.1109/TEM.2020.3041609

Aljabhan, B. (2023). Economic strategic plans and supply chain risk management (SCRM) for organizational growth and development. *Alexandria Engineering Journal, 79*, 411–426. https://doi.org/10.1016/j.aej.2023.08.020

Almayyahi, S. J. K., Ameen, R. F. M., & Al-Busaltan, S. (2025). Building information modelling (BIM) as an efficient solution to Middle Eastern construction project delays. *Engineering, Technology and Applied Science Research, 15*(1), 19484–19491. https://doi.org/10.48084/etasr.8679

Antić, K. S. (2023). Implementing artificial intelligence tools for risk management in software projects. *Tehnika, 78*(6), 735–742. https://doi.org/10.5937/tehnika2306735A

Armandoko, A. Z., Ruzardi, R., & Musyafa, A. (2023). The analysis of identification and risk mitigation in irrigation work contractors. *Jurnal Teknik Sipil Dan*

Perencanaan, 25(1), 100–106. https://doi.org/10.15294/jtsp.v25i1.43248

Associated General Contractors of America (AGC). (n.d.). Retrieved from https://www.agc.org/

Bass, B. M., & Riggio, R. E. (2005). *Transformational leadership* (2nd ed.). Lawrence Erlbaum Associates. https://doi.org/10.4324/9781410617095

Bahamid, R. A., Doh, S. I., Khoiry, M. A., Kassem, M. A., & Al-Sharafi, M. A. (2022). The current risk management practices and knowledge in the construction industry. Buildings, 12(7), 3-13. https://doi.org/10.3390/buildings12071016

Barth-Cohen, L. A., Swanson, H., & Arnell, J. (2023). Methods of research design and analysis for identifying knowledge resources. *Physical Review Physics Education Research*, *19*(2). 1-15. https://doi.org/10.1103/PhysRevPhysEducRes.19.020119

Barendsen, W., Muß, A. C., & Silvius, G. (2021). Exploring team members' perceptions of internal sustainability communication in sustainable project management. *Project Leadership and Society, 2*, 100015. https://doi.org/10.1016/j.plas.2021.100015

Berg, S. A., & Moon, A. (2023). A Characterization of chemistry learners' engagement in data analysis and interpretation. *Chemistry Education Research and Practice, 24*(1), 36–49. https://doi.org/10.1039/d2rp00154c

Biao Jin. (2024). Ports Data Privacy protection and information security management. *Scalable Computing: Practice & Experience*, *25*(5), 4390–4398. https://doi.org/10.12694/scpe.v25i5.3179

Branka Kovačević. (2023). Interdisciplinary approach to research in didactics: possibilities, assumptions, and challenges of realization. *Društvene i Humanističke Studije*, *8*(2(23)), 47–60. https://doi.org/10.51558/2490-3647.2023.8.2.47

Braun, V., & Clarke, V. (2023). Thematic analysis. In *APA handbook of research methods in psychology: Research designs: Quantitative, qualitative, neuropsychological, and biological* (Vol. 2, 2nd ed., pp. 65–81). American Psychological Association. https://doi.org/10.1037/0000319-004

Bu Qammaz, A. S., & AlMaian, R. Y. (2020). A critical success factors model for effective implementation of risk management process in the construction projects. *Journal of Engineering Research (Kuwait), 8*(3), 50–70. https://doi.org/10.36909/JER.V8I3.7877

Buzás, B., & Faragó, K. (2023). Organizational adaptation to working from home in a crisis situation (COVID-19): The interaction between leaders' openness and followers' voice. *Frontiers in Psychology, 14*, Article 1181807. https://doi.org/10.3389/fpsyg.2023.1181807

Cavaletti, S., & Bizarrias, F. S. (2023). Transformational leadership and emotional intelligence, and their connections in management and innovative projects management. *International Journal of Innovation*, *11*(2). https://doi.org/10.5585/2023.24232.

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters,

D., & Walker, K. (2020). Purposive sampling: Complex or simple? Research case examples. *Journal of Research in Nursing*, *25*(8), 652–661. https://doi.org/10.1177/1744987120927206.

