

Impact of Servant Leadership on Project Success: A Case of Mediation Analysis

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Abstract. Guided by social exchange theory, this research explores the influence of servant leadership on project success and scrutinizes the mediating roles of team identity, team communication, team empowerment, and team performance. Utilizing a cross-sectional design, data were gathered from 350 professionals actively engaged in leading Information Technology firms in Pakistan. The collected data were meticulously evaluated through Smart PLS-4 to uncover the underlying relationship between servant leadership and project success. The findings affirm that servant leaders' effects project success positively. Moreover, team identity, team communication, empowerment, and performance intervene this affiliation. The study findings underscore the significance of servant leadership for Information Technology firms aiming to realize project success. Project leaders are encouraged to embrace servant leadership behaviors to advance team dynamics and overall project outcomes. This study makes a substantial contribution by empirically demonstrating the mediating function of key team dynamics in the association amid servant leadership and project success within the Information Technology firms.

Key words: Servant leadership, Project success, Team outcomes, Social exchange theory

1 Introduction

Project success has become a central focus of project management research (Shaukat et al., 2022). Originally, the concept was defined by the 'iron triangle' of scope, cost and time. Conversely, contemporary perspectives have expanded to embrace a wide-ranging criteria including clearly defined project plan, stakeholder contentment, firms' effectiveness, and the overall benefits of deliverables (Aga et al., 2016; Latif et al., 2020; Lee et al., 2011). This shift reveals a profound acceptance that project success is multidimensional in nature and cannot be completely apprehended by traditional metrics alone. The existing literature progressively documented that project success centers on different situational elements, the methods applied, and importantly, the leadership approach guiding the project trajectory (A. Wahab et al., 2025; Chmielarz, 2015; Schwalbe, 2010).

In our time, as businesses navigate the complexities of vigorous and competitive environment, traditional leadership approaches are evidencing insufficient (Shaukat and Alam, 2024).

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The pressures of stakeholders' participation and sustainability, demand new approaches to leadership which flexible and forward-looking (Iqbal and Ahmad, 2021; Mabey et al., 2012; Moehler et al., 2018). Under these circumstances, servant leadership style has emerged as a persuasive approach. By prioritizing the requirements of stakeholders and project teams, servant leadership provides a path to expand project outcomes by overcoming the prevailing challenges that define modern business landscapes (Lu et al., 2024; Mombeuil et al., 2023; Zada et al., 2024).

The embryonic addition of leadership in project management demands conduct that do more than just produce outcomes; they must also support the individuals who drive those outcomes. Servant leadership is an approach that upends the traditional leadership pyramid by engaging the leader in service to their team members (Greenleaf, 1970). Contrasting conventional frameworks that stress top-down control, servant leader centers on empowering project teams (Liden et al., 2015). Servant leaders encourages workforce to engross in creative and innovative efforts which help them in augmenting positive project outcomes. In the past few years practitioners have turned their attention to accessing the impact of servant leadership on PS (Ellahi et al., 2022; Mombeuil et al., 2023). Nonetheless, the body of research to date has been somewhat fragmented, resultant in inconsistent outcomes and underlining significant gaps for a more comprehensive and consistent investigation of how servant leadership influences project success (Nauman et al., 2022; Zada et al., 2024).

The Conservation of Resources theory (COR), suggest that workforces necessitate specific psychological resources including psychological safety and a sense of thriving, to manage workplace challenges more efficiently (Hobfoll, 1989). Even though COR theory highlights the prominence of these internal resources, however, it does not fully capture the broader relational dynamics within a workplace. On the other hand, the Social Exchange Theory (SET), which is guided in the norms of reciprocity Gouldner (1960), provides a more thorough perspective in the interaction owing to leadership practices and employee outcomes (Blau, 1964). SET theory has been broadly acknowledged in extant research to explore the link owing to servant leadership and several employee traits, especially through mechanisms including leader-member exchange and trust (Bao et al., 2018; Jaiswal and Dhar, 2017). We claim that although psychological resources are indispensable, yet, they are alone inadequate to completely stimulate affirmative employee outcomes. Maintaining a strong exchange-relationship between leader and followers is equally important. Despite the widespread application of SET in examining diverse leader-follower dynamics Xuecheng et al. (2022), there is exist a noteworthy research gap in uncovering how servant leaders influences specific employee behaviors that improve performance consequences (Ellahi et al., 2022; Lu et al., 2024). Specially, the utility of team identity, communication, empowerment and team performance as mediators in link owing to servant leadership and PS is still remains unexplored (Bao et al., 2018; Iqbal et al., 2020; Latif et al., 2020).

A recent research conducted by Siddiqui et al. (2023), called for an in-depth assessment of the overlooked underlying mechanisms that bridge the link between several leadership style and PS. They emphasized that there is a dire need to fill this gap by considering team-related factors such as team identity, team empowerment, communication and performance as facilitating functions in this association. To fulfill this gap, this study seeks to address this critical call for research by illuminating how different team related variables mediate the effect of servant leadership on PS. In doing so, the objectives of this study lies to address gaps in the literature by moving beyond COR theory and exploring how team dynamics (i.e. team identity, communication, empowerment, and performance) mediate the relationship between servant leadership and PS within IT sector, considering guiding framework of SET theory. These objectives contribute to a deeper understanding of leadership practices in IT project management.

The rapid evolution of the IT sector has heightened the projects complexity, demanding leadership practices that raise collaboration, adaptability, and high performance. In project based setting servant leadership has gained importance due to its focus on team identification and empowerment (Zada et al., 2024). Nevertheless, IT projects still face challenges related to communication gaps, team development and performance (Afzal et al., 2018). This research addresses this gap by accessing the mediating role of team dynamics within IT projects context, offering insights into leadership practices that can drive successful project outcomes in the ever-evolving IT landscape. Consequently, our research questions are:

1. What is the impact of servant leadership on project success?
2. Whether team identity mediates the relationship between servant leadership and project success?
3. Whether team communication mediates the relationship between servant leadership and project success?
4. Whether team empowerment mediates the relationship between servant leadership and project success?
5. Whether team performance mediates the relationship between servant leadership and project success?

2 Theoretical background and Hypotheses Development

2.1 Servant leadership and PS

Servant leadership has developed as a significant paradigm, stressing the prominence of leaders' prioritizing the necessities of subordinates, raising a culture of trust, and empowering employees to realize their entire capability (Greenleaf, 1970; Spears, 2002). This leadership style has been significant in project management, wherever aligning team efforts toward shared goals is crucial for project success. Servant leaders stresses the growth and well-being of project teams, which impact directly to their ability to perform tasks competently (Liden et al., 2015, 2008).

One of the vital feature of servant leadership is its ethical foundation and people-oriented concentration, which contribute towards PS. For example, (Eva et al., 2019; Van Dierendonck et al., 2014), argued that servant leaders create a working milieu conducive to meeting project obligations and confirming stakeholder fulfilment. Through prioritizing project teams comfort, the servant leader nurtures an optimistic work climate that further supports them to accomplish project goals. The influence of servant leaders on PS is evident in its capacity to form cohesive team. Scholars including Redick (2014), underline that forming a cohesive team is among the prominent challenges for project sponsors. The servant leader addresses this impediment by aiming at team identification and mutual trust. By way of prioritizing project team necessities, and nurturing a supportive work milieu, servant leadership cultivates a sturdy sense of agreement and shared purpose within the project teams. This interconnection is important for project success, as it confirms collective teamwork to realize common goals.

