

CAPITAL UNIVERSITY OF SCIENCE AND  
TECHNOLOGY, ISLAMABAD



**Impact of Servant Leadership on Project  
Performance: Sequential Mediation of  
Team Synergy and Team Creativity and  
Moderated-Mediation of Stakeholder  
Engagement**

by

**Fizyan Ahmad Rashid**

A thesis submitted in partial fulfillment for the  
degree of Master of Science

in the

**Faculty of Management & Social Sciences  
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*“Every challenging work need self-efforts as well as guidance of elders especially those who are role model for us and close to our heart parents and teachers. My efforts dedicate to my father as his day and night hard work encourage and motivates me to achieve my goal. Along with this my teachers whom endless helps, support, efforts which are cannot be expressed in words.”*



## CERTIFICATE OF APPROVAL

**Impact of Servant Leadership on Project Performance:  
Sequential Mediation of Team Synergy and Team  
Creativity and Moderated-Mediation of Stakeholder  
Engagement**

by

Fizyan Ahmad Rashid

MPM213011

### THESIS EXAMINING COMMITTEE

S. No.	Examiner	Name	Organization
(a)	External Examiner	Dr. Mubbashar Hassan	SECP, Islamabad
(b)	Internal Examiner	Dr. Arif Ud Din	CUST, Islamabad
(c)	Supervisor	Dr. Muhammad Ishfaq Khan	CUST, Islamabad

---

Dr. Muhammad Ishfaq Khan

Thesis Supervisor

October, 2024

---

Dr. S. M. M. Raza Naqvi

Head

Dept. of Management Sciences

October, 2024

---

Dr. Arshad Hassan

Dean

Faculty of Management & Social Sciences

October, 2024

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I want to express my heartiest regards to my parents who always supported me morally, spiritually & prayed for my success.

## *Abstract*

*Servant leadership is a leadership style that prioritizes the growth and well-being of team members and encourages their innovative thinking. This study aims to highlight situations that contribute to improving project performance in all project-based organizational settings through the impact of a project manager's servant leadership on project performance. This has been examined with the sequential mediation of team synergy and team creativity and the moderated-mediation of stakeholder engagement. Using convenience sampling, data were collected from 410 respondents, including project team members and managers from IT companies. Statistical software SMART PLS 4.0 was used for data analysis. Results indicate that servant leadership enhances project performance directly and indirectly through the serial mediation effects of team synergy and team creativity. Stakeholder engagement, on the other hand moderate the impact of servant leadership on team creativity.*

**Keywords: Servant Leadership, Team Synergy, Team Creativity, Stakeholder Engagement, Project Performance**

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# Chapter 1

## Introduction

### 1.1 Background of the Study

Numerous management philosophies and practices have been the subject of studies conducted as part of research in the literature. Servicing and supporting those around you is one of the most crucial facets of servant leadership. Serving the needs of others and empowering them to reach their full potential are the main objectives of servant leadership, which is a people-centered style of leadership. It entails having humility, empathy, and a dedication to creating a welcoming and empowering work atmosphere. According to recent studies, servant leadership is still important in today's businesses since it improves both organizational performance and employee well-being ([van Dierendonck et al., 2021](#)).

Serving others, prioritizing their needs, and assisting them in reaching their full potential are all key components of servant leadership, which is a moral and ethical leadership style. It entails setting an example, fostering trust, and giving followers the freedom to make meaningful contributions to the objectives of the company. According to recent research, servant leadership enhances overall organizational effectiveness, work satisfaction, and employee engagement ([Eva et al., 2019](#); [Sendjaya et al., 2019](#); [van Dierendonck et al., 2021](#); [Liden et al., 2019](#)). Project performance refers to the extent to which a project achieves its objectives within the constraints of scope, time, cost, and quality. It encompasses both the efficiency of project

processes and the in enhancing project performance in dynamic environments (Svejvig, 2021).

Project performance is the degree to which a project accomplishes its intended purpose, meets or exceeds stakeholder expectations, and delivers value to the organization. It includes measures of project success such as meeting deadlines, staying within budget, and achieving desired quality standards. The latest research emphasizes the critical role of stakeholder management and agile methodologies in achieving superior project performance (Ahlfänger et al., 2022).

Team synergy is the collective energy and collaborative effort of team members that results in greater effectiveness and performance than the sum of individual contributions. It involves the integration of diverse skills, perspectives, and talents to achieve shared goals and produce innovative solutions. Recent studies underscore the impact of psychological safety and diversity on enhancing team synergy (Edmondson and Bransby, 2023).

Team synergy is the combined capacity of a team to generate creative ideas, make optimal decisions, and achieve superior performance through effective collaboration and mutual support. The influence of team cohesion and shared leadership on team synergy has been increasingly recognized in recent research (Wang and Hsieh, 2017).

Team creativity refers to the ability of a group to generate novel and valuable ideas, solutions, or products through collaborative interaction and cognitive synergy. It involves divergent thinking, idea generation, and the integration of diverse perspectives to produce innovative outcomes. Recent studies highlight the role of team diversity and an inclusive climate in fostering team creativity (Shin et al., 2012).

Team creativity is the collective capacity of a group to generate original and practical solutions to problems or challenges by leveraging the complementary knowledge, skills, and experiences of its members. It involves fostering a climate of psychological safety, encouraging experimentation, and promoting open communication and idea-sharing. The latest research emphasizes the importance of leadership support and a collaborative culture in enhancing team creativity (Reiter-Palmon et al.,

2012). Stakeholder engagement is the process of involving individuals, groups, or organizations who have a vested interest in or may be affected by a project, decision, or policy. It entails building relationships, soliciting feedback, and incorporating stakeholder perspectives into decision-making processes to ensure transparency, accountability, and responsiveness. Recent studies have identified the critical role of effective communication and trust-building in successful stakeholder engagement (Haddaway et al., 2017).

Stakeholder engagement is the proactive and strategic interaction between an organization and its stakeholders to foster mutual understanding, trust, and collaboration. It involves identifying stakeholder interests, addressing their concerns, and involving them in co-creating solutions and decisions that impact them. Current research emphasizes the importance of stakeholder collaboration and participatory approaches in achieving sustainable outcomes (Aaltonen, 2024).

## 1.2 Research Gap

The research on leadership styles is recognized for improving team collaboration and project success, its specific impact on team synergy and project outcomes is under-explored (Sendjaya et al., 2019; Liden et al., 2021). This gap is especially evident in software industry, where the unique demands of high collaboration and rapid innovation have not been thoroughly studied (Dinh et al., 2018; Wang and Hsieh, 2017). Most studies focus on the direct effect of leadership styles, overlooking the complex processes through which it influences project performance, such as the roles of team synergy and creativity. Further, the potential moderating effect of stakeholder engagement on existing linkages has been rarely examined (Walumbwa and Schaubroeck, 2020). Further empirical research is needed to address these gaps to optimize the application of servant leadership and enhance project performance over time. Research on Project Performance has been conducted globally as well as in different sectors. However, it has been studied scarcely in Developing countries like Pakistan and specially in software development sector of Pakistan. Additionally, there is limited research exploring how servant leadership specifically influences

team dynamics and project outcomes within the context of developing countries like Pakistan. This gap is even more pronounced in the software development sector where agile methodologies and fast-paced environments pose unique challenges.

### **1.3 Problem Statement**

Achieving high project performance is a common challenge for organizations, and traditional leadership styles often don't fully utilize team dynamics or stakeholder involvement. The lack of leader's active involvement and communication with stakeholders has led to a disconnect between project outcomes and stakeholder's engagement. The urgent need for Servant leadership in this context becomes evident to ensure the organization's ability to thrive in a dynamic and rapidly changing business landscape. Although servant leadership is seen as a promising way to improve project outcomes, there's limited understanding of how it affects key factors like team synergy and creativity, which are crucial for success. Additionally, the role of stakeholder engagement in enhancing these effects is not well explored. Another significant problem is that many organizations fail to recognize the complex, interconnected processes that drive project performance. They often implement leadership strategies without fully considering how these strategies interact with team dynamics and external stakeholder engagement. This lack of insight can lead to inefficient project management practices, where the potential benefits of servant leadership are not fully realized.

### **1.4 Research Questions**

Taking into consideration the project-based organizations that are prevalent in Pakistan, our research focuses on the question of how servant leadership influences project performance via the moderating effect of collaborative culture and the mediating effect of knowledge sharing and knowledge creation. The following are some of the questions that are suggested to have their answers based on this research:

**RQ1:**

*Does servant leadership influence project performance?*

**RQ2:**

*Does team synergy and team creativity separately or sequentially mediate the relationship of servant leadership on project performance?*

**RQ3:**

*Does stakeholder engagement moderate the sequential mediation of team synergy and team creativity between the servant leadership and project performance?*

## 1.5 Research Objective

The objective of this study is to investigate and analyze how servant leadership (SL) influences team synergy (TS) and team creativity (TC), consequently impacting the overall performance and success of projects.

The frameworks of servant leadership theory emphasize that a leader's focus on serving others is linked to enhanced team dynamics and improved project outcomes. This relationship can be mediated by team synergy and team creativity, where servant leaders foster a collaborative environment that nurtures creativity and collective effort.

When a servant leader supports the team, their professional identities are elevated, and their collective performance improves. The current study's research goal is to examine the relationships between these factors in light of anticipated team development and project performance. Additionally, the study aims to determine the interrelationships between all the factors (servant leadership, team synergy, team creativity, and project performance).

Furthermore, the moderating role of stakeholder engagement (SE) will be examined to determine how it influences the strength of the relationships between servant leadership, team synergy, and team creativity. The following is a list of the objectives for the research:

**RO1:**

*To study the association between servant leadership and project performance.*

**RO2:**

*To investigate the impact of servant leadership on team synergy.*

**RO3:**

*To assess the influence of servant leadership on team creativity.*

**RO4:**

*To examine the effect of team creativity on project performance.*

**RO5:**

*To analyze the relationship between team synergy and project performance.*

**RO7:**

*To examine the mediating role of team creativity between servant leadership and project performance.*

**RO8:**

*To investigate the sequential mediation of team synergy and team creativity in the relationship between servant leadership and project performance.*

**RO9:**

*To study the moderating effect of stakeholder engagement on the relationship between servant leadership and team synergy.*

**ROB0:**

*To assess the impact of team synergy on team creativity.*

**RO11:**

*To explore the moderating effect of stakeholder engagement on the mediation of team synergy and team creativity between servant leadership and project performance.*

**RO12:**

*To analyze the influence of team synergy on the relationship between team creativity and servant leadership.*

**RO13:**

*To examine the impact of stakeholder engagement on the mediation effect of team synergy on the relationship between team creativity and servant leadership.*

**RO14:**

*To investigate how team creativity mediates the relationship between team synergy and project performance.*

## 1.6 Significance of Study

This work is significant because it has the potential to provide insightful information to the subject of sustainable project management, both academically and practically. The scholarly discourse on the connections among project performance, stakeholder management, team cohesion, and servant leadership is enhanced by this research. It offers a comprehensive understanding of the ways in which these components interact and affect project outcomes by filling in the gaps in the research. The study's findings will offer a comprehensive analysis that integrates servant leadership with team dynamics and stakeholder engagement, filling a critical void in the current body of knowledge. From a practical standpoint, this study offers actionable recommendations for organizations seeking to enhance their project success rates. From a practical standpoint, this study offers actionable recommendations for organizations seeking to enhance their project success rates.

By integrating effective leadership practices, fostering team synergy, and managing stakeholders in environmentally conscious ways, the research underscores the importance of adopting servant leadership to achieve better project performance. Leaders and project managers will gain strategic insights into leveraging servant leadership to maximize positive impacts on project outcomes, emphasizing the critical role of team collaboration and stakeholder engagement.

Moreover, this research contributes to the development of best practices in sustainable project management. By identifying key factors that influence project success in the context of environmental sustainability, the study aligns with the growing global emphasis on environmental responsibility. It highlights how leadership and teamwork can drive successful projects, encouraging organizations to adopt more sustainable business practices and align with global sustainability goals.

The insights gained from this study will be valuable to investors and stakeholders interested in supporting or investing in sustainable projects. The research provides a solid basis for evaluating leadership and management practices that contribute to project success, making it an essential resource for decision-makers in the business world. Furthermore, academic institutions, researchers, and students interested in sustainable business practices, leadership, and project management will find this study to be an educational resource that bridges theoretical knowledge with practical applications.

Additionally, this study establishes a foundation for future research by identifying avenues for further exploration and investigation in the evolving field of sustainable project management. By inviting continued inquiry into the dynamic interactions between leadership, team synergy, stakeholder engagement, and project performance, the research fosters an ongoing dialogue that will drive the field forward.