Chou, J.-S., Yeh, C.-D., & Liao, P.-C. (2021). Risk analysis and management of construction and operations in offshore wind power projects. *Sustainability (Switzerland)*, *13*(13). https://doi.org/10.3390/su13137473

Chaka, K. J., & Rupprecht, S. (2024). Assessment of project risk management in selected mining companies in Ethiopia. *International Journal of Innovation in Management, Economics & Social Sciences (IJIMES), 4*(1), 47–63. https://doi.org/10.59615/ijimes.4.1.47

Chaabouni, M., Jarrar, Q., Medini, K., & Bissardon, F. (2024). A framework for project management software tool selection. *Procedia Computer Science, 239*, 291–298. https://doi.org/10.1016/j.procs.2024.06.174

Chukwuma, N., & Zondo, R. W. D. (2024). Effect of transformational leadership on employee resistance to change at eThekwini automobiles: a perspective of leaders' inspirational motivation. *International Journal of Research in Business & Social Science*, *13*(3), 179–193. https://doi.org/10.20525/ijrbs.v13i3.3216

Christopher Lee, C., & Lim, H. S. (2024). Examining the relationships between transformational and transactional leadership and employee engagement during the Covid-19 Pandemic: The moderating effect of employee generations. *Studies in Business & Economics*, *19*(1), 118–136. https://doi.org/10.2478/sbe-2024-0007

Cheng, M. Y., & Darsa, M. H. (2021). Construction schedule risk assessment and management strategy for foreign general contractors working in the Ethiopian construction industry. *Sustainability (Switzerland)*, *13*(14). https://doi.org/10.3390/su13147830

Chenya, L., E. Aminudin, S. Mohd, and L.S. Yap. (2022). Intelligent risk management in construction projects: Systematic literature review. *IEEE Access* 10 (January): 72936-72954–72954. doi:10.1109/ACCESS.2022.3189157.

Coleman, M. L., Ragan, M., & Dari, T. (2024). Intercoder Reliability for Use in Qualitative Research and Evaluation. *Measurement & Evaluation in Counseling & Development*, *57*(2), 136–146. https://doi.org/10.1080/07481756.2024.2303715.

Creswell, J. W., & Creswell, J. D. (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (5th ed.). SAGE Publications.

Da Silva, T. F. L., Vieira, D. R., & de Carvalho, M. M. (2024). Exploring the challenges in building information modeling (BIM) during the design phase: Evidence from cross-country studies. *IEEE Transactions on Engineering Management, 71*, 14846–14860. https://doi.org/10.1109/TEM.2024.3461508

Declercq, J., & van Poppel, L. (2023). Coding Metaphors in Interaction: A Study Protocol and Reflection on Validity and Reliability Challenges. *International Journal of Qualitative Methods,* 1–9. https://doi.org/10.1177/16094069231164608

Dulewicz, V., & Higgs, M. (2020). Assessing leadership styles and organizational context. *Journal of Managerial Psychology, 20(2), 105–123.* https://doi.org/10.1108/02683940510579759

Engward, H., Goldspink, S., Iancu, M., Kersey, T., & Wood, A. (2022). Togetherness in Separation: Practical Considerations for Doing Remote Qualitative Interviews Ethically. *International Journal of Qualitative Methods*, *21*, 1–9. https://doi.org/10.1177/16094069211073212

Erol, H., Dikmen, I., Atasoy, G., & Birgonul, M. T. (2022). An analytic network process model for risk quantification of mega construction projects. *Expert Systems with Applications*, *191*, N.PAG. https://doi.org/10.1016/j.eswa.2021.116215

Fareed, M. Z., Qin Su, Naqvi, N. A., Batool, R., & Aslam, M. U. (2023). Transformational leadership and project success: The moderating effect of top management support. *SAGE Open*, *13*(3), 1–12. https://doi.org/10.1177/21582440231195685

Fofana, F., Bazeley, P., & Regnault, A. (2020). Applying a mixed methods design to test saturation for qualitative data in health outcomes research. *PLoS ONE*, *15*(6), 1–12. https://doi.org/10.1371/journal.pone.0234898.

Ford, K. L., Keller, H., Nasser, R., Basualdo-Hammond, C., Laur, C., Quintanilha, M., & Gramlich, L. (2024). Exploring gaps, opportunities, barriers and enablers in malnutrition policy through key informant interviews: a qualitative inquiry from the CANDReaM initiative. *BMJ Nutrition, Prevention and Health*.

https://doi.org/10.1136/bmjnph-2024-000891

Farid, W., Kureshi, N. I., Babar, S., & Mahmood, S. (2020). Critical risk factors of the construction industry of Pakistan for improving project outcome. *Mehran University Research Journal* of *Engineering and Technology*, *39*(1), 71–80. https://doi.org/10.22581/muet1982.2001.08

Fayyaz, N., Gul, W., Masood, K., & Saeed, I. (2022). Impact of transformational leadership on project success: The moderating role of emotional intelligence of leaders. *Journal of Business and Social Review in Emerging Economies, 8*(2). https://doi.org/10.26710/jbsee.v8i2.2190

Fernandes, G., Domingues, J., Tereso, A., & Pinto, E. (2021). A stakeholders' perspective on risk management for collaborative university-industry R&D programs. *Procedia Computer Science, 181,* 110–118. https://doi.org/10.1016/j.procs.2021.01.110

Galli, B. J. (2020). How to effectively use economic decision-making tools in project environments and project life cycle. *IEEE Transactions on Engineering Management, Engineering Management, IEEE Transactions on, IEEE Trans. Eng. Manage*, *67*(3), 932–940. https://doi.org/10.1109/TEM.2018.2861381

Garad, A., Haryono, S., Yaya, R., Pratolo, S., & Rahmawati, A. (2022). The relationship between transformational leadership, improving employee's performance and the raising efficiency of organizations. *Management & Production Engineering Review (MPER)*, *13*(2), 15–30. https://doi.org/10.24425/mper.2022.142052.

