

A Moderated Mediation Model of Team Focus Transformational Leadership, Team Cohesiveness and Leader-Member Exchange for Project Success

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Submitted: Aug 7, 2022

Revised: November 28, 2022

Accepted: December 09, 2022

Published online: December 30, 2022

ABSTRACT

Purpose-The present study investigates the indirect impact of leader-member exchange between team-focus transformational leadership – project success relationship. Furthermore, this study also examines the moderation of team cohesiveness between team-focus transformational leadership – leader-member exchange relationship and between leader-member exchange – project success relationship.

Design/methodology/Approach-In two phases, permanent employees of construction firms (from Lahore and Faisalabad) participate in the data collection survey. Moreover, the data was evaluated through different statistical analysis techniques using SPSS and Smart-PLS statistical software.

Results-This study's results provide support to the hypothesized relationships, i.e., the direct positive impact of team-focus transformational leadership on project success, the intervening effect of leader-member exchange between the relationship of team-focus transformational leadership and moderating role of team cohesiveness between team-focus transformational leadership – leader-member exchange relationship and between leader-member exchange – project success relationship.

Implications-The study's findings theoretically and empirically contributed to the literature on leadership, organizational behavior, and project management by highlighting the importance of leader-member exchange as an intervening mechanism and team cohesiveness as a moderator for the success of the projects, especially in the construction industry of a developing economy.

Key Word: Team-Focus Transformational Leadership, Leader-Member Exchange, Team Cohesiveness, Project Success, Role Theory of Leadership

1 | INTRODUCTION

It is universally realized that projects are pivotal in bringing about more sustainable organizational strategies ([Klaus-Rosińska & Iwko, 2021](#)). Organizations must consistently implement high-quality initiatives to stay contemporary, competitive, innovative, efficient, and profitable in today's ever-evolving business environment ([Hussain et al., 2021](#); [Li et al., 2022](#)). Successful projects can enable organizations to encounter the rigorous expectations set by customers, who now require timely, economical availability of products and services of consistently outstanding value ([Zaman et al., 2022](#)). This, in turn, will boost customer devotion, loyalty, and satisfaction. When constructing or renovating a client's-built environment, construction management is a highly lucrative project-based field of sophisticated professional services ([Cleary & Lamanna, 2022](#)). As construction

projects become more complex, they require new technology and innovation. This means that developing economies can benefit from the transfer of knowledge and technology from developed economies, which can help improve their labor force's technical skills and drive innovation. Constructional and developmental projects provide oxygen to economic growth and employment platforms for talented youth, especially in developing countries ([Chughtai, Syed, & Naseer, 2022](#)). The success of the projects depends on the project's members, but the leader's role and cooperation of leaders and subordinates also become the prime factor for this success ([Cleary & Lamanna, 2022](#)). To ensure the accomplishment of construction projects and, by extension, construction organizations, it is vital to have a strong grasp of the association between key performance metrics, including expenditure, timeline, and revenue ([Cleary & Lamanna, 2022](#)). As the most robust single source of revenue for the construction sector, worldwide economies benefit greatly from mega-building projects ([Zaman et al., 2022](#)). The construction industry is a significant employer of labor, and it has the potential to create numerous job opportunities for people with different skills and education levels which can help to reduce unemployment rates and improve the overall standard of living for people in developing economies.

Leaders are extremely important to the sustainability of any team or organization ([Maio, Chambel, & Carmona, 2023](#); [Riisla et al., 2021](#)). Cooperation between leaders, management of the project, and team members is an essential element for the success of any project ([Zheng et al., 2021](#); [Zheng et al., 2019](#)), either in the construction, developmental, manufacturing, or service industry. Leadership plays a momentous role in deciding the fortune of organizations ([Ma et al., 2023](#); [Raziq et al., 2018](#)), of every type, either public, private, or project-based. In project-based organizations, where the intense triangle of quality, time, and cost are the main ingredients of success ([Zheng et al., 2021](#)), the role of leadership can be undermined ([Wright & Lawlor-Wright, 2018](#)), because of the higher demand for quality within the specified time limit and with the minimum cost. Different leadership styles, such as transactional, inclusive, knowledge-oriented, and transformational leadership ([Balashova & Serletis, 2020](#)), have been studied in project-based organizations ([Caniëls, Chiocchio, & van Loon, 2019](#); [Donate et al., 2022](#); [Latif et al., 2020](#); [Nuhn, Heidenreich, & Wald, 2018](#); [Young et al., 2021](#)). Motivating one's subordinates to go beyond the call of duty is the hallmark of a TL ([Adhyke et al., 2023](#)). When compared to various leadership styles, TL has been revealed to be more beneficial for encouraging optimistic reactions of leaders/managers among individuals concerning their well-being ([Adhyke et al., 2023](#); [Al-Thawabiya et al., 2023](#); [Hoch et al., 2018](#)).