Finally, the study reinforces the importance of incorporating environmental considerations into corporate social responsibility (CSR) initiatives. It contributes to the broader agenda of ethical and responsible business practices by demonstrating how leadership and teamwork can drive sustainable project outcomes. The research provides a solid basis for evaluating leadership and management practices that contribute to project success, making it an essential resource for decision-makers in the business world. By highlighting these aspects, this study communicates its broader significance and potential impact on both academic and practical levels, ultimately promoting a more sustainable and responsible approach to project management.

## **1.7 Supporting Theory**

Social behavior is fundamentally driven by the exchange of both material and nonmaterial rewards such as recognition and prestige. Homans (1958) established the foundational theory of social exchange, positing that individuals engage in social behavior with the expectation of receiving reciprocal value from their interactions.

This reciprocal exchange is an ongoing process that seeks to balance contributions and benefits among the parties involved in the social interaction.

This principle of exchange underpins workplace dynamics where employees receive benefits like skill development, job satisfaction, and career advancement in return for their contributions (Blau, 2017; Homans, 1958). Recent research underscores that servant leadership significantly enhances organizational commitment and job satisfaction, a phenomenon rooted in the reciprocity norm central to Social Exchange Theory (Ferrin et al., 2007). Leaders who prioritize the welfare of their team members create a positive relational dynamic, fostering mutual trust and cooperation—key elements for achieving exemplary project performance.

Team synergy is described as the phenomenon where the collective output of a team exceeds the sum of individual efforts. This concept is often encapsulated by the adage "the whole is greater than the sum of its parts," and is a cornerstone in the study of team dynamics (Hoegl and Gemuenden, 2001). Effective management of collaborative efforts yields superior results through enhanced coordination, creativity, and aligned effort.

Servant leadership is characterized by a focus on prioritizing the needs of team members, promoting their development, and nurturing a supportive team environment (Greenleaf, 1970). Within the framework of SET, servant leadership is seen as an investment in team members, where leaders provide resources, support, and empowerment in anticipation of increased commitment and enhanced performance. This concept is often encapsulated by the adage "the whole is greater than the sum of its parts." Servant leadership is viewed as an investment in team members. The mediating role of team synergy is supported by empirical evidence indicating that teams exhibiting high levels of collaboration and integration are more likely to achieve successful outcomes, especially in complex project settings (Mathieu et al., 2008). This mediation suggests that while leadership is essential, the tangible benefits in performance are realized through improved operational dynamics within the team, dynamics that are cultivated by servant leadership.

Stakeholder management involves the strategies and processes that organizations use to manage their interactions with individuals and groups who can impact or

are impacted by the organization's activities ([Freeman et al., 2007](#)). Effective stakeholder management includes understanding and addressing stakeholder needs and expectations, communicating effectively, and skillfully managing conflicts or alignment of interests.

Applying Social Exchange Theory to this context, the interactions between the team and its stakeholders are seen through a lens of reciprocity and mutual benefit ([Blau, 2017](#)). Effective stakeholder management, which often entails negotiating and aligning interests, fosters enhanced cooperation. When stakeholders perceive that their interests are respected and valued by servant leaders, they are more likely to reciprocate with increased support, resources, and advocacy—elements that are vital for project success.

# Chapter 2

## Literature Review

### 2.1 Literature Review

This section aims to explore the impact of servant leadership on project performance, focusing on the sequential mediation of team synergy and team creativity, as well as the moderated-mediation effect of stakeholder engagement.

#### 2.1.1 Servant Leadership and Project Performance

Servant Leadership, as expounded by (Hou et al., 2023), is a progressive leadership approach that seamlessly integrates environmental consciousness with the principles of servant leadership. This innovative model places a strong emphasis on sustainability and ethical practices within organizational frameworks. The accompanying hypothesis posits a compelling connection between this dual focus and enhanced project performance, proposing that leaders who champion both environmental responsibility and servant-oriented leadership significantly contribute to the success of their projects.

Servant leadership, characterized by its focus on empathy, empowerment, and ethical behavior, is expected to positively influence project performance. Servant leaders who prioritize the well-being and development of their team members are likely to foster a supportive work environment conducive to achieving project goals. Servant Leadership on team synergy within a context. Leaders adopting

servant leadership, such as those discussed by (Eva et al., 2019) and (Greenleaf, 1970), Leaders adopting servant leadership, such as those discussed by (Eva et al., 2019) and (Greenleaf, 1970), are characterized by their unwavering commitment to sustainability. These leaders exhibit servant leadership qualities, weaving them into the fabric of their organizational practices. This multifaceted approach extends beyond the workplace, encompassing the cultivation of a culture that values environmental responsibility, invests in employee development, and consistently makes ethical decisions. The synergy of these elements is posited to create a conducive environment for both organizational success and positive societal impact. In a related exploration, (Wang et al., 2014) delve into the intricate relationship between environmental sustainability and project management. Their study underscores the importance of integrating environmentally conscious practices into project management methodologies. Through meticulous analysis, the authors highlight instances where such practices have not only met environmental objectives but have also positively influenced project outcomes, reinforcing the argument that an environmentally responsible approach can yield favorable results in project performance.

**H<sub>1</sub>:** *Servant leadership is positively associated with Project Performance.*

### 2.1.2 Servant Leadership and Team Synergy

The concept of Servant Leadership exerting a positive influence on Team Synergy suggests a symbiotic relationship between environmentally conscious leadership and collaborative efforts within teams committed to sustainability. Leaders embodying Servant Leadership prioritize environmental sustainability while adhering to the tenets of servant leadership. This involves creating a nurturing and empowering atmosphere, appreciating individual contributions, and aligning these practices with initiatives (Johnson and Turner, 2015).

Servant leaders, by embodying qualities such as collaboration, trust, and communication, are expected to promote synergy among team members. By emphasizing mutual respect and shared goals, servant leaders facilitate cohesive teamwork,

enhancing synergy within the team. Additionally, servant leaders foster an environment where open communication and active collaboration are prioritized

Examining real-world examples and case studies, as proposed by (Zhang et al., 2021), provides valuable insights into the tangible impact of Servant Leadership on team synergy within a context. By analyzing instances where leaders with a strong environmental consciousness guide their teams, we can discern how these leadership qualities contribute to heightened team cohesion and concerted efforts towards sustainable objectives. Such case studies serve as compelling evidence of the efficacy of Servant Leadership in fostering a collaborative and environmentally conscious team dynamic.

In a parallel investigation, (Davis, 2018) explore the intricate relationship between Servant Leadership and employee engagement in initiatives within a team. This inquiry delves into how team members, under the influence of a leader who exemplifies and encourages environmentally responsible behavior, may experience heightened connection to environmentally friendly projects. Additionally, the study considers how such leadership fosters motivation among team members, ultimately driving collective efforts towards the successful implementation of initiatives.

**H<sub>2</sub>:** *servant leadership has positive impact on team synergy.*

### 2.1.3 Team Synergy and Project Performance

The hypothesis proposing that Team Synergy acts as a positive mediator in the relationship between Servant Leadership and Project Performance suggests that the collaborative and environmentally conscious dynamics within a team play a crucial role in enhancing the positive impact of leadership on project outcomes.

Servant Leadership is characterized by leaders who possess both environmental focus and servant leadership qualities. These leaders prioritize sustainability, foster a collaborative and inclusive team environment, and exhibit servant leadership traits such as empathy, empowerment, and ethical decision-making. By doing so, they contribute to the development of a sustainable and collaborative team atmosphere (Ogbeibu et al., 2021).

[Davis \(2018\)](#) delve into the concept of Team Synergy as a mediator between Servant Leadership and Project Performance. This exploration emphasizes how a synergistic team, working cohesively towards sustainability goals, enhances the positive impact of leadership on overall project success. The study likely explores instances where the combined efforts of an environmentally conscious and servant-oriented leadership style, coupled with a synergistic team dynamic, lead to improved project outcomes.

Leaders employing Servant Leadership strategies, focus on nurturing Team Synergy within the framework. Strategies may include creating a supportive organizational culture that values environmental responsibility, providing resources for sustainable initiatives, and promoting a shared vision among team members. These strategies aim to foster a collaborative and environmentally conscious team, contributing to the overall success of sustainability-focused projects ([Ari et al., 2020](#)).

**H<sub>3</sub>:** *team synergy has positive impact on Project Performance.*

#### **2.1.4 Team Synergy as Mediator**

The hypothesis asserting that Team Synergy positively mediates the impact of Servant Leadership on Project Performance suggests a nuanced relationship where collaborative and environmentally conscious team dynamics play a crucial role in enhancing the positive influence of leadership on project outcomes ([Zafar et al., 2022](#)).

Team synergy, characterized by effective collaboration, communication, and coordination among team members, is expected to enhance project performance. When team members work together cohesively, leveraging each other's strengths and supporting one another, project tasks are completed more efficiently and effectively.

Servant Leadership, as elucidated by ([Shah et al., 2023](#)) is characterized by leaders who possess a distinctive environmental focus and embody servant leadership qualities. These leaders prioritize sustainability by incorporating eco-friendly practices into organizational strategies. Simultaneously, they foster a collaborative team environment by exemplifying servant leadership principles, including empathy,

empowerment, and ethical decision-making. Moreover, these leaders integrate long term goals with the organizational mission. promoting sustainable growth.

The defining characteristics of Servant Leadership underscore its commitment to creating a sustainable and collaborative team environment. Leaders following this model actively contribute to the development of a team culture that values environmental responsibility, thereby encouraging collective efforts toward shared sustainability goals.

Team Synergy acts as a positive mediator between the impact of Servant Leadership and Project Performance [Shah et al. \(2023\)](#). This hypothesis suggests that the collaborative and environmentally conscious dynamics within a team enhance the overall positive influence of Servant Leadership on project outcomes. Team Synergy, in this context, is a crucial factor that mediates and amplifies the relationship between leadership practices and project success.

[Wu and Kerdpitak \(2023\)](#), study likely explores the specifics of how Team Synergy operates as a mediator, shedding light on instances where the combined effort's of a synergistic team, guided by environmentally conscious and servant-oriented leadership, result in improved project performance.

**H<sub>4</sub>:** *team synergy positively mediates between the impact of servant leadership and Project Performance.*

### 2.1.5 Stakeholder Engagement as Moderator

It follows that actively incorporating stakeholders in environmentally conscious leadership improves the collaborative dynamics within a team, according to the hypothesis that suggests Stakeholder Engagement positively moderates the impacts of Servant Leadership on Team Synergy [Shah et al. \(2023\)](#).

According to [Siddiquei et al. \(2021\)](#), leaders that demonstrate environmental consciousness and servant leadership traits stand out as models of servant leadership. By incorporating environmentally friendly practices into corporate strategies and exemplifying servant leadership values like empathy, empowerment, and moral decision-making, these leaders place a high priority on sustainability.

One of the defining characteristics of servant leadership is its commitment to creating a cohesive and cooperative team environment. Within the context of stakeholder engagement, leaders who follow this paradigm actively involve stakeholders in sustainable initiatives.

They recognize the importance of promoting open communication, considering other points of view, the hallmarks of servant leadership include its dedication to fostering a cooperative and long-lasting team atmosphere.

Leaders who adhere to this paradigm actively involve stakeholders in sustainable efforts within the framework of stakeholder engagement. They understand the value of embracing different viewpoints, encouraging candid dialogue, and establishing connections with parties who are equally committed to ecologically responsible actions.

Recent studies explore the intricacies of how stakeholder engagement operates as a moderator, providing insights into instances where the collaboration between environmentally conscious leadership and engaged stakeholders results in enhanced team synergy.

For example, [Liden et al. \(2015\)](#) and [van Dierendonck et al. \(2021\)](#) emphasize the critical role of stakeholder engagement in amplifying the effects of servant leadership on team dynamics, particularly in fostering an environment of collaboration and mutual support.

This underscores the importance of stakeholder involvement in creating synergistic teams that drive organizational success.

**H<sub>5</sub>:** *Stakeholder engagement positively moderates between the impacts of servant leadership on team synergy.*

### **2.1.6 Team Synergy as Mediator between Servant Leadership and Project Performance**

According to the theory, there is a critical mediating role played by team synergy between the influence of servant leadership and project performance. This implies

that the degree of team member synergy plays a major role in explaining the beneficial impact of servant leadership on project outcomes. Effective servant leadership enhances team dynamics, fostering improved project performance. Research by Spears (1996) and Greenleaf (1970) demonstrates how servant leaders promote collaboration and cohesion among team members, leading to more successful project outcomes. Servant Leadership on team synergy within a context This claim is consistent with the research conducted by (Pohl and Galletta, 2017), which highlights the pivotal function of collaboration in moderating the correlation between project performance and leadership styles.

It is anticipated that the main means by which servant leadership influences project performance will be team cohesiveness. Servant leaders improve team cohesion by encouraging cooperation, trust, and honest communication among team members. Better coordination, more creativity, and ultimately better project performance result from this unified teamwork.

Researchers will gather information on servant leadership practices, team synergy levels, and project performance metrics in order to verify this theory. They will evaluate the degree to which team synergy mediates the relationship between servant leadership and project performance using sophisticated statistical techniques like mediation modeling. Through the lens of team synergy, this analytical approach enables a thorough analysis of the indirect effects of servant leadership on project outcomes.