Gugiu, C., Randall, J., Gibbons, E., Hunter, T., Naegeli, A., & Symonds, T. (2020). PNS217 Bootstrap saturation: A quantitative approach for supporting data saturation in sample sizes in qualitative research. *Value in Health, 23*(Supplement 2), S677. https://doi.org/10.1016/j.jval.2020.08.1661

Gunawan, J., Aungsuroch, Y., & Marzilli, C. (2022). Online 'chatting' interviews: An acceptable method for qualitative data collection. *Belitung Nursing Journal*, *8*(4), 277-279–279. https://doi.org/10.33546/bnj.2252

Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *PloS One*, *15*(5), e0232076. https://doi.org/10.1371/journal.pone.0232076

Gyan Moorthy. (2020). Recruiting Psychology Students to Participate in Faculty/Department Research. *Voices in Bioethics*, *6*. https://doi.org/10.7916/vib.v6i.7289.

Haghighi, M. H., & Ashrafi, M. (2024). A novel framework for risk management of software projects by integrating a new COPRAS method under cloud model and machine learning algorithms. *Annals of Operations Research, 338*(1), 675–708. https://doi.org/10.1007/s10479-023-05653-3

Han, H., Ma, F., & Liu, X. (2024). Transformational leadership and project success: The serial mediating roles of team flexibility and team agility. *Frontiers in Built Environment, 9*. https://doi.org/10.3389/fbuil.2023.1334413

Hailemarkos, H. T. (2020). Ethiopian Construction Project Management Maturity Model

Determination and Correlational Prediction of Project Success. *Walden Dissertations and Doctoral Studies*.

Hatamleh, M. T., Alzarrad, A., Alghossoon, A., Alhusban, M., & Ogunrinde, O. (2024). Strategies for improving project risk management via communication and integration: the case of Jordan. *Engineering, Construction and Architectural Management*. https://doi.org/10.1108/ECAM-05-2024-0536

Halabi, Y., Xu, H., Long, D., Chen, Y., Yu, Z., Alhaek, F., & Alhaddad, W. (2022). Causal factors and risk assessment of fall accidents in the U.S. construction industry: A comprehensive data analysis (2000–2020). *Safety Science*, *146*, N.PAG. https://doi.org/10.1016/j.ssci.2021.105537

Haynes, A., & Loblay, V. (2024). Rethinking Barriers and Enablers in Qualitative Health Research: Limitations, Alternatives, and Enhancements. *Qualitative Health Research, 34*(14), 1371-1383. https://doi.org/10.1177/10497323241230890

Huang, X., Gao, X., Ouyang, S., & Fu, Z. (2024). Image Data Stream Organization and Online Analysis Application Based on Data Cube Technology. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, XLVIII-1-2024,* 271–276. https://doi.org/10.5194/isprs-archives-XLVIII-1-2024-271-2024

Ichsan, M., Sadeli, J., Jerahmeel, G., & Yesica, Y. (2023). The role of project management office (PMO) manager: A qualitative pragmatic inquiry study in Indonesia. *Cogent Business & Management*, *10*(2), 1–17.

https://doi.org/10.1080/23311975.2023.2210359.

Jayasinghe, K. J. A. W. L., Perera, B. A. K. S., & Senanayake, G. P. D. P. (2023). Key performance indicators of aggregate base course waste management during the construction phase of a road project from the contractor's perspective. *International Journal of Pavement Engineering, 24*(2), 1–16. https://doi.org/10.1080/10298436.2022.2094924.

Jianyong Zhou. (2022). Research on construction management risk assessment method of pharmaceutical industries. *Journal of Commercial Biotechnology*, *27*(3), 202–213. https://doi.org/10.5912/jcb1112.

Jin, B. (2024). Ports data privacy protection and information security management. *Scalable Computing: Practice & Experience, 25*(5), 4390–4398. https://doi.org/10.12694/scpe.v25i5.3179

Kabore, S. E., Sane, S., & Abo, P. (2021). Transformational leadership and success of international development projects (ID projects): Moderating role of project team size. *Leadership & Organization Development Journal, 42*(4), 517–530. https://doi.org/10.1108/LODJ-06-2020-0236.