And for this purpose, team-focused transformational leadership (TFTL) was first introduced ([Dong et al., 2017](#)). TL has been an evergreen topic for researchers and practitioners since its initial conceptualization due to its importance for organizations, and they have contributed in numerous ways to explore different outcomes and antecedents of TL ([Asghar et al., 2022](#); [Messmann, Evers, & Kreijns, 2022](#); [Watts, Steele, & Den Hartog, 2020](#)). TL can play a crucial role in team building and project success as this leadership style emphasizes inspiring and motivating team members to work towards a common vision or goal, leading to higher commitment, innovation, and overall performance. The TFTL is a group-focused phenomenon that helps build teams ([Adhyke et al., 2023](#); [Chen & Cuervo, 2022](#); [Maio, Chambel, & Carmona, 2023](#)). TL can be a powerful tool for team building and project success, as these leaders, by inspiring and motivating team members, fostering a positive team culture, encouraging creativity and innovation, and investing in team member development, help their teams achieve great things. The TFTL consider the necessity of the team members earlier their own and also creates a robust and

vigorous association of followers ([Amankwaa, Gyensare, & Susomrith, 2019](#); [Lai, 2019](#)). TFTL promotes a two-way communication procedure in which information flows successfully and helps to achieve project goals ([Lai, 2019](#); [Piccolo & Colquitt, 2006](#)). Moreover, Yaung et al. ([2011](#)), articulate that the mystery of the efficacious accomplishment of projects lies in virtuous teams; and leadership helps in the development of operative teams, and for this purpose, leaders use different practices that safeguard the efficacious accomplishment of projects ([Klein et al., 2009](#)). TFTL have a robust association with their followers based on effective confidence and trust in the leaders' intellectual capability and legitimacy ([Zhu et al., 2013](#)).

By considering the need for followers and organizational goals, a TFTL builds high-quality exchange relationships with their followers ([Lai, 2019](#)). Such a relationship is based on conviction, and both leader and follower are involved in a specific form of relational exchange ([Zhu et al., 2013](#)). Through good leader-member exchange (LMX), both the organization and its employees benefit from a good relationship, and employees who have pleasant LMX with their manager can make a significant discrepancy in the organization's success ([Graen & Uhl-Bien, 1995](#)). When leaders engage in collaborative interactions with their subordinates, the followers respond in kind, owing to expectations of reciprocity and socialization from the leaders. These relational exchanges raise the followers' morale, boost their professional happiness, and eventually promote their professional performance ([Lee, 2008](#); [Schyns, Maslyn, & Weibler, 2010](#); [Wang & Howell, 2010](#)). The extraordinary LMX between leader and subordinates ensures formidable and beneficial interactions by enabling leaders to engage their subordinates to their fullest capacity with their consent since the subordinates have a high appreciation for their leaders ([Dulebohn, Wu, & Liao, 2017](#)). A high-quality LMX relationship can make team members feel valued and appreciated, increase their job satisfaction and motivation, and lead to better collaboration and problem-solving. A superior relationship between leader and followers based on mutual trust and liking will achieve project-based organizations' objectives ([Schyns, Maslyn, & Weibler, 2010](#)), through creativity and innovation ([Chughtai & Khalid, 2022](#); [Magsoom et al., 2022](#)). LMX relationships lead to increased job satisfaction, improved communication, more outstanding commitment, enhanced performance, and increased loyalty. Conversely, low-quality LMX relationships can result in decreased job satisfaction, poor communication, reduced responsibility, decreased performance, and increased turnover.

The construction project management representatives can specify as many indicators as they prioritize to establish the project's success ([Yuan, 2017](#)). Team cohesiveness (TC) can significantly impact project success, with cohesive teams likely to experience improved communication, increased productivity, higher quality work, incredible innovation, and enhanced team morale. Examining a project's viability from multiple angles seems essential ([Zaman et al., 2021](#)). Cohesiveness refers to the extent to which team members are united in pursuing common goals and objectives and are committed to each other's success. Several stakeholders involved in a construction project have various priorities and expectations ([Muneer et al., 2022](#)). TC is the notch to which employees are enthusiastic to one another in accomplishing reciprocated team objectives ([Carron, Bray, & Eys, 2002](#)). A cohesive team is likely to have better communication among team members, leading to greater clarity of goals and tasks and fewer misunderstandings and conflicts. Alternatively, we can discuss TC, the "social connections among team representatives" ([Barrick et al., 2007](#)). TC is also seen as a standard at which individuals within an organization feel like they belong and is encouraged to remain on the team ([Schermerhorn Jr et al., 2011](#)). Team representatives and their responsibilities cannot be underestimated in evaluating the effectiveness or failure

of a project; therefore, TC is as valuable as other resources for the efficient completion of the projects. [Michaelsen et al. \(2008\)](#), concluded that TC promotes and generates a collaborative and motivating atmosphere that is favorable to learning and beneficial to achieving the team's goals ([Thompson et al., 2015](#)). Furthermore, TC is proposed as a possible moderator between the connection of LMX and project success (PS). TC and LMX are related concepts in that they both concern the quality of relationships within a team as TC refers to the extent to which team members are united in their pursuit of common goals and objectives, while LMX discusses the worth of the relationship between a leader/manager and individual team members.

