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The Relationship Between Transformational Leadership Skills and Telecommunication Organizations’ Project Success

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This is to certify that the doctoral study by

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Walden University
2025

Abstract

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MS, Upper Iowa University 2021

BS, Upper Iowa University 2020

Doctoral Project Submitted in Partial Fulfillment

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Abstract

Low project success rates are a significant issue for telecommunications organizations and project managers, as they can negatively impact operational efficiency and profitability. Grounded in transformational leadership theory, this quantitative project aimed to investigate the relationship between transformational leadership and project success within the telecommunications industry. A priori power analysis was conducted using G*Power, yielding a noncentrality parameter of 2.54, a critical t value of 1.68, degrees of freedom (df) equal to 49, a total sample size of 51, and an actual power of 0.80. The 51 participants were project managers in leadership positions, with two or more years of experience, familiarity in transformational leadership skills, and based in the Northeastern United States. Participants completed the Multifactor Leadership Questionnaire (MLQ) to assess leadership style and a project success criteria survey to evaluate project outcomes. Spearman's rho correlation analysis revealed a strong and statistically significant relationship between transformational leadership and project success ($\rho = .915$, $p < .001$, $N = 51$). A critical recommendation is that organizations prioritize leadership development training focused on transformational practices for project managers. Emphasizing formal project success criteria alongside adaptive leadership approaches can improve performance and execution. The implications for positive social change include the potential to enhance project success and leadership effectiveness within the telecommunications sector, benefiting project managers, organizations, and the communities they serve by fostering improved service delivery, economic growth, and sustainable professional development.

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Section 1: Foundation of the Project

Project success is key to organizational progress, improvement, and success. It relies on many factors, including leadership, planning, execution, and goal understanding. Organizations and leaders have long sought the key components to increase project success rates and identify the optimal mixture of leadership, communication, and project success criteria. In this project, I focused on the many aspects of leadership, project success criteria, and project success factors to pave the way for organizational success.

Background of the Problem

The need for telecommunications projects has expanded exponentially over the past decade due to increased technological advancements and the demand for fiber-optic capabilities. While this boom has significantly increased the number of telecommunication projects, failures are on the rise due to ineffective leadership, poor stakeholder management, and unclear scopes (Akhwaba, 2020). Telecommunications organizations with poorly trained project managers have poor project completion rates. Most projects fail due to avoidable human occurrences such as planning, scheduling, incorrect estimates, leadership problems, low morale, team issues, personal issues, delays in problem-solving, and lack of personnel commitment (Serra et al., 2021). Leaders across the United States leverage their leadership skills to influence many factors, including individual and organizational performance (Akdere & Egan, 2020). Leaders can use transformational leadership skills to positively impact individuals, leading to completed goals, project completion, and organizational success.

Most information technology (IT) projects are unsuccessful due to a lack of project management procedures, project sponsors, and stakeholder support (Rankovic et al., 2019). Project success is achieved when a project meets stakeholders' satisfaction, is on time and budget, and meets quality standards (Shahzad et al., 2023). Transformational leaders use their ability to influence individuals to yield wanted results through several means: the use of communication, motivation, and influence to gain individual loyalty (Sahu et al., 2018). Leadership effectiveness in any area depends on leadership competence (Wei et al., 2018). Leadership competencies can be fine-tuned and gained through training, coaching, and mentoring the leader in areas of need. Leadership involvement, training, and style impact the performance of everyone within an organization (Jamshidi et al., 2022). With better-trained leaders, they would know when to be more involved, what leadership style to use, and have the skills to manage the organization's productivity levels effectively. Transformational leadership is goal-orientated leadership that pushes individuals to reach higher than the standards set for themselves and the organization through motivation, mentorship, and clear direction (Matsunaga, 2022). Leadership is essential for an organization to maintain competitiveness and to ensure the organization meets organizational goals (Park et al., 2022).

Problem and Purpose

The specific business problem is that some project managers do not understand the relationship between transformational leadership skills and project success in the telecommunications sector in the Northeastern United States. I conducted this quantitative correlational project to examine and understand the relationship between a project manager's transformational leadership skills and project success in the telecommunication sector in the Northeastern United States.

Population and Sampling

The population surveyed included project managers working within the technology industry in the Northeastern United States. The target population consisted of 64 project managers with more than 2 years of experience who currently work in the telecommunications sector in the Northeastern United States. The population consisted of 64 participants, which I used to ensure that a minimum of 51 qualified participants were surveyed. A priori power analysis was conducted using G*Power, indicating that a sample size of 51 participants in a single group would be sufficient to detect a large effect size (d=.50) with a=.05 and power (1-β)= .80, resulting in an actual power of .802. The target population was determined using Gpower with an effect size of 0.5, corresponding to a large effect size in the total population, and a power analysis of 0.80. I assumed that with 51 candidates, there would be a high chance of achieving significance that affects the population. Additionally, the project managers had to be familiar with leadership skills such as transformational leadership. I used random sampling to select the population, and SurveyMonkey I used to access the desired population.

Nature of the Project

The research design employed in this quantitative project is correlational, addressing the research questions. This approach was suitable for this project because quantitative methodologies are effective when conducting surveys to collect data and analyze the results, thereby generalizing the findings to the target population (Saunders et al., 2019). To effectively collect data for this project, I used multiple surveys. I used the multifactor leadership questionnaire (MLQ) to assess the theoretical framework of transformational leadership. I used project success to assess the categories and questions from Keshavarzian and Silvius (2022), including criteria of project execution project deliverables with an emphasis on schedule and budget, deliverables meet functionality, definable goals and objectives, stakeholder satisfaction, and how the project leads to the future success of the organization. I used an MLQ to assess transformational leadership styles to differentiate the effectiveness; the MLQ consists of 36 items about leadership styles and the five-point Likert to scale the responses (Jaarsveld et al., 2019). I assessed project success using the categories and questions from Keshavarzian and Silvius (2022), which included criteria for project execution, project deliverables with an emphasis on schedule and budget, whether deliverables meet functionality, definable goals and objectives, stakeholder satisfaction, and how the project contributes to the future success of the organization. The dependent variable of project success, as assessed by the questionnaire, was evaluated using a five-point Likert-type scale. Quantitative data findings can be generalized from a sample group to a large population backed by statistical data. A Qualitative project would not be a beneficial choice for this project as it focuses on individuals' experiences, the data derived from a project cannot be generalized, and one main goal of qualitative data is to develop a theory; in the project, I used a pre-existing theory to generalize better a population and the relationship of the identified variables. Qualitative data and collection methods are used to gather information from individuals about their experience with a specific phenomenon (Saunders et al., 2019). Qualitative projects are best for understanding the how and why of a business problem, focusing on the individual experience. A qualitative project would not work in finding the relationships needed to accomplish my desired project as I did not focus on a person's experiences of a phenomenon. Quantitative studies examine verifiable changes within a population through numerical senses showing relations. Thus, utilization of a quantitative project was ideal for my problem in examining if there is any relationship between a project manager's transformational leadership skills and project success in the telecommunication sector.

Correlational research designs are used in quantitative research to collect and analyze numerical data; the data is to be untouched by the researcher with the ability to show the overall relationship and strength between multiple variables (Limberg et al., 2021). This approach is appropriate for this project because a correlational project helped examine if and how project managers' transformational leadership skills affect organizational project success. Transformational leadership increases individuals' skills, knowledge, and overall abilities, enabling them to learn better and transfer that knowledge to others, resulting in increased organizational performance (Akdere & Egan, 2020). Spearman’s rho analysis determined the relationship between the dependent and independent variables. Spearman’s rho analysis can examine relationships between several defined variables in an equation (Brandon et al., 2022).

Research Question

Research Question: What is the relationship between a project manager's transformational leadership skills and project success in the telecommunication sector in the Northeastern United States?

Null Hypothesis (H_01); There is no statistically significant relationship between the project manager's transformational leadership skills and project success.

Alternative Hypothesis (H_11): There is a statistically significant relationship between the project manager's transformational leadership skills and project success.

Theoretical Framework

The theory that grounds this project is transformational leadership theory. James MacGregor Burns introduced transformational leadership in 1978 (Burns, 1978). Transformational leadership influences employees and peers to yield positive results through motivation and direction. This framework is ideal for addressing the business problem and understanding the project manager's relationship between transformational leadership skills and the organization's project success. The key components of transformational leadership theory are leaders who guide teams by identifying needs, motivating, and showing a vision to influence change through inspiration. Leaders increase motivation, morale, and individual performance by connecting the individuals to the overall mission, creating a sense of belonging to a unit, and creating more positive outcomes (Stevens, 2011). Key elements of transformational leadership include communication, charisma, change management, inspiration, motivation, influence, and stimulation.

Operational Definitions

Correlational research designs: are used in quantitative research to collect and analyze numerical data; the researcher leaves the data untouched, which can show the overall relationship and strength between multiple variables (Limberg et al., 2021).

Spearman's rho analysis: Correlation analysis examines the strength and direction between the dependent variable and one or more independent variables of ranked data (Mesfioui et al., 2022).

Pooled t-test: The t-test was used to determine whether there is a significant difference between the independent groups in a project (Welc, 1947).

Project management methods: These are tools, techniques, and templates that project managers and organizations follow and implement to standardize projects and achieve project success (Pace, 2019).

Project managers: Identified as individuals with the title of project manager and who have the responsibilities to arrange teams, plan tasks, plan projects, develop plans, schedules, and budgets, delegate duties to team members, coordinate with contractors and stakeholders, oversee the project from start to finish, conducting follow-ups throughout the project, fixing issues as they arise, and doing a final project walkthrough to ensure all requirements are met (Soltysik et al., 2020).

Transformational leadership: is goal-oriented leadership that strives to motivate, mentor, and provide clear direction to encourage individuals to achieve higher standards for themselves and the organization (Matsunaga, 2022).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are presumed facts about a topic, situation, or group of people based on the perceived hypothesis of the project topic (Ransom et al., 2023). My first assumption is that there is a positive correlation between project managers' transformational leadership skills and organizational project success in the telecommunication sector. Secondly, I assumed that project managers' transformational leadership skills positively impact organizational project success at all levels in the telecommunications industry. Lastly, I assumed that the project manager's transformational leadership skills decrease project failure rates within an organization, positively impacting organizational performance within the telecommunication sector.

Limitations

Limitations are weaknesses associated with the identified project (Coker, 2022). One limitation could be obtaining the required organizational personnel and project success data. Another could be organizational personnel's unwillingness to participate in surveys. Lastly, limited access to personnel who fit the survey participation criteria could exist.

Delimitations

A project's focus areas are delimitations (Coker, 2022). The sample size was 51 project managers working in the Northeastern United States technology industry. I examine the relationship between project managers' transformational leadership skills and project success in the telecommunications sector. The variables include transformational leadership and project success.

Significance of the Project

This project is significant because its findings could be used to improve industry business practices, provide a different perspective, and create better work environments with more effective leaders. This could improve production, performance, and work environments and lower industry turnover rates. This project is significant as its findings could improve industry standards for training leaders to increase organizational success. Organizations can use the understanding of how leadership leads to increased chances of success to improve project success, identify project failures, and improve project outcomes. Organizations and leaders can also identify project success criteria to lead to more successful projects.

Contribution to Business Practice

The contributions from this project may inform business practices, such as how organizations train their project managers and which leadership styles best suit their needs. Additionally, it will positively affect organizational project success in the telecommunications sector in the Northeastern United States by utilizing project success criteria as a key metric to project success, leading to lessons learned and future improvements. Organizational leadership practices can also benefit from determining what leadership styles will improve project success and organizational advances. The findings can contribute to better business practices, with project managers effectively used to increase organizational project success rates in the telecommunications sector.

Practically, organizations can systematically implement the process for project success due to the findings from this project. The findings of this project could lead to better production, better performance, work environments, and lower turnover rates across all industries. Implementing leadership with a focus on project success criteria can positively impact both organizational and project success rates. The project's contributions could change how organizations train their project managers and what leadership style will help increase employee engagement to have a more positive effect on organizational project success within the telecommunications sector within the Northeastern United States. The findings can contribute to better business practices, with project managers effectively used to increase organizational project success rates within the telecommunications sector. Organizations may invest more in developing leadership styles and establishing project success criteria to enhance positive customer relations and improve project success rates.

Implications for Social Change

The findings have the potential to create positive social change. Organizations can achieve positive social change by improving project success rates, which in turn can increase profits. When organizations have increased profits, they can do more for their community and profoundly impact social change issues affecting their area. This would enable organizations to increase contributions to benefit the' citizens of their communities while meeting their financial goals. Overall, improving project success rates, increasing profits, and enabling organizations to contribute more to benefit communities' citizens.

A Review of the Professional and Academic Literature

I conducted this quantitative correlational project to investigate the relationship between a project manager's transformational leadership skills and project success in the telecommunications sector, focusing on current project managers in the telecommunications sector with over two years of experience as project managers. The following hypotheses guided this project: the Null Hypothesis ($H_0$1 states that there is no statistically significant relationship between the project manager's transformational leadership skills and project success. Alternative Hypothesis ($H_1$1): a statistically significant relationship exists between the project manager's transformational leadership skills and project success. I discussed the theory that underpins this project, the transformational leadership theory. James MacGregor Burns introduced transformational leadership in 1978 (Burns, 1978). Burns (1978) felt that transformational leadership influences employees and peers to yield positive results through motivation and direction.

In this literature review, I systematically analyzed existing research, identifying trends while summarizing and synthesizing information about the independent variables defined as Idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration. The dependent variables are defined as project success, utilizing the theoretical framework of Burns (1978) transformational leadership theory alongside project success criteria and measures from Keshavarzian and Silvius (2022) to evaluate the dependent variables of project success. Throughout this project, I explored correlations and gaps in the literature.

The structure of this project follows as such: (a) telecommunications sector project, (b) transformational leadership, (c) project success, (d) project management, (e) project success criteria, and (f) data collection. The scope of the literature search focused on project managers who worked in the telecommunications sector and had at least two years of experience as current project managers in the northeastern United States. I searched Walden University library databases through (a) Academic Search Complete, (b) Business Source Complete, (c) EBSCOhost, (d) ProQuest, and (e) SAGE Premier. The key terms I used in the literature search for this review included (a) leadership skills, (b) leadership skills in project management, (c) project managers, (d) project success and leadership, (e) transformational leadership and project success, (f) project success, (g) correlational research design, (h) project manager, and (i) IT.