Kallow, M. A., Bodla, A. A., Ejaz, A., & Ishaq, M. R. (2023). How do risk management practices lead to project success in the construction industry? The mediated moderation of risk coping capacity and risk transparency. *International Journal of Construction Management*, *23*(16), 2779–2787. https://doi.org/10.1080/15623599.2022.2095719

Kalambayi, J. L., Onojaefe, D. P., Kasse, S. N., & Tengeh, R. K. (2021). The influence of leadership styles on employee performance in construction firms. EUREKA: *Social & Humanities,* 5, 34–48. https://doi.org/10.21303/2504-5571.2021.002037

Kepkep, T. B., Durmusoglu, A., & Dereli, T. (2024). Using axiomatic design and fuzzy axiomatic design for risk management in software development. *IEEE Access, 12*, 173925–173935. https://doi.org/10.1109/ACCESS.2024.3501672

Kerzner, H. (2021). Project management: *A systems approach to planning, scheduling, and controlling*. Wiley. https://doi.org/10.1002/9781119510647

Khabbazi, A., Farzaneh, R., Mahmoudi, M., Shahi, M., Jabbaripour Sarmadian, A., Babapour, E., Alizadeh, L., Khabbazi, R., & Nouri-Vaskeh, M. (2022). Cold intolerance and associated factors: A population study. *Scientific Reports, 12*(1), 1–6. https://doi.org/10.1038/s41598-022-21842-9

Khan, N. B. (2022). Emotional intelligence and project success with mediating effect of transformational leadership in construction sector projects in Pakistan. *Abasyn University Journal of Social Sciences, 15*(2), 85–98. https://doi.org/10.34091/AJSS.15.2.08

Klein, G., & Muller, R. (2020). Literature review expectations of *Project Management Journal®*. *Project Management Journal, 51*(3), 239–241. https://doi.org/10.1177/8756972820916340

Kullman, S. M., & Chudyk, A. M. (2025). Participatory member checking: A novel approach for engaging participants in co-creating qualitative findings.

International Journal of Qualitative Methods, *24*, 1–14. https://doi.org/10.1177/16094069251321211

Luo, L., Yang, Y., Wu, G., Zheng, J., & Liu, D (2023). Effects of organizational leadership on project citizenship behavior and management performance in complex construction projects. *Buildings*, *13*(1), pp 2-6. https://doi.org/10.3390/buildings13010259

Luoma, K. (2023). Leadership styles for deming-based management systems. *American Journal of Management*, *23*(4), 134–140. https://doi.org/10.33423/ajm.v23i4.6554

Lämsä, J., Hämäläinen, R., Koskinen, P., Viiri, J., & Mannonen, J. (2020). The potential of temporal analysis: Combining log data and lag sequential analysis to investigate temporal differences between scaffolded and non-scaffolded group inquiry-based learning processes. *Computers & Education*, *143*, N.PAG. https://doi.org/10.1016/j.compedu.2019.103674

Mahmoud, A. S., Ahmad, M. H., Yatim, Y. M., & Dodo, Y. A. (2020). Key performance indicators (KPIs) to promote building developers' safety performance in the construction industry. *Journal of Industrial Engineering & Management, 13*(2), 371–401. https://doi.org/10.3926/jiem.3099

Margareta, I., Constantin, I., & Victor, J. F. (2017). Leveling a simple manufacturing process using Microsoft Project and Oracle Primavera. *Ovidius University Annals, Series Economic Sciences, 17*(2), 413–418.

Marnoto, K. Y., & Desiana, P. M. (2024). The influence of perceived organizational

support and transformational leadership on readiness for change: The mediation role of organizational trust (Study on the financial administration unit). *Indonesian Interdisciplinary Journal of Sharia Economics, 7*(3). https://doi.org/10.31538/iijse.v7i3.5129

Marchwicka, E. (2020). A technique for supporting decision process of global software project monitoring and rescheduling based on risk analysis. *Journal of Decision Systems*, 1-15–15. https://doi.org/10.1080/12460125.2020.1790825

Mansour, M. A., Beithou, N., Alsqour, M., Tarawneh, S. A., Rababa'a, K. A., AlSaqoor, S., & Chodakowska, E. (2023). Hierarchical risk communication management framework for construction projects. *Engineering Management in Production & Services, 15*(4), 104–115. https://doi.org/10.2478/emj-2023-0031

Mandičák, T., Spišáková, M., Mésároš, P., & Kozlovská, M. (2022). Design of economic sustainability supported by enterprise resource planning systems in architecture, engineering, and construction. *Buildings (2075-5309)*, *12*(12), 2241. https://doi.org/10.3390/buildings12122241

Masoudnejad, M., Gholampour, S., Rayati, M., & Nikzad, F. (2021). Providing a model for assessing risk management of construction projects with a sustainable development approach: case studies of small-scale power Plants. *International Journal of Built Environment and Sustainability*, *8*(1). https://doi.org/10.11113/ijbes.v8.n1.568.