This theory emphasizes how crucial it is to promote harmonious teamwork inside businesses. Servant leadership becomes more effective in achieving successful project outcomes by improving team synergy. In order to improve team dynamics and project performance, the results of this study will offer empirical evidence in favor of the strategic application of servant leadership. This will provide insightful information for both academic research and real-world applications in project management and leadership (Pohl and Galletta, 2017).

**H<sub>6</sub>:** *Team synergy positively mediates between the impact of Servant leadership and Project Performance.*

### 2.1.7 Team Creativity as Mediator between Servant Leadership and Project Performance

The hypothesis proposes that team creativity acts as a mediating mechanism between the influence of servant leadership and project performance. It suggests that the positive effect of servant leadership on project outcomes is partially explained by the level of creativity exhibited by the team. Furthermore, the hypothesis implies that servant leadership fosters an environment that encourages innovation and creative problem-solving within the team. This concept aligns with research by (Liden et al., 2015), who observed that servant leadership cultivates an environment conducive to creativity and innovation within teams, thereby enhancing project performance. Similarly, Pohl and Galletta (2017) underscored the role of creative problem-solving in mediating the relationship between leadership styles and project success.

Team creativity, characterized by the ability to generate novel and valuable ideas, is expected to significantly contribute to project success. Creative solutions to challenges, innovative approaches, and out-of-the-box thinking can lead to enhanced project outcomes and performance metrics. To test this hypothesis, researchers would collect data on servant leadership behaviors, team creativity levels, and project performance indicators. By employing statistical analyses such as mediation modeling, they would assess the extent to which team creativity mediates the relationship between servant leadership and project performance. This methodological approach allows for a rigorous examination of how fostering creativity within teams enhances the impact of servant leadership on project outcomes (Liden et al., 2015; Pohl and Galletta, 2017).

This hypothesis underscores the strategic importance of nurturing creativity as a core component of effective servant leadership. By promoting an environment that encourages innovative thinking and creative problem-solving, organizations can leverage servant leadership practices to drive continuous improvement and achieve superior project outcomes consistently.

**H<sub>7</sub>:** *Team Creativity positively mediates between the impact of Servant leadership and Project Performance.*

### 2.1.8 Sequential Mediation of Team Synergy and Team Creativity

The hypothesis posits that both team synergy and team creativity sequentially mediate the relationship between servant leadership and project performance. This implies that the influence of servant leadership on project outcomes is sequentially channeled through the enhancement of team synergy followed by the stimulation of team creativity. [van Dierendonck et al. \(2021\)](#) highlighted that servant leadership fosters collaborative team dynamics, leading to increased team synergy, which, in turn, creates an environment conducive to creativity and innovation. [Pohl and Galletta \(2017\)](#) further underscored the importance of both teamwork and creativity in driving project success.

Team synergy and team creativity are expected to sequentially mediate the relationship between servant leadership and project performance. Servant leaders who foster collaboration and creativity within teams are likely to enhance team synergy, which in turn facilitates the development of innovative solutions and ultimately leads to improved project performance. This process illustrates how servant leadership not only improves team dynamics but also cultivates an innovative culture within the team, driving the project towards successful outcomes.

To investigate this hypothesis, researchers would gather data on servant leadership behaviors, team synergy levels, team creativity levels, and project performance indicators. Utilizing sequential mediation analysis, they would examine the extent to which team synergy mediates the relationship between servant leadership and team creativity, and subsequently, how team creativity mediates the relationship between team synergy and project performance. This methodological approach allows for a comprehensive understanding of the indirect pathways through which servant leadership impacts project performance.

This hypothesis emphasizes the importance of fostering both collaborative teamwork and creativity within teams to maximize the impact of servant leadership on project outcomes. It underscores that the success of servant leadership is not merely in its ability to foster a collaborative environment but also in its capacity to drive creativity and innovation within the team. By sequentially enhancing team synergy

and creativity, servant leadership effectively leverages these dynamics to achieve superior project performance.

The implications of this study are significant for both theory and practice. For theoretical development, it adds a nuanced understanding of the mechanisms through which servant leadership influences project outcomes, providing a more detailed picture of the mediating roles of team synergy and creativity. Practically, it offers valuable insights for leaders and project managers on how to structure their leadership approaches to foster an environment that promotes both synergy and creativity, ultimately leading to enhanced project performance (Pohl and Galletta, 2017).

**H<sub>8</sub>:** *Team synergy and Team Creativity Sequentially mediates the relationship between Servant leadership and Project Performance.*

### **2.1.9 Stakeholder Engagement as a Moderator between Servant Leadership and Team Synergy**

The hypothesis suggests that stakeholder engagement positively moderates the relationship between servant leadership and team synergy. This means that the effect of servant leadership on team synergy is strengthened when there are high levels of stakeholder engagement. Barbuto Jr and Wheeler (2016) emphasized the role of stakeholder engagement in reinforcing the impact of servant leadership on team dynamics. Similarly, Pohl and Galletta (2017) highlighted the importance of stakeholder involvement in shaping organizational processes and outcomes.

Stakeholder engagement is expected to enhance the relationship between servant leadership and team synergy. Leaders who actively involve stakeholders in decision-making processes and foster open communication are likely to improve team synergy through increased stakeholder support and alignment of goals. When stakeholders are engaged, they provide valuable feedback, resources, and alignment with the team's objectives, which can enhance the effectiveness of servant leadership.

To test this hypothesis, researchers would collect data on servant leadership behaviors, stakeholder engagement levels, team synergy levels, and potentially relevant

control variables. Using moderation analysis techniques, such as hierarchical regression or moderation modeling, they would examine whether stakeholder engagement strengthens the relationship between servant leadership and team synergy. This methodological approach allows for a detailed understanding of how external stakeholder involvement can influence internal team dynamics. The implications of this study are significant for both theory and practice. Theoretically, it adds to the understanding of the conditions under which servant leadership is most effective. By engaging stakeholders, leaders can ensure that team synergy is enhanced, leading to better project outcomes. By leveraging the hypothesis underscores the importance of actively involving stakeholders in organizational processes to amplify the effectiveness of servant leadership in fostering collaborative team dynamics. By engaging stakeholders, leaders can ensure that team efforts are well-supported and aligned with broader organizational goals, leading to enhanced team synergy and, consequently, better project performance. This research provides practical insights for leaders and organizations on the strategic role of stakeholder engagement in optimizing the benefits of servant leadership.

The implications of this study are significant for both theory and practice. Theoretically, it adds to the understanding of the conditions under which servant leadership is most effective, highlighting the moderating role of stakeholder engagement. Practically, it offers valuable guidance for leaders and managers on how to involve stakeholders to enhance team synergy and overall project success ([Pohl and Galletta, 2017](#)).

**H<sub>9</sub>:** *Stakeholder engagement positively moderates between the impacts of Servant leadership on team synergy.*

### **2.1.10 Team Synergy and Team Creativity**

The hypothesis suggests that team synergy positively influences team creativity, indicating that cohesive teamwork enhances the generation of creative ideas within a team. This notion is supported by [Shin et al. \(2012\)](#), who found that collaborative team dynamics facilitate the exchange of diverse perspectives and ideas, fostering

a creative environment. Similarly, [Pohl and Galletta \(2017\)](#) emphasized the role of teamwork in stimulating innovative thinking and problem-solving.

Effective team synergy, characterized by collaborative effort's and open communication among team members, is expected to create an environment conducive to team creativity. When team members work together cohesively, they can leverage each other's strengths, perspectives, and ideas, leading to enhanced creativity and innovative solutions.

To validate this hypothesis, researchers would collect data on team synergy levels and team creativity levels from team members. Through statistical analyses, such as correlation analysis or regression modeling, they would assess the strength and significance of the relationship between team synergy and team creativity. This methodological approach allows for a quantitative examination of how cohesive teamwork influences creative output within teams.

This hypothesis underscores the importance of promoting collaborative teamwork as a strategy to enhance creativity within teams, ultimately contributing to improved project outcomes. By fostering an environment where team members feel empowered to collaborate and innovate, organizations can harness the full potential of their teams to achieve innovative solutions and drive project success ([Bilal et al., 2020](#); [Pohl and Galletta, 2017](#)).

**H<sub>10</sub>:** *Team synergy has positive impact on Team creativity.*

### **2.1.11 Moderated Mediation of Stakeholder Engagement, Team Synergy, and Team Creativity between Servant Leadership and Project Performance**

The hypothesis proposes that stakeholder engagement positively moderates the mediation impact of team synergy and team creativity between servant leadership and project performance. This suggests that the effect of servant leadership on project performance, mediated through team synergy and team creativity, is strengthened in the presence of high levels of stakeholder engagement. [van Dierendonck et al. \(2021\)](#) highlighted the pivotal role of stakeholder engagement in

reinforcing the impact of servant leadership on team dynamics and project outcomes. Similarly, [Pohl and Galletta \(2017\)](#) emphasized the importance of stakeholder involvement in organizational processes and performance improvement initiatives. Stakeholder engagement is expected to moderate the mediation effects of team synergy and team creativity between servant leadership and project performance. Active involvement of stakeholders in fostering team synergy and creativity may amplify the positive impact of servant leadership on project outcomes.

To investigate this hypothesis, researchers would collect data on servant leadership behaviors, stakeholder engagement levels, team synergy, team creativity, and project performance indicators. Utilizing moderated mediation analysis techniques, such as conditional process modeling, they would examine whether stakeholder engagement strengthens the indirect effect of servant leadership on project performance through the sequential mediation of team synergy and team creativity. This hypothesis underscores the significance of actively involving stakeholders in organizational processes to enhance the effectiveness of servant leadership in driving project success ([Pohl and Galletta, 2017](#)).

**H<sub>11</sub>:** *Stakeholder engagement positively moderates the mediation impact of team synergy and team creativity between the Servant leadership and project performance.*

### **2.1.12 Team Synergy Mediates the relationship between Team Creativity and Servant Leadership**

The hypothesis that Team Synergy mediates the relationship between Team Creativity and Servant Leadership suggests that the collaborative and cohesive nature of teams plays a pivotal role in translating the creative efforts of team members into effective servant leadership practices.

Servant leaders, who prioritize the wellbeing and development of their team members, create an environment that fosters creativity. This nurturing atmosphere encourages team members to collaborate and leverage their diverse skills, leading to enhanced team synergy.

According to [Brown and Green \(2019\)](#), the interplay between team creativity and servant leadership is significantly influenced by the level of synergy within the team. High levels of team synergy can amplify the positive effects of creativity on servant leadership, as cohesive teams are better equipped to implement innovative ideas and strategies. By fostering a culture of trust, communication, and mutual respect, servant leaders can enhance team synergy, thereby facilitating the translation of creative efforts into effective leadership practices.

Analyzing real-world examples, as illustrated by ([Bae et al., 2020](#)), provides insights into how servant leaders can harness team creativity through enhanced synergy. Case studies demonstrate that teams with strong synergy are more likely to successfully implement creative solutions, thereby reinforcing the principles of servant leadership.

This mediation effect underscores the importance of cultivating servant leadership. This mediation effect underscores the importance of cultivating team synergy to maximize the impact of creativity on leadership outcomes.

**H<sub>12</sub>:** *Team synergy mediates the relationship between team creativity and servant leadership.*

### **2.1.13 Stakeholder Engagement Moderates the Mediation Effect of Team Synergy between Team Creativity and Servant Leadership**

The hypothesis proposes that stakeholder engagement moderates the mediation effect of team synergy between team creativity and servant leadership. This suggests that the involvement and support of external stakeholders can influence how effectively team synergy enhances the relationship between creativity and servant leadership. Engaging stakeholders in creative and leadership processes can provide additional resources, perspectives, and support, thereby strengthening team synergy.

[Salloum et al. \(2018\)](#) emphasize the crucial role of stakeholder engagement in shaping the dynamics between team creativity, synergy, and servant leadership.

Actively involved stakeholders who are invested in the team's goals contribute valuable feedback and resources that enhance team synergy. This enhanced synergy, in turn, facilitates the effective translation of creative efforts into servant leadership practices.

Empirical evidence from research by (Zhang et al., 2021) underscores the moderating effect of stakeholder engagement on the mediation process. Case studies demonstrate that teams with robust stakeholder engagement experience heightened synergy, amplifying the positive impact of creativity on servant leadership. This highlights the strategic importance of cultivating strong stakeholder relationships to maximize the benefits derived from team synergy.

To test this hypothesis, researchers would collect data on stakeholder engagement levels, team synergy, team creativity, and servant leadership behaviors. Using moderation analysis techniques, such as moderated mediation or conditional process modeling, they would examine whether stakeholder engagement enhances the mediation effect of team synergy between team creativity and servant leadership. This methodological approach allows for a comprehensive exploration of how external stakeholders influence internal team dynamics and leadership practices.