Role theory of leadership (RTL) ([Biddle, 1986](#); [Rizzo, House, & Lirtzman, 1970](#); [Winkler, 2010](#)), provides a theoretical foundation for this study, as the theory discusses that human behaviors guided by the expectations of others and each human contain different role in the form of right and duties that established from the influence of norms, traditions, and behaviors of others and society as well. The lens of underlying theory also provides a foundation for the conceptual model of this research that team-focused transformational leaders provide an environment to their followers where their followers fulfill their responsibilities according to the organization's expectations for the organization's success ([Biddle, 1986](#); [Winkler, 2010](#)). Moreover, the role theory of leadership ([Winkler, 2010](#)), clarifies that role of leadership is related to the followers; and followers feel the influence of those leaders, i.e., the behavior of the leader influences the expectations of the followers, and LMX provides a mediating mechanism of behavioral role to the team members for the accomplishment of the project. There is an imperative necessity in the construction industry to establish a set of standardized measures that executives and project managers may apply to analyze job site productivity ([Cox, Issa, & Ahrens, 2003](#); [Zaman et al., 2022](#)). The construction industry plays an essential role in developing economies, particularly in developing countries, through its contribution to employment, infrastructure development, technology transfer, economic growth, and social development, which makes it a crucial sector for developing these economies. Additionally, a construction project is a more fantastic, time-bound endeavor that creates a construction facility or service with predetermined performance expectations regarding workmanship requirements, completion duration, allocated expenditure, and other specifications ([Cleary & Lamanna, 2022](#); [Zheng et al., 2019](#)). The present research contributes in numerous ways; firstly, it will be to the literature of project management and leadership by highlighting the impact of TFTL on PS; secondly, this study also contributes by exploring the mediating mechanism of LMX between the relationship of TFTL and PS. Furthermore, our investigation of the study highlights the moderated mediation mechanism of LMX and TC between the relationship of TFTL and PS. In contrast, project-based organizations mostly work in teams ([Bjorvatn & Wald, 2018](#)), and the success of projects is based on different factors, and leadership is one of them ([Al-Thawabiya et al., 2023](#)); the present study uses TFTL as an influencing factor for PS by addressing the empirical gap suggested by [Cleary and Lamanna \(2022\)](#) and [Zaman et al. \(2022\)](#). The present study uses LMX as an intervening mechanism in a high power distance culture organizational context as a cultural aspect in response to the future directions of ([Xiong, 2023](#)). Also, the data for this study was collected from the construction industry, a sub-sector or manufacturing sector as suggested by Karimi et al. ([2023](#)) and Adhyke et al. ([2023](#)), which is considered a major contributor to the economic development of the developing countries. Moreover, the present study uses TC as a moderator between TL and PS relationships and between LMX and PS

relationships to overcome the suggested gap by Ehrnrooth et al. (2023), where they proposed that there is a need for a study to find out the impact of leadership styles for different outcomes.

2 | LITERATURE REVIEW

2.1 | Team-focus Transformational Leadership and Project Success

Organizational leadership research has been extensively studied, and effective leadership is essential in every setting; nevertheless, there is a dearth of leadership research concentrating on project-based organizations (Söderlund, 2011; Turner & Müller, 2005). As a result, there is a dearth of leadership studies applicable to the project's environment and numerous potential directions for future research (Turner & Müller, 2005). So, the studies of TL reflect different outcomes in project-based organizations than the enduring everyday organization (Keegan & Den Hartog, 2004; Khan, Sang, & Iqbal, 2015). Moreover, subordinates' confidence levels can be boosted by TL, which gives them chances to gain knowledge and expertise, evaluate and appreciate the individuals based on their achievements, and motivate them to think over and above the mainstream of the working (Adhyke et al., 2023). Additionally, TL encourages developing and interpreting information into implementation to accomplish organizational goals (Al-Thawabiya et al., 2023). An increased level of individual self-involvement can be fostered by a transformational leader's ability to inspire subordinates with fascinating and meaningful visions (Xiong, 2023). Moreover, Sayrani and Ataolahi (2015), have a different view; they stated that TL not needed any cost from the organization's management, and this leadership creates positive features in project managers for the success of their projects (Lategan & Fore, 2015). However, it is well-recognized in the literature that TL ensures the successful completion of projects (Naeem & Khanzada, 2017). Sayrani and Ataolahi (2015), also originate some mixed outcomes while perusing TL in the project context. Lai (2019), stated that more experiential studies are required to explain how TL predicts different workplace behaviors. The leader's initiatives depend on deploying valuable resources so their subordinates/followers can accomplish their professional projects (Maio, Chambel, & Carmona, 2023). Based on the role theory of leadership (Biddle, 1986; Rizzo, House, & Lirtzman