Liden et al. (2015), analyzed the function of servant leaders in fostering team identification and encouraging intergroup cooperation. They found that servant leadership through responsiveness and community building traits, figures an environment where project teams can prosper. This working atmosphere supports the expansion of an energetic team identity vital for

effective collaboration and project success. Likewise, [Spears \(2002\)](#), supports this aspect by identifying key qualities of servant leadership such as listening, foresight, and stewardship, which subsidize to positive project outcomes. These traits assist servant leadership in addressing the needs of their potential team efficiently and nurturing a collaborative work environment. Servant leader's proves respected in such circumstances where project managers have inadequate authority over their team. [Bondin \(2022\)](#), noted that project managers often face conflicting priorities and limited control over their team pay and disciplinary actions. In such a state, forming trustworthy relationships becomes essential. Servant leader excel in this facet by placing on serving teams and demonstrating humility. This method assistances in forming team trust and fostering positive connotations, which is vital for project success.

[Van Dierendonck \(2011\)](#), stressed that servant leadership is the necessity of the information age, where managerial role are shifting towards assistance instead of direct supervision. In this consequence, servant leader emphasis on empowering their teams and support for their development becomes increasingly vibrant. Scholars including, [Liden et al. \(2014\)](#), support this perspective by stating that servant leadership contributes to an empowering and supportive work milieu for attaining project success. Present literature highlights the confirmatory effect of servant leaders on project outcomes. For example, [Nauman et al. \(2022\)](#), found that leader who encourages robust, and trustworthy relationship with team members are more effective in realizing project outcomes. The finding proves that servant leadership, with its center on developing positive relationships and prioritizing followers needs, is seemly for addressing the challenges faced during project management. By developing a shared and supportive working milieu, servant leaders improves team effectiveness and PS. Likewise, servant leadership is decisive for defining project success and aligning teams' effort with project goals ([Krog and Govender, 2015](#)). Servant leaders' prioritize project team well-being, assists in exploiting the use of firm resources, implements quality standards, and make sure timely project completion. This whole approach to leadership support the successful execution of projects and endows to achievement of desired results.

Past research underscores the significant effect of servant leadership on PS. For instance, [Jaiswal and Dhar \(2017\)](#), argued that servant leader's enhances the link between leadership actions and project goals, leading to heightened project outcomes. Their findings is also reinforced by [Newman et al. \(2018\)](#), who demonstrated that servant leadership correlates with overall PS positively by cultivating an engaging working atmosphere. Also, [Zada et al. \(2024\)](#), discovered that servant leadership enhances project management effectiveness by means of team cohesion and performances. Their outcomes revealed that servant leaders' commitment to empowering their project teams translate into superior quality outcomes. Covering to this, [Lu et al. \(2024\)](#), offer a comprehensive review demonstrating that servant leaders' positively affect project success at both team and structural levels. They emphasized that servant leadership advances team dynamics and cultural context, obligatory for attaining project goals. Their findings further supports a positive work milieu, shaped by servant leadership aligns team efforts with project goals.

[Mombeuil et al. \(2023\)](#), focused on private sector, showing that servant leadership contributes to PS by motivating team identification and climate. Their findings highlighted that how servant leader fosters positive team identity and conducive milieu, which is critical for successful project execution. This exhibited the distinction of servant leadership in shaping a systematized and collaborative team environment. Similarly, in the IT project context, scholar including [Nauman et al. \(2022\)](#), discovered that servant leaders revitalizations PS by improving team communication and cohesion. They highlights that servant leadership emphasis on

shaping vigorous relationships and supporting team members resulting in better project management results. Likewise [Nauman et al. \(2022\)](#), explore the intervening effects of work engagement and identification within servant leadership and PS link. Their study outcomes reflected that servant leadership supplement project success by improving engagement and minimizing withdrawal, which improves overall performance. The findings contributes valuable insight into how servant leader affects project success by means of psychological and behavioral mechanisms. Moreover [Ellahi et al. \(2022\)](#), scrutinize IT sectors, and found that servant leadership improves PS by amplifying team trust and efficacy. The findings reinforces the eminence of servant leadership in cultivating an operative and motivated team, vital for attaining successful project outcomes. Together, these academic works determine that servant leaders directly effects project success by increasing team performance, enthusiasm and solidity. The emphasis on supportive and empowered project teams shapes a conducive milieu to achieve project goals, making servant leadership a persuasive method for driving project success. Consequently, this study set the following hypothesis:

H1: There is a positive influence of servant leaders' on project success.

2.2 Mediating Role of Team Identification

Team identification is related to the shared belief and a sense of acceptance that project team develop within the framework of structured teams correlations. Team identification concept begins from a combined dedication to a unified vision and collective efforts directed at attaining shared goals ([Fiol and O'Connor, 2005](#)). Team identity plays a decisive function in raising operative teamwork by promoting open communication, mutual understanding, and shared efforts. When project teams align with a collective identity, it develops a unified belief that enhances harmony and synchronization within teams ([Taggar and Haines III, 2006](#)). A resilient team identity promotes shared respect and relationship, mitigating dominating tendencies amongst project team members. When teams stick with a unified identity, it promotes their interactions and lifts overall effectiveness by aligning team members' goals with collective priorities rather than individual ambitions ([Van Knippenberg et al., 2004](#)).

The intervening mechanism of team identification in the correlation between servant leadership and project success underlines a pathway to comprehend the impact of leadership qualities on projects concerns. True leadership is renowned for its ability to stimulate team members to pursue a common aim, and meaningfully influence team identification among other elements ([Rafferty and Griffin, 2004](#)). Servant leadership arranges the well-being of project teams by refining a supportive working environment that links with project objectives and stakeholder needs [Van Dierendonck et al. \(2014\)](#), stated that this style nurtures a shared atmosphere where mutual respect and collaborative thrive, and curtailing leading behaviors. Consequently, a communal team identity reinforces interactions and overall value, ensuring that collective objectives are attained over individual pursuits. A strong team identity is meticulously associated with improving team productivity and performance. It nurtures responsibility and agreement amid team members, corresponding personal contributions with the team core objectives. When servant leaders proficiently cultivates this nous of identification, it is becoming a decisive facilitator that enriches project success ([Jaussi and Dionne, 2003](#)). A unified and consistent team identification stimulates team to focus on widespread goals rather than personal ambitions, inspiring creativity and a communal commitment to PS. Hence, the mediating function of team identity in the correlation amid servant leaders and PS underlines the critical function of amalgamated

team dynamics in supplementing positive outcomes (Latif et al., 2020).

Preceding studies highlighted the mediating role of team identity in the relation between leadership practices and PS. Liden et al. (2008), asserted that servant leader's enhances team identity and coordination amongst teams that ultimately impact project outcomes. They emphasized that when project teams are characterized by a strong sense of identification, they are probably work together to attain shared goals, thereby enlightening overall project performance. Similarly, Yang et al. (2020), support this notion by accentuating that servant leaders who embolden a sense of shared identity and collectivism between project teams facilitate improved team dynamics and creative initiatives. The outcomes exhibited that servant leader improve team identity which acts as an outlet for realizing project goals. Likewise, the study by Mombeuil et al. (2023), empirically validated that a well-established team climate and identity promoted through servant leadership is linked with advanced project success rates. Their study suggested that when project participants feel a healthy connection within teams, their commitment and performance progresses. Likewise, Redick (2014), highlighted that a cohesive team identity stimulates the teams to align their efforts with mutual goals, leading to better project success. Moreover, Mitchell et al. (2015), underscored that the function of team identity in leaders-performance link is pivotal, emphasizing the significance of team dynamics in motivating successful project conclusions. Consequently, we set the following hypothesis:

H2: Team identity mediates the link amid servant leadership and PS.