This hypothesis underscores the strategic significance of stakeholder engagement in optimizing the synergy between team creativity and servant leadership. By actively involving stakeholders in organizational processes, leaders can harness external support to foster cohesive teamwork and innovative thinking, ultimately enhancing servant leadership practices and driving superior project outcomes.

**H<sub>13</sub>:** *Stakeholder engagement moderates the mediation effect of team synergy between team creativity and servant leadership.*

#### **2.1.14 Team Creativity Mediates the relationship between Team Synergy and Project Performance**

The hypothesis proposes that team creativity mediates the relationship between team synergy and project performance, suggesting that the collaborative and cohesive nature of teams influences project outcomes through the creative efforts

of team members. High levels of team synergy create an environment conducive to creativity, fostering innovative solutions and enhancing project performance.

Johnson and Turner (2015) emphasize that the connection between team synergy and project performance is significantly influenced by the level of creativity within the team. Teams characterized by strong synergy are more adept at generating and implementing creative ideas, thereby contributing to improved project outcomes. By nurturing a culture of collaboration and mutual support, teams can maximize their creative potential, driving overall project success.

Research by Muñoz-Pascual et al. (2021) provides empirical evidence of the mediating role of creativity in this relationship. Case studies demonstrate that teams with robust synergy are better equipped to harness their collective creativity, translating it into superior project performance. This mediation effect underscores the critical importance of fostering both synergy and creativity within teams to achieve successful project outcomes. To validate this hypothesis, researchers would collect data on team synergy levels, team creativity, and project performance indicators. Through statistical analyses, such as mediation modeling or structural equation modeling, they would assess the strength and significance of the indirect pathway from team synergy through team creativity to project performance. This methodological approach enables a thorough examination of how cohesive teamwork influences creative output and, subsequently, project success.

This hypothesis highlights the strategic importance of promoting synergy and creativity within teams as integral components of effective project management. By enhancing collaboration and creativity, organizations can leverage their teams' collective strengths to innovate and achieve superior project outcomes consistently.

**H<sub>14</sub>:** *Team creativity mediates the relationship between team synergy and project performance.*

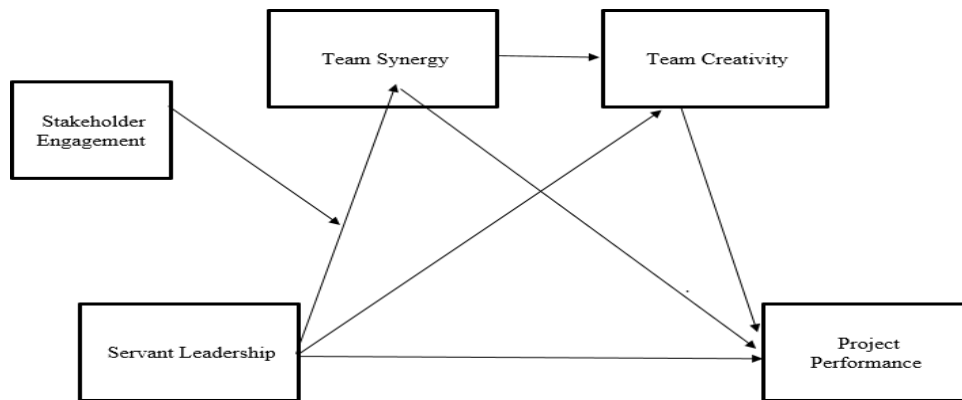


FIGURE 2.1: Research Model

## 2.2 Research Model

## 2.3 Research Hypotheses

**H<sub>1</sub>:** *Servant leadership is positively associated with Project Performance.*

**H<sub>2</sub>:** *Servant leadership has positive impact on Team synergy.*

**H<sub>3</sub>:** *Servant leadership has positive impact on Team creativity.*

**H<sub>4</sub>:** *Team Creativity has positive impact on Project Performance.*

**H<sub>5</sub>:** *Team synergy has positive impact on Project Performance.*

**H<sub>6</sub>:** *Team synergy positively mediates between the impact of Servant leadership and Project Performance.*

**H<sub>7</sub>:** *Team Creativity positively mediates between the impact of Servant leadership and Project Performance.*

**H<sub>8</sub>:** *Team synergy and Team Creativity Sequentially mediates the relationship between Servant leadership and Project Performance.*

**H<sub>9</sub>:** *Stakeholder engagement positively moderates between the impacts of Servant leadership on team synergy.*

**H<sub>10</sub>:** *Team synergy has positive impact on Team creativity.*

**H<sub>11</sub>:** *Stakeholder engagement positively moderates the mediation impact of team synergy and team creativity between the Servant leadership and project performance.*

**H<sub>12</sub>:** *Team synergy mediates the relationship between team creativity and servant leadership*

**H<sub>13</sub>:** *Stakeholder engagement moderates the mediation effect of team synergy between team creativity and servant leadership*

**H<sub>14</sub>:** *Team creativity mediate the relationship between team synergy and project performance*

# Chapter 3

## Research Methodology

Research is a mindset, an attitude of inquiry, a frame of mind, or a point of view. It does things that have never been finished, for example, posing inquiries that have never been asked, and afterward it attempts to respond to those inquiries by taking on a really exact way to deal with addressing those inquiries.

It isn't simply theory; rather, it is an endeavor to uncover realities and to stand up to those realities after they have been accumulated. The essential focal point of this part is to characterize the idea of the association that exists between servant leadership, and project performance, the dissemination of that new data inside cooperative societies, and the culmination of activities.

It takes into account the kind of study, the research design, the sample and the population, the time lag, and the unit of analysis.

### 3.1 Research Design

Research design is a method for analyzing and addressing research questions in the field of business. It has three parts: the study; the time lag; and the analysis unit. Research design is the manner in which a researcher collects information and data using a research questionnaire. It encompasses three key components: the study itself, the time frame of the research, and the unit of analysis For this study, self-administered questionnaires were employed to collect data. "Research design"

refers to the process in which we evaluate the data from the different parts of the research model (Kahng, 2019).

### **3.1.1 Types of Study**

This is an explanatory type of study. The respondents were reached inside their organizations and a questionnaire was utilized to measure their reaction in this review. This study is connected with IT organizations, so the objective populace were the workers of private and public task-based associations in Islamabad and Rawalpindi. The factors in this exploration study won't be controlled, and the review won't be led in a fake setting.

### **3.1.2 Research Philosophy**

This study is based on a hypothetical deductive method that depends on deciding explanation, in which past writing were be utilized as the establishment for introducing speculations that guide in understanding and supporting the conceptualized hypothesis framework, which will then empirically tested for validity.

### **3.1.3 Unit of Analysis**

The unit of analysis is the major element of scientific study. It is a framework that analyzes the main focus of a particular topic. The unit of examination for this study were project teams members (bosses, chiefs, worker) of different confidential task based IT organizations from Rawalpindi and Islamabad was the units of analysis to investigate the impact of servant leadership on project performance.

### **3.1.4 Study Setting**

Participants in this study was drawn from organizations actively engaged in IT projects. The data were collected is centered in Islamabad and Rawalpindi to ensure a representative sample. Questionnaires were administered to employees and project stakeholders in their work settings, with assurances of confidentiality for the

information provided. This approach allowed for a comprehensive understanding of servant leadership's impact on project performance in a real-world IT context, ensuring that the findings are both relevant and applicable to the industry.

## **3.2 Time Horizon**

The authors of [Saunders et al. \(2007\)](#) distinguish between cross-sectional and longitudinal research methods. Cross-sectional data collection has a set time period, whereas longitudinal data collection has an unbounded of time. Time horizon establishes the time frame for the study: cross-sectional or shortterm studies require data collection from all respondents at a single point in time, whereas longitudinal studies require data collection from the same respondents over a long period of time in order to compare data from different respondents. Due to the limitation of a specific time frame, the data collection method employed in this research was cross-sectional in nature. Data collection was executed through the use of close ended and self-administrated questionnaires.

### **3.2.1 Population and Sample**

Population is being defined as the entire group that is being targeted to obtain information and for end is induced. Test is the reprehensive piece of the populace. Representatives in project-based organizations given the information, connected with IT sector, working in twin urban communities.

Conducting a convenience sampling technique, our study focused on gathering insights from employees within the IT sector of project-based organizations operating in the twin cities. This approach involves selecting participants based on accessibility and willingness to participate, rather than employing random selection methods. By identifying convenient locations frequented by IT professionals, such as office complexes and technology events, we approached potential participants and request their involvement in our study.

### **3.3 Procedure for Data Collection**

Employees filled out the questionnaire in this research, which is a time lag study. Additionally, information were gathered from IT companies in Islamabad and Rawalpindi. The data were gathered using Google Docs and adopted surveys from both physical and internet sources.

Current research primarily defined and briefly communicated the research's purpose to respondents. Respondents were informed that their reactions would stay private, and their data would just be utilized for research purposes. Personal references and contacts were used to collect data. It requires considerable time and effort to collect data from as many people as possible.

Self-administered questionnaires were created using Google Form and sent via online channels like email, WhatsApp, and LinkedIn to the project team members working in project-based IT organizations in Islamabad and Rawalpindi. The criterion were used to choose the respondents that they work in IT firms, are a part of project teams, and have at least one year of work experience with the chosen company.

As a result, evidence regarding servant leadership and its influence on project performance were collected, with team synergy and team creativity as the mediating role and a stakeholder engagement playing the role of moderation.

The first section of the questionnaire focused on demographics, while the remaining five sections gathered information on servant leadership, team synergy, team creativity, stakeholder engagement, and project performance, and the remaining five sections were used to collect data about servant leadership, team synergy and team creativity, stakeholder engagement and project performance. The sample size was 411 and the total questionnaires that were distributed were 500 and were handed out to the potential respondents. here were a total of 500 questionnaires that were handed out to the potential respondents.

## 3.4 Research Instrument

Close-ended questionnaires were utilized for estimating four factors on a five-point Likert scale. Survey contains 4 segment factors, which incorporate data about the respondent's gender, age, qualification, and experience in the organization.

### 3.4.1 Servant Leadership

Using a 13-item scale created by (Ehrhart, 2004), servant leadership were evaluated. Responses were obtained through a five-point Likert scale.

### 3.4.2 Project Performance

A six-item scale developed by (Popaitoon and Siengthai, 2014) and adopted by (Ali et al., 2018) were used to assess project performance.

### 3.4.3 Team Synergy

The four-item scale created by (Jarvenpaa et al., 2004). The rating scale ranged from 1 (Strongly disagree) to 5 (Strongly Agree).

### 3.4.4 Stakeholder Engagement

The construct of stakeholder management was measured by 10 items scale developed by Mitchell et al. (1997); Olander and Landin (2005). The similar scale was used by (Pinto and Slevin, 1988) in adherence to my study. The scale consists of two dimensions stakeholder relational and stakeholder perspective.

### 3.4.5 Sample Characteristics

### 3.4.6 Gender

Given that it simply separates the population into males and females, gender is one of the demographic questions that are most frequently asked. It has been

observed that in government and public sector organizations, the proportion of male respondents was higher than the number of female respondents. Female managers are incredibly uncommon and, if they do exist, are only found in jobs with greater responsibility, like manager, senior developer, and board member. This gender disparity highlights the ongoing challenges women face in attaining leadership roles within these sectors, ultimately impacting team dynamics and project performance. Addressing this imbalance is crucial for fostering a more inclusive and effective work environment.

Table 3.1 clearly demonstrates that there are more male respondents than female respondents when comparing the ratio of respondents.