The literature review included 103 research articles, books, and web sources published between 1978 and 2024, of which 89 (86%, Table 1) were published within the last 5 years (2019 and later). Fourteen articles (14%) had publication years between 1978 and 2018 (Table 1) and addressed the theoretical framework and data analysis techniques. This review included 103 of the 81 sources (79%, Table 1) published in high-impact, active, and peer-reviewed scholarly journals. I used Ulrich’s Web Global Serials Directory to confirm that the references cited were peer-reviewed and active.

Table 1

A Summary of Literature Review Sources

Type of Source	Current source (2019-2024)	Older source (before 2019)	Total	Percent
Peer-reviewed source	71	10	81	79%
Other source	18	4	21	21%
Total	89	14	103	100%
Percent	86%	14%	100%	

Transformational Leadership Theory

James MacGregor Burns introduced the Transformational Leadership Theory in 1978 (Burns, 1978). Eaton et al. (2024) found that transformational leadership theory is the most widely used and well-known leadership theory in studies. Transformational leadership theory is based on core principles that include motivation, inspiration, guidance, and innovation. These principles focus not only on organizational success but also on elevating subordinates to achieve higher standards and fulfill individual goals that contribute to the overall organizational objective. Transformational leadership comprises four components: idealized influence, inspirational motivation, intellectual stimulation, and individual consideration (Eaton et al., 2024). This project aims to identify how transformational leadership applies to modern organizations and is crucial for promoting positive mentorship, goal awareness, and accomplishment. Messmann et al. (2022) found that transformational leadership enables positive organizational outcomes. It equips leaders with various tools, including fostering team cohesion, focusing on goal achievement, developing motivational skills, and flexibility to guide different types of subordinates toward success. Individual innovation is a key element in advancing organizational goals and strategies. Messmann et al. (2022) found that transformational leadership has a significant influence on individual innovation.

Theory Constructs

The four critical constructs of Transformational leadership theory are the four I's. Idealized influence, also known as charisma, refers to a leader's ability to serve as a positive role model within an organization by earning respect and followers through leading by example. Transformational leaders motivate and communicate the vision to followers through idealized influence (Mbindyo et al., 2021). They challenge their subordinates to meet goals and provide context regarding why these goals are essential through inspirational motivation (Mbindyo et al., 2021). Inspirational motivation is achieved through a transformational leader's communication skills in articulating organizational and individual goals, thereby increasing individual buy-in to the overall objectives. Through intellectual stimulation, transformational leaders enhance subordinates' ability to generate new ideas and understand positive leadership (Teoh et al., 2022). Intellectual stimulation reflects a transformational leader's capability to draw out creativity and motivation from the individuals they lead. Individualized consideration embodies a transformational leader's ability to demonstrate concern and empathy toward subordinates while offering personalized guidance and mentorship, as each individual has distinct needs. Transformational leaders identify the best ways to support their subordinates through individualized consideration (Teoh et al., 2022).

Relevance of Transformational Leadership to This Project

Transformational Leadership is relevant to this project as it directly relates to project managers and project success. Abbas and Ali (2023) studied leadership and its effects on project success. They found that transformational leadership has a greater positive effect on project success than transactional leadership. Ahmad et al. (2022) examined the impact of transformational leadership on project success, highlighting a moderating effect on self-leadership. They discovered that self-leadership directly influences project success and that transformational leadership positively impacts both project success and self-leadership. Khan et al. (2018) examined the relationship between transformational leadership and organizational performance, with a focus on corporate social responsibility and innovation. Their research revealed that transformational leadership can positively affect corporate social responsibility, organizational performance, and organizational innovation due to the competencies associated with this leadership style.

Supporting Theories

Theories that support transformational leadership include situational leadership theory, charismatic leadership theory, and authentic leadership. Situational leadership theory shares similar objectives with transformational leadership theory, such as adapting and adjusting the leadership style needed to achieve the organization's vision. Situational leaders modify their style based on current circumstances, much like transformational leaders, who adapt their approaches to make the most meaningful impact within the organization (Owusu-Manu et al., 2020). Charismatic leadership underpins transformational leadership in terms of how leaders influence their subordinates. Le Blanc et al. (2021) found that charismatic leadership affects individuals' innovative behaviors, like how transformational leadership enhances subordinates' creativity and innovation. Authentic leadership emphasizes transparency between the leader and subordinates, providing individualized, genuine, caring, and compassionate leadership. Lopez-Zafra et al. (2022) found that transformational and authentic leadership have a positive influence on subordinate engagement by fostering positive work climates that subordinates perceive as impactful.

Contrasting Theory

The most significant theory contrasting transformational leadership is transactional leadership. Transactional leadership is based on the exchange of rewards and punishments, unlike transformational leadership, which emphasizes inspiration and provides an overall organizational vision while gaining subordinate buy-in. Transformational leadership is relationship-oriented, focusing on mentoring, communication, compassion, and long-term goals (Alavi et al., 2022). Transactional leadership involves offering rewards and punishments based on task completion, focusing on both performers and underperformers (Alavi et al., 2022). Transformational leaders aim to enhance subordinates through guidance and leadership, whereas transactional leaders concentrate on tasks and their completion. Transactional leaders provide rewards to motivate subordinates to achieve desired short-term goals (Donkor et al., 2022).

Transformational leaders prioritize long-term goals, while transactional leaders emphasize short-term tasks and objectives.

Telecommunications Sector Projects

The need for telecommunications projects has expanded exponentially over the past decade due to increased technological advances and the demand for fiber-optic capabilities. While this boom has significantly raised the number of telecommunication projects, failures are also rising due to ineffective leadership, poor stakeholder management, and unclear scopes (Akhwaba, 2020). Akhawaba (2020) investigated the relationship between project scope, leadership skills, stakeholder management, and the success of fiber optic projects. The author found that a defined scope, coupled with leadership skills and stakeholder management, positively affected fiber optic project success ($B = 0.360$, $t = 1.760$, $p = 0.080 > 0.05$). However, individually, leadership skills and project scope together ($B = -0.033$, $t = -1.320$, $p = 0.188$, $p > 0.05$) and stakeholder management with project scope ($B = -0.047$, $t = 1.704$, $p = 0.090$, $p > 0.05$) did not have a positive impact on fiber optic project success. The author's research aligns with the doctoral project, I focuses on telecommunications projects concerning project success and the factors that affect these outcomes. Telecommunications projects were found to have lower error rates when analyzed compared to other sectors regarding project success (Herrero et al., 2020). Herrero et al. (2020) studied forecasting factors to determine whether telecommunication, transport, water sewage, or energy projects would succeed or fail. The authors found that predicting project success was heavily influenced by location and industry; the telecommunications sector showed the best results for determining success.

Most IT projects fail to meet budget requirements. Project risk management aims to identify, analyze, and reduce potential risks that could negatively impact a project. Stakeholders include any individual, group, or organization that can influence decisions or outcomes for a project, as well as those who are affected by the decisions and outcomes of these projects. Strategic change management focuses on modifying the organization's structure to achieve its goals, objectives, and missions (Saragih et al., 2021). Saragih et al. (2021) studied telecommunications projects utilizing an enterprise architecture (EA) strategic framework as a foundation, concentrating on three focus metrics: project management, strategic management, and business processes. The authors identified effective ways to implement the EA framework within the business processes of telecommunications projects, thereby enhancing customer relations. Abbas and Ali (2023) examined leadership and its effects on project success, noting its profound impact on project completion and overall success.

Transformational Leadership

Leadership styles are crucial in employee satisfaction, motivation, performance, and creativity (Abbas & Ali, 2023). According to Abbas and Ali (2023), transformational leadership has an increased positive effect on project success compared to transactional leadership. Transformational leadership increases self-leadership confidence, motivation, and production (Ahmad et al., 2022). Ahmad et al. (2022) studied transformational leadership and how it impacts project success with a moderating effect on self-leadership.

Ahmad et al. (2022) found that self-leadership directly impacts project success; additionally, transformational leadership positively affects both project and self-leadership. Ali et al. (2021) investigated the impact of transformational leadership on project success, with a focus on its mediating role in teamwork quality. Ali et al. (2021) found that transformational leadership had a significant impact on project success ($ß = 0.417$, $SE = 0.041$, $P < 0.000$), while teamwork quality showed implications of significantly mediating transformational leadership and project success ($\beta = a2 \times b2 = 0.290 \times 0.328 = 0.095$, $SE = 0.043$, $BootLLCI = 0.015$, $BootULCI = 0.182$). Garcia and Russo (2019) surveyed project teams regarding software development projects to identify the influence of leadership styles and their effects on team performance. Garcia and Russo (2019) concluded that three leadership styles positively affected the project team's success: transactional, transformational, and empowering. Garcia and Russo (2019) also found that project management methods do not have a positive or negative impact on the team when these leadership styles are present. Transformational leadership positively affects employees and projects, increasing buy-in and motivation; transformational leadership increases the odds of project success (Fareed et al., 2023). Fareed et al. (2023) studied the moderating effects top managers' support has on a project manager's transformational leadership and project success. Fareed et al. (2023) found that transformational leadership and top management support have a remarkably significant influence on project success; additionally, top management support impacts the relationship between transformational leadership and project success.

Transformational leaders can positively influence followers, peers, and outcomes. Successful organizations rely on efficient and effective personnel; leaders can secure employees' commitment to the organization's cause, enhancing overall effectiveness and efficiency, which leads to organizational success (Hussein & Yesiltas, 2020). Leaders employ transformational leadership to foster positive change within organizations by encouraging innovation, social change, and individual growth (Khan et al., 2018). Khan et al. (2018) examined the relationship between transformational leadership and organizational performance, emphasizing the role of corporate social responsibility and innovation. The authors found that transformational leadership can positively impact corporate social responsibility, organizational performance, and innovation, due to the competencies associated with this leadership style. Their findings underscore the significance of utilizing transformational leadership theory as a foundation to evaluate the relationship between transformational leadership, project success rates, and organizational performance.

Transformational leaders collaborate with their employees to foster positive working relationships that enhance communication, motivation, and morale within organizational groups. When leaders gain employees' commitment to organizational causes as their own, it facilitates both personal and organizational success. Transformational leaders establish clear pathways for followers to thrive, boost teamwork opportunities, and inspire creativity, all essential components of organizational and personal achievement (Campbell, 2018). Leaders can cultivate positive work environments that help individuals excel, contributing to the overall success of the organization. Transformational leadership enhances self-leadership confidence, motivation, and productivity (Ahmad et al., 2022). Individuals can be trained to effectively apply different leadership styles, and training leaders shows a positive correlation with organizational performance (Jacobsen et al., 2022). Transformational leaders assist employees in understanding and aligning with organizational goals and culture to form a cohesive, functional unit. Leaders leverage transformational leadership to instigate positive change within organizations by promoting innovation, social change, and individual growth (Khan et al., 2018). Khan et al. (2018) found from 396 firms that transformational leadership, both directly and indirectly, impacts organizational and individual success, innovation, and performance. Leaders can learn to become positive, influential transformational leaders capable of positively affecting both organizational and individual performance while reducing turnover rates. Transformational leadership benefits employees and projects by boosting buy-in and motivation and increasing the likelihood of project success (Fareed et al., 2023).

Leadership

Leadership at a basic level can be divided into two categories that can overlap depending on the leadership style chosen: leaders who focus on task completion and leaders who focus on people (Garcia & Russo, 2019). Leaders who can effectively lead, train, motivate, direct, and impact their employees can positively impact their commitment to staying with an organization (Sobaih et al., 2022). Leadership styles allow leaders to handle better situations they face within organizations and navigate them successfully. Leaders motivate employees to complete organizational and personal goals

(Dahleez & Abdelmuniem, 2022). Leaders create positive organizational change by inspiring employees to work towards a common goal for success. Leaders can implement both positive and negative changes through their chosen leadership style. The primary leadership process influences individuals and teams to achieve organizational goals (Van Jaarsveld, et al., 2019). Van Jaarsveld et al. (2019) studied the effects of leadership styles on performance, work environment, and job satisfaction. The authors found that the leader must choose the most appropriate leadership style to be most efficient, depending on the situation. A well-trained leader's impact can be vast and very beneficial for an organization, but the effects can also be harmful when untrained.

Trained leaders benefit organizations, peers, and employees more than under-trained or non-trained leaders. Leadership training focuses on developing the abilities of leaders to function efficiently in leadership capacities and procedures within an organization, effectively leading members within the organization (Lacerenza et al., 2017). Leadership training differs from management training or employee training as there are different levels and functions that leaders must meet and maintain. Lacerenza et al. (2017) surveyed 335 samples, which provided several points of data to show how trained leaders impact organizations and employees; the findings show that when leaders are trained, they yield better results for organizations, and they transfer their knowledge to their employees at a higher rate leading to better success for employees. Leadership competencies can be fine-tuned and gained through training, coaching, and mentoring the leader in areas of need. The skills approach leadership theory develops that a leader can learn skills, abilities, and knowledge through a developed course (Germain, 2012). Many organizations offer training for leaders to develop their leadership skills, enabling them to handle better employees, culture, change, and a wide array of challenges they will face as leaders, navigating them more efficiently. Leadership styles that positively influence project success include transformational, which can significantly positively or negatively influence teams, organizations, and project success.

Project Success

Evidence shows that humans cause most project issues; thus, the need for strong leadership, such as transformational leadership, mediates those problems and positively affects project success (Nauman et al., 2021). Nauman et al. (2021) studied the effect transformational leadership has on success, with a mediating factor of team building. Nauman et al. (2021) found that team building slightly impacts transformational leadership and project success, and transformational leadership positively affects project success. The author's findings relate to the doctoral project focusing on transformational leadership's effect on project success. Teamwork quality (TWQ) refers to the interaction and motivation of team members, as well as their ability to work together, resulting in higher success and performance rates (Abdullah et al., 2022). Abdullah et al. (2022) studied the TWQ and its impact on project performance, utilizing both modern project management (MPM) and traditional project management (TRPM) methods. The authors found that MPM, coupled with TRPM and efficient work groups, can positively impact project success. I used composite reliability, similar to Cronbach's alpha, to determine internal consistency, with TWQ (.0894), TRPM (.832), MPM (.916), and project performance (.912) achieving satisfactory results. It has long been known that leadership competencies are a must for project management and project portfolio success; the complexities lie in which competencies yield the best results per project type and across what industries.