2.3 Mediating Role of Team Communication

Effective communication amplifies the course of information gathering and distribution between teams and heightens team performance which results in project success (Latif et al., 2020). In the modern business setting, numerous organizations employ a team approach to manage multidimensional tasks that may not be processed by individuals alone. Team members are often organized to help business meet deadlines, optimize available resources, leveraging cutting-edge technology and synchronize well among themselves (Siddiqui et al., 2024). Intricate projects frequently cover unstructured tasks and activities necessitating specialized knowledge from diverse fields (Almeida and Soares, 2014; Schwalbe, 2009). Thus, organizations must implement detailed communication strategies, as collaborative teamwork enriches project success efficiently. Teamwork necessitates open communication to sustain performance and awareness of the circumstances. Scholars like Janssen et al. (2015), revealed that project team with improved communication performed superior. Project teams that possess the essential understanding and knowledge for project success are predicted to manage advanced performance. PMBOK stated that communication is an imperative factor in defining the effectiveness of the project teams (Siddiqui et al., 2024). Effective communication positively contributes in achieving project success. In this regard, Patrashkova-Volzdoska et al. (2003), discovered that team communication not only boosts systematic talents but also enhances team members' knowledge and nurturing strong relationships among them. Afzal et al. (2018), contended that leader's induces communication competence within their teams, which stimulate success by confirming transparency in goals and contribute to accomplishing project milestones.

Prior literature witnesses the intervening role of team communication in the linkage between leadership practices and PS. For example, Qubaisi et al. (2015), underlined that leader encourages effective communication which leads towards better understanding of stakeholder necessities and supplements project success. The scholars argued that leaders who expedite open

communication channels subsidizes to realizing project success. Furthermore, scholars including [Jahanshahi et al. \(2017\)](#), found that effective communication within project teams member improves performance and outcomes. Their assessment suggested that team communication is critical for innovative project performance, as it upsurges teams' ability to collaborate and resolve conflicts amongst them. [Boies et al. \(2015\)](#), affirmed that team communication intervenes the correlation between leadership and creative and task performance outcomes. They affirmed that those teams with higher levels of internal communication are probably endeavor superior performance outcomes. Besides, [Sivasubramaniam et al. \(2002\)](#), demonstrated that leaders who promote operational communication, substantially improve project success rates. Their findings highlighted that communication plays a key function in the successful execution of projects. Consequently, we set the following hypothesis:

H3: Team communication mediates the link between servant leadership and PS.

2.4 Mediating Role of Team Empowerment

Team empowerment is a crucial feature of project management where the team members possess the capability to manage numerous situations and make timely decisions ([Mathieu et al., 2006](#)). Empowered teams are positioned to influence governance and managerial decision-making processes efficiently. Scholars like [Gerster et al. \(2018\)](#), noted that empowered teams contribute to noteworthy project successes.

In Information Technology projects, team empowerment enhances agility and innovation. Empowerment characteristics including potency, meaningfulness, and autonomy, play substantial roles in team success ([Kirkman and Rosen, 1999](#)). Potency expresses the shared belief within team members concerning their skill to make favorable choices, while meaningfulness accentuates the significance of the tasks being undertaken for accomplishment. Autonomy relates to the degree of control and independence that team members have in their decision-making which also fosters innovation and encourages collectivism between project teams ([Dikert et al., 2016](#)). Empowering project teams yields improved productivity and successful consequences within projects. Moreover, it has been stressed that team empowerment play a central function in determining project success and establishing as a fundamental aspect of operative project management.

Earlier studies underlined the mediating role of team identity in the linkage amid leadership practices and PS. [Ali et al. \(2020\)](#), examined that team empowerment and innovative work behaviors significantly mediate the linkage between leadership and PS. Moreover, scholars including [Krog and Govender \(2015\)](#), investigated the facilitating role of team empowerment in the linkage between servant leaders and PS. Empirical assessment indicated that servant leadership branded by leaders emphasizing the development and well-being of their teams, enriches team empowerment. This empowerment initiatives encouragements project success. Likewise [Gavard et al. \(2011\)](#), indicated that this leadership style play a pivotal role to empower teams by delegating power and cultivating such an atmosphere that prioritizes participative decision making in project undertakings. This structural arrangement not only deepens the engagement and decision-taking abilities of team members but also contributes to the accomplishment of project success ([Tian et al., 2015](#)). Similarly, [Jha \(2014\)](#), discovered that psychological empowerment potentially intervenes the linkage between leadership practices and performance outcomes. The researcher further stated that empowered teams motivated by inspirational leadership are more engaged and likely to enrich overall organizational performance. Consequently,

we set the following hypothesis:

H4: Team empowerment mediates the link between servant leadership and PS.

2.5 Mediating Role of Team Performance

Teamwork has been recognized as a critical resource for organizational effectiveness. Scholars like [Ozigbo et al. \(2020\)](#), underscore that project teams blend complementary talents and capabilities to yield quality-oriented products, and significantly contribute to meet the strategic objectives and intriguing organizational success. Project leadership offer positive role in team development and facilitates transitions from one stage to another ([Burke et al., 2017](#)). High-performing project team members, facilitated by effective leadership are more likely to accomplish project goals and boost organizational success. Similarly, scholars posited that leaders substantially encouragement performance related outcomes of project teams. Their findings revealed that leader endeavor a significant contribution to team development towards team performance. Servant leader's improved team performance by promoting a supportive and cooperative work milieu, leading to successful project consequences ([Latif et al., 2020](#)).

The past literature highlighted the positive function of team performance in the relationship between various leadership styles and PS. For example, [Lee et al. \(2011\)](#), accessed the mediating function of team performance elements such as team cohesion and work fulfillment in the relationship between leaders and firm effectiveness. Their outcomes echoed that team performance positively intervene the association between transformational leadership approach and performance outcomes. Similarly, [Aga et al. \(2016\)](#), conducted an endeavor by positing whether leadership influences team building and performance. The results reflected that team-building significantly lift the connotation between transformational leadership approach and project success. Additionally scholars inducing [Zada et al. \(2024\)](#), discovered that servant leadership enhances project management efficacy by raising team performance and cohesion. Their conclusion revealed that servant leaders' commitment to empowering and supporting project team translates into superior quality project consequences. Moreover, the findings of [Latif et al. \(2020\)](#), that team performance mediates the linkage between social responsibility and firm success in a positive manner than other team outcomes. Consequently, this study sets the following hypothesis:

H5: Team performance mediates the linkage amid servant leadership and PS.

3 Methodology

3.1 Sample and Method

This endeavor utilized a quantitative, cross sectional research design, and arranged survey research to discover the relationships among servant leadership, team outcomes, and PS. Founded on quantitative research, we systematically assembled and appraised the data to identify patterns and correlations amongst these variables. The study primarily focused on IT firms professionals within Pakistan, containing national and international organizations. The data were collected from IT firms operating in Rawalpindi and Islamabad. These cities serve as major IT hubs in Pakistan and hosting a substantial numbers of IT firms. IT houses are necessary to the economic advancement of emerging states ([A. Wahab et al., 2025](#)). In Pakistan, where

economic evolution is progressively coupled with technological evolution, the successful completion of IT projects has become a demanding zone to focus (Siddiqui et al., 2024). This shift emphasizes a growing emphasis on adopting effective leadership practices within IT firms to enlarge project success. Data collection was accomplished through a structured questionnaire managed through regular working periods, spanning from Mar 2024 to Jun 2024. This timeframe was carefully chosen to ensure an in-depth scrutiny of the variables and their interactions.