TABLE 3.1: Gender Percentage

Gender	Frequency	Percent	ValidPercent	CumulativePercent
1	363	88.5	88.5	88.5
2	47	11.5	11.5	100
Total	410	100	100	

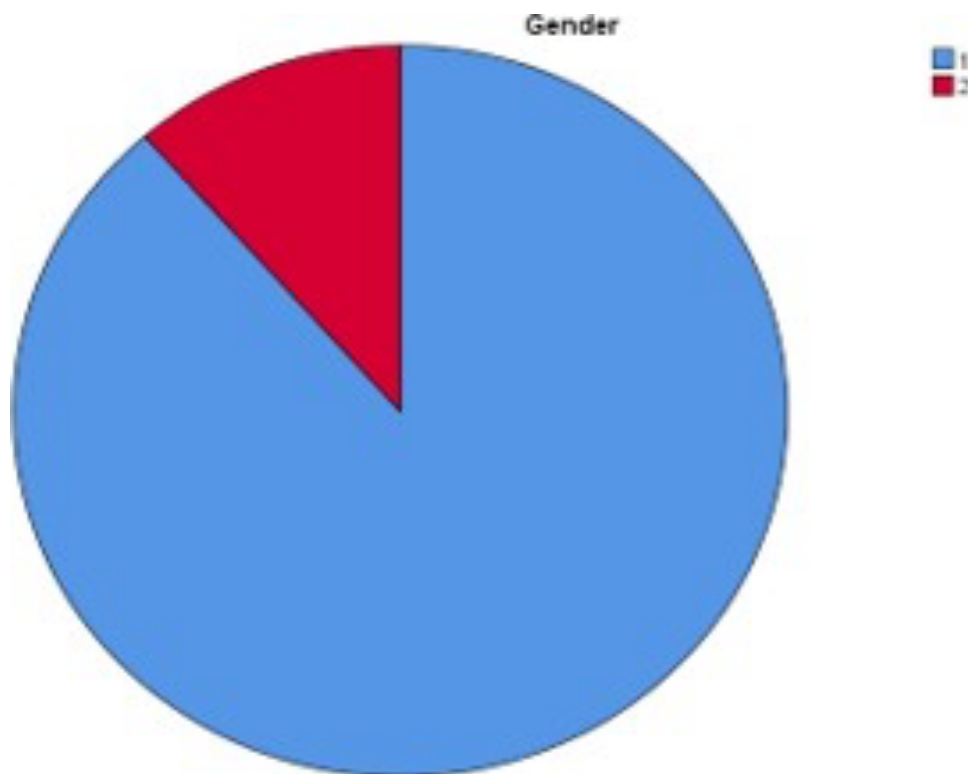


FIGURE 3.1: Gender Percentage

Table 3.1 displays the complete sample size, which amounts to 410 individuals. Among these, 363 were male, constituting 88.5% of the total, while females accounted for 11.5%. The cumulative percentage was computed as 100% and is indicated in the aforementioned table.

### 3.4.7 Qualification

Qualification is a key component within demographics, similar to age and gender, as it holds vital significance for a country's progress. Inclusion of education in demographics is paramount, given its role as a wellspring of knowledge. This knowledge empowers individuals to excel in their project undertakings. This knowledge empowers individuals to excel in their project undertakings.

Incorporating education within demographics serves the purpose of conveying the respondents' level of qualification.

Consequently, education finds its place in the questionnaire's demographic section and is featured in the table below. The questionnaire encompasses five distinct degree categories aimed at procuring comprehensive education-related data.

TABLE 3.2: Respondent's Qualification

Age	Frequency	Percent	Valid Percent	Cumulative Percent
1	148	36.1	36.1	36.1
2	140	34.1	34.1	70.2
3	42	10.2	10.2	80.5
4	43	10.5	10.5	91
5	37	9	9	100
Total	410	100	100	

The information about the respondent's education or qualifications is provided in Table 3.2, 36.1% of the total respondents were in their matric year, 34.1% were in their intermediate year, 10.2% had bachelor's degrees, 10.5% had master's degrees, and 9.0% had PhDs.

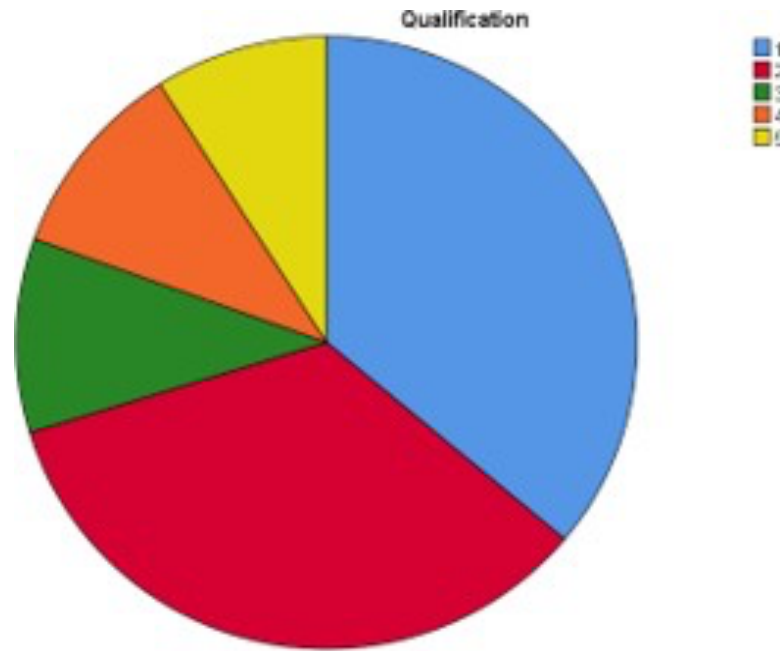


FIGURE 3.2: Qualification Percentage

### 3.4.8 Age

Due to a certain level of hesitancy, individuals often prefer not to openly acknowledge or disclose their age. To accommodate respondent comfort, age was categorized into various ranges, as outlined in the questionnaire. These ranges were specified to collect age-related data during the survey.

Table 3.3, provides information on the respondents' ages. Among the 410 respondents, 3.2% fell within the age range of 18-24, while 70.0% were aged 25-34. Respondents aged 35-44 accounted for 13.4%, those aged 45-54 made up 12.7% of the sample, and 0.7% were aged 55 and above. The cumulative percentage was computed to reach a total of 100%. Notably, the group between 25-34 exhibited the highest age percentage.

TABLE 3.3: Age Distribution of Respondents

Age	Frequency	Percent	Valid Percent	Cumulative Percent
1	13	3.2	3.2	3.2
2	287	70	70	73.2

continued ...

3	55	13.4	13.4	86.6
4	52	12.7	12.7	99.3
5	3	0.7	0.7	100
Total	410	100	100	

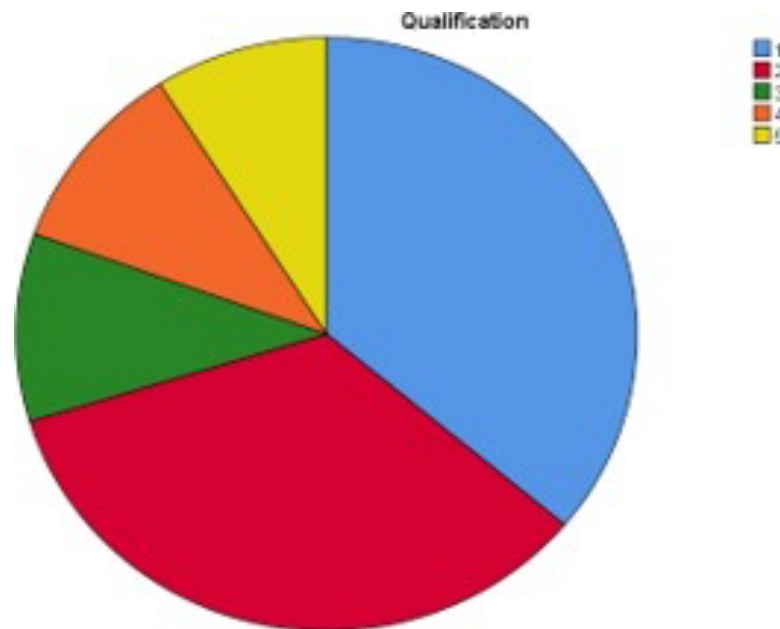


FIGURE 3.3: Age Percentage

### 3.4.9 Experience

In project settings, work experience holds a significant role as it notably contributes to the enhancement of performance. Employees commonly transition between various organizations over the years, culminating in a cumulative professional history referred to as their experience. Additionally, seasoned employees are often better equipped to navigate challenges and contribute to the overall success of projects.

The significance of experience is underscored within demographics due to its positive impact on employee creativity and performance, which tend to flourish and stabilize with accumulated experience.

The questionnaire incorporated five distinct time ranges, facilitating the collection of data on the total duration employees spent in different organizations. These

designated time frames are tailored to help employees assess their work experience. Such experience fosters creativity, innovation, and overall effectiveness in their roles.

TABLE 3.4: Respondent’s Experience

Experience	Frequency	Percent	Valid Percent	Cumulative Percent
1	58	14.1	14.1	14.1
2	267	65.1	65.1	79.3
3	32	7.8	7.8	87.1
4	38	9.3	9.3	96.3
5	15	3.7	3.7	100
Total	410	100	100	

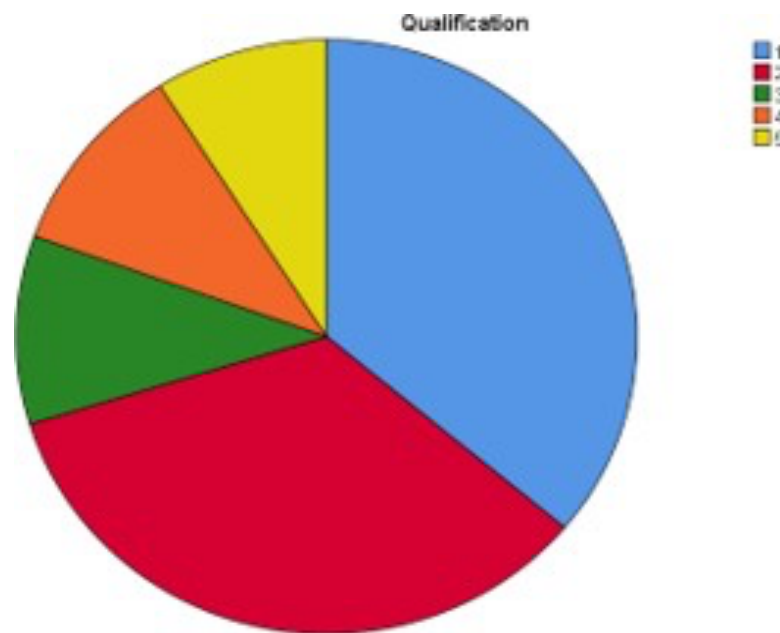


FIGURE 3.4: Experience Percentage

Table 3.4 displays the respondents’ experience distribution, revealing that a majority of respondents have an experience range of 1-3 years. Specifically, 14.1% of the participants fall within the 1-3 years range. Additionally, 65.1% of respondents possess experience in the 4-7 years range, while 7.8% and 9.3% of them fall within the 8-11 years and 12-15 years’ ranges, respectively.

### **3.4.10 Ethical Consideration**

This study were carried out following the proposal's acceptance by Capital University of Science and Technology's proposal review committee. After presenting the recommendation letter from the university and briefly outlining the study's objectives and the questionnaires that would be given, the organization's head granted permission for the personnel to participate in the study.

# Chapter 4

## Results and Analysis

### 4.1 Techniques for Data Analysis

The data from 410 respondents has been gathered and evaluated with the use of the SPSS 26 statistical software package and smart PLS4 (PLS-SEM). The following are the processes that were taken in order to perform the analysis:

The chapter begins with a brief overview of SPSS 26 statistical software package and PLS-SEM and explains how descriptive, correlation, reliability, validity, mediation and moderation are used to evaluate the measurement and structural model. Tables and graphs have been used to illustrate the results.

Two key studies are integrated into the partial least squares structural equation modeling approach. The initial step involves the analysis of the measurement model. Following this, validity and reliability are examined through additional processes. The final measurement model is assessed using outer loadings, internal consistency, composite reliability (CR), average variance extracted (AVE) for convergent validity, and the Fornell-Larcker method for discriminant validity. After these validations and reliabilities are confirmed, the structural model is inspected. The measurement model provides the foundation for the structural model. Once the measurement model is investigated, the structural model is the next step in the structural equation modeling process, which helps elaborate the direct effects that variables have on one another. This comprehensive approach allows researchers to derive meaningful insights into this relationships between the variables.

- (1) Two key studies are incorporated into the partial least squares structural equation modeling approach.
- (2) Initial analysis focuses on the measurement model.
- (3) Validity and reliability are assessed after the initial measurement model analysis.
- (4) Final measurement model assessment involves:
  - (a) Outer loadings
  - (b) Internal consistency
  - (c) Composite reliability (CR)
  - (d) Average variance extracted (AVE) for convergent validity
  - (e) Fornell-Larcker method for discriminant validity
- (5) Once validity and reliability are confirmed, the structural model is examined.
- (6) The measurement model serves as the foundation for the structural model.
- (7) Following the investigation of the measurement model, the structural model is explored.
- (8) The structural model elaborates on the direct effects between variables.

## 4.2 Descriptive Statistics

The table of descriptive statistics gives important details about the responses that have been gathered and are being analyzed. This includes statistical measures like size of sample, standard deviation, mean, minimum, and maximum values, which offer insights into the data under examination. Moreover, it condenses extensive data into an organized and concise format.

Table presents the consolidated data obtained from this research. The first column of Table enumerates the variable names. The specified total sample size of the

study is indicated in the second column. In the third column, the minimum value observed for each corresponding variable is recorded.

The fourth column records the maximum value observed for each variable. In the fifth and sixth columns, the calculated mean and standard deviation for the collected data are respectively displayed. A 5-point Likert scale ranging from 1 (reflecting strong disagreement) to 5 (indicating strong agreement) was used to evaluate all four variables.

The independent variable, Servant Leadership, possesses an average value of 3.1325 with a standard deviation of 0.74754. The dependent variable, Project Performance, exhibits an average of 3.329, accompanied by a SD of 1.1198. The mediating variable, Team Synergy, displays an average value of 3.2506, with a SD of 1.02691. In our research framework, the moderating variable, Stake-holder Engagement, has an average value of 3.263 and a standard deviation of 0.9486.