Project success is a significant concern for organizations and project managers, encompassing more than the original iron triangle of budget, time, and quality; it now also focuses on additional components, including stakeholders (Castro et al., 2021). The authors studied the established project success measures and criteria. Castro et al. (2021) established a scale that can identify project success based on established project success criteria across different project types. Psychological empowerment affects several distinct areas: power, decision-making, employee empowerment, information autonomy, knowledge, skills and responsibilities, initiative, and creativity. Khan et al. (2022) studied the relationship between psychological empowerment and project success with the mediation of knowledge sharing. Khan et al. (2022) found that psychological empowerment plays a significant role in project success through knowledge sharing. Most IT projects fail due to failing to meet budget requirements (Schmidt, 2022). Schmidt (2022) investigated the reasons behind IT project failures, new success criteria for IT projects, and why projects that fail are not terminated. I identified additional project success criteria that can limit risks of failure, why IT projects tend to go over budget, and additional criteria used to determine if a project should be terminated rather than continued.

The iron triangle is typically the gold standard for determining when a project is successful, which, at its core, means a project has met its scope, cost, and timeline

(Hussain et al., 2021). Hussain et al. (2021) investigated the relationship between transformational leadership style and project success, with the indirect effects on team building and work quality. The authors gathered data from 374 project managers and found that overall transformational leadership positively correlates with project success and teamwork quality; additionally, project success increases when transformational leadership and team-building practices are present. Project success is a significant concern for organizations as this can lead to organizational success or failure. Project management, project teams, and project-based organizations have increased, resulting in a significant need for competent leadership to manage projects effectively and ensure success (Abbas & Ali, 2023). Most projects fail due to avoidable human factors, including planning and scheduling errors, incorrect estimates, leadership issues, low morale, team conflicts, personal problems, delays in problem-solving, and a lack of personnel commitment (Serra et al., 2021). Projects require definable tasks, as project managers must define each project's procedures to ensure success. Most IT projects are unsuccessful due to a lack of project management procedures, project sponsors, and stakeholder support (Rankovic et al., 2019). The main critical success factors include organizational, team, communication, and technical aspects, as these four factors significantly impact a project's ability to succeed or fail. Project managers use the agile framework method to create a process for each project to increase teamwork, communication, productivity, collaboration, and workflow (Rajan & Santhosh, 2021).

The main critical success factors include organizational, team, communication, and technical, as these four factors significantly affect a project's ability to succeed or fail. Project success is a significant concern for organizations and project managers, encompassing more than the original iron triangle of budget, time, and quality; it now also focuses on additional components, including stakeholders (Castro et al., 2021). Psychological empowerment affects several distinct areas: power, decision-making, employee empowerment, information autonomy, knowledge, skills and responsibilities, initiative, and creativity. Khan et al. (2022) studied the relationship between psychological empowerment and project success with the mediation of knowledge sharing. Multiple project stakeholders include individuals, groups, and whole organizations; so long as they impact or are impacted by a project, they would be included in the stakeholder category (Kumar et al., 2023). Project success is achieved when overall satisfaction has been met for most stakeholders, is on time and within budget, and includes organizational success (Moradi et al., 2020). Leadership styles that positively influence project success include transformational and authentic leadership, which can significantly positively or negatively influence teams, organizations, and project success (Shahzad et al., 2023). Shahzad et al. (2023) studied the role a project manager's negative leadership style has on project success. The authors found that negative leadership has a significant negative impact on project success.

Critical success factors are preexisting conditions that help lead to project success, while success criteria are parameters used to measure project success. The three dimensions of project success are time, cost, and scope, and when all are measured together, they can determine whether a project was successful. Project success is measured by several defined factors that were used to determine whether the project and project manager were successful. Project success is achieved when a project meets stakeholders' satisfaction, is on time and budget, and meets quality standards (Shahzad et al., 2023). Project success relies on meeting time, budget, and requirements; however, it has been found that knowledge management plays a significant role in project success (Ghafoor et al., 2019). Ghafoor et al. (2019) studied the role human resource management (HRM), and knowledge management (KM) play in project success with a moderating factor of project management competency retention (PMCR). The authors found that HRM and KM positively impact PMCR and overall project success. Project managers hold specific roles within organizations. Successful project managers require strong leadership skills to meet the high demands of leading project teams; this enables project managers to complete projects (Podgorska & Pichlak, 2019). Project managers must implement their leadership and management styles to ensure employee performance and project success. Project management success focuses on time, cost, and quality, while project success focuses on time, cost, and scope (Ali et al., 2021). International Organization for Standardization (ISO) is a standard that aligns with the Project Management Body of Knowledge (PMBOK) to provide globally recognized practices, processes, and concepts for project managers to be successful (Varajao et al., 2022). Varajao et al. (2022) studied the impact of the project management processes of ISO and PMBOK on project success. Varajao et al. (2022) found that project success was increased when ISO and PMBOK project management processes were used.

Project Management

Project management success focuses on time, cost, and quality, while project success focuses on time, cost, and scope (Ali et al., 2021). Project managers are the leaders who are relied on to ensure projects are successful and meet organizational goals (Amoah & Marimon, 2021). There are many different definable attributes of a project manager, but to be classified as a project manager, those roles must be identified. Project managers were identified as individuals with the title of project manager and who have the responsibilities to arrange teams, plan tasks, plan projects, develop plans, schedules, and budgets, delegate duties to team members, coordinate with contractors and stakeholders, oversee the project from start to finish, conducting follow-ups throughout the project, fixing issues as they arise, and doing a final project walkthrough to ensure all requirements are met (Soltysik et al., 2020).

Amoah and Marimon (2021) surveyed 112 project managers to determine what it takes to be a knowledge worker, identifying the competencies required of a project manager to manage projects successfully. The authors found that project managers require soft and hard skills to be successful in project management; hard skills include technical skills, while soft skills include ethical, interpersonal, and conceptual skills. Project managers are the most significant individuals in terms of project success (Castro et al., 2022). Castro et al. (2022) studied project managers' soft skills and their effect on project success and job satisfaction. Castro et al. (2022) found that a project manager's soft skills have a significant impact on project success. Sustainable project management is the widest-focused project management style worldwide (Keshavarzian & Silvius, 2022). Sustainability is often underused in project management, although it is essential for maintaining long-term organizational success.

Successful project management requires a quality leadership style to impact people and projects efficiently (Nauman et al., 2021). Nauman et al. (2021) investigated the impact of transformational leadership on project success outcomes. The authors found that transformational leadership directly and indirectly impacts project success, with team building being one of the focal points of the indirect impacts on project success. Project management methods are tools, techniques, and templates for project managers and organizations to follow and implement to standardize projects with the aim of project success (Pace, 2019). Project management emphasizes resourcefulness and considers time, scope, and cost as key elements of project success (Pretorius et al., 2023). A project manager's ability to lead and manage is critical to individual and organizational success. The interpersonal skills of project managers lead to the overall success of an organization's projects (Moura et al., 2019). Project managers are the leaders who are relied on to ensure projects are successful and meet organizational goals. Project managers are the most significant individuals in terms of project success (Castro et al., 2022). A project manager's ability to lead, motivate, and communicate is essential when dealing with projects and teams. The Project manager's leadership skills and competencies lead to individual and organizational success (Hartono et al., 2019). Most projects fail due to undefined scope, scope creep, a lack of resources, or a lack of stakeholder engagement; project manager competencies are directly linked to project performance and success. Trained project managers can identify shortcomings and correct them before they lead to a failed or less-than-desirable outcome with a project. Experienced project managers use lessons learned from others and prior projects to avoid common pitfalls and strategize to mitigate those shortcomings before they lead to significant issues. Training project managers increases the chances of organizational success and project success, as well as the quality of better-trained employees.

Sustainable project management is closely tied to project success and the factors that influence its outcome (Phung et al., 2023). The authors studied the management of sustainable projects and how this relates to project success. Phung et al. (2023) found that sustainable projects consist of five components: goal definition, project team enhancement, planning, assessment, and stakeholder management; all five elements are significantly positive to project sustainability and project success. Sustainable project management focuses on economic, environmental, and social benefits in project management and success (Chow et al., 2021). Chow et al. (2021) studied the effect that sustainable project management has on project planning and success. The authors found that sustainable project management has a noteworthy impact on project planning and success. Sustainable project management is closely tied to project success and the factors that influence its outcome. Sustainability is underused in project management, though it is essential in maintaining long-term organizational success (Phung et al., 2023). Phung et al. (2023) studied the factors of project management that lead to project success. The authors created a model to identify critical factors leading to project success, which includes sustainability goals, project team enhancement leading to sustainability, sustainability planning, assessing sustainability, and stakeholder management. The authors found that stakeholder management and sustainability goals had the most significant impact on project success.

Project managers are essential to project success; their knowledge and expertise are crucial to ensuring success. A project manager's leadership skills and competencies lead to individual and organizational success (Hartono et al., 2019). Project success has long been linked to a project manager's leadership competencies; there is little data to directly link project success to a project manager's behavioral competencies. A project manager's leadership skills and competencies lead to individual and organizational success (Hartono et al., 2019). Hartono et al. (2019) studied the relationship between leadership competencies and project performance, focusing on organizations whose primary function is projects based in Indonesia. The authors found that leadership competencies play a critical role in project success. Agile methodology in project management involves creating project phases focusing on collaboration and continuous improvement. Project success has long been linked to a project manager's leadership competencies; there is little data to directly link project success to a project manager's behavioral competencies (Sampaio et al., 2022). Sampaio et al. (2022) studied the project manager's behavioral competencies and their relationship with project success. The authors found that of the 179 competencies identified only five had significant evidence proving a positive correlation with project performance and project success; leadership ($r = 0.26$, $p < 0.01$), results-oriented ($r = 0.20$, $p < 0.05$), emotional intelligence ($r = 0.20$, $p < 0.05$), ethics ($r = 0.29$, $p < 0.01$), creativity ($r = 0.34$, $p < 0.001$) and motivation ($r = 0.29$, $p < 0.01$).

Project management emphasizes resourcefulness and considers time, scope, and cost as key elements of project success (Pretorius et al., 2023). Pretorius et al. (2023) studied the growth of project management practices in developing countries compared to a decade ago. The authors found that 9389 projects now compared to a decade ago were less mature in project management practices, though most projects were still considered successful. Project managers are essential to project success; their knowledge and expertise are crucial to ensuring success (Elmezain et al., 2021). Elmezain et al. (2021) studied the role of the project manager's skills in project success. The authors found that a project manaprocess whereger's skills are critical to success.

The waterfall method is a sequential flow with one phase starting, and the next phase can begin upon completion. The final product is only as good as each phase, with no continuous improvement process (Pace, 2019). Pace (2019) conducted a non-experimental correlational project on the relationship between project management methodology and project success. Pace (2019) found that project management methods negatively impact project success. Additionally, the experience levels of project managers and the industry they were in had little effect.

Project Success Criteria

Multiple project stakeholders include individuals, groups, and entire organizations; as long as they impact or are impacted by a project, they fall into the stakeholder category (Kumar et al., 2023). Kumar et al. (2023) examined the role of multiple stakeholders, critical success factors (CSFs), and their influence on project success. The authors identified a shortage of literature on CSFs and multiple stakeholders within the Indian context. They highlight gaps in the literature that enhance the proposed doctoral project regarding CSFs. Project success is achieved when the overall satisfaction of most stakeholders is met, timelines are adhered to, budgets are maintained, and organizational success is attained (Moradi et al., 2020). Moradi et al. (2020) investigated the factors and methods for achieving project success through a literature analysis. They discovered 65 contributing project success factors along with 13 identified project success criteria; the most common factors included communication, management support, project manager competency, and clear, realistic objectives, while the most consistent project success criteria encompassed meeting time, cost, quality, customer satisfaction, and organizational success. The authors' findings closely relate to the proposed doctoral project in identifying the factors and criteria that contribute to project success. Risk management in projects focuses on identifying, analyzing, and reducing any potential risks that could negatively impact a project (Sadeh et al., 2022). Sadeh et al. (2022) studied the role of senior managers in risk mitigation and their support for project managers to enhance project success. The authors found that operational support from senior managers positively correlates with project success in terms of risk mitigation. The efficiency of operational support had a positive effect on projects (0.18; $p < 0.05$), as did effectiveness (0.38; $p < 0.001$). Furthermore, risk mitigation positively influenced projects regarding efficiency (0.36; $p < 0.001$) and effectiveness (0.43; $p < 0.001$).

Critical success factors are preexisting conditions that contribute to project success, whereas success criteria are parameters used to assess project success (Castro et al., 2019). Castro et al. (2019) examined project success measurements with a modern perspective for researchers and project managers to apply. They found that the perceptions of the literature and project managers regarding project success criteria must be fully aligned. Sustainable project management is the most broadly focused management style worldwide (Keshavarzian & Silvius, 2022). The authors investigated the link between sustainable project management and project success criteria. Keshavarzian and Silvius (2022) discovered a significant positive correlation between sustainable project management and project success criteria. It has long been recognized that leadership competencies are essential for project management and project portfolio success; however, the challenge lies in identifying which competencies yield the best results for different project types and industries (Kortantamer, 2023). Kortantamer (2023) explored how stakeholders influence projects through their leadership styles, primarily focusing on top-down, transactional, pooled, and co-leadership approaches. The author found that stakeholder leadership positively impacts a project's outcome, regardless of the style. Additionally, the author notes that there is insufficient data on leadership roles within project groups.

Stakeholders are any individual, group, or organization that can influence decisions or outcomes for a project, along with being affected by the decisions and outcomes of those projects (Kumar et al., 2023). Kumar et al. (2023) researched how stakeholder engagement and project critical success factors affect project success rates. The authors found that critical success factors are significant in project success; additionally, there is a need for continued research on essential factors of success within project management and project success.

Control operationalization was used to turn ideas and concepts into measurable factors; thus, it is critical in measuring project success criteria (Macheridis, 2022). Macheridis (2022) studied the degrees of control in measuring success criteria. The author found that management control is essential to project success concerning project success criteria. Project success factors are the most critical components of a project that influence its success or failure (Moradi et al., 2020). Moradi et al. (2020) examined the most prevalent factors related to project success identified in this project and analyzed previous findings from relevant studies. The authors found that 65 of the identified factors contribute to project success; additionally, 13 critical criteria for project success were identified most frequently, with the top five being cost, time, customer satisfaction, quality, and organizational success.