A convenience sampling technique was employed, distributing a total of 500 questionnaires to potential respondents. This sample size is selected based on the guidelines of (Roscoe, 1975). Out of these, 350 responses were completed adequately for analysis, achieving a strong response rate. The remaining 38 responses were discarded owing to incomplete answers, but the data from the 350 usable questionnaires were fully intact and related to the current research constructs. Respondents for this research included project team members whose roles are critical to the success of agile projects, and this focus allowed for a detailed investigation into how leadership factors influence project outcomes. The demographic features of the contributors reveal that the sample consisted of 308 male and 42 female participants. Age distribution varied, with the majority of respondents falling into the 31-40 years age group. Respondents' educational backgrounds were classified into intermediate to PhD degrees, with a noteworthy majority possessing a bachelor's degree. Professional experience was segregated in three distinct categories starting from: 1~5 years, 6~10 years, and above 10 years, with the mainstream of respondents having over a decade of experience.

3.2 Measures

To gain insights, questionnaires were disseminated to IT sector professionals, employing a five point Likert scale to acquire their responses. The present research examined various key variables through proven scales adopted from literature. This approach provided a well-structured framework for exploring the effect of important variables on project outcomes in the IT sector. The scale of servant leadership meticulously measured by a means of 7-item scale taken from (Liden et al., 2015). Project success was assessed with a 14-item scale adopted from the work of (Aga et al., 2016). Similarly, scale of team identity was measured using a 4-item scale taken from (Luhtanen and Crocker, 1992). Team communication was measured with a 5-item scale of (Roberts et al., 2004). Team empowerment was assessed through a 6-item scale taken from (Spreitzer, 1995). Team performance was evaluated through a 4 item scale of (Marrone et al., 2007).

3.3 Data Analysis Procedure

This research utilized SPSS tool for initial data processing and examination. The gathered data were entered into SPSS and an in-depth screening procedure was performed. Cleaned dataset that was deemed fit for further analysis was retained. We used Smart-PLS package for the present study model's assessment. The data gathered from research participants were analyzed using PLS-SEM statistical technique favored in social sciences for managing complex relationships (Hair et al., 2014). The application of SEM in leadership studies has been recognized broadly, for its ability to generalize results and reveal intricate interaction within leadership dynamics (Latif et al., 2020; Shaukat et al., 2022).

Current study employed PLS-SEM to discover the intricate relationships between variables. The PLS-SEM process was split up into two unique phases: including the evaluation of the

measurement-model and the estimation of the structural-model. During first phase, we rigorously assessed the measurement model to assure that the constructs were reliable and valid. This involved an efficient investigation of outer-loadings to retain most substantial indicators only, thus refining the model's precision. Reliability metrics like as Cronbach alpha and composite reliability, accessed to ensure internal consistency of the constructs. Furthermore, tests for convergent validity disclosed that related indicators were suitably correlated. In addition, discriminant validity ensured that the constructs were diverse and not overly linked with each other's. These estimates provided a valid empirical foundation for the research framework (Ringle et al., 2020).

In the subsequent phase, this research focused on structural model assessment, which entailed calculating path coefficients to quantify the significance of the proposed relationship. To meticulously evaluate the significance of these path-coefficients, we executed the bootstrap procedure within Smart-PLS. Bootstrapping tactic offered a deeper insight into the underlying mechanisms and associations within the present research framework. By applying SEM in this manner, the finding of the research ensured methodological rigor and presented a comprehensive understanding of the leadership phenomena across different contexts, subsidizing to the wider field with innovative insights into complex variable relationships.

4 Findings

The study outcomes are structured in two fragments: the delineation of measurement model and evaluation of the structural model (Figure 1 & Figure 2).

4.1 Measurement and Structural Model

Initially, we focused on investigative the measurement model to elucidate the study variables such as servant leader, team identity, team empowerment, team communication, team performance and PS. We applied several methods to assess the proposed model which includes loadings, alpha, reliability and assessment of discriminant and convergent validity (Shaukat and Alam, 2024; Siddiqui et al., 2024). Normally, outer-loadings greater than 0.50 are deemed agreeable (Gefen and Straub, 2005). Our outcomes assured that all items satisfied the acceptance criteria. Additionally, alpha is a respected indicator of internal consistency between multiple items, which is generally needs to be greater than 0.70 (Nunnally, 1978). The study exhibited that all the variables demonstrated vigorous alpha-statistics. Furthermore, composite reliability should exceed the threshold of 0.70, and the findings lies within a satisfactory limit across all constructs. Thorough findings are depicted in Table 1.

We computed convergent validity through the technique of Average Variance Extracted, where a value of 0.5 or above is considered congenial. The outcomes revealed all variables satisfied this requirement in order to validate the convergent validity. We applied multifaceted approach to measure discriminant validity mainly through Fornell-Larcker criteria, HTMT ratio and cross loadings analysis (Fornell and Larcker, 1981; Henseler et al., 2015). The values of HTMT ratio should ideally remain less than 0.90, and the study found all constructs secure this threshold limit. Additionally, this study confirm the Fornell-Larcker criteria by establishing each constructs AVE's square root, which was greater than the correlations it had with other constructs. Furthermore, cross loadings revealed that all construct holds satisfactory associations with its items compared to those of other constructs. Thorough findings are depicted in

Tables 2 to 4 respectively.

We evaluated the structural model by following the methodological framework delineated by (Hair, 2014; Hair Jr et al., 2017). This method suggested a thorough assessment of the coefficient of determinations (R^2) and the model's predictive-relevance (Q^2). R^2 was assessed for the endogenous latent constructs, quantifying the variance explained by all constructs (Hair Jr et al., 2017). Additionally, Q^2 indicator was also evaluated to device predictive relevance of the model, with the provision that Q^2 should be equal to zero or above (Stone, 1974). The study outcomes established suitable predictive accuracy and relevance and the same are presented in Table 5.

Table 1: Loadings, Alpha, CR, and AVE

Construct	Item	Loading	Alpha	CR	AVE
Servant Leader	SL 1	.673	0.80	0.81	0.50
	SL 2	.784			
	SL 3	.700			
	SL 4	.742			
	SL 5	.682			
	SL 6	.645			
Team Identification	TI 1	.846	0.83	0.84	0.67
	TI 2	.833			
	TI 3	.777			
	TI 4	.810			
Team Communication	TC 1	.756	0.84	0.85	0.61
	TC 2	.738			
	TC 3	.824			
	TC 4	.774			
	TC 5	.821			
Team Empowerment	TE 1	.745	0.86	0.86	0.59
	TE 2	.807			
	TE 3	.810			
	TE 4	.731			
	TE 5	.777			
	TE 6	.741			
Team Performance	TP1	.811	0.84	0.85	0.68
	TP2	.821			
	TP3	.840			
	TP4	.826			
Project Success	PS 1	.750	0.94	0.94	0.57
	PS 2	.749			
	PS 3	.686			
	PS 4	.718			
	PS 5	.779			
	PS 6	.767			
	PS 7	.729			
	PS 8	.740			
	PS 9	.677			
	PS 10	.756			
	PS 11	.815			
	PS 12	.770			
	PS 13	.810			
	PS 14	.784			

Table 2: Fornell-Larcker Criterion

Construct	PS	SL	TC	TE	TI	TP
Project Success	0.753					
Servant Leadership	0.567	0.706				
Team Communication	0.651	0.538	0.784			
Team Empowerment	0.671	0.561	0.693	0.769		
Team Identification	0.655	0.547	0.562	0.668	0.817	
Team Performance	0.725	0.579	0.684	0.667	0.69	0.825

Table 3: HTMT Ratio

Construct	PS	SL	TC	TE	TI	TP
Project Success						
Servant Leadership	0.648					
Team Communication	0.726	0.648				
Team Empowerment	0.741	0.659	0.808			
Team Identity	0.733	0.647	0.661	0.783		
Team Performance	0.812	0.689	0.811	0.781	0.817	

Table 5: R2 and Q2

Variables	R2	Q2
PS	0.625	0.314
TC	0.290	0.281
TE	0.315	0.307
TI	0.299	0.291
TP	0.335	0.327

4.2 Hypotheses Testing

In order to ascertain the proposed hypotheses, we assessed the direct and indirect relationships between the variables. H1 tested whether servant leadership (SL) positively influences project success (PS). The results indicated a notable effect of SL on PS, showing a strong effect ($\beta = 0.10$, $t = 2.00$, $p < 0.02$), thereby confirming H1. Following, we appraised the mediating role of four teams factors such as identification, communication, empowerment, and performance (H2~ H5). To rigorously test these intervening effects, we applied the bootstrapping technique via Smart PLS-4.