This analysis was performed using all the collected responses that were selected for scrutiny. A total of 411 responses were specifically chosen for analysis.

TABLE 4.1: Descriptive Statistics

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
SL	410	1	5	3.1325	0.74754
TS	410	1	5	3.2506	1.02691
TC	410	1	5	3.299	1.0696
PP	410	1	5	3.329	1.1198
SE	410	1	5	3.263	0.9486
Valid	N 410				
	(listwise)				

### 4.3 Correlations

Correlation analysis helps us understand how variables depend on each other. According to Olander and Landin (2005), correlation shows how two continuous numeric variables are related. Table 4.2 explains how variables are connected, using

positive or negative signs to show if they move in the same or opposite directions. A positive sign means both variables move together, while a negative sign suggests they move in opposite ways. Correlation values go from +1 to -1, with 0 showing no relationship. In this study, correlation analysis was applied to explore the impact of servant leadership on project performance, while also considering the mediating influence of team synergy and team creativity and the moderating effect of stakeholder engagement.

Correlation values initiate a conversation regarding the intensity of the connection with the intended variable, and this intensity is assessed based on the deviation of the value from zero. A positive sign signifies a direct relationship, whereas a negative sign indicates an inverse relationship.

The statistical importance of the data is assessed through the utilization of the P value, aiding in the detection of discrepancies within the gathered data. A significance level denoted by  $P = 0.01$  suggests an error of 1% within the observed data. The presence of a noteworthy positive correlation among the variables under scrutiny is evident from all the values presented in Table 4.2. This serves as an indicator that additional research in this domain is warranted.

TABLE 4.2: Correlations

	<b>SL</b>	<b>TS</b>	<b>TC</b>	<b>PP</b>	<b>SE</b>
<b>SL</b>	1				
<b>TS</b>	.585**	1			
<b>TC</b>	.617**	.715**	1		
<b>PP</b>	.517**	.794**	.699**	1	
<b>SE</b>	.547**	.533**	.568**	.781**	1

Table 4.3 shows correlation values between variables, ranging from -1 to 1, with some values exceeding 0.7 and approaching 1. These high correlations among the predictor variables indicate potential issues with collinearity.

To address collinearity in the study, a Variance Inflation Factor (VIF) test is conducted, following the recommendations of Thompson et al. (2017). According

to the literature, the absence of collinearity is indicated by the following conditions:

TABLE 4.3: Collinearity Statistics

Collinearity Statistics		
	Tolerance	VIF
<b>SL</b>	0.904	4.909
<b>SE</b>	0.924	4.463
<b>TC</b>	0.847	2.884
<b>TS</b>	0.830	3.028

Tolerance values should be greater than 0.2, VIF should be less than 5.0, Eigenvalues should not be close to zero, and Condition index values should be less than 15.

TABLE 4.4: Collinearity Diagnostics

Model Dimension	Eigenvalue	Condition Index
1	4.890	1
2	0.156	9.308
1 3	0.128	7.330
4	0.118	6.653
5	0.028	9.260

Table 4.4 shows that the Eigenvalues are not close to zero, and the Condition Index (CI) for all three predictors is less than 15. Based on the VIF test results, there are no signs of collinearity, indicating that the data is reliable and the regression model can be further assessed and investigated.

### 4.3.1 Partial Least Square Structural Equation Modeling (PLS-SEM)

The research employed the PLS-SEM approach. This technique proposes to use two models (the measurement model and the structural model) for analysis.

## 4.4 Measurement Model

The measurement model is the initial level in PLS-SEM. These analyses were presented in order to check the validity and reliability of the variables.

## 4.5 Outer Loadings

Table demonstrates that all components have outside loadings larger than 0.70. According to (Hair Jr et al., 2017), the value of the outer loadings should generally exceed 0.70 to ensure indicator reliability. Outer loadings above this threshold indicate that the individual indicators have a strong correlation with their respective latent constructs, providing evidence of the construct's validity and the robustness of the measurement model. Additionally, high outer loadings contribute to the overall predictive power of the model ensuring that the variables accurately represent the theoretical framework.

TABLE 4.5: Item Loading

items	Loading
<b>SL1</b>	0.896
<b>SL2</b>	0.859
<b>SL3</b>	0.883
<b>SL4</b>	0.861
<b>SL5</b>	0.887
<b>SL6</b>	0.894
<b>SL7</b>	0.895
<b>SL8</b>	0.906
<b>SL9</b>	0.887
<b>SL10</b>	0.833
<b>SL11</b>	0.854
<b>SL12</b>	0.89
<b>SL13</b>	0.819
<b>TC1</b>	0.891
<b>TC2</b>	0.966
<b>TC3</b>	0.89
<b>TC4</b>	0.927

continued . . .

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<b>TC5</b>	0.945
<b>TS1</b>	0.948
<b>TS2</b>	0.937
<b>TS3</b>	0.929
<b>TS4</b>	0.952
<b>PP1</b>	0.949
<b>PP2</b>	0.967
<b>PP3</b>	0.948
<b>PP4</b>	0.929
<b>PP5</b>	0.954
<b>SE1</b>	0.898
<b>SE2</b>	0.92
<b>SE3</b>	0.948
<b>SE4</b>	0.953
<b>SE5</b>	0.956
<b>SE6</b>	0.955
<b>SE7</b>	0.908
<b>SE8</b>	0.897
<b>SE9</b>	0.916
<b>SE10</b>	0.892

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## 4.6 Internal Consistency (Reliability)

Two important criteria were used to evaluate internal consistency: Composite dependability and Cronbach's alpha

### 4.6.1 Cronbach Alpha

The first criterion for assessing internal consistency was Cronbach alpha. By examining the correlation between variables and presuming that each variable has the same degree of dependability and the range of Cronbach alpha values was higher than 0.77. The reliability analysis for the study is shown in Table 4.4. The table displays the Cronbach's alpha value for each variable. The findings demonstrate the Cronbach's alpha value of the all variable. All variable has a Cronbach's alpha

value higher than 0.77, indicating that the variable's question is valid and has good stability.

#### 4.6.2 Composite Reliability (CR)

The composite reliability scale, which runs from 0 to 1, is an appropriate way to evaluate reliability. Hair Jr et al. (2017) represents threshold levels of 0.70. For the composite reliability value to be considered valid and acceptable, it must be more than 0.70. A composite reliability score was higher than 0.70 and 0.70 is regarded as acceptable, however the range of 0.70 to 0.90 for the composite reliability rating is regarded as very good and preferred. Values above 0.90 may indicate redundancy among indicators, suggesting that the items may be too similar or not capturing the full breadth of the construct being measured.

### 4.7 Convergent Validity

Average variance extracted (AVE)" is taken into account and is required to be greater than 0.50 in order to assess convergent validity (Bagozzi & Yi, 1988). For every construct in this investigation, the AVE value exceeded this threshold, as shown in Table.

TABLE 4.6: Reliability

	Cronbach's alpha	Composite reliability (rho.a)	Composite reliability (rho.c)	Average variance extracted (AVE)
<b>PP</b>	0.973	0.973	0.979	0.901
<b>SE</b>	0.981	0.981	0.983	0.855
<b>SL</b>	0.974	0.975	0.977	0.765
<b>TC</b>	0.957	0.96	0.967	0.855
<b>TS</b>	0.957	0.958	0.969	0.887

### 4.8 Discriminant Validity

This is accomplished by applying the Fornell-Lacker method of discriminant validity determination. The Fonell-Lacker approach is used to compare the square root of

the average extracted variance of the research variables, displaying the correlation coefficients of the different variables.

For discriminant validity to be established, the square root of each construct's AVE should be greater than the correlations between that construct and any other construct in the model.

The results indicate that the variables' correlation values are smaller than the square root of each variable's AVE, confirming adequate discriminant validity. The variables' correlation values are smaller than the value of each variable's square root, as indicated in Table.

TABLE 4.7: Discriminant Validity

	<b>PP</b>	<b>SE</b>	<b>SL</b>	<b>TC</b>	<b>TS</b>
<b>PP</b>	0.949				
<b>SE</b>	0.784	0.925			
<b>SL</b>	0.827	0.861	0.874		
<b>TC</b>	0.715	0.763	0.788	0.925	
<b>TS</b>	0.744	0.786	0.789	0.708	0.942

## 4.9 Structural Model

After analyzing the measurement model and all study variables, a structural model was used to evaluate the research hypotheses among all study variables. Eleven variables, each with a mean, make up the second model, a structural model. There were found to be eleven latent variables. The second model, a structural model, consisted of eleven variables, each represented by its mean. These eleven latent variables were identified as key constructs in the study, serving as the foundation for testing the relationships hypothesized in the research framework. The structural model helped to assess the direct, indirect, and moderating effects among these variables, providing insights into how they interact and influence project outcomes.

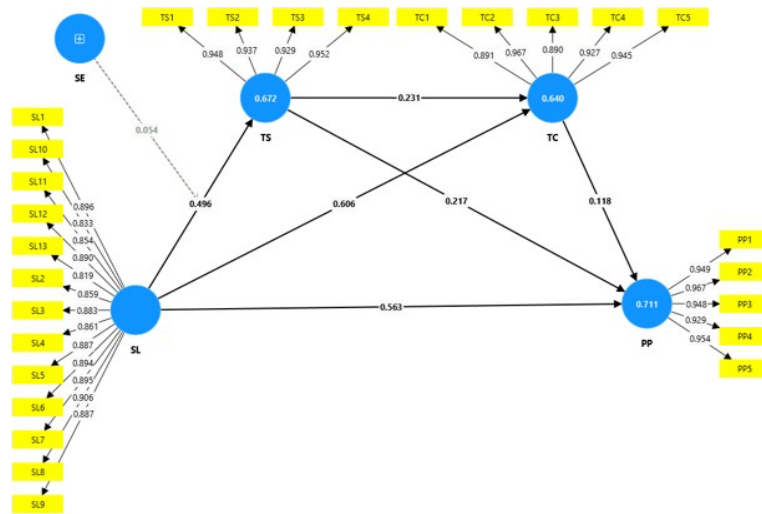


FIGURE 4.1: PLS-SEM Bootstrapping

TABLE 4.8: Direct Relationship

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Value
SE ! TS	0.39	0.068	5.707	0.000
SL ! PP	0.563	0.054	10.431	0.000
SL ! TC	0.606	0.05	12.037	0.000
SL ! TS	0.496	0.075	6.63	0.000
TC ! PP	0.118	0.05	2.357	0.018
TS ! PP	0.217	0.05	4.336	0.000
TS ! TC	0.231	0.057	4.04	0.000

## 4.10 Hypothesis Testing

This section presents the hypothesis testing results based on t-statistic values obtained from the PLS-SEM analysis.

There is a strong correlation between Servant leadership and Project Performance.  $H_1$  is supported because the t-statistic value ( $t = 10.431$ ) lies under the threshold limit of 1.96, indicating a positive relationship between SL and PP. Similarly,  $H_2$ ,

which predicted a positive association between SL and TS, is also supported by its t-statistic value ( $t = 6.630$ ). Hypothesis  $H_3$  is confirmed with a t-statistic of 12.037, indicating a strong association between SL and TC. Lastly,  $H_4$ , which proposed a positive link between TC and PP, is supported by a t-statistic value of 2.357.

$H_5$  is supported because the t-statistic value ( $t = 4.336$ ) lies under the threshold limit of 1.96, indicating a positive relationship between TS and PP. Similarly,  $H_6$ , which predicted a positive association between TS and TC, is also supported by its t-statistic value ( $t = 4.040$ ).  $H_5$  is supported because the t-statistic value ( $t = 4.336$ ) exceeds the threshold limit of 1.96, confirming a positive relationship between TS and PP. Similarly,  $H_6$ , which predicted a positive association between TS and TC, is also validated with a t-statistic value of 4.040.

## 4.11 Mediation Analysis

In mediation analysis, the hypothesis was evaluated using the bootstrapping method, which is widely regarded as a robust and reliable technique for calculating indirect effects.

The use of bootstrapping allows for a more accurate estimation of the mediation effects by generating multiple subsamples from the data, ensuring greater reliability in the results.

The diagram indicates a pathway analysis that links servant leadership (SL) with team synergy (TS) and team creativity (TC) as mediators, ultimately affecting project performance (PP). The arrows denote the direction of influence, with the intermediary role of stakeholder engagement enhancing or moderating these relationships.

The mediation process, represented in this diagram, helps illustrate how the interactions between these variables explain the total effects on project outcomes.

The following hypothesis was tested by calculating the indirect effects using a bootstrapping method. The bootstrapping approach is seen to be the most effective and ideal.