Business intelligence (BI) is the technology that organizations, project managers, and teams use to collect, analyze, and present data. This enables more proactive project approaches and enhances organizational decision-making (Ranjbarfrad & Harami, 2020). Ranjbarfrad and Hatami (2020) studied the critical success factors in implementing business intelligence projects. They found 20 relevant factors; however, when evaluating 20 participants about their BI-related projects, not all of these factors were accepted as relevant. Chow and Cao's project success model comprised 12 success factors, each with aligned attributes, totaling 36 (Tsoy & Staples, 2021). Tsoy and Staples (2021) used an updated success factor list created by Chow and Cao, which included 12 factors for agile projects and identified 43 attributes to be applied to four case studies of analytics projects. The authors found that, among the four projects, the two that succeeded from start to finish emphasized critical success factors related to customer involvement and a well-defined project process.

The main critical success factors include organizational, team, communication, and technical aspects, as these four factors significantly affect a project's ability to succeed or fail (Zaman et al., 2022). Zaman et al. (2022) studied critical success factors and the relationship between sustainable project success and renewable energy projects. The authors found that critical success factors and supportive leadership positively impact project success. Most projects fail due to an undefined scope, scope creep, lack of resources, or a lack of stakeholder engagement; project manager competencies are directly linked to project performance and success (Dias et al., 2023). Dias et al. (2023) studied the competencies project managers require to achieve project success within the public sector. The authors found that successful projects were linked to competent project managers with skills and attitudes that included knowledge, expertise, and a positive outlook.

Data Collection and Analysis Tools

Utilizing G* power analysis and parameters I selected the minimum number of survey participants needed to achieve data saturation (Ahmed et al., 2022). Ahmed et al. (2022) studied caring behaviors in nurses through a quantitative online survey and G* power analysis to determine the required population size for effective results. The authors found that approximately 50 percent of the nurses surveyed displayed good or better caring behavior. The three dimensions of project success are time, cost, and scope; when measured together, they can determine whether a project was successful (Ahmed et al., 2022). Ahmed et al. (2022) also investigated the impact of data on decision-making in the telecommunications sector and its role in overall project success. They concluded that data analytics play a significant role in decision-making and have a positive relationship with the three identified dimensions of project success. The multifactor leadership questionnaire (MLQ) is the most commonly used tool to measure leadership among scholars and industry leaders (Bajcar & Babiak, 2022). The project focused on validating and refining the MLQ into a shorter, more polished version. The authors found that both the traditional MLQ and the shortened version were reliable sources for surveying individuals about leadership. Their findings relate to the doctoral project, as I employed the MLQ to assess transformational leadership skills, which many practitioners and industry leaders continue to do today. Pearson's correlation coefficient measures the relationship between two variables (Pace, 2019). Pace (2019) conducted a correlational project to explore the relationship between project success and project management methods. The author discovered a weak positive correlation between project success and these methods. The authors' findings relate to the proposed doctoral project, as the focus is similar concerning project success and its mediators; the project also employs a correlational approach.

A key component of leadership development is 360-degree tools such as the multi-leadership questionnaire (Wilson et al., 2021). Wilson et al. (2021) studied transformational leadership using the multifactor leadership questionnaire. The authors found that the multifactor leadership questionnaire is one of several 360-degree tools that help translate leadership theories into practice, including the transformational leadership theory. The findings are relevant to the doctoral project since the measurement tool used is the multifactor leadership questionnaire to identify transformational leadership in the proposed population. Agile project management is a focus for many project managers, providing the flexibility and resilience required to address project challenges and ensure success; knowing the critical success factors is equally essential for achieving project success (Yousef, 2022). Yousef (2022) surveyed 109 project managers and team members who had worked on agile projects to analyze the critical success factors that contributed to project success. The author found leadership to be the highest-ranked critical success factor (4.352 mean), followed by techniques and teamwork (4.438 and 4.408 mean, respectively). This project is relevant to the doctoral project as it used a critical success factor survey and analyze the data with a 5-point Likert-type scale.

Transition

This first section covers the background of the problem: that some project managers do not understand the relationship between transformational leadership skills and project success in the Northeastern United States telecommunication sector. This quantitative correlational project aimed to examine and understand this relationship between a project manager's transformational leadership skills and project success within the Northeastern United States' telecommunication sector. The identified target population includes 64 project managers with over two years of experience who currently work in the technology industry in this region. Additionally, these project managers must be familiar with leadership skills such as transformational leadership. The sample was comprised of 64 project managers throughout the Northeastern United States. The project's nature was to address the research question using a correlational research design. The theoretical framework employed in this project is transformational leadership. The hypotheses are as follows: Null Hypothesis ($H_0$1); - there is no statistically significant relationship between the project manager's transformational leadership skills and project success; and alternative hypothesis ($H_1$1) - there is a statistically significant relationship between the project manager's transformational leadership skills and project success.

The research question is: What is the relationship between a project manager's transformational leadership skills and project success in the telecommunication sector in the Northeastern United States? The assumption is that there is a positive correlation between project managers' transformational leadership skills and organizational project success in this sector. Furthermore, project managers' transformational leadership skills positively impact organizational project success at all levels in the telecommunications industry. Lastly, project managers' transformational leadership skills reduce project failure rates within an organization, positively impacting organizational performance within the telecommunication sector.

One limitation could be obtaining the necessary organizational personnel and project success data. Another limitation may be the reluctance of organizational personnel to participate in surveys. Lastly, there might be limited access to individuals who meet the criteria for survey participation. The delimitations include a sample size of this project, which consisted of 51 project managers working in the technology industry in the Northeastern United States. The project focuses on examining the relationship between project managers' transformational leadership skills and enhanced organizational project success in the telecommunications sector. The independent variables encompass idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration, all of which were measured using an ordinal scale on a five-point Likert-type scale. In contrast, the dependent variable was project success. The significance of the project lies in its findings, which could be used to enhance industry business practices, fostering better work environments with stronger leaders. This improvement could lead to higher project success rates across all industries.

Section 2 examines the role of the researcher, participants, research methods, and design. Section 3 presents the project's findings, which include future research areas, reflections, practical business applications, social change implications, and a conclusion that wraps up the project, along with the appendices.

Section 2: The Project

Section 2 includes a discussion of my role in the data collection process and how I related to the topic. The participants were identified based on specific criteria and how they were accessed. The research method and design have been outlined and justified for this project. I specified the population and sampling methods, including how the sample accurately represented the population in relation to the project. I addressed ethical research methods employed during this project. Data collection instruments were identified with an emphasis on strategy and reliability. I outlined data collection and analysis to ensure that data is accurately identified, collected, and interpreted. Finally, I explained how the data was validated, its reliability, and the instruments used to determine this.

Purpose Statement

The purpose of this quantitative correlational project was to examine and understand the relationship between a project manager's transformational leadership skills and project success in the telecommunication sector in the Northeastern United States.

Role of the Researcher

In quantitative research, my role is to ensure the methodological rigor and validity of the project. I gathered and analyzed data from surveys administered to qualified personnel. I examined and accurate without misleading readers. Additionally, I was cognizant of their biases and preconceptions and actively work to minimize their influence on the data collection and analysis processes. (Awasthy, 2019). Ethical conduct is required throughout the entire research process, including reporting, data collection, analysis, and any other facet of the project. I have a personal connection to project management. In my current role, I am a project manager. I have some small projects related to telecommunications and IT infrastructure. Most of my projects are commercial building buildouts to meet different organizations' needs. Researchers focus on developing testable hypotheses that align with the overarching research questions and theoretical frameworks that guide the research process (Creswell & Creswell, 2018). I am responsible for implementing robust data collection to enhance the reliability and validity of the findings for the project, utilizing advanced tools and statistical measures to accurately analyze the data (Gliner et al., 2017). Researchers must maintain objectivity throughout the research process, carefully managing biases affecting outcomes and interpretation (Pallant, 2020). The Belmont Report was used to identify ethical issues within research involving human subjects; the report provides guidelines and procedures to address ethical concerns (Brothers et al., 2019).

Participants

The participants had to meet the following requirements to partake in this project. Informed consent is an ethical obligation that entails communicating the project's purpose, potential risks, and the nature of the participant's involvement (American Psychological Association, 2020). Securing a representative sample was essential for the validity of research findings, as it enhances the generalizability of results to a broader population (Smith, 2018). Participants had to be current project managers working in the telecommunications sector and located in the northeastern United States. They had to have over two years of experience as project managers and hold leadership positions, demonstrating familiarity with transformational leadership skills. To reach project managers with a minimum of two years of experience located in the Northeastern United States, I leveraged SurveyMonkey. SurveyMonkey has a specialized tool that helps researchers target their specific audience; this tool is known as SurveyMonkey's Audience Feature (SurveyMonkey, 2025). SurveyMonkey enables users to identify survey participants based on demographics such as age, gender, location, job, knowledge, and other specific criteria (SurveyMonkey, 2025).

Research Method and Design

Research Method

The specific research method was quantitative to address the research questions. Qualitative studies best understand a business problem's how and why, focusing on the individual experience. Qualitative research focuses on human experience through descriptive data such as interviews and focus groups (Cole, 2024). A qualitative project would not work in finding the relationships needed to accomplish my desired project as I do not intend to focus on personal experiences of a phenomenon. Quantitative studies examine changes within a population that are verifiable in a numerical sense, showing relations. Quantitative research uses numerical and statistical data to identify patterns to predict generalizations across broader populations (Corner, 2002). Thus, using a quantitative project is ideal for my problem in examining if there is any relationship between a project manager's transformational leadership skills and organizational project success.

Quantitative studies examine changes within a population that are verifiable numerically, showing relations. Quantitative research uses numerical data coupled with statistical testing to analyze data (Corner, 2002). Quantitative research collects data from different mediums, including surveys, questionnaires, and experiments with control variables (Henline-Hall, 2024). Quantitative studies collect and analyze data using mathematical and statistical methods. Quantitative research designs use numerical data collection methods and analysis to refute or confirm the project questions and hypothesis (Slater & Hasson, 2024). Additionally, other researchers can confirm quantitative project findings by replicating their project (Henline-Hall, 2024).

Qualitative research explores phenomena of life experiences, themes, and projecting participants (Cole, 2024). Qualitative data can be collected through case studies, interviews, and project groups (Henline-Hall, 2024). Qualitative studies focus on people's beliefs, motivations, and attitudes toward a topic rather than numerical data. Qualitative studies best understand a business problem's how and why, focusing on the individual experience. A qualitative project would not work in finding the relationships needed to accomplish my desired project as I do not intend to focus on personal experiences of a phenomenon. Thus, using a quantitative project is ideal for examining whether there is any relationship between project managers' transformational leadership skills and organizational project success.

Research Design

Correlational research designs are used in quantitative research to gather and analyze numerical data; this data remains intact while showing the overall relationship and strength between multiple variables (Limberg et al., 2021). Correlational design is crucial when exploring the relationship between two variables. Other methods, such as descriptive and experimental research, would not achieve the goals of my project. Descriptive research focuses on detailing the systematic information of a phenomenon, while experimental research examines the cause-and-effect relationship among a group of variables. The correlational design approach is apt for this project because it allows for the investigation of whether and how project managers' transformational leadership skills affect organizational project success. Correlational research designs are advantageous when experimental designs are not feasible or ethical (Essel et al., 2022). Additionally, correlational research designs lay the groundwork for future experimental research by identifying new potential variables that merit investigation (Essel et al., 2022).

Population and Sampling

The target population consisted of 64 project managers with over 2 years of experience who currently work in the technology industry in the Northeastern United States. Additionally, the project managers must be familiar with leadership skills such as transformational leadership. A population of 64 participants was identified as the size; this number ensured an adequate response rate to provide statistical significance for this project. A priori power analysis was conducted using G*Power, yielding a noncentrality parameter of 2.54, a critical t value of 1.68, degrees of freedom (df) equal to 49, a total sample size of 51, and an actual power of 0.80. The sample size was determined using Gpower with an effect size of .5, representing a significant effect on the total population and a power analysis of .80, which assumes that with 51 candidates, there was a high likelihood of significance affecting the population. Sample sizes can be calculated and identified using Gpower software (Murayama et al., 2022). This doctoral project provided the target population with an 80 percent chance of significance.

Ethical Research

Trail et al. (2024) estimated that 15% of journals submitted at any time have plagiarism concerns. Researchers must have a solid decision-making process regarding data analysis research (Casal & Kessler, 2023). Informed consent was obtained from each willing participant at the beginning of every survey, informing them of the purpose of the survey. Participants can withdraw or opt out after the survey, and their responses were not recorded since it is an online platform (SurveyMonkey). I did not provide any monetary or other incentives for participating in the survey. However, SurveyMonkey offers participants $0.50 for each completed survey, which is donated to a charity of the participant's choice. I adequately safeguarded all collected information and will continue to do so for at least five years in a password-protected file on my desktop. All survey information collected through SurveyMonkey will remain anonymous, except for the required data necessary to qualify for the survey. My project was approved by the Walden University IRB (approval # 01-21-25-1174986). Concerns about ethical behavior exist among writers and scholars alike (Trail et al., 2024). Acting ethically is a matter of choice, and research guidelines must be actively followed. The ethical conduct of researchers is essential to ensure readers that their findings are accurate, valid, and of high quality (Trail et al., 2024).

Data Collection Instruments

The data was collected via an online survey. The Multifactor Leadership Questionnaire (MLQ) employed a five-point itemized rating scale to assess transformational leadership skills. I used a project success questionnaire that identifies project success criteria and measures from Keshavarzian and Silvius (2022) in Table 2 to evaluate the dependent variables related to project success using the five-point Likert-type scale. The measurement scale is ordinal for the independent variable, which includes idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration, as well as for the dependent variable, project success. I applied a Pooled-Variance t Test to assess internal validity, which will also ensure scale reliability. Additionally, I conducted a Spearman's rho analysis to examine the strength of the relationship between the independent and dependent variables, thus reinforcing the construct validity of the project.

Table 2

Criteria of Project Success

Criteria	Measures included in this criterion
The Project is executed in a controlled manner	The Project management process is adequate
	Project risks are managed adequately
	The project is performed with a high standard of work quality
The agreed project deliverable is completed on schedule and within budget	The project is completed within schedule
	The project is completed within budget
	The deliverable is meeting technical specifications
The project's deliverable is "fit for purpose"	The deliverable is meeting functional performance requirements

Criteria	Measures included in this criterion
	The customer of the project is using the deliverable (after completion) The deliverable is fulfilling the customer's needs The deliverable is solving a customer's problem
The business objectives or goals of the project are realized	The business objectives of the project are met The business objectives of the suppliers/contractors are met The deliverable creates a larger market share of the customer organization
The stakeholders of the project are satisfied	The project sponsor is satisfied with the project The (other) stakeholders are satisfied with the project The end-user is satisfied with the project The supplier is satisfied with the project The project team is satisfied with the project The cooperation of parties and individuals in the project is good
The project prepares the organization for the future	The project prepares the organization for its future The project contributes to the development of the participating organizations The project contributes to the personal/professional development of the participating individuals The project creates a positive economic impact on society The project creates a positive social impact on society The project creates positive environmental impact on society The project earns public recognition

Note. The questionnaire was used to evaluate project success. (Keshavarzian, S., & Silvius, G., 2022, The perceived relationship between sustainability in project management and project success.