McLaughlin, C. P., & Kunk-Czaplicki, J. A. (2020). Leadership: Theory and practice by

Peter G. Northouse (review). *Journal of College Student Development*, *61*(2), 260–261. https://doi.org/10.1353/csd.2020.002

Müller, R., Sankaran, S., & Drouin, N. (2021). Investigating collaboration in project management research: Using action research as a meta-methodology. *International Journal of Managing Projects in Business*, *14*(1), 205–230. https://doi.org/10.1108/IJMPB-01-2020-0033

Naeem, M., Ozuem, W., Howell, K., & Ranfagni, S. (2024). Demystification and actualisation of data saturation in qualitative research through thematic analysis. *International Journal of Qualitative Methods*, 1–17. https://doi.org/10.1177/16094069241229777

National Institutes of Health. (2022). Data management and security. Retrieved from https://www.nih.gov

Nauman, S., Musawir, A. U., & Riaz, M. B. E. (2024). Leveraging organizational social capital in construction projects to enhance project success: The enabling role of transformational leadership. *Project Management Journal*, *55*(4), 352-371–371. https://doi.org/10.1177/87569728231221544

Nguyen, L. H. (2024). The impact of leadership behaviour on management effectiveness in public construction project organizations. *Public Works Management and Policy*. https://doi.org/10.1177/1087724X241237985

Nii Laryeafio, M., & Ogbewe, O. C. (2023). Ethical consideration dilemma: systematic review of ethics in qualitative data collection through interviews. *Journal of*

Ethics in Entrepreneurship and Technology, *3*(2), 94–110. https://doi.org/10.1108/JEET-09-2022-0014

Obondi, K. C. (2022). The utilization of project risk monitoring and control practices and their relationship with project success in construction projects. *Journal of Project Management*, *7*(1), 35–52. https://doi.org/10.5267/j.jpm.2021.7.002

Okudan, O., Budayan, C., & Dikmen, I. (2021). A knowledge-based risk management tool for construction projects using case-based reasoning. *Expert Systems with Applications, 173*, 114776. https://doi.org/10.1016/j.eswa.2021.114776.

Omer, M. M., Mohd-Ezazee, N. M. A., Lee, Y. S., Rajabi, M. S., & Rahman, R. A. (2022). Constructive and destructive leadership behaviors, skills, styles, and traits in BIM-based construction projects. *Buildings, 12*(12), 2068. https://doi.org/10.3390/buildings12122068

Owusu, D., & Aba Ochil, D. (2023). Project policy and project outcomes: The moderating role of project leadership. *Cogent Business & Management*, *10*(3), 1–16. https://doi.org/10.1080/23311975.2023.2271606

Osei-Kyei, R., Ampratwum, G., & Narbaev, T. (2022). A Scientometric Analysis of Studies on Risk Management in Construction Projects. *Buildings*, *12*(9). https://doi.org/10.3390/buildings12091342

Osborn, R. N., & Marion, R. (2009). Contextual leadership, transformational leadership, and the performance of international innovation-seeking alliances. *Leadership Quarterly, 20*(2), 191–206. https://doi.org/10.1016/j.leaqua.2009.01.010

Parvez, I., Aghili, M., Riggs, H., Sundararajan, A., Sarwat, A. I., & Srivastava, A. K. (2024). A novel authentication management for the data security of smart grid. *IEEE Open Access Journal of Power and Energy, 11*, 218–230. https://doi.org/10.1109/OAJPE.2024.3393971

Patyal, V. S., Ambekar, S., & Prakash, A. (2020). Organizational culture and total quality management practices in the Indian construction industry. *International Journal of Productivity and Performance Management, 69*(5), 895–913. https://doi.org/10.1108/IJPPM-10-2018-0368

Project Management Institute. (2017). Guide to the project management body of knowledge (PMBOK Guide) (6th ed.). Project Management Institute.

Pirotti, A., Keshavarzsaleh, A., Mohd Rahim, F. A., & Zakaria, N. (2020). Effective factors on project success in the Malaysian construction industry. *Journal of Engineering, Project, and Production Management, 10*(1), 1–10. https://doi.org/10.2478/jeppm-2020-0001

Qin, H., Koong, K., Wen, H., & Liu, L. (2023). Mapping business analytics skillsets with industries: empirical evidence from online job advertisements. *Journal of Business Analytics*, *6*(3), 167–179. https://doi.org/10.1080/2573234X.2022.2136541.