For H2, the analysis revealed a positive indirect effect of SL on PS, mediated through team identification ($\beta = 0.09$, $t = 1.97$, $p < 0.02$). The total effect of SL on PS was also substantial ($\beta = 0.56$, $t = 13.51$, $p < 0.00$). Including the mediating factor of team identity, highlighted a noteworthy impact of SL on PS ($\beta = 0.10$, $t = 2.00$, $p < 0.02$). In contrast, H3 tested the facilitating effect of

Table 4: Cross Loading Analysis

Construct	Items	PS	SL	TC	TE	TI	TP
Project Success	PS 1	0.75	0.459	0.511	0.522	0.487	0.584
	PS 2	0.749	0.397	0.461	0.468	0.479	0.513
	PS 3	0.686	0.414	0.464	0.433	0.451	0.458
	PS 4	0.718	0.475	0.463	0.483	0.497	0.504
	PS 5	0.779	0.415	0.485	0.503	0.466	0.527
	PS 6	0.767	0.413	0.5	0.471	0.507	0.566
	PS 7	0.729	0.407	0.447	0.555	0.491	0.563
	PS 8	0.74	0.458	0.469	0.537	0.459	0.523
	PS 9	0.677	0.433	0.465	0.464	0.466	0.522
	PS 10	0.756	0.415	0.549	0.511	0.499	0.556
	PS 11	0.815	0.38	0.496	0.559	0.522	0.569
	PS 12	0.77	0.393	0.484	0.486	0.481	0.55
	PS 13	0.81	0.476	0.54	0.533	0.559	0.586
	PS 14	0.784	0.444	0.518	0.532	0.533	0.605
Servant Leadership	SL1	0.385	0.673	0.367	0.325	0.386	0.395
	SL2	0.495	0.784	0.44	0.484	0.512	0.537
	SL3	0.345	0.7	0.346	0.405	0.393	0.33
	SL4	0.379	0.742	0.353	0.417	0.416	0.435
	SL6	0.417	0.682	0.43	0.44	0.346	0.395
	SL7	0.357	0.645	0.324	0.257	0.199	0.313
Team Communication	TC1	0.511	0.415	0.756	0.482	0.365	0.495
	TC2	0.411	0.36	0.738	0.46	0.424	0.498
	TC3	0.533	0.467	0.824	0.593	0.492	0.535
	TC4	0.524	0.413	0.774	0.522	0.429	0.53
	TC5	0.557	0.443	0.821	0.641	0.485	0.617
Team Empowerment	TE1	0.537	0.441	0.599	0.745	0.544	0.577
	TE2	0.526	0.406	0.566	0.807	0.482	0.482
	TE3	0.538	0.426	0.589	0.81	0.578	0.525
	TE4	0.457	0.397	0.501	0.731	0.444	0.469
	TE5	0.563	0.498	0.474	0.777	0.528	0.535
	TE6	0.459	0.408	0.465	0.741	0.496	0.481
Team Identity	TI1	0.533	0.478	0.482	0.549	0.846	0.609
	TI2	0.58	0.433	0.524	0.576	0.833	0.635
	TI3	0.434	0.388	0.34	0.491	0.777	0.453
	TI4	0.577	0.478	0.469	0.56	0.81	0.542
Team Performance	TP1	0.566	0.421	0.566	0.553	0.574	0.811
	TP2	0.616	0.463	0.575	0.533	0.576	0.821
	TP3	0.616	0.499	0.55	0.566	0.564	0.84
	TP4	0.593	0.521	0.567	0.55	0.564	0.826

team communication. The analysis revealed a noteworthy indirect effect of SL on PS, mediated through team communication ($\beta = 0.08$, $t = 2.81$, $p < 0.00$). The total effect of SL on PS was also substantial ($\beta = 0.56$, $t = 13.51$, $p < 0.00$). Including the mediating factor of team communication, highlighted a noteworthy impact of SL on PS ($\beta = 0.10$, $t = 2.00$, $p < 0.02$).

In addition, for H4, the analysis revealed a significant indirect impact of SL on PS, mediated through team empowerment ($\beta = 0.09$, $t = 2.82$, $p < 0.00$). The total effect of SL on PS was also

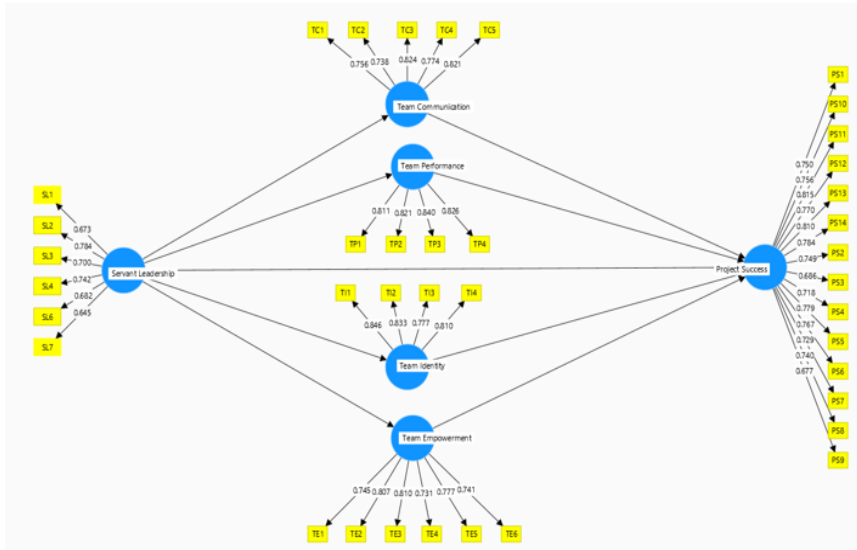


Figure 1: Measurement Model

substantial ($\beta = 0.56, t = 13.51, p < 0.00$). Including the mediating factor like team empowerment, highlighted a noteworthy impact of SL on PS ($\beta = 0.10, t = 2.00, p < 0.02$). Moreover, for H5, the analysis revealed a significant indirect impact of SL on PS, mediated through team performance ($\beta = 0.18, t = 5.37, p < 0.00$). The total effect of SL on PS was also positive ($\beta = 0.56, t = 13.51, p < 0.00$). Including mediating role of team performance reflected the substantial impact of SL on PS ($\beta = 0.10, t = 2.00, p < 0.02$). Thus showed complementary partial-mediation. The findings are shown in Table 6.