Data Collection Technique

The survey for this project was given online. The advantages of this technique include a broader reach to the population, more chances for respondents, and increased odds of gaining access to the desired population. Survey Monkey has access to over 175 million respondents (Rubkiewicz, 2023). Quantitative methodologies are excellent when conducting surveys to collect data and analyze the results to generalize the results of the determined population of the project to the population (Saunders et al., 2019). A disadvantage is that if the survey is lengthy or confusing, there is a risk that respondents may not be truthful (Educational Wave, 2023).

Data Analysis

What is the relationship between a project manager’s transformational leadership skills and project success in the telecommunication sector? I used Spearman's rho analysis to measure the independent and dependent variables, testing the relationship between them (Mesfioui et al., 2022). The data was analyzed using Spearman’s rho to determine the mathematical relationship between these variables; this statistical method will identify patterns, current trends, and summarize data relationships and metrics. Regression analysis determined the relationship between the dependent variable and one or more independent variables (Hammad et al., 2010). Ordinal data was analyzed with a generalized linear models (Olsson, 2022). Ordinal analysis will perform better than multiple regression analysis, as it will answer the research question and meet the assumptions for the statistical method. The ordinal scale is the best tool for measuring Likert-type data (Olsson, 2022). While multiple regression analysis may not be beneficial, it can still be used to investigate relationships between several defined variables in an equation (Shofiyuddin et al., 2021). With a sample size of 64, and to achieve a high chance of significance with 51 candidates, consider that some participants did not complete the survey in its entirety, they were not be included in the data analysis. The most relevant data cleaning required for this project is to ensure that only completed surveys are analyzed. Assumptions of regression analysis include the notion that the selected sample represents the population, there is a linear relationship between the dependent and independent variables, and all variables are normally distributed. The assumptions of regression analysis can be tested using a scale-location plot. A Q-Q plot can determine the data distribution. Q-Q plots are best suited for testing the fit of a model for a project or determining if two samples belong to the same distribution (Nair et al., 2024).

Project Validity

Validity refers to how accurately a method can measure the constructs intended to be measured (Cortina, 2020). With a properly designed project and appropriate methods for analyzing the data, the project will contribute to validity. Many researchers use the Likert scale to measure survey responses (Zhang et al., 2023). I performed a Spearman's rho analysis to examine the relationship between the independent and dependent variables, which will help enhance the construct validity of the project. Spearman's rho analysis explored the relationships among several defined variables in an equation (Mesfioui et al., 2022). I used the pooled t-test as the internal measure of scale to ensure reliability. Pooled t-tests determined validity and consistency within the project by assessing the significance of two independent groups while assuming that the population is equal (Welch, 1947).

Transition and Summary

In this section, the focus was on the purpose statement, the role of the researcher, participants, research method and design, ethical practices, and data collection and analysis involving a population of project managers with more than two years of experience currently working in the technology industry in the Northeastern United States. I used a correlational research design to concentrate on the collected data rather than on an individual's personal experiences. Correlational research designs are employed in quantitative research to gather and analyze numerical data, which remains untouched by the researcher, allowing it to reveal the overall relationship and strength between multiple variables (Limberg et al., 2021). I focused on data collection that effectively addresses the identified problem: some project managers do not understand the relationship between transformational leadership skills and project success in the telecommunication sector in the Northeastern United States. The Multifactor Leadership Questionnaire (MLQ), created by Bass and Avolio (1990), assessed the independent variables using the five-point itemized rating scale. Project success was evaluated based on the categories and questions from Keshavarzian and Silvius (2022), including criteria of project execution, project deliverables with an emphasis on schedule and budget, deliverables meeting functionality, definable goals and objectives, stakeholder satisfaction, and how the project contributes to the future success of the organization. The dependent variable of project success was assessed using the five-point Likert-type scale based on the questionnaire. I performed a validity test to ensure the test is viable for the proposed doctoral project; additionally, I conducted a reliability test to determine the test's trustworthiness.

In the final section, I present the data, findings, implications, and future areas for research. I conducted surveys of a target population consisting of 64 project managers with over two years of experience who currently work in the technology industry in the Northeastern United States. Additionally, the project managers were familiar with leadership skills such as transformational leadership. I used SurveyMonkey® to create and distribute these surveys to the target population. I used an MLQ to assess transformational leadership styles, differentiating effectiveness; the MLQ consists of 36 items regarding leadership styles and uses a five-point Likert scale to measure responses (Jaarsveld et al., 2019). Project success was evaluated using the categories and questions from Keshavarzian and Silvius (2022), including criteria for project execution, project deliverables with an emphasis on schedule and budget, deliverables meeting functionality, definable goals and objectives, stakeholder satisfaction, and how the project contributes to the future success of the organization. The dependent variable of project success was assessed based on the questionnaire using the five-point Likert-type scale. I performed a Spearman’s rho analysis to examine the relationship between the independent and dependent variables, which will help strengthen the construct validity of the project. I used the pooled t-test to evaluate the internal scale measure and ensure its reliability. I present all findings and implications for industry use and social change.

Additionally, I highlighted all research gaps and propose directions for future research to address those gaps.

Section 3: Results

Introduction

I used the quantitative correlational project to examine and provide an understanding of the relationship between a project manager's transformational leadership skills and project success in the telecommunications sector in the Northeastern United States. I analyzed the dependent variables, defined as project success, through the theoretical framework of Burns (1978), transformational leadership theory, and project success criteria as measured by Keshavarzian and Silvius (2022) to assess the dependent variables of project success. After the statistical analysis, the null hypothesis ($H_0 1$); was rejected in favor of the alternative hypothesis($H_1 1$):. The null hypothesis ($H_0 1$); predicted no significant relationship between the project manager's transformational leadership skills and project success, while the alternative hypothesis ($H_1 1$): a statistically significant relationship between the project manager's transformational leadership skills and project success.

The chapter's findings were derived from an analysis of the collected data, which included SPSS, descriptive statistics, a pooled variance t-test, and Spearman's rho. The conclusions also explore key findings, potential applications, implications for social change, recommendations, and areas for future research. The key findings are presented from the pooled variance t-test. The results concluded that there was a significant relationship between a project manager's leadership skills and project success.

Presentation of the Findings

In this section, I present the descriptive statistical data collected. Additionally, I identify the statistical assumptions' reliability, validity, and analysis. The following research questions were addressed throughout this project:

RQ1. What is the relationship between a project manager's transformational leadership skills and project success in the telecommunications sector in the Northeastern United States?

The survey was administered to 64 participants with three screening questions, where all answers were either yes or no. Only individuals who answered yes to all three questions were allowed to complete the survey, ensuring that data was collected from the appropriate pool. Question 1: 2+ years of experience as a project manager. Question 2: Currently working in the telecommunications sector. Question 3: Residing in the Northeastern United States. Of the participants, 51 out of 64 answered yes to all the questions and completed the survey (79.7%). I analyzed the collected data from various perspectives to ensure I noted any variances and anomalies. In analyzing the data for correlation, I employed Spearman's rho and found that Transformational leadership skills were statistically significant (Table 8, Correlation Coefficient .915, Sig. 2-tailed<.001, N 51). Simultaneously, Project Success was also statistically significant (Table 8, Correlation Coefficient .915, Sig. 2-tailed<.001, N 51). I discovered that regardless of gender, exact location within the Northeastern United States, income bracket, or age, there was a strong correlation between project success and transformational leadership skills.

Mean Distribution

From the gathered data, I analyzed the information regarding gender, age, US region, and household income to identify the mean score between project success and transformational leadership skills. This analysis was used to determine at the individual level if a correlation exists between project success and transformational leadership skills. The findings presented in Tables 3,4, 4, and 5 indicate a significant correlation between project success and transformational leadership skills, as evidenced by the individual breakdowns by gender, age, and location. The differences between the mean scores of project success and transformational leadership skills were minimal. The analysis shows a significant correlation for both females and males, with a variance of less than 0.03 between the mean scores (Table 5: female 4.29 project success, 4.27 transformational leadership skills; male 3.91 project success, 3.88 transformational leadership skills).

When examining mean scores by age, I observed a significant correlation between project success and transformational leadership skills, with a variance of less than 0.4 between mean scores (Table 5: 18 to 29 years, 4.41 project success, 4.40 transformational leadership skills; 30 to 44 years, 4.40 project success, 4.31 transformational leadership skills; 45 to 60 years, 3.37 project success, 3.77 transformational leadership skills; over 60 years, 4.068 project success, 3.97 transformational leadership skills). Additionally, analyzing the geography reveals a significant correlation between project success and transformational leadership skills, with less than a .36 variance between mean scores (Table 5: Middle Atlantic, 4.04 project success, 4.02 transformational leadership skills; New England, 4.10 project success, 4.04 transformational leadership skills; South

Atlantic, 4.10 project success, 4.46 transformational leadership skills). Figures 2 and 3 illustrate the mean distribution of survey results by question for the Likert scale used (1-5) for project success (Figure 2) and transformational leadership skills (Figure 3).

Survey Demographics

This section will present the demographic characteristics of the survey participants, providing context for interpreting the findings. Key variables include participant's role, years of expierence, and location. These demographics support the relevance of the research within the telecommunications project management context.

Gender and Location

Obtaining a representative sample is critical for the validity of research findings; this increases the generalizability of the research results to a larger population (Smith, 2018). Individuals surveyed were current project managers working in the telecommunications sector. They were located in the Northeastern United States. Table 3 breaks down the gender and location of all surveyed individuals. The findings indicate a well-distributed set of responses from both female and male participants. Additionally, Table 3 shows a healthy mix of respondents from the three identified regions in the Northeastern United States. Presenting the gender and location of project participants is relevant and essential for several reasons. First, including location is ideal since the participants were in the Northeastern United States, and this data table provides a good representation of the region. Secondly, this table offers more profound insight into the genders of individuals who took the survey, allowing future research teams to focus on these factors for increased transparency regarding trends, significance, and findings as they relate to location and gender. Although there are no disparities present in the table based on gender and location, it will serve as a baseline for future research on the topic and parameters.

Table 3

Gender and Location

Gender	Middle Atlantic	New England	South Atlantic	Total
Female (52.9%)	17	6	4	27
Male (47.1%)	18	3	3	24
Total	35	9	7	51
% of Total	68.6%	17.6%	13.7%	100%

Household Income and Age

Table 4 displays the household income and ages of the survey participants. The findings show a well-distributed group of respondents across a broad range of household incomes, from less than $10,000 to over $200,000 annually. Moreover, the participants encompassed a diverse mix of individuals aged 18 to over 60 years. SurveyMonkey allows individuals to find survey participants based on demographics, including age, gender, location, job, knowledge, and other specific criteria (SurveyMonkey, 2025).

The table indicates a significant distribution between respondents' ages and household incomes. Although there were no specific age or household income requirements for this project, it can offer insights for future research considering similar topics, given the broad range of ages and household incomes represented in Table 4. Researchers can identify potential disparities or vulnerabilities within a population by illustrating household income and age. This table will serve as a baseline for future research, providing representations across all ages and household incomes.

Table 4

Household Income and Age

	Age					
Household Income	18_to_29	30_to_44	45_to_60	60_above	Total	% of Total
<$9,999	2	2	0	1	5	9.8%
$10,000 to $24,999	0	3	1	1	5	9.8%
$25,000 to $49,999	1	1	1	1	4	7.8%
$50,000 to $74,999	3	1	0	0	4	7.8%
$75,000 to $99,999	1	2	1	1	5	9.8%
$100,000 to $124,999	1	1	5	1	8	15.7%
$125,000 to $149,999	0	2	3	0	5	9.8%
$150,000 to $174,999	0	3	4	0	7	13.7%
$175,000 to $199,999	0	1	2	0	3	5.9%
>$200,000	1	1	2	1	5	9.8%
Totals	9	17	19	6	51	100%
% of Totals	17.6%	33.3%	37.3%	11.8%	100%	

Distribution

Table 5 presents the demographics of the individuals surveyed, along with their mean scores for project success and transformational leadership skills. The findings indicate minimal variance in the mean scores for project success and transformational leadership skills across all sections. As evidenced in Table 5, gender, age, and geography did not significantly impact the mean scores for project success and transformational leadership skills. The importance of representing the mean scores of the individuals surveyed for their project success and transformational leadership skills survey responses based on their identified demographics offers several advantages for current and future research. A high standard deviation in the mean score can indicate a more diverse group. A low standard deviation can represent consistency between data points (Brown, 2019). First, this illustrates how I defined the target population based on multiple factors, allowing me to identify any statistical significance based on mean scores across various factors. The findings show that a significant correlation exists between project success and transformational leadership skills, with minimal variation across the identified demographics. Additionally, comparing demographics across past research enables researchers to identify trends or changes in demographics over time. Lastly, the increased transparency of demographics enables future research to focus on smaller sets of demographics with a known baseline, allowing them to identify future trends and significant statistical data.