Ramanadhan, S., Revette, A. C., Lee, R. M., & Aveling, E. L. (2021). Pragmatic approaches to analyzing qualitative data for implementation science: an introduction. *Implementation Science Communications*, *2*(1), 1–10.

https://doi.org/10.1186/s43058-021-00174-1

Randolph, S. (2021). A review of selected works of James MacGregor Burns. *Journal of Character & Leadership Development (JCLD)*, *8*(1), 205–210. https://eds.s.ebscohost.com/eds/pdfviewer/pdfviewer?vid=3&sid=c7130e2b-1114-4ab7-9669-7b85f8d4911c%40redis.

Raza, T., Ali, S. A., & Majeed, M. U. (2024). Transformational leadership and project success: The roles of social capital and self-efficacy. *International Journal of Management Studies, 31*(1) 335-371. https://doi.org/10.32890/ijms2024.31.1.12

Rehan, A., Thorpe, D., & Heravi, A. (2024). Leadership practices and communication framework for project success – The construction sector. *Organization, Technology and Management in Construction*, *16*(1), 204-223. https://doi.org/10.2478/otmcj-2024-0016

Rehan, A., Thorpe, D., & Heravi, A. (2024). Project success factors for leadership practices and communication: Challenges in the construction sector. *International Journal of Managing Projects in Business, 17*(3), 562–590. https://doi.org/10.1108/IJMPB-12-2023-0279

Rose, J., & Johnson, C. W. (2020). Contextualizing reliability and validity in qualitative research: Toward more rigorous and trustworthy qualitative social science in leisure research. *Journal of Leisure Research*, *51*(4), 432–451–451. https://doi.org/10.1080/00222216.2020.1722042

Rodrigues, N. J. P., & Matos, C. I. V. (2024). The relationship between managers'

emotional intelligence and project management decisions. *Administrative Sciences, 14*(12), 318. https://doi.org/10.3390/admsci14120318

Romanenko, M. (2021). Anti-crisis management strategy for a construction organization during an economic downturn amid a pandemic and lockdown. *SHS Web of Conferences, 110*, 04003. https://doi.org/10.1051/shsconf/202111004003.

Risk Management in Construction. (2024). IntechOpen. https://doi.org/10.5772/intechopen.107735

Saunders, M. N. K., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson Education Unlimited.

Sahakyan, T. (2023). Member-checking through diagrammatic elicitation: Constructing meaning with participants. *TESOL Quarterly, 57*(2), 686–701. https://doi.org/10.1002/tesq.3210

Sadikoglu, E., Jäger, J., Demirkesen, S., Baier, C., Oprach, S., & Haghsheno, S. (2024). Investigating the impact of lean leadership on construction project success. *Engineering Management Journal*, *36*(2), 206–220. https://doi.org/10.1080/10429247.2023.2245317

Seibel, M., Kaufman, E. K., Cletzer, D. A., & Elliott, E. J. (2023). Advancing adaptive leadership through adaption-innovation theory: Enhancements to the holding environment. *Journal of Leadership Studies, 17*(1), 23–29. https://doi.org/10.1002/jls.21841.

Serpico, K. (2024). The Belmont Report doesn't need reform. Our moral imagination

does. *Research Ethics*, *20*(3), 559-573–573. https://doi.org/10.1177/17470161241235772

Siddiqui, W., & Sharp, R. R. (2021). Beyond the Belmont Report. *American Journal of Bioethics*, *21*(10), 1–4. https://doi.org/10.1080/15265161.2021.1972649.

Stockless, A., & Brière, S. (2024). How to encourage inclusion in a qualitative research project using a design-based research methodology. *International Journal of Qualitative Methods, 23*(1), 1–9. https://doi.org/10.1177/16094069241227852

Staller, K. M. (2022). Confusing questions in qualitative inquiry: Research, interview, and analysis. *Qualitative Social Work*, *21*(2), 227–234. https://doi.org/10.1177/14733250221080533

Sujchaphong, N., Nguyen, B., Melewar, T. C., Sujchaphong, P., & Chen, J. (2020). A framework of brand-centered training and development activities, transformational leadership, and employee brand support in higher education. *Journal of Brand Management, 27*(2), 143–159. https://doi.org/10.1057/s41262-019-00171-9

Syed, I. I., Goud, U. V., & Datta, S. (2023). A survey of agile vs. traditional methods on project risk management. In *2023 International Conference on Computational Science and Computational Intelligence (CSCI)* (pp. 1583–1587). https://doi.org/10.1109/CSCI62032.2023.00261

Takagi, N., Varajão, J., & Ventura, T. (2024). Implementing success management on government-to-government projects: An integrated perspective with the PMBOK

guide. *International Journal of Managing Projects in Business*, *17*(1), 153–171. https://doi.org/10.1108/IJMPB-06-2023-0143