Table 6: Hypotheses Testing

<i>Direct effect</i>											
	β	t	P	Decision							
H1 SL-> PS	0.10	2.00	0	Supported							
<i>Mediating effect</i>											
	Total effect			Direct effect			Hypotheses	Indirect effect			
	β	t	p	β	t	p		β	t	p	
SL->PS	0.6	13.5	0.00	0.10	2.00	0	H2:SL->TI->PS	0.1	2	0	
							H3:SL->TC->PS	0.1	2.8	0.00	
							H4:SL->TE->PS	0.1	2.8	0.00	
							H5:SL->TP->PS	0.2	5.4	0.00	

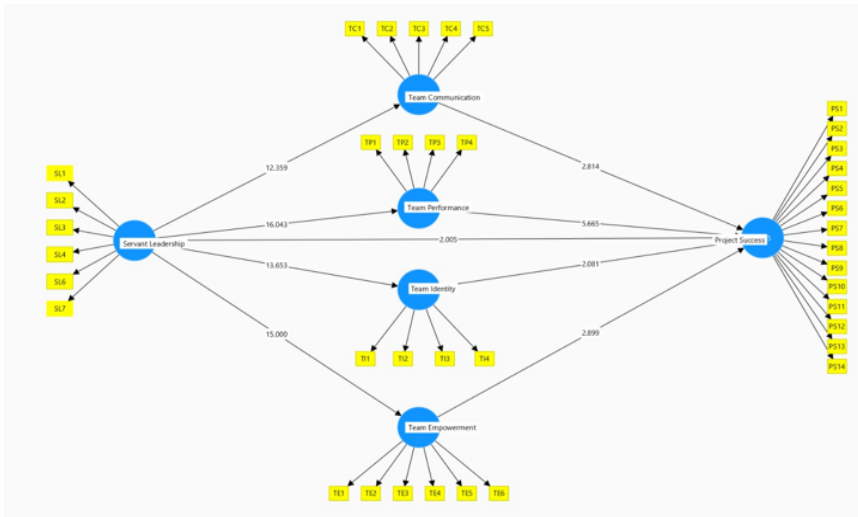


Figure 2: Structural Model

5 Discussion

In the recent years, a notable shift has been observed in leadership studies, underlining leadership styles that proficiently harness employees’ potential in the dynamic project settings (Latif et al., 2020; Siddiqui et al., 2023).

Based on Social Exchange Theory (SET) guidelines, the current research focuses on leadership by discovering the impact of servant leadership on project success. The primarily aim of this endeavor was to measure the direct influence of servant leaders’ on project outcomes with the facilitating function of team dynamics mainly team identity, empowerment, communication and performance in this association. The study’s results affirm that servant leadership enhances project success and offers valuable insight into the mechanisms through which this leadership exerts its effect. Theoretical contributions and practical implications emerge from the findings of this endeavor are discussed in the succeeding sections.

5.1 Theoretical Contributions

This research contribute to the extant body of literature especially focusing on servant leadership and its influence on PS. At first, it addresses the under investigated direct affiliation amid servant leadership style and PS, thus confirming that servant leaders positively effects project outcomes. Even though prior studies of Iqbal et al. (2020); Lu et al. (2024), suggested the potential of servant leadership practices to augment organizational effectiveness, our findings offer empirical evidence that servant leadership style is instrumental in achieving PS. This outcomes improves clarity to the extant literature by ratifying that servant leadership directly promotes successful project execution by evolving a supportive and empowering work atmosphere.

Secondly, this research expands the theoretical underpinning of how servant leader effects PS by integrating the enabling role of team identity, empowerment, communication and team performance, guided by SET theory (Blau, 1964). According to SET, social conduct results from

mutual agreement in which personnel aim to optimize advantages and reduce disadvantages inside their organizations. By considering, servant leadership style, SET theory explains how leaders' supporting and facilitating actions nurture positive reciprocation from their teams, improving their commitment, collaboration and performance (Yang et al., 2020). By implementing guidelines of SET philosophy into our research model, we proposed a novel framework that explains the method by which servant leadership style drives PS, where teams respond to the leader's actions with improved effort, loyalty and agreement with project objectives. Doing this, we address the call of Iqbal and Ahmad (2021), and Bao et al. (2018), to utilize Social Exchange Theory and assess the facilitating role of team identity, empowerment, communication, and performance.

The results indicated that servant leaders' foster a vigorous team identity by promoting a feeling of unity and common objective amongst project teams, which fortifies their commitment towards collective goals. Also, servant leadership boosts team communication by forming a supportive work environment and encouraging transparent interchange and collaboration. This type of leadership style empowers project teams by delegating authority and promoting autonomy, thereby enabling them to augment project outcomes confidently. Servant leadership lifts team performance by arranging personnel efforts with their team objectives and ensuring that all members are enthused and equipped to excel. These outcomes of the study align with the reciprocity theme Gouldner (1960), principle of Social Exchange Theory (SET), which posited that leaders who invest in the development and wellness of their project teams will in turn receive superior engagement and performance from their followers. Accordingly, the present study not only advances SET theory perspective by highlighting how servant leaders can enhance key team dynamics but also offers compelling substantiation on the mechanisms through which servant leadership augment PS.

Finally, this study contributes to the extant literature by situating servant leadership within the uniquely challenging project management context, which is regarded by its objective-oriented and dynamic nature. The results recommend that servant leaders' are effective within this particular context as it aligns project teams' efforts with broader goals and fosters the circumstances indispensable for project success. This extension of servant leadership philosophy into project management expands both fields, presenting novel insights for practitioners interested in leadership studies and project outcomes.

5.2 Managerial Implications

In addition to the theoretical contributions, the present study offers practical implications for project leaders and practitioners aiming to augment PS. The findings advocate that adopting a servant leadership approach, profoundly upsurge project outcomes by fostering team empowerment Sanjaghi et al. (2012), team communication Qubaisi et al. (2015), identification Mitchell et al. (2015), and team performance (Liu et al., 2011). Leaders who express servant leadership principles during project management, including prioritizing project team' well-being, facilitating open communication and empowering personnel are more likely to have PS. This is noteworthy in those circumstances where team dynamics function a key role in project execution. In addition, firms should consider electing and training managers who owns the potential associated with servant leadership approach. Typically these include ethical behavior, compassion and an open desire to serve subordinates. To invest in the development of servant leadership competencies among project leaders, firms are able to create a positive working climate that is conducive to both individual and collective success. Such atmosphere not only boosts team

performance but also aligns with the organization's broader goals, certifying that projects are completed within scope and meet the visions of stakeholders.

Furthermore, the guiding principles of Social Exchange Theory (SET) in realizing the facilitating role of team identification, communication, empowerment and team performance offers actionable insights for practitioners and project leaders. Leaders should actively energies to build vigorous team identities, facilitate open and clear communication, empower project teams by providing resources and autonomy and accentuate continuous performance improvement. Through this, managers are able to leverage the maximum potential of servant leadership practices to augment project success, ultimately subsidizing to the firm's longstanding success. The findings suggest that these insightful actions will be reciprocated by project teams, leading to a constructive cycle of collaboration, trust and project success.

5.3 Limitations and Suggestions

While the present research offers practical insights, however, upcoming research should acknowledged certain limitations for a more nuanced understanding of the study's findings. At first, the current research primarily sampled IT project professionals in Pakistan to access the proposed research model. The focus on a single sector and one nation specific background may raise concerns about the results generalizability to other sectors and cultural settings. To expand the applicability of this study findings, upcoming research should consider increasing the scope to include a cross cultural and cross industry sample. This kind of strategy would offer a thorough understanding of the proposed associations and increase the overall rigor of the research findings.

Secondly, one of the important limitations of research is the application of a cross-sectional design which restricts the capacity to make inferences about causality. restricts the capacity to make inferences about causality. limits the ability to draw causal conclusions about the relations between variables. Although cross sectional design is often critiqued in organizational research for their inability to capture temporal sequences, however, they can still offer valued insights in numerous exploratory studies (Spector, 2019). Given the exploratory nature of the current research, delving into the mediating function of team identity, communication, empowerment, and team performance, we deemed the cross sectional research design appropriate. Nonetheless, upcoming research should focus on utilizing a longitudinal research design with an optimal time lag to capture the causal relationships and validate our findings.