Table 5

Mean Score for Project Success and Transformational Leadership Skills Based On Gender, Age, and Geography

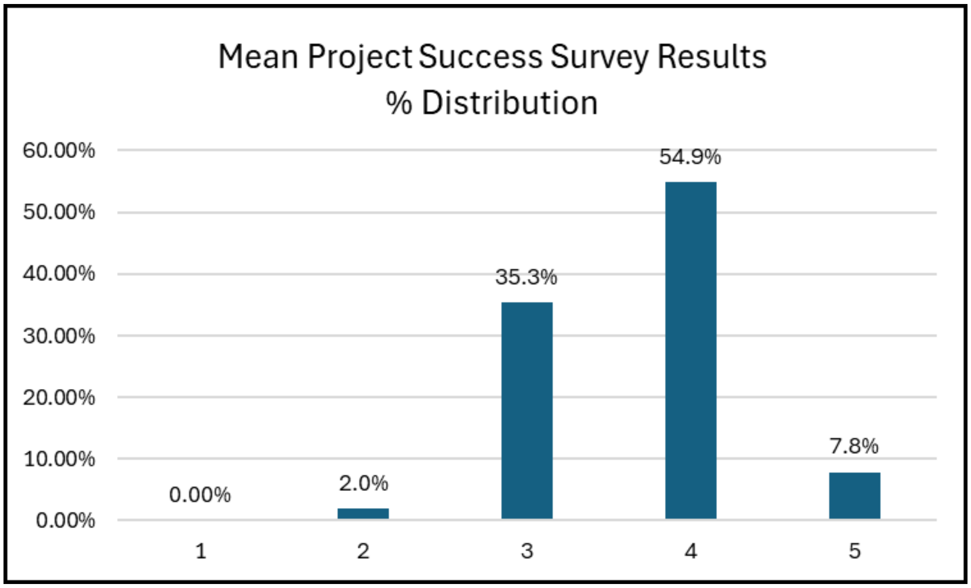
Gender	Project Success	Transformational Leadership Skills
Female	4.29	4.27
Male	3.91	3.88
Age		
18 to 29	4.41	4.40
30 to 44	4.40	4.31
45 to 60	3.37	3.77
>60	4.068	3.97
Geography		
Middle Atlantic	4.04	4.02
New England	4.10	4.04
South Atlantic	4.10	4.46

Mean Distribution of Project Success

Research indicates that analyzing the mean distribution of project success can reveal patterns relevant to future studies (Smith, 2020). Figure 1 illustrates the distribution of project success scores, ranging from 1 to 5, where 1 and 2 indicate a negative impact on project success, while 3 signifies no positive or negative effect. In contrast, scores of 4 and 5 represent a positive correlation with project success. The table illustrates a significant positive impact on project success, as shown by the respondents' survey answers. Figure 1 helps me clarify the significance of the mean scores for all survey participants concerning their project success scores. This significance is highlighted by the percentage of individuals who scored 4 or higher (62.7%), whereas 35.3% received scores that had no significant impact on their project success, and 2.0% had scores that reflected a negative impact on project success.

Figure 1

Mean Project Success Survey Results % Distribution

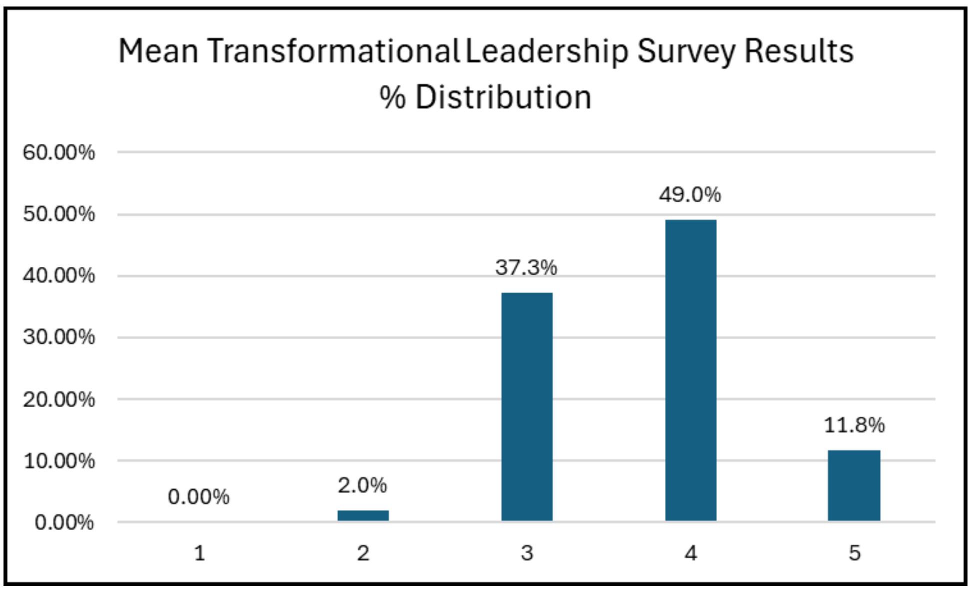


Mean Distribution of Project Success

Using mean distribution allows researchers to benchmark data against past data, the benchmarking process is ideal for identifying areas for improvement and implementing best practices (Anderson, 2019). Figure 2 illustrates the distribution of transformational leadership on a scale from 1 to 5, with 1 and 2 indicating a negative impact on project success and 3 signifying no negative or positive effects. In contrast, scores of 4 and 5 positively correlate with transformational leadership. It also identifies the distribution of project success scores, with 1 and 2 representing a negative impact, while 3 denotes no significant effect. Conversely, scores of 4 and 5 indicate a positive correlation with project success. The table presents a considerable positive impact on project success, as indicated by the respondents' survey answers. Figure 2 helps me clarify the significance of the mean scores for all survey participants in relation to their project success scores. This significance is underscored by the percentage of individuals scoring 4 or higher (60.8%), while 37.3% received scores that did not significantly affect their project success, and 2.0% had scores reflecting a negative impact. Additionally, the figure illustrates a significant positive effect on transformational leadership, as revealed by the respondents' survey answers.

Figure 2

Mean Transformational Leadership Skills Survey Results % Distribution



Importance of Project Success

Figure 3 illustrates the mean score for project success derived from the survey questions related to project success criteria, which aim to identify the factors that most influence project success. The scale ranged from one to five, with one and two indicating project failure, three indicating no impact, and four and five indicating project success. As evident from the curve and frequency, the project's success criteria significantly affected its success. Figure 3 allows readers and researchers to observe the deviation from the trend, with the heights of each score represented. Scores of 3.5 and above indicate a significant impact on the project success score based on the survey questions. The graph also offers a visual representation of the project mean scores from Figure 2.

Figure 3

Mean Project Success Score

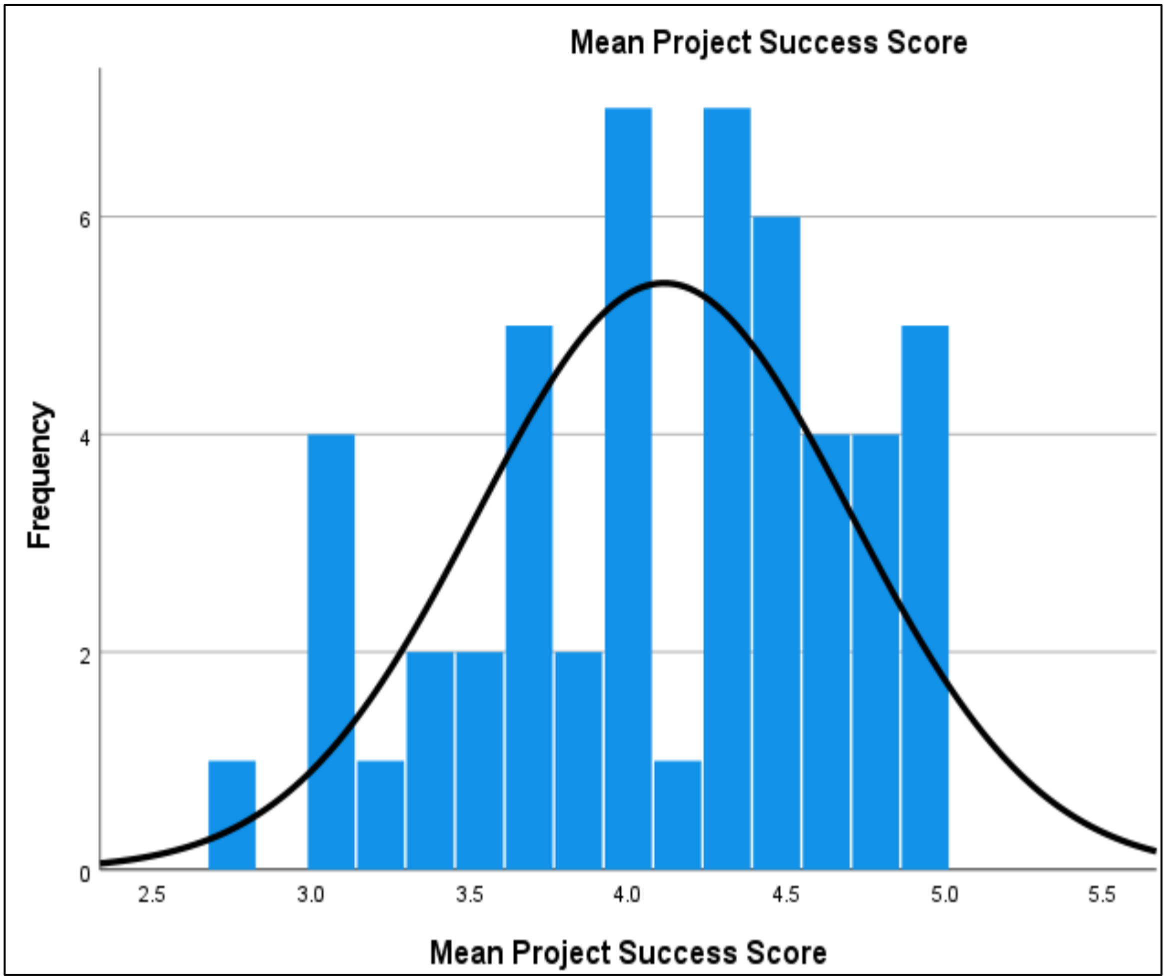
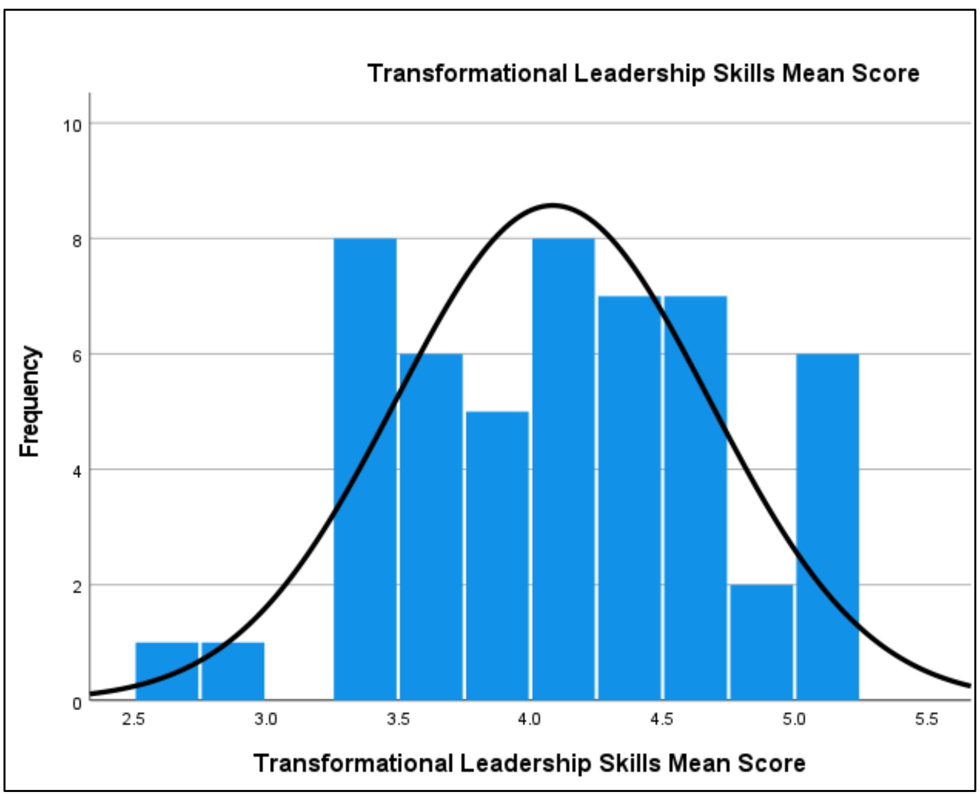


Figure 4 shows the average score for transformational leadership skills based on the survey questions of the MQL, which aim to identify factors linked to an individual's leadership abilities. The scale ranged from one to five, with one and two indicating project failure, three indicating no impact, and four and five indicating project success. As seen from the curve and frequency, participants demonstrated notable leadership skills. In statistical analysis, the mean score is an important measure of central tendency, helping researchers and readers summarize data and make inferences about a population's traits based on sample observations (Gravetter & Wallnau, 2021). Figure 4 allows viewers to see deviations from the overall trend, with the height of each bar representing the score. Scores of 3.5 and above suggest a significant influence on an individual's leadership skills according to the survey questions.

Figure 4

Transformational Leadership Skills Mean Score



Frequency of Answers Per Survey Question

The analysis of frequency adds a robust level to survey findings and increases the reliability and credibility of a project (Field, 2018). Table 6 identifies each question used to assess project success and transformational leadership skills. The questions in Table 6 were used to gauge project success using a Likert scale from 1 to 5 (1 strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree, 5 strongly agree). The questions in Table 7 were employed to evaluate transformational leadership skills, using a Likert scale from 1 to 5 (1 strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree, 5 strongly agree). As shown in Tables 6 and 7, the most common responses to the project success and transformational leadership questions were 4 and 5 (agree and strongly agree), while the least common response for both project success and transformational leadership skills was 1 (strongly disagree). Figure 5 allows readers and researchers to observe deviations from the trend, with the heights of each score represented. Scores of 3.5 and above significantly impact the project success score based on the survey questions. The graph also visually represents the project mean scores from Figure 4.

Table 6 highlights the significance of the overall findings for this project. The table indicates how frequently individuals selected 4 or 5 as their response. This suggests that this factor had high significance for the project managers, which also correlated with their overall project success. Table 6 presents the data from Figures 2 and 4, providing an in-depth look at the exact questions and the percentage of participants who responded on the 1-5 Likert scale throughout the entire project. This table enables readers and researchers to understand better the questions participants answered. Additionally, future researchers can use the same questions to replicate the research and validate the findings.