TABLE 4.9: Mediation Analysis

	<b>Original sample (0)</b>	<b>Standard deviation (STDEV)</b>	<b>T statistics (—O/ST- DEV—)</b>	<b>2.50%</b>	<b>97.50%</b>
<b>SL ! TS ! PP</b>	0.108	0.028	3.805	0.055	0.165
<b>SL ! TC ! PP</b>	0.072	0.032	2.264	0.004	0.056
<b>SL ! TS ! TC</b>	0.114	0.031	3.709	0.057	0.177
<b>TS ! TC ! PP</b>	0.027	0.013	2.036	0.004	0.056
<b>SL ! TS ! TC! PP</b>	0.014	0.007	1.975	0.002	0.029

Table presents the mediation analysis's results. The H7, is accepted since the t-statistics value ( $t = 3.805$ ) is greater than the threshold limit value of 1.96. demonstrating that team synergy (TS) effectively mediates the relationship between servant leadership (SL) and project performance (PP). Furthermore, hypothesis H8 is also supported, evidenced by the t-statistics value ( $t = 2.264$ ), which reinforces the mediating role of team creativity in the context of servant leadership and project performance. Additionally, hypothesis H9 is accepted, which posits that both team synergy and team creativity sequentially mediate the relationship between SL and PP; this is supported by the t-statistics value ( $t = 1.975$ ), again exceeding the critical threshold of 1.96. These results underscore the importance of both TS and TC as vital mediators in enhancing project performance through servant leadership. Overall, the findings contribute to a deeper understanding of how these variables interact within the framework of project management. This insight can help organizations leverage servant leadership strategies to optimize team dynamics and achieve superior project outcomes.

## 4.12 Moderation Analysis

The (SE) was identified as a moderator in the theoretical framework of this study. Table highlights the moderating influence of (SE) in the relationship between servant leadership and project performance. This analysis indicates how SE strengthens or weakens the effect of SL on PP, providing insights into the conditions

under which servant leadership is most effective. The moderating influence of SE enhances our understanding of how external stakeholder involvement can influence internal project outcomes and team dynamics. Specifically, when SE is high, the link between SL and PP becomes more pronounced, suggesting that actively involving stakeholders enhances team cohesion, decision-making processes, and overall project success. This moderation effect further validates the importance of external stakeholder contributions in optimizing the impact of servant leadership on project performance, thereby offering practical implications for project management strategies that emphasize stakeholder collaboration. Ultimately, these findings underscore the need for leaders to foster strong relationships with stakeholders.

TABLE 4.10: Moderation Analysis

	Original sample (O)	Standard deviation (STDEV)	T statistics (—O/STDEV—)	2.50%	97.50%	P-values
<b>SE x SL ! TS</b>	0.054	0.017	3.102	0.02	0.087	0.002
<b>SE x SL ! TS ! TC</b>	0.012	0.005	2.36	0.004	0.024	0
<b>SE x SL ! TS ! TC ! PP</b>	0.001	0.001	2.638	0	0.004	0.102

According to tstatistical results ( $t= 3.102$ ), the  $H_{10}$  has been Supported. As a result, it can be concluded that SE act as a moderator between SL and PP. Hence, it will moderate the relationship between SL and TS. According to tstatistical results ( $t= 2.638$ ), the  $H_{11}$  has been Supported which state that Stakeholder engagement positively moderates the mediation impact of team synergy and team creativity between the Servant leadership and project performance According to tstatistical results ( $t= 3.709$ ), the  $H_{12}$  has been Supported. As a result, it can be concluded that Team synergy mediate the relationship between team creativity and servant leadership According to t statistical results ( $t= 2.036$ ), the  $H_{13}$  also has been Supported. As a result, it can be concluded that Team creativity mediate the relationship between team synergy and project performance.  $H_{14}$  ( $t=2.360$ ) is also Supported. As a result, it can be concluded that Stakeholder engagement moderates the mediation effect of team synergy between team creativity and servant leadership.

TABLE 4.11: Hypotheses Summary

	<b>Statements</b>	<b>Results</b>
$H_1$	Servant leadership is positively associated with Project Performance.	Supported
$H_2$	Servant leadership has positive impact on Team synergy	Supported
$H_3$	Servant leadership has positive impact on Team creativity.	Supported
$H_4$	Team Creativity has positive impact on Project Performance.	Supported
$H_5$	Team synergy has positive impact on Project Performance.	Supported
$H_6$	Team synergy positively mediates between the impact of Servant leadership and Project Performance.	Supported
$H_7$	Team Creativity positively mediates between the impact of Servant leadership and Project Performance.	Supported
$H_8$	Team synergy and Team Creativity Sequentially mediates the relationship between Servant leadership and Project Performance.	Supported
$H_9$	Stakeholder engagement positively moderates between the impacts of Servant leadership on team synergy.	Supported

continued ...

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<b>H<sub>10</sub></b>	Team synergy has positive impact on Team creativity.	Supported
<b>H<sub>11</sub></b>	Stakeholder engagement positively moderates the mediation impact of team synergy and team creativity between the Servant leadership and project performance.	Supported
<b>H<sub>12</sub></b>	Stakeholder engagement positively moderates the mediation impact of team synergy and team creativity between the Servant leadership and project performance.	
<b>H<sub>13</sub></b>	Stakeholder engagement moderates the mediation effect of team synergy between team creativity and servant leadership	Supported
<b>H<sub>14</sub></b>	Team creativity mediate the relationship between team synergy and project performance	Supported

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# Chapter 5

## Discussion & Conclusion

### 5.1 Introduction

This chapter encompasses an exploration of the study's findings and their implications. It delves into the examination of hypotheses, their validation or refutation, theoretical and practical consequences, the study's strengths and limitations, as well as potential future directions. Additionally, this chapter's goal is to provide a thorough conclusion based on the entire study.

### 5.2 Discussion

This study's main goal is to investigate the relationship between Servant Leadership (SL) and Project Performance (PP). Specifically, it will look at the moderating effect of Stakeholder Engagement (SE) as well as the mediating role of Team Synergy (TS) and Team Creativity (TC). The main goals of the study are to ascertain whether more SL results in improved project outcomes and how much SL affects TS, TC, and PP. Several project-based groups provided the data.

A positive association between SL and PP is found by the investigation. Additionally, it was shown that there were positive relationships between SL and TC and TS. It was discovered that SE moderates the effects of SL on TS, TC, and PP, while TS and TC sequentially mediate the link between SL and PP. These results

are in line with the research, which contends that SL creates an atmosphere that encourages creativity and teamwork, improving project outcomes in the process (Siddiquei et al., 2021; Luu, 2019).

The outcomes indicate that TS significantly acts as a mediator in the relationship between SL and PP (Hoegl and Gemuenden, 2001). Additionally, TC mediates the relationship between SL and PP. SE was found to be a significant moderating variable, exhibiting a strong relationship with both TS and TC, and thereby influencing PP (Vahdani and Shams, 2020).

Examining the relationship between SL and PP in Pakistani project-based organizations was the main objective of the study. Furthermore, the interaction between SL and PP was assessed while taking TS and TC's mediating roles into account. It was also evaluated how SE functioned as a moderator in the relationship between SL and PP. By emphasizing the crucial role that SL plays in promoting team dynamics and enhancing project outcomes, these findings add to the body of knowledge already in existence (Freeman, 2010).

The research findings suggest that SL has a positive impact on PP and also positively affects TS and TC. This suggests that in order to build team creativity and synergy and improve project performance, leaders must be appropriately identified and empowered. Therefore, organizations should focus on cultivating servant leadership qualities in their leaders. One important element that contributes to the benefits of SL on PP is SE. In order to increase the probability of project success by means of improved project performance, companies should give priority to developing a network of involved stakeholders (Vahdani and Shams, 2020).

### 5.2.1 Servant Leadership and Project Performance

Hypothesis H<sub>1</sub>: Project performance has a good correlation with servant leadership. In this case,  $P = 0.00$  shows that there is a substantial correlation between project performance and servant leadership. The data analysis demonstrates that project performance and servant leadership are positively correlated. This is consistent with research showing that leaders who demonstrate servant leadership traits like

empathy, empowerment, and moral behavior create a positive and effective work atmosphere. This setting improves team morale and productivity, which eventually results in better project results (Spears, 1996; Liden et al., 2015).

### 5.2.2 Servant Leadership and Team Synergy

Hypothesis H<sub>2</sub>: Team synergy is positively impacted by servant leadership. In this case,  $P = 0.00$  shows that there is a substantial correlation between team synergy and servant leadership. The data analysis shows that team synergy and servant leadership are positively correlated. This is in line with research that suggests servant leaders encourage teamwork, communication, and trust. In actuality, servant leaders place a strong emphasis on respect for one another and common objectives, which promotes harmonious teamwork and increases team cohesion. Servant leaders' teams are more likely to have better degrees of synergy, which improves teamwork and problem-solving abilities (Greenleaf, 1970; van Dierendonck et al., 2021).

### 5.2.3 Servant Leadership and Team Creativity

Hypothesis H<sub>3</sub>: Team creativity is positively impacted by servant leadership. In this case,  $P = 0.00$  shows that there is a substantial correlation between team creativity and servant leadership. The data analysis demonstrates that team creativity and servant leadership are positively correlated. Servant leaders foster an atmosphere of psychological safety and openness that promotes creativity, risk taking, and idea exchange. Increased team creativity and invention result from this empowerment, which also improves project outcomes (Neubert et al., 2008; Yoshida et al., 2014).

### 5.2.4 Team Creativity and Project Performance

Hypothesis H<sub>4</sub>: Project performance is positively impacted by team creativity.  $P = 0.00$  in this case shows a substantial correlation between project performance

and team creativity. The results of the data analysis show that team creativity and project performance are positively correlated. Novel techniques and creative solutions help teams overcome obstacles and provide better project outcomes and performance, which is why they are important for project success (Amabile, 2018; Shalley and Gilson, 2004). This underscores the critical role of fostering a creative environment within teams to enhance their ability to achieve project goals.

### 5.2.5 Team Synergy and Project Performance

Hypothesis H<sub>5</sub>: Project performance is positively impacted by team synergy.  $P = 0.00$  in this case shows that team synergy and project performance are significantly correlated. The data analysis shows that project performance and team synergy are positively correlated. Team members that work well together, communicate, and coordinate to complete tasks more quickly improve project performance. Project objectives are more successfully attained when team members collaborate well (Sivasubramaniam et al., 2002; Mathieu et al., 2008). This highlights the importance of cultivating a collaborative team environment to maximize overall project success.

### 5.2.6 Mediation of Team Synergy between Servant Leadership and Project Performance

Hypothesis H<sub>6</sub>: Team Synergy positively mediates between the impact of Servant Leadership and Project Performance. Here,  $P = 0.00$ , indicating a significant mediation effect. The data analysis reveals that Team Synergy (TS) serves as a mediator between Servant Leadership (SL) and Project Performance (PP). Servant leaders enhance team synergy by fostering collaboration, trust, and communication, which positively impacts project performance. This finding supports the hypothesis that Team Synergy is a key mechanism through which Servant Leadership influences Project Performance (Klein, 2014).

### **5.2.7 Mediation of Team Creativity between Servant Leadership and Project Performance**

Hypothesis H<sub>7</sub>: Team Creativity positively mediates between the impact of Servant Leadership and Project Performance. Here,  $P = 0.00$ , indicating a significant mediation effect. The data analysis reveals that Team Creativity (TC) mediates the relationship between Servant Leadership (SL) and Project Performance (PP). Servant leaders foster creativity and innovation within teams, which leads to the generation of novel solutions and improved project outcomes. This finding supports the hypothesis that Team Creativity is a crucial mechanism through which Servant Leadership impacts Project Performance ([Zhang et al., 2021](#)).

### **5.2.8 Sequential Mediation of Team Synergy and Team Creativity**

Hypothesis H<sub>8</sub>: Team Synergy and Team Creativity sequentially mediate the relationship between Servant Leadership and Project Performance. Here,  $P = 0.00$ , indicating a significant sequential mediation effect. The data analysis reveals that Team Synergy (TS) and Team Creativity (TC) sequentially mediate the relationship between Servant Leadership (SL) and Project Performance (PP). Servant leaders enhance team synergy and creativity, which collectively lead to the development of innovative solutions and improved project performance. This finding supports the hypothesis that Team Synergy and Team Creativity are sequential mechanisms through which Servant Leadership influences Project Performance ([Wang et al., 2014](#)).

### **5.2.9 Moderating Effect of Stakeholder Engagement on Team Synergy**

Hypothesis H<sub>9</sub>: Stakeholder Engagement positively moderates between the impacts of Servant Leadership on Team Synergy. Here,  $P = 0.00$ , indicating a significant moderating effect. The data analysis reveals that Stakeholder Engagement (SE) moderates the relationship between Servant Leadership (SL) and Team Synergy

(TS). Active involvement of stakeholders enhances team synergy by supporting collaboration and alignment of goals, which positively impacts project performance. This finding supports the hypothesis that Stakeholder Engagement amplifies the positive impact of Servant Leadership on Team Synergy (Freeman, 2010; Morgeson et al., 2010). Consequently, organizations should prioritize stakeholder involvement to leverage the benefits of servant leadership fostering a more synergistic team environment. This approach not only enhances team dynamics but also contributes to achieving successful project outcomes. Moreover, recognizing the value of stakeholder perspectives can lead to solutions.