Third, we considered notable team dynamics as mediators in our research model, however, future research could explore additional mediating mechanisms such as team cohesion, team trust, or collective efficacy that might further explain the correlation amid servant leadership and PS. Moreover, in light of the increasing importance of sustainability in modern business practices, future endeavors could explore leadership styles mainly sustainable leadership Shaukat et al. (2023) coaching leadership Siddiqui et al. (2023), knowledge oriented leadership Shaukat et al. (2023) and entrepreneurial leadership Latif et al. (2020), that promote sustainability. To address potential cultural barriers, incorporating knowledge-centered culture as moderator into the research model may offer profound insights into how these leadership styles function across different contexts.

References

- A. Wahab, A., Bohari, S. A., and Sheng, W. C. (2025). Critical success factors in Malaysian housing projects: examining contractual, process and human management with knowledge sharing moderation. *International Journal of*

- Housing Markets and Analysis*, 18(5):1287–1307.
- Afzal, A., Khan, M. M., and Mujtaba, B. G. (2018). The impact of project managers' competencies, emotional intelligence and transformational leadership on project success in the information technology sector. *Marketing and Management of Innovations (MMI)*, (2):142–154.
- Aga, D. A., Noorderhaven, N., and Vallejo, B. (2016). Transformational leadership and project success: The mediating role of team-building. *International journal of project management*, 34(5):806–818.
- Ali, M., Zhang, L., Shah, S. J., Khan, S., and Shah, A. M. (2020). Impact of humble leadership on project success: the mediating role of psychological empowerment and innovative work behavior. *Leadership & organization development journal*, 41(3):349–367.
- Almeida, M. V. and Soares, A. L. (2014). Knowledge sharing in project-based organizations: Overcoming the informational limbo. *International Journal of Information Management*, 34(6):770–779.
- Bao, F., Chan, A. P., Chen, C., and Darko, A. (2018). Review of public-private partnership literature from a project lifecycle perspective. *Journal of Infrastructure Systems*, 24(3):04018008.
- Blau, P. M. (1964). Justice in social exchange. *Sociological inquiry*, 34(2).
- Boies, K., Fiset, J., and Gill, H. (2015). Communication and trust are key: Unlocking the relationship between leadership and team performance and creativity. *The leadership quarterly*, 26(6):1080–1094.
- Bondin, I. (2022). *Inter-organisational relationships in construction projects: an analysis of inter-organisational relationships over time through the theoretical lens of trust and power*. PhD thesis, Loughborough University.
- Burke, C. S., Georganta, E., and Hernandez, C. (2017). The importance of time in team leadership research. In *Team dynamics over time*, volume 18, pages 95–122. Emerald Publishing Limited.
- Chmielarz, W. (2015). *Information technology project management*. Wydawnictwo Naukowe Wydziału Zarządzania UW.
- Dikert, K., Paasivaara, M., and Lassenius, C. (2016). Challenges and success factors for large-scale agile transformations: A systematic literature review. *Journal of Systems and Software*, 119:87–108.
- Ellahi, A., Rehman, M., Javed, Y., Sultan, F., and Rehman, H. M. (2022). Impact of servant leadership on project success through mediating role of team motivation and effectiveness: a case of software industry. *Sage Open*, 12(3):21582440221122747.
- Eva, N., Robin, M., Sendjaya, S., Van Dierendonck, D., and Liden, R. C. (2019). Servant leadership: A systematic review and call for future research. *The leadership quarterly*, 30(1):111–132.
- Fiol, C. M. and O'Connor, E. J. (2005). Identification in face-to-face, hybrid, and pure virtual teams: Untangling the contradictions. *Organization science*, 16(1):19–32.
- Fornell, C. and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1):39–50.
- Gavard, C., Winchester, N., Jacoby, H., and Paltsev, S. (2011). What to expect from sectoral trading: a us-china example. *Climate Change Economics*, 2(01):9–26.
- Gefen, D. and Straub, D. (2005). A practical guide to factorial validity using pls-graph: Tutorial and annotated example. *Communications of the Association for Information systems*, 16(1):5.
- Gerster, D., Dremel, C., and Kelker, P. (2018). " agile meets non-agile": Implications of adopting agile practices at enterprises.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American sociological review*, pages 161–178.
- Greenleaf, R. K. (1970). What is servant leadership. *New York, NY and Mahwah*.
- Hair, J. F. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. sage.

- Hair Jr, J. F., Matthews, L. M., Matthews, R. L., and Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2):107–123.
- Henseler, J., Ringle, C. M., and Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1):115–135.
- Hobfoll, S. E. (1989). Conservation of resources: a new attempt at conceptualizing stress. *American Psychologist*, 44(3):513.
- Iqbal, A., Latif, K. F., and Ahmad, M. S. (2020). Servant leadership and employee innovative behaviour: exploring psychological pathways. *Leadership & Organization Development Journal*, 41(6):813–827.
- Iqbal, Q. and Ahmad, N. H. (2021). Sustainable development: The colors of sustainable leadership in learning organization. *Sustainable Development*, 29(1):108–119.
- Jahanshahi, A. A., Brem, A., and Bhattacharjee, A. (2017). Who takes more sustainability-oriented entrepreneurial actions? the role of entrepreneurs' values, beliefs and orientations. *Sustainability*, 9(10):1636.
- Jaiswal, N. K. and Dhar, R. L. (2017). The influence of servant leadership, trust in leader and thriving on employee creativity. *Leadership & Organization Development Journal*, 38(1):2–21.
- Janssen, M., Van Der Voort, H., and van Veenstra, A. F. (2015). Failure of large transformation projects from the viewpoint of complex adaptive systems: Management principles for dealing with project dynamics. *Information Systems Frontiers*, 17(1):15–29.
- Jaussi, K. S. and Dionne, S. D. (2003). Leading for creativity: The role of unconventional leader behavior. *The Leadership Quarterly*, 14(4-5):475–498.
- Jha, S. (2014). Transformational leadership and psychological empowerment: Determinants of organizational citizenship behavior. *South Asian Journal of Global Business Research*, 3(1):18–35.
- Kirkman, B. L. and Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal*, 42(1):58–74.
- Krog, C. and Govender, K. (2015). Servant leadership and project management: Examining the effects of leadership style on project success. In *European Conference on Management, Leadership & Governance*, pages 201–210. Academic Conferences International Limited.
- Latif, K. F., Nazeer, A., Shahzad, F., Ullah, M., Imranullah, M., and Sahibzada, U. F. (2020). Impact of entrepreneurial leadership on project success: mediating role of knowledge management processes. *Leadership & Organization Development Journal*, 41(2):237–256.
- Lee, S., Kim, C., Park, Y., Son, H., and Kim, C. (2011). Data mining-based predictive model to determine project financial success using project definition parameters. In *Proceedings of the 28th International Symposium on Automation and Robotics in Construction, ISARC, Seoul, Korea*, volume 29.
- Liden, R. C., Wayne, S. J., Liao, C., and Meuser, J. D. (2014). Servant leadership and serving culture: Influence on individual and unit performance. *Academy of Management Journal*, 57(5):1434–1452.
- Liden, R. C., Wayne, S. J., Meuser, J. D., Hu, J., Wu, J., and Liao, C. (2015). Servant leadership: Validation of a short form of the SL-28. *The Leadership Quarterly*, 26(2):254–269.
- Liden, R. C., Wayne, S. J., Zhao, H., and Henderson, D. (2008). Servant leadership: Development of a multidimensional measure and multi-level assessment. *The Leadership Quarterly*, 19(2):161–177.
- Liu, J., Wang, W., and Cao, K.-p. (2011). Leader political skill and team performance: a moderated mediation model. *Nankai Business Review International*, 2(1):5–22.
- Lu, J., Falahat, M., and Cheah, P. K. (2024). A systematic literature review on the relationship between servant leadership and its team and organizational level outcomes. *Journal of Organizational Change Management*, 37(2):255–282.