Tompson, A., Egan, M., McGill, E., Rinaldi, C., Mead, R., Holland, P., Alexiou, A., Popay, J., Lhussier, M., & Shweta Kalyani, K. (2024). Assessment and Qualitative Comparative Analysis of English Local Authority Joint Health and Wellbeing Strategies to Improve Health under Austerity Conditions, 2013–2017. *Health & Social Care in the Community*, *2024*, 1–14. https://doi.org/10.1155/2024/4764325

Tian, A. W., Meyer, J. P., Ilic-Balas, T., Espinoza, J. A., & Pepper, S. (2023). In search of the pseudo-transformational leader: A person-centered approach. *Journal of Business Research*, *158*. https://doi.org/10.1016/j.jbusres.2023.113675

Zabolotna, K., Malmberg, J., & Järvenoja, H. (2023). Examining the interplay of knowledge construction and group-level regulation in a computer-supported collaborative learning physics task. Computers in Human Behavior, 138, N.PAG. https://doi.org/10.1016/j.chb.2022.107494.

Zarinjooei, K., Ghodrati, H., Panahian, H., & Jabbari, H. (2025). Identifying and prioritizing the factors affecting enterprise risk management implementation. *Iranian Journal of Finance, 9*(1), 134–161. https://doi.org/10.30699/ijf.2024.448623.1463

Zhang, Y., & Hou, W. (2023). Profit-maximizing of perennial energy crop production through optimized management practices: A commentary on Zhang et al. (2022). *GCB Bioenergy*, *15*(3), 268–270. https://doi.org/10.1111/gcbb.13023

U.S. Department of Health and Human Services. (1979). *The Belmont Report: Ethical principles and guidelines for the protection of human subjects of research*. Office of the Secretary. Retrieved from https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/index.html.

Walden University. (2020). *Research ethics and compliance guidelines*. Walden University. https://academicguides.waldenu.edu/research-center/research-ethics/tools-guides

Wang, H., Tan, L., Zhang, Y., Gong, Q., Zhang, S., Ren, Y., & He, T. (2023). A Management specification for data sharing security in the system construction of smart mine. *Security & Communication Networks*, 1–13. https://doi.org/10.1155/2023/1414530

Windapo Abimbola, & Chiswanda Farai. (2023). Perspectives of severity in the choice of risk management techniques. *E3S Web of Conferences*, *409*, 03016. https://doi.org/10.1051/e3sconf/202340903016

Wong, C. F., Lau, S. H., Tan, O. K., & Yap, J. B. H. (2025). Critical factors influencing the adoption of building information modelling (BIM) using technological adoption framework and structural equation modelling. *Engineering, Construction and Architectural Management, 32*(2), 967–986. https://doi.org/10.1108/ECAM-06-2023-0637

Yembi Renault, B., Agumba, J. N., & Ansary, N. (2021). Regression analysis of the influence of demographic characteristics using risk management practices within

South African small and medium construction enterprises. *Journal of Engineering, Design and Technology*, *19*(6), 1505–1529. https://doi.org/10.1108/JEDT-08-2020-0332.

Yin, R. K. (2009). Case study research and application*: Design and method* (4th ed.). Sage.

Yap, J. B. H., & Shavarebi, K. (2022). Enhancing project delivery performances in construction through experiential learning and personal constructs: competency development. *International Journal of Construction Management*, *22*(3), 436–452. https://doi.org/10.1080/15623599.2019.1629864

Zaman, U., Nawaz, S., & Nadeem, R. D. (2020). Navigating innovation success through projects. Role of CEO transformational leadership, project management best practices, and project management technology quotient. *Journal of Open Innovation: Technology, Market, and Complexity*, *6*(4). https://doi.org/10.3390/joitmc6040168

Zaman, U., Florez-Perez, L., Abbasi, S., & Nawaz, M. S. (2024). Exploring the both-and success paradox in mega construction projects: Multi-dimensional assessments of paradoxical leadership, project agility and megaproject success. *Engineering, Construction and Architectural Management*, *31*(9), 3826–3851. https://doi.org/10.1108/ECAM-12-2022-1165

Zhao, X., Lu, W., & Liu, B. (2024). How to foster project citizenship behavior in the construction industry: Organizational culture matters. *IEEE Transactions on*

Engineering Management, 71, 4308–4321.

https://doi.org/10.1109/TEM.2023.3243309

Zulch, B. (2014). Communication: The Foundation of Project Management. *Procedia Technology*, *16*, 1000–1009. https://doi.org/10.1016/j.protcy.2014.10.054