### 5.2.10 Team Synergy and Team Creativity

Hypothesis H<sub>10</sub>: Team creativity is positively impacted by team synergy. In this case,  $P = 0.00$  shows that team synergy and team creativity have a substantial association. The data analysis shows that team creativity and synergy are positively correlated. A creative atmosphere is produced by team members that work well together and communicate with one another. Cohesion among team members allows them to take use of different viewpoints and ideas, which boosts creativity (Pirola-Merlo and Mann, 2004).

### 5.2.11 Moderated-Mediation of Stakeholder Engagement

Hypothesis H<sub>11</sub>: Stakeholder Engagement positively moderates the mediation impact of Team Synergy and Team Creativity between Servant Leadership and Project Performance. Here,  $P = 0.00$ , indicating a significant moderated-mediation effect. The data analysis reveals that Stakeholder Engagement (SE) moderates the mediation effects of Team Synergy (TS) and Team Creativity (TC) between Servant Leadership (SL) and Project Performance (PP). Active stakeholder engagement enhances collaboration and creativity within teams, which collectively improve project outcomes. This finding supports the hypothesis that Stakeholder Engagement strengthens the mediation effects of Team Synergy and Team Creativity on Project Performance (Aaltonen, 2024).

### **5.2.12 Team Synergy Mediates the Relationship between Team Creativity and Servant Leadership**

Hypothesis H<sub>12</sub>: Team Synergy mediates the relationship between Team Creativity and Servant Leadership. Here,  $P = 0.00$ , indicating a significant mediation effect. The data analysis reveals that Team Synergy (TS) positively mediates the relationship between Team Creativity (TC) and Servant Leadership (SL). Team synergy enhances the implementation of creative efforts within teams, which reinforces servant leadership practices. Teams with strong synergy are better equipped to implement innovative ideas and strategies, aligning with servant leadership principles (Brown et al., 2020). This finding emphasizes the critical role of fostering team cohesion in enhancing creative outputs.

### **5.2.13 Stakeholder Engagement Moderates the Mediation Effect of Team Synergy between Team Creativity and Servant Leadership**

Hypothesis H<sub>13</sub>: Stakeholder Engagement moderates the mediation effect of Team Synergy between Team Creativity and Servant Leadership. Here,  $P = 0.00$ , indicating a significant moderating effect. The data analysis reveals that Stakeholder Engagement (SE) moderates the mediation effect of Team Synergy (TS) between Team Creativity (TC) and Servant Leadership (SL). Active stakeholder engagement enhances team synergy, enabling teams to leverage creativity more effectively. This finding supports the hypothesis that Stakeholder Engagement strengthens the positive impact of Team Synergy on the relationship between Team Creativity and Servant Leadership (Thompson and Berg, 2021).

### **5.2.14 Team Creativity Mediates the Relationship between Team Synergy and Project Performance**

Hypothesis H<sub>14</sub>: The relationship between team synergy and project performance is mediated by team creativity. In this case, a substantial mediation effects indicated

by  $P = 0.00$ . According to the data analysis, the relationship between Team Synergy (TS) and Project Performance (PP) is mediated by Team Creativity (TC). Teams that collaborate well and work well together foster a creative atmosphere that produces creative solutions and better project results. The idea that Team Creativity amplifies the beneficial effect of Team Synergy on Project Performance is supported by this research (M. and Turner, 2020).

## **5.3 Research Implications**

### **5.3.1 Theoretical Implications**

This study contributes significantly to the existing literature by examining the complex interplay between Servant Leadership, Team Synergy, Team Creativity, and Project Performance. It advances the theoretical understanding by proposing and testing a model where Team Synergy and Team Creativity serve as mediators between Servant Leadership and Project Performance. Additionally, it introduces Stakeholder Engagement as a moderating variable that strengthens the positive effects of Servant Leadership on team dynamics and overall project outcomes. By integrating these variables, the study provides a comprehensive framework that enhances the understanding of how leadership and team dynamics interact to influence project success, particularly within the context of public sector organizations in Pakistan.

### **5.3.2 Practical Implications**

The findings of this study offer valuable insights for Project Managers and Senior Management in project-based organizations. The research highlights the critical importance of adopting Servant Leadership to foster Team Synergy and Team Creativity, which are essential for achieving high Project Performance. Practically, this suggests that organizations should invest in leadership development programs that emphasize the principles of Servant Leadership to enhance team dynamics and project outcomes. Moreover, the study underscores the role of Stakeholder

Engagement in reinforcing the positive impacts of Servant Leadership on project success. Therefore, project leaders should actively engage stakeholders to support and enhance the performance of their teams. This study also highlights the need for recognizing and developing leadership qualities that promote team collaboration and creativity, which are key drivers of successful project execution.

## **5.4 Limitations of Research**

Although every effort was made to overcome the limitations while conducting this study, there are still some. Every study has some drawbacks because it is impossible to address every drawback in a single study. This study has addressed certain gaps, and concurrently, it possesses certain limitations and reservations.

A significant limitation of this research lies in the constraints imposed by time and resources. The data collection process was confined to a specific time frame due to these limitations. Moreover, the data was solely collected from Project-based organizations situated in Islamabad and Rawalpindi, with an exclusive focus on these two cities. The outcomes could have potentially been enhanced if data were sourced from other regions across Pakistan, thus resulting in more comprehensive and refined results.

Given the constraints of a restricted timeframe, collecting data individually from Technical and Non-Technical Employees posed a considerable challenge. Another constraint arose from the use of convenience sampling, which involves collecting data randomly from a sizable population. The busy schedules of employees resulted

## **5.5 Future Research Directions**

This study investigates the impact of Servant Leadership on Project Performance through the sequential mediation of Team Synergy and Team Creativity, as well as the moderated-mediation effect of Stakeholder Engagement. Future research could explore other dimensions of these variables using alternative mediators that influence project performance. There are still numerous unexplored avenues for

further investigation. The assumption that Stakeholder Engagement positively moderates the relationship between Servant Leadership and project outcomes should be reevaluated across diverse Project Management domains and other departments.

To gain a more comprehensive understanding, future studies should consider different contexts and a broader population, requiring a re-evaluation of all assumptions. The data collection for this study was limited to public sector organizations with a sample size of 410, which may not be representative enough to generalize the findings to the entire country accurately.

Due to time constraints, this study only examined one moderator. However, future researchers have the opportunity to adapt the model and investigate additional variables that impact both Team Synergy and Project Performance. It is suggested that further investigation could involve testing the same model while introducing other moderators, such as Transformational Leadership and workplace dynamics. Moreover, it is recommended to assess this model by incorporating additional variables in diverse sectors of project-based organizations, such as those focused on infrastructure or construction. This would provide a broader perspective and contribute to a deeper understanding of the mechanisms through which servant leadership impacts project performance.

## **5.6 Conclusion**

This study investigated the Impact of Servant Leadership on Project Performance, with a focus on the sequential mediation of Team Synergy and Team Creativity, and the moderated-mediation of Stakeholder Engagement. Data collection was conducted through a questionnaire survey administered within project teams in various sectors. The primary objective was to understand how Servant Leadership influences Project Performance, considering the mediating roles of Team Synergy and Team Creativity, and the moderating effect of Stakeholder Engagement.

A total of 500 questionnaires were distributed, with 410 fully completed responses included in the final analysis. Statistical analysis using PLS 4 confirmed the

reliability and suitability of the model. The hypotheses derived support from the theoretical framework of social exchange theory.

This study contributes significantly to the understanding of how Servant Leadership impacts Project Performance through its sequential mediation by Team Synergy and Team Creativity, and its moderated-mediation by Stakeholder Engagement. The findings highlight the importance of Servant Leadership in fostering collaborative team dynamics and innovative thinking, which collectively enhance overall project outcomes.

Within the context of IT sector, this research validated several hypotheses, demonstrating that Servant Leadership positively influences both Team Synergy and Team Creativity. Furthermore, Team Synergy and Team Creativity were found to sequentially mediate the relationship between Servant Leadership and Project Performance. Stakeholder Engagement was identified as a crucial moderator, enhancing the indirect effect of Servant Leadership on Project Performance through Team Synergy and Team Creativity.

The use of (Smart PLS 4) facilitated a comprehensive analysis, offering insights into the intricate dynamics among these variables within project environments.

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# Appendix



CAPITAL UNIVERSITY OF SCIENCE AND TECHNOLOGY  
ISLAMABAD

Department of Management Sciences

## Questionnaire

Dear Respondent

I am MS (Project Management) re- search scholar at Capital University Science and Technology (CUST), Islamabad; I am collecting data for my thesis, **Impact of servant Leadership on Project Performance: The Mediating Role of team, Moderating Role of stakeholder engagement**. It will take you 10-15 minutes to answer the questions and to provide valuable information. I assure you that data were be strictly kept confidential and were only be used for academic purposes

Sincerely,

Fizyan Ahmad Rashid,

MS Research Scholar,

Faculty of Management and Social Sciences,

Capital University Science and Technology, Islamabad.

## Section 1: Demographics

Gender	1Male 2Female
Age(years)	1 (18-25) 2 (26-33), 3 (34-41), 4 (42-49), 5 (50-above)
Qualification	1 (Matric), 2 (Bachelor), 3 (Master), 4 (MS/M.Phil.), 5 (PhD)
Experience(years)	1 (5 and Less), 2 (6-13), 3 (14-21), 4 (22-29), 5 (30- above)

## Section 2: Servant Leadership

Please mention your level of agreement on the following statements about Servant leadership in your Institute on five-point Likert scale (**1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree**).

#	Statement	1	2	3	4	5
1	Project manager spends the time to form quality relationships with project employees.					
2	Project manager creates a sense of community among Project employees.					
3	Project managers' decisions are influenced by Project employees input.					
4	Project manager tries to reach consensus among Project employees on important decisions.					
5	Project manager makes the personal development of Project employees a priority.					
6	Project manager holds department employees to high ethical Standards.					
7	Project manager does what she or he promises to do.					
8	Project manager balances concern for day-today details with projections for the future.					
9	Colleagues criticizing something they regard as a negative trait or feature of an absent person					
10	Project manager displays wide-ranging knowledge and interests in finding solutions to work problems.					
11	Project manager makes employees feel like they work with him, not for him.					
12	Project manager encourages department employees to be involved in community service and volunteer activities outside work.					

13	Project manager displays wide-ranging knowledge and interests in finding solutions to work problems.					
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### Section 3: Team Synergy

Please mention your level of agreement on the following statements about Servant leadership in your Institute on five-point Likert scale (**1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree**).

#	Statement	1	2	3	4	5
1	I feel that I am a part of the team.					
2	My team works together better than most teams on which I have worked.					
3	My teammates and I help each other better than most other teams on which I have worked.					
4	My teammates and I get along better than most other teams on which I have worked.					

### Section 4: Team Creativity

Please mention your level of agreement on the following statements about Servant leadership in your Institute on five-point Likert scale (**1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree**).

#	Statement	1	2	3	4	5
1	My team encourages innovative ideas and solutions.					
2	Members of my team freely share creative thoughts and perspectives.					
3	My team fosters an environment where creativity is valued and rewarded.					

4	Collaborative brainstorming sessions are common in my team.					
5	My team effectively combines diverse viewpoints to generate innovative solutions.					

## Section 5: Project Performance

Please mention your level of agreement on the following statements about Servant leadership in your Institute on five-point Likert scale (**1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree**).

#	Statement	1	2	3	4	5
1	Our project is meeting operational specifications.					
2	Our project is meeting technical specifications.					
3	Our project is meeting time goals.					
4	Our project is meeting budget goals.					
5	Our project is fulfilling client needs.					
6	Our client is satisfied with the project's performance.					

## Section 6: Stakeholder Engagement

Please mention your level of agreement on the following statements about Servant leadership in your Institute on five-point Likert scale (**1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree**).

#	Statement	1	2	3	4	5
1	Project stakeholders were formally identified.					
2	Stakeholders were classified by their level of influence, power, and interest in the project.					

3	Stakeholders of the project, especially those with high power and influence, had their needs deployed in actions and activities throughout the life of the project.				
4	Stakeholders were mapped by the level of urgency and legitimacy in the project.				
5	The Stakeholders of the project had their objectives open in actions and activities.				
6	During the execution of the project, inclusions and/or changes in activities were planned to adapt the identified needs of the Stakeholders.				
7	There has been frequent communication with the main Stakeholders regarding the project.				
8	There were actions to engage Stakeholders throughout the life of the project.				
9	There were actions to strengthen relationships with Stakeholders throughout the life of the project.				
10	I believe that Stakeholders were engaged in the project.				