- Luhtanen, R. and Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and social psychology bulletin*, 18(3):302–318.
- Mabey, C., Kulich, C., and Lorenzi-Cioldi, F. (2012). Knowledge leadership in global scientific research. *The International Journal of Human Resource Management*, 23(12):2450–2467.
- Marrone, J. A., Tesluk, P. E., and Carson, J. B. (2007). A multilevel investigation of antecedents and consequences of team member boundary-spanning behavior. *Academy of Management Journal*, 50(6):1423–1439.
- Mathieu, J. E., Gilson, L. L., and Ruddy, T. M. (2006). Empowerment and team effectiveness: An empirical test of an integrated model. *Journal of applied psychology*, 91(1):97.
- Mitchell, R., Boyle, B., Parker, V., Giles, M., Chiang, V., and Joyce, P. (2015). Managing inclusiveness and diversity in teams: How leader inclusiveness affects performance through status and team identity. *Human resource management*, 54(2):217–239.
- Moehler, R., Jaeger, A., and Algeo, C. (2018). The impact of generational diversity on project leadership: The dutch infrastructure sector as a case study. In *Annual Conference of the European Academy of Management 2018*, page 2938. European Academy of Management (EURAM).
- Mombeuil, C., Diunugala, H. P., and Lissbird, J. (2023). Servant leadership and project success in ngos: The mediating role of team identity and team climate. Available at SSRN 4522302.
- Nauman, S., Bhatti, S. H., Imam, H., and Khan, M. S. (2022). How servant leadership drives project team performance through collaborative culture and knowledge sharing. *Project Management Journal*, 53(1):17–32.
- Newman, A., Neesham, C., Manville, G., and Tse, H. H. (2018). Examining the influence of servant and entrepreneurial leadership on the work outcomes of employees in social enterprises. *The international journal of human resource management*, 29(20):2905–2926.
- Nunnally, J. C. (1978). An overview of psychological measurement. *Clinical diagnosis of mental disorders: A handbook*, pages 97–146.
- Ozigbo, A.-M., Idegbesor, M., Ngige, C. D., and Nwakoby, N. P. (2020). Team building and performance in organizations: An exploration of issues. *International journal of management and entrepreneurship*, 2(1):184–199.
- Patrashkova-Volzdoska, R. R., McComb, S. A., Green, S. G., and Compton, W. D. (2003). Examining a curvilinear relationship between communication frequency and team performance in cross-functional project teams. *IEEE Transactions on Engineering Management*, 50(3):262–269.
- Qubaisi, J. M. M. L. F. A., Elanain, H. M. A., Badri, M. A., and Ajmal, M. M. (2015). Leadership, culture and team communication: analysis of project success causality-a uae case. *International Journal of Applied Management Science*, 7(3):223–243.
- Rafferty, A. E. and Griffin, M. A. (2004). Dimensions of transformational leadership: Conceptual and empirical extensions. *The leadership quarterly*, 15(3):329–354.
- Redick, T. S. (2014). Cognitive control in context: Working memory capacity and proactive control. *Acta psychologica*, 145:1–9.
- Ringle, C. M., Sarstedt, M., Mitchell, R., and Gudergan, S. P. (2020). Partial least squares structural equation modeling in hrm research. *The international journal of human resource management*, 31(12):1617–1643.
- Roberts, T. L., Cheney, P. H., Sweeney, P. D., and Hightower, R. T. (2004). The effects of information technology project complexity on group interaction. *Journal of Management Information Systems*, 21(3):223–247.
- Roscoe, J. (1975). What sample size is enough in internet survey research. *Interpersonal Computing and Technology: An electronic Journal for the 21st Century*.
- Sanjaghi, M., Zohoorian, I., and Farrahi Boozanjani, B. A. (2012). The mediating effects of employee

- and team empowerment on the relationship between leadership and performance within a context. *International Journal of the Academy of Organizational Behavior Management (IJAOBM)*, 2:85–107.
- Schwalbe, K. (2009). *Introduction to project management*. Course Technology Cengage Learning Boston.
- Schwalbe, K. (2010). *Information technology project management, revised*. Course Technology Press.
- Shaukat, H. S., Ong, T. S., Cheok, M. Y., Bashir, S., and Zafar, H. (2023). The impact of green human resource management on employee empowerment and pro-environmental behaviour in Pakistan's manufacturing industry. *Journal of Environmental Assessment Policy and Management*, 25(03):2350015.
- Shaukat, M. B. and Alam, W. (2024). In the driver's seat: Sustainable leadership as catalysts for sustainable development. *Agathos: An International Review of the Humanities & Social Sciences*, 15(2).
- Shaukat, M. B., Latif, K. F., Sajjad, A., and Eweje, G. (2022). Revisiting the relationship between sustainable project management and project success: The moderating role of stakeholder engagement and team building. *Sustainable Development*, 30(1):58–75.
- Siddiqui, A., Qureshi, B., and Shaukat, M. (2024). Project manager's competencies as catalysts for project success: The mediating role of functional manager involvement and stakeholder engagement. *International journal of organizational leadership*, 13(First Special Issue 2024).
- Siddiqui, A. W., Ali, A., and Shaukat, M. B. (2023). Impact of agile project management methodology on its project success: Exploring the mediating role of team communication and team empowerment. *City University Research Journal (CURJ)*, 13(2).
- Sivasubramaniam, N., Murry, W. D., Avolio, B. J., and Jung, D. I. (2002). A longitudinal model of the effects of team leadership and group potency on group performance. *Group & Organization Management*, 27(1):66–96.
- Spears, L. C. (2002). Tracing the past, present, and future of servant-leadership. *Focus on leadership: Servant-leadership for the 21st century*, pages 1–16.
- Spector, P. E. (2019). Do not cross me: Optimizing the use of cross-sectional designs. *Journal of business and psychology*, 34(2):125–137.
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of management Journal*, 38(5):1442–1465.
- Stone, M. (1974). Cross-validators choice and assessment of statistical predictions. *Journal of the royal statistical society: Series B (Methodological)*, 36(2):111–133.
- Taggar, S. and Haines III, V. Y. (2006). I need you, you need me: A model of initiated task interdependence. *Journal of Managerial Psychology*, 21(3):211–230.
- Tian, L., Li, Y., Li, P. P., and Bodla, A. A. (2015). Leader-member skill distance, team cooperation, and team performance: A cross-culture study in a context of sport teams. *International Journal of Intercultural Relations*, 49:183–197.
- Van Dierendonck, D. (2011). Servant leadership: A review and synthesis. *Journal of management*, 37(4):1228–1261.
- Van Dierendonck, D., Stam, D., Boersma, P., De Windt, N., and Alkema, J. (2014). Same difference? exploring the differential mechanisms linking servant leadership and transformational leadership to follower outcomes. *The leadership quarterly*, 25(3):544–562.
- Van Knippenberg, D., De Dreu, C. K., and Homan, A. C. (2004). Work group diversity and group performance: an integrative model and research agenda. *Journal of applied psychology*, 89(6):1008.
- Xuecheng, W., Iqbal, Q., and Saina, B. (2022). Factors affecting employee's retention: Integration of situational leadership with social exchange theory. *Frontiers in psychology*, 13:872105.
- Yang, J., Ma, C., Gu, J., and Liu, H. (2020). Linking servant leadership to employee creativity: The roles of team identification and collectivism. *Chinese Management Studies*, 14(1):215–233.

Zada, M., Khan, J., Saeed, I., and Zada, S. (2024). How servant leadership influences the effectiveness of project management: antecedents and

consequences. *Journal of Organizational Effectiveness: People and Performance*, 11(2):307–324.