Table 6

Case Processing Summary Project Success

		N	Percentage
The Project management process is adequate	2	1	2.0%
	3	6	11.8%
	4	23	45.1%
	5	21	41.2%
The Project is executed in a controlled manner	2	3	5.9%
	3	4	7.8%
	4	25	49.0%
	5	19	37.3%
Project risks are managed adequately	2	3	5.9%
	3	6	11.8%
	4	22	43.1%
	5	20	39.2%
The project is performed with a high standard of work quality	2	2	3.9%
	3	4	7.8%
	4	23	45.1%
	5	22	43.1%
The 4d project deliverable is completed on schedule and within budget	2	3	5.9%
	3	7	13.7%
	4	23	45.1%
	5	18	35.3%
The project is completed within schedule	2	3	5.9%
	3	5	9.8%
	4	28	54.9%
	5	15	29.4%
The project is completed within budget	1	3	5.9%
	2	1	2.0%
	3	10	19.6%
	4	20	39.2%
	5	17	33.3%
	2	3	5.9%

		N	Percentage
The deliverable is meeting technical specifications	3	9	17.6%
	4	22	43.1%
	5	17	33.3%
The project's deliverable is "fit for purpose"	2	1	2.0%
	3	6	11.8%
	4	24	47.1%
	5	20	39.2%
The deliverable is meeting functional performance requirements	3	9	17.6%
	4	30	58.8%
	5	12	23.5%
The customer of the project is using the deliverable (after completion)	2	3	5.9%
	3	7	13.7%
	4	26	51.0%
	5	15	29.4%
The deliverable is fulfilling the customer's needs	1	3	5.9%
	2	1	2.0%
	3	8	15.7%
	4	21	41.2%
	5	18	35.3%
The deliverable is solving a customer's problem	2	1	2.0%
	3	7	13.7%
	4	24	47.1%
	5	19	37.3%
The business objectives or goals of the project are realized	2	2	3.9%
	3	4	7.8%
	4	27	52.9%
	5	18	35.3%
The business objectives of the project are met	2	1	2.0%
	3	9	17.6%
	4	22	43.1%
	5	19	37.3%
The business objectives of the suppliers/contractors are met	2	3	5.9%
	3	4	7.8%
	4	24	47.1%
	5	20	39.2%
	1	2	3.9%
	2	1	2.0%

		N	Percentage
The deliverable creates a larger market share of the customer organization	3	8	15.7%
	4	26	51.0%
	5	14	27.5%
The stakeholders of the project are satisfied	2	4	7.8%
	3	6	11.8%
	4	24	47.1%
	5	17	33.3%
The project sponsor is satisfied with the project	2	1	2.0%
	3	4	7.8%
	4	25	49.0%
	5	21	41.2%
The (other) stakeholders are satisfied with the project	1	1	2.0%
	2	2	3.9%
	3	6	11.8%
	4	23	45.1%
	5	19	37.3%
The end-user is satisfied with the project	2	3	5.9%
	3	5	9.8%
	4	22	43.1%
	5	21	41.2%
The supplier is satisfied with the project	1	1	2.0%
	2	1	2.0%
	3	10	19.6%
	4	20	39.2%
	5	19	37.3%
The project team is satisfied with the project	1	1	2.0%
	2	2	3.9%
	3	6	11.8%
	4	21	41.2%
	5	21	41.2%
The cooperation of parties and individuals in the project is good	2	3	5.9%
	3	6	11.8%
	4	27	52.9%
	5	15	29.4%
The project prepares the organization for the future	1	1	2.0%
	2	3	5.9%
	3	10	19.6%

		N	Percentage
	4	19	37.3%
	5	18	35.3%
The project prepares the organization for its future	2	1	2.0%
	3	7	13.7%
	4	20	39.2%
	5	23	45.1%
The project contributes to the development of the participating organizations	2	4	7.8%
	3	4	7.8%
	4	24	47.1%
	5	19	37.3%
The project contributes to the personal/professional development of the participating individuals	1	2	3.9%
	2	2	3.9%
	3	8	15.7%
	4	23	45.1%
	5	16	31.4%
The project creates a positive economic impact on society	1	3	5.9%
	2	1	2.0%
	3	6	11.8%
	4	25	49.0%
	5	16	31.4%
The project creates a positive social impact on society	2	2	3.9%
	3	11	21.6%
	4	20	39.2%
	5	18	35.3%
The project creates positive environmental impact on society	2	1	2.0%
	3	8	15.7%
	4	25	49.0%
	5	17	33.3%
The project earns public recognition	2	3	5.9%
	3	7	13.7%
	4	22	43.1%
	5	19	37.3%
Valid		51	100.0%
Missing		0	
Total		51	

Relevance

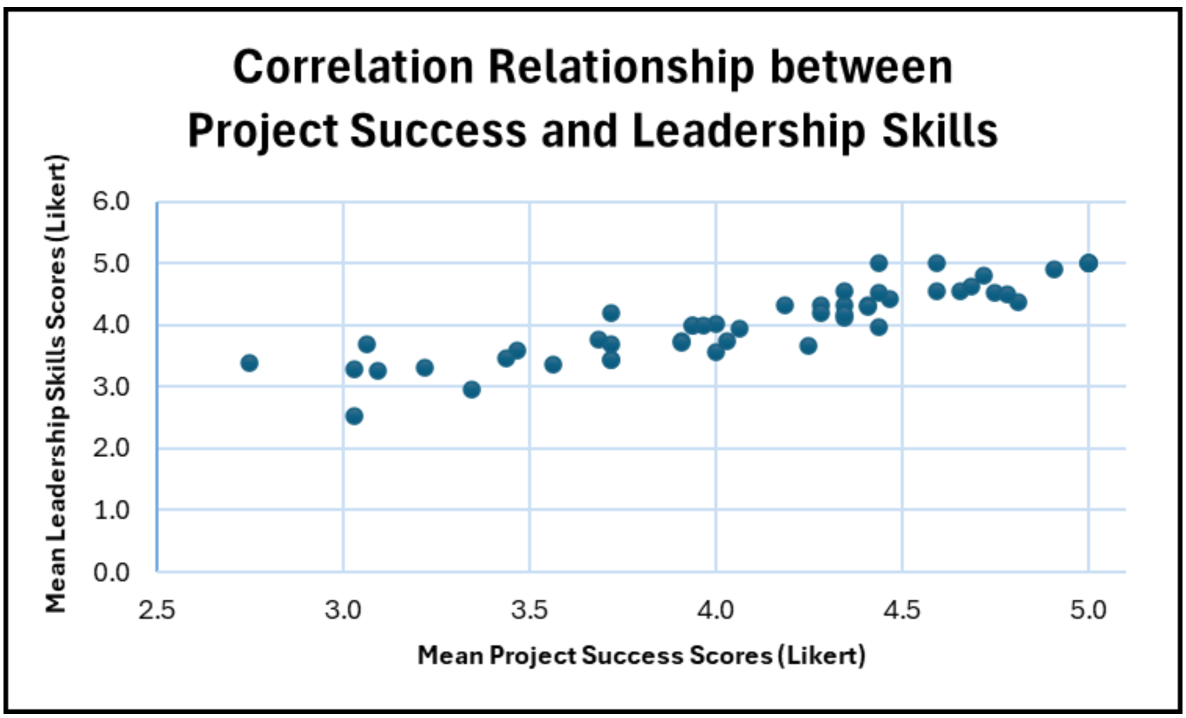
Spearman's Rho

I used Spearman's rho to test the strength and direction of the association between project success and transformational leadership skills. The scatter plot (Figure 5) and correlation table (Table 7) show a statistically significant correlation between project success and transformational leadership skills. Additionally, a strong positive monotonic relationship exists between project success and transformational leadership skills, with a correlation coefficient of 0.915. With a p-value less than 0.0001 ($p<0.0001$), it is clear that there is a very strong statistical significance between project success and transformational leadership skills. The closer the number is to +1, the stronger the relationship between the two variables. This observation suggests that it is improbable that this occurred by chance, indicating a genuine population effect. Figure 5 provides an excellent representation of the significance of the correlation between participants' transformational leadership skills and project success scores. Spearman's rho analysis measures the relationship between independent and dependent variables, testing their correlation (Mesfioui et al., 2022). The data was analyzed using Spearman's rho to determine the mathematical relationship between transformational leadership skills and project success. This statistical method identified patterns and current trends representing the data relationships and metrics.

Figure 5 represents the correlation test, an essential statistical analysis tool for identifying the strength and direction of relationships between two continuous variables. Correlation tests provide researchers with evidence of potential associations, which can inform further analysis or theoretical development (Schober et al., 2018). Scatter plots are often employed to visually assess these relationships, allowing researchers and readers to observe the distribution of data points and detect patterns, outliers, or deviations (Laerd Statistics, 2015). This combination of numerical and visual data enhances researchers' and readers' ability to interpret and supports the validity of conclusions drawn from correlational data.

Figure 5

Spearman's rho Correlations Between Project Success and Transformational Leadership Skills



Note. The positive correlation between Project Success and Transformational Leadership Skills is evident with the tight grouping of plotted data from the survey.

Spearman's Rho between Project Success and Transformational Leadership Skills

Table 7 presents the Spearman's rho correlation analysis, which reveals a statistically significant and robust positive relationship between transformational leadership skills and project success ($\rho = 0.915$, $p < 0.001$), based on a sample of 51 respondents surveyed. These findings suggest that higher levels of transformational leadership are strongly associated with increased project success. The strength of the correlation suggests that transformational leadership behaviors, including idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, play a crucial role in achieving successful project outcomes. The extremely low p-value ($< .001$) confirms that the observed findings are unlikely to be coincidental, reinforcing the validity of the relationship. The project's results provide empirical support for the assertion that transformational leadership is a key determinant of project success. The findings imply that leadership development and organizational performance are linked within project-based environments.

Table 7

Spearman's rho Correlations Between Project Success and Transformational Leadership Skills

Spearman's rho			Transformational Leadership Skills Mean Score	Project Success Mean Score
	Transformational Leadership Skills Mean Score	Correlation Coefficent	1.000	.915***
		Sig. (2-tailed)		<.001
		N	51	51
	Project Success Mean Score	Correlation Coefficent	.915***	1.000
		Sig. (2-tailed)	<.001	
		N	51	51

Note: with a Sig. (2-tailed) of <.0001, there is evidence of a powerful statistical significance.

- Transformational leadership had a significantly strong correlation with project success (r=.915, p<.001).
- This suggests that individuals with transformational leadership skills have a high project success rate.
- Conversly project success had a significantly strong correlation with transformational leadership skills (r=.915, p<.001).
- This sugeests that indivudals with high project success rates have strong transformational leadership skills.

These findings suggest a significant relationship between project success and transformational leadership skills, indicating that further analysis using the pooled variance t-test would benefit the project.

Pooled Variance *T* Test

Table 8 presents the results of a pooled variance t-test examining the relationship between transformational leadership skills and project success. This test was applied to assess whether there is a statistically significant difference between the mean scores of these two continuous variables. While the pooled variance t-test is typically used to compare the means of a continuous variable between two independent groups, assuming equal variances, it was used here as an exploratory comparison between the average scores of transformational leadership and project success. The assumption of equal variances distinguishes the pooled t-test from Welch's t-test, which provides an adaptation for situations where the variances between groups are unequal (Welch, 1947). In this analysis, the t-statistic of 0.2461 and the corresponding p-value of 0.8061 suggest no statistically significant difference between the mean scores. This result suggests a general correlation between the overall levels of project managers' leadership skills and project success. It is essential to clarify that the pooled t-test does not assess internal consistency or validity; the reliability of the measurement scales would be better evaluated using methods such as Cronbach's alpha. The relationship between two continuous variables is more appropriately analyzed using correlation or regression techniques.

Table 8

Pooled-Variance t-Test Project Success and Transformational Leadership Skills

Data	
Hypothesized no statical difference in the Mean scores (H1)	0
Level of Significance	0.01
Population Sample 1: Project Success	
Sample Size	51
Sample Mean	4.11
Sample Standard Deviation	0.59
Population Sample 2: Transformational Leadership Skills	
Sample Size	51
Sample Mean	4.08
Sample Standard Deviation	0.59
Intermediate Calculations	
Population Sample 1 Degrees of Freedom	50
Population Sample 2 Degrees of Freedom	50
Total Degrees of Freedom	100
Pooled Variance	0.3500
Standard Error	0.1172
Difference in Sample Means	0.0288
T Test Static	0.2461
Two-Tail Test	
Lower Critical Value	-2.6259
Upper Critical Value	2.6259
p-Value	0.8061
Accept the Null Hypothesis($H_0$1);	

- The sample means of project success and transformational leadership skills were similar, with project success at M=4.11 and transformational leadership skills at M=4.08. The sample means of project success and transformational leadership skills were similar, with project success at M=4.11 and transformational leadership skills at M=4.08.

- Standard deviation of project success and transformational leadership skills were identical (SD= 0.59).
- The pooled variance was 0.3500.
- The standard error was 0.1172 and I used this to evaluate the variability in the sampling distribution.
- The degrees of freedom were 100, which is pooled from both samples of 50 each.
- The p-value was 0.8061, significantly higher than the alpha level (a=0.01).

The findings suggest that with an SD= 0.59, there is homogeneity of variance, which is key in a pooled-variance analysis. There was a minimal difference in sample means, supporting the conclusion that there was no major effect. With a pooled variance of 0.3500, it is assumed that there are equal population variances. With a df=100, there is higher reliability of testing. The conclusion of the analysis is to accept the null hypothesis ($H_0 1$), as there was no statistically significant correlation between the means. However, the Spearman's rho analysis revealed a strong and statistically significant correlation between the two variables (p=.915, p<.001), suggesting a meaningful relationship despite the lack of a mean difference.

Connection to the Theory

The project's findings confirmed the positive connection between project success and transformational leadership skills, while also enhancing understanding of the theory that underpins this research, specifically transformational leadership theory. Organizations can leverage this enhanced understanding of transformational leadership theory can be leveraged by organizations to enhance their project success through the increased application of transformational leadership principles. Burns introduced the concept of transformational leadership in 1978. The findings also illustrate the relationship between transformational leadership skills and project success, thereby confirming and expanding existing knowledge and literature on the subject. Abbas and Ali (2023) examined the relationship between leadership and its impact on project success. Their research revealed that transformational leadership has a more positive impact on project success than transactional leadership.

Based on my research findings, utilizing Spearman's rho with a p-value less than 0.0001 ($p < 0.0001$), there is a clear indication of strong statistical significance between project success and transformational leadership skills. Transformational leadership enhances self-leadership confidence, motivation, and productivity (Ahmad et al., 2022). Ahmad et al. (2022) explored the impact of transformational leadership on project success, highlighting a moderating effect on self-leadership. The pooled variance t-test assumes that the two groups being compared are equal and that the observations for project success and transformational leadership skills are independent. The results indicate that there is no statistical difference between project managers' leadership skills and project success, which the findings of my project have confirmed.