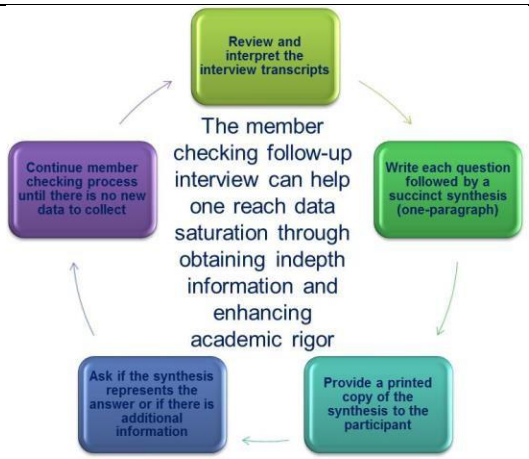
Appendix A: Interview Protocol

Interview Protocol	
Introduce the interview and set the stage. Introduce myself and the purpose of the interview, thereby setting the stage.	Hello, I am Safiriyu Adebola Koya, a Doctor of Business Administration student at Walden University. The purpose of this interview is to identify and explore "effective leadership strategies to reduce project delays resulting from risk management." I will ask you 10 questions, and I would like your responses. Then, I will conclude the interview. Do you have any questions?
Watch for nonverbal cues. Paraphrase the participant's response. Ask follow-up probing questions to get more in-depth	1. What strategies do you use to reduce project delays resulting from ineffective risk management to support organizational revenue growth and business sustainability? 2. What qualifications and experiences do you bring to your

	role that are relevant to construction project delay and risk management? 3. How did you develop an interest in leadership strategies for improving project delay and risk management, and what experiences have shaped your understanding of these topics? 4. In your current or past positions, to what extent have you been involved in implementing or overseeing leadership strategies to mitigate project delays and manage risks in construction projects? 5. What leadership practices or strategies have you found most effective in mitigating risks and reducing delays in construction projects?

	6. How do you prioritize and assess risks in your projects and ensure the right measures are in place to mitigate them? 7. Can you describe a specific instance in which you successfully implemented a leadership strategy that helped minimize project delays due to risk management challenges? 8. How do you ensure team members are aligned with the risk management strategies and project objectives to minimize delays and achieve project goals? 9. What role does communication play in reducing delays, and how do you foster open and effective communication within your project teams regarding risks?

	10. What other information would you like to share regarding the phenomenon of your project management leadership in reducing project delays resulting from ineffective risk management that still needs to be discussed?
Wrap up the interview by thanking the participant.	Thank you for participating in the interview, which was integral to my research project.
Schedule a follow-up interview to perform member checking with the participant.	I will contact you in a week to schedule a time for us to review the accuracy of my interpretations of your interview responses.
Follow-up Member Checking Interview	

<table>
<tr><td colspan="2"> 

Graphic adopted from DBA Qualitative Pragmatic Inquiry Research handbook (2023). Not needed in proposal or research project. A visual reminder during proposal stage when creating interview protocol</td></tr>
<tr><td>Introduce myself and purpose of the follow-up interview to set the stage.</td><td>Hello Interviewee,

Thank you for taking the time to meet with me again to review the accuracy of my interpretations of your interview responses.</td></tr>
<tr><td>Share a copy of the succinct synthesis for each individual questions.

Bring in probing questions related to other information that I found – note</td><td>I will read the questions one at a time and my interpretations of your responses to them and ask you if my interpretation is correct.</td></tr>
</table>

the information must be related so that you are I am probing and adhering to the IRB approval. Walk through each question, read the interpretation, and ask: Is my interpretation correct? Did I miss anything? Or Would you like to add anything?	1. Question and succinct synthesis of the interpretation—perhaps one paragraph or as needed
	2. Question and succinct synthesis of the interpretation—perhaps one paragraph or as needed
	3. Question and succinct synthesis of the interpretation—perhaps one paragraph or as needed
	4. Question and succinct synthesis of the interpretation—perhaps one paragraph or as needed

Appendix B: Invitation for Participation

Subject Line: The effective leadership strategies to improve project delays resulting from risk management.

Email message:

This study aims to identify and understand effective strategies project management business leaders use in the U.S. construction industry to reduce project delays resulting from ineffective risk management and support organizational revenue growth and business sustainability. For this study, you are invited to share your experiences with these effective strategies and how they contribute to overcoming risk management challenges and fostering organizational success.

About the study:

- One 30–60-minute phone/virtual interview that will be audio recorded (no videorecording)
- Participants will not receive monetary compensation; however, they will be assured that their insights are incredibly valuable in advancing our understanding of effective leadership in construction risk management.
- To protect your privacy, the published study will not share any names or details that identify you

Volunteers must meet these requirements:

- 18 years old or older
- Business leader

- The effective strategies project management business leaders use in the U.S. construction industry.

This interview is part of the doctoral study for Safiriyu A. Koya, a DBA student at Walden University. Interviews will occur during April – May.

Please email koyaadebola@gmail.com or +14435602068 to let the researcher know if you are interested. You are welcome to forward it to others who might be interested.