Ahmad et al. (2022) found that self-leadership directly affects project success; moreover, transformational leadership positively influences both project success and self-leadership. The findings are relevant to the doctoral project, suggesting that transformational leadership has a positive effect on project success. Telecommunications projects were found to have lower error rates, even when many projects are analyzed in comparison to other sectors for project success (Herrero et al., 2020). Herrero et al. (2020) studied forecasting factors to determine whether telecommunication projects would succeed or fail. They found that predicting project success was heavily influenced by location and industry; the telecommunications sector demonstrated the best results for determining success. However, my project's findings also indicate no statistical correlation between geographic location and project success or transformational leadership skills.

Nauman et al. (2021) studied how transformational leadership affects project success outcomes. The authors found that transformational leadership directly and indirectly impacts project success. My project confirms the authors' findings. Transformational leadership was found to have a direct correlation to project success, regardless of location, gender, income, or age. A project manager's leadership skills and competencies lead to individual and organizational success (Hartono et al., 2019). Hartono et al. (2019) studied the relationship between leadership competencies and project performance, focusing on organizations whose primary function is projects based in Indonesia. The authors found that leadership competencies play a critical role in project success. My project confirms that project success and transformational leadership skills have a significant correlation with one another.

Connection to the Literature

Project management success focuses on time, cost, and quality, while project success focuses on time, cost, and quality (Ali et al., 2021). Ali et al. (2021) investigated the impact of transformational leadership on project success, with a focus on its mediating role in teamwork quality. The authors found that transformational leadership had a significant impact on project success (ß = 0.417, SE = 0.041, P < 0.000), while teamwork quality showed implications of significantly mediating transformational leadership and project success ($\beta = a2 \times b2 = 0.290 \times 0.328 = 0.095$, SE = 0.043, BootLLCI = 0.015, BootULCI = 0.182). The author's findings are relevant to the doctoral project as they provide context to how transformational leadership affects project success while also showing factors that affect both project and transformational leadership. Transformational leadership positively impacts employees and projects, increasing buy-in and motivation, thereby enhancing the odds of project success (Fareed et al., 2023). Fareed et al. (2023) studied the moderating effects top managers' support has on a project manager's transformational leadership and project success. Fareed et al. (2023) found that transformational leadership and top management support remarkably influence project success; additionally, top management support impacts the relationship between transformational leadership and project success. The authors' findings relate to the chosen doctoral project concerning transformational leadership and its impact on project success.

The iron triangle is known as the golden standard for determining when a project is successful, which at the core means a project has met the scope, cost, and timeline (Hussain et al., 2021). Hussain et al. (2021) investigated the relationship between transformational leadership style and project success, indirectly affecting team building and work quality. The authors gathered data from 374 project managers and found overall transformational leadership has a positive correlation with project success and teamwork quality; additionally, project success increases when transformational leadership and team building practices are present. The authors' findings relate to this project as the transformational leadership theory is being used to determine if there is a correlation between project success. Leaders use transformational leadership to foster positive change within organizations by promoting innovation, social change, and individual growth (Khan et al., 2018). Khan et al. (2018) examined the relationship between transformational leadership and organizational performance, emphasizing corporate social responsibility and organizational innovation. The authors found that transformational leadership can positively influence corporate social responsibility, organizational performance, and organizational innovation due to the competencies associated with transformational leadership style. The author's findings contribute to the understanding of utilizing transformational leadership theory as a foundation for determining the relationship between transformational leadership and project success rates and organizational performance. Evidence suggests that humans are the primary cause of most project issues; therefore, the need for strong leadership, such as transformational leadership, mediates these problems and positively impacts project success (Nauman et al., 2021). Nauman et al. (2021) studied the effect transformational leadership has on success with a mediating factor of team building. Nauman et al. (2021) found that team building slightly impacts transformational leadership and project success, and that transformational leadership has a positive effect on project success. The author's findings relate to the doctoral project, which focuses on the impact of transformational leadership on project success. Successful project management requires a quality leadership style to impact people and projects efficiently (Nauman et al., 2021). Nauman et al. (2021) studied how transformational leadership affects project success outcomes. The authors found that transformational leadership has both direct and indirect impacts on project success, with team building being a key focal point of the indirect effects on project success. The author's findings are relevant to the proposed doctoral research, focusing on what affects project success with transformational leadership as the focal theory.

Application to Professional Practice

The project's findings indicate a significant relationship between transformational leadership skills and project success in the telecommunications sector in the Northeastern United States. With these findings and current literature on the effects of leadership, particularly transformational leadership skills, on project success, organizations, individuals, and leaders can make more informed decisions about what project managers need to thrive. Given that leadership positively correlates with project success, individuals are encouraged to educate themselves on leadership theories to enhance overall project, individual, and organizational success. These findings can serve as a foundation for organizations to justify better the need for project managers to receive formal leadership training, thereby improving the chances of both project and organizational success.

Implications for Social Change

The findings of this project can lead to positive social changes within organizations and the communities they serve. Understanding project success as a function of transformational leadership carries significant implications for social change, particularly within organizational and community contexts. Transformational leaders, typically characterized by their profound ability to inspire, motivate, and foster a shared vision, push organizations to pursue and achieve goals beyond traditional performance metrics such as time, budget, and scope. Project success is increasingly defined by sustainability, stakeholder inclusion, and long-term social impact.

When leaders adopt transformational leadership practices, they are more prone to implement projects that empower marginalized communities, promote diversity and equity, and encourage participatory governance. Transformational leadership style fosters a culture of innovation, resilience, and adaptability, positioning organizations for increased positive social change. Furthermore, transformational leaders prioritize individual development and knowledge sharing, facilitating individuals both within and beyond the organization. These dynamics contribute to the broader position of societal change, influence public policy, and reshape institutional norms. Thus, aligning transformational leadership with project success redefines organizational effectiveness, integrating ethical responsibility and social value to advance sustainable social change. The findings of this project support the practicality of organizations adopting both internal and external project management leadership training of transformational leadership skills and project success criteria while increasing their social impact.

Recommended for Action

It is recommended based on the findings that organizations implement leadership training requirements for all their project managers. Additionally, organizations should focus on creating both internal and external training opportunities for project managers.

Individuals, organizations, leaders, managers, supervisors, and project managers need to pay attention to the results of this project. Based on the presented findings, there is a significant relationship between transformational leadership skills and project success in the telecommunications sector in the Northeastern United States. The results from this project would be best shared with individuals and organizations through literature such as this project, along with training and conferences to highlight the implications of leadership training on project success.

Recommendations for Future Research

I acknowledge that while there is a significant relationship between Project Success and Transformational Leadership skills, there may be opportunities for future studies to explore additional factors. It may be important to obtain necessary organizational personnel and project success data to avoid similar limitations as this project. I suggest collaborating with multiple organizations to ensure they understand that no identifying information could reveal their organization or any individual. Another limitation may be the reluctance of organizational personnel to participate in surveys. For future research, it would be ideal to ensure that individuals are aware that neither they nor their organization would be identifiable by any survey factors, while also obtaining consent from the organization for their employees to take part. Lastly, there may be limited access to personnel who meet the criteria for survey participation.

I suggest expanding the location boundaries beyond the Northeastern United States to ensure a significant relationship between Project Success and Transformational Leadership Skills in areas outside of the Northeastern United States. Moving beyond the telecommunications sector to include a wider range of industries could demonstrate the impact of leadership skills on project success in various settings. Future researchers can build on demographic factors included in this project, such as age, geographic location, household income, and gender, as there was minimal deviation from the finding that Transformational Leadership Skills positively relate to Project Success, even when considering these four demographic factors.

Reflection

The research process for this project was enlightening from start to finish. At the beginning of this journey, I hoped to finish in a timely manner and to become a Doctor. By the end of the process, I realized that I still wanted those first two goals, but I also wanted my project to create a lasting impact that could expand the current literature on my topic. I acknowledge that there was always a risk of personal bias on the subject, as I am a current project manager with traditional training and education in various leadership styles. However, conducting a blind survey and extensive research helped me set aside any bias and allowed the data to reflect the results. To mitigate any potential effects on the project or the participants, I ensured my project aligned with similar past studies focusing on project success and transformational leadership skills, as well as administering a blind online survey with straightforward instructions and screening questions relevant to the topic. I conclude that my thought process has evolved not necessarily regarding what I expected the results of the project to be, but in being more open-minded about the possibility that the findings may not align exactly with my initial assumptions.

Conclusion

The need for telecommunications projects has expanded exponentially over the past decade due to increased technological advancements and the demand for fiber-optic capabilities. While this boom has significantly increased telecommunication projects, failures are also on the rise because of ineffective leadership, poor stakeholder management, and unclear scopes (Akhwaba, 2020). Telecommunications organizations with poorly trained project managers experience low project completion rates. Most projects fail due to avoidable human factors such as planning, scheduling, incorrect estimates, leadership issues, low morale, team dynamics, personal challenges, delays in problem-solving, and lack of personnel commitment (Serra et al., 2021). Leaders across the United States leverage their leadership skills to influence various factors, including individual and organizational performance (Akdere & Egan, 2020). Leaders can use transformational leadership skills to positively impact individuals, leading to achieved goals, project completions, and organizational success. Given the current understanding of the crucial role transformational leadership skills play in project success, organizations, individuals, leaders, managers, and supervisors need to take notice and action. The studies provide additional literature that contributes to the understanding of how significant transformational leadership skills are for project success.

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Appendix A: Survey Invitation

Survey Invitation

Subject line:
Anonymous survey about Project success and Transformational Leadership. Survey ends

Email message:
There is a new project about the effects Transformational Leadership has on Project Success that could better help organizations, leaders, and project managers. You are invited to share your views in an anonymous survey that takes 20 minutes.

<u>About the project:</u>

- Two surveys consisting of a total of 68 questions that use a 5-point Likert scale to answer the questions.
- To protect your privacy, the published project will not share any names or details that identify you

<u>Volunteers must meet these requirements:</u>

- 2+ years of experience as a project manager
- Currently working within the telecommunications sector
- Are in the Northeastern United States

This survey is part of the doctoral project for Robert Buhr, a DBA student at Walden University. Surveys will take place during December 2024.

Appendix B: Survey (Criteria of Project Success and MQL)

Criteria of Project Success	**Strongly disagree**	**Somewhat disagree**	**Neither agree nor disagree**	**Somewhat agree**	**Strongly agree**
The Project is executed in a controlled manner	1	2	3	4	5
The Project management process is adequate	1	2	3	4	5
Project risks are managed adequately	1	2	3	4	5
The project is performed with a high standard of work quality	1	2	3	4	5
The agreed project deliverable is completed on schedule and within budget	1	2	3	4	5
The project is completed within schedule	1	2	3	4	5
The project is completed within budget	1	2	3	4	5
The deliverable is meeting technical specifications	1	2	3	4	5
The project's deliverable is "fit for purpose"	1	2	3	4	5

The deliverable is meeting functional performance requirements	1	2	3	4	5
	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
The customer of the project is using the deliverable (after completion)	1	2	3	4	5
The deliverable is fulfilling the customer's needs	1	2	3	4	5
The deliverable is solving a customer's problem	1	2	3	4	5
The business objectives or goals of the project are realized	1	2	3	4	5
The business objectives of the project are met	1	2	3	4	5
The business objectives of the suppliers/contractors are met	1	2	3	4	5
The deliverable creates a larger market share of the customer organization	1	2	3	4	5

The stakeholders of the project are satisfied	1	2	3	4	5
The project sponsor is satisfied with the project	1	2	3	4	5
The (other) stakeholders are satisfied with the project	1	2	3	4	5
	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
The end-user is satisfied with the project	1	2	3	4	5
The supplier is satisfied with the project	1	2	3	4	5
The project team is satisfied with the project	1	2	3	4	5
The cooperation of parties and individuals in the project is good	1	2	3	4	5
The project prepares the organization for the future	1	2	3	4	5
The project prepares the organization for its future	1	2	3	4	5

The project contributes to the development of the participating organizations	1	2	3	4	5
The project contributes to the personal/professional development of the participating individuals	1	2	3	4	5
The project creates a positive economic impact on society	1	2	3	4	5
The project creates a positive social impact on society	1	2	3	4	5
	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
The project creates positive environmental impact on society	1	2	3	4	5
The project earns public recognition	1	2	3	4	5

MLQ	**Not at all**	**Once in a while**	**Sometimes**	**Fairly often**	**Frequently, if not always**
I tell others what to do if they want to be rewarded for their work.	1	2	3	4	5

I provide recognition/rewards when others reach their goals.	1	2	3	4	5
I call attention to what others can get for what they accomplish.	1	2	3	4	5
I help others develop themselves.	1	2	3	4	5
I let others know how I think they are doing.	1	2	3	4	5
I give personal attention to others who seem rejected.	1	2	3	4	5
Ultifactor I make others feel good to be around me.	1	2	3	4	5
Others have complete faith in me.	1	2	3	4	5
Others are proud to be associated with me.	1	2	3	4	5
I express with a few simple words what we could and should do.	1	2	3	4	5
MLQ	Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
I provide appealing images about what we can do.	1	2	3	4	5

I help others find meaning in their work.	1	2	3	4	5
I enable others to think about old problems in new ways.	1	2	3	4	5
I provide others with new ways of looking at puzzling things.	1	2	3	4	5
I get others to rethink ideas that they had never questioned before.	1	2	3	4	5
I am content to let others continue working in the same way as always.	1	2	3	4	5
Whatever others want to do is O.K. with me.	1	2	3	4	5
I ask no more of others than what is absolutely essential.	1	2	3	4	5
I am satisfied when others meet agreed-upon standards.	1	2	3	4	5
As long as things are working, I do not try to change anything.	1	2	3	4	5
MLQ	Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always

I tell others the standards they have to know to carry out their work.	1	2	3	4	5
I go beyond self-interest for the good of the group.	1	2	3	4	5
I consider the moral and ethical consequences of decisions.	1	2	3	4	5
I talk optimistically about the future.	1	2	3	4	5
I reexamine critical assumptions to question whether they are appropriate.	1	2	3	4	5
I help others to develop their strengths.	1	2	3	4	5
I make clear what one can expect to receive when performance goals are achieved.	1	2	3	4	5
I keep track of all mistakes.	1	2	3	4	5
I wait for things to go wrong before taking action.	1	2	3	4	5
I avoid making decisions.	1	2	3	4	5
MLQ	Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always

I ensure achievable goals are set.	1	2	3	4	5
I Prioritize business targets and activities.	1	2	3	4	5
I follow up crew members to ensure that tasks are completed in a timely and efficient manner.	1	2	3	4	5
I have the capacity to manage the technical skills of those I manage.	1	2	3	4	5
I Make concrete plans and programs.	1	2	3	4	5
I am able to proactively Manage projects.	1	2	3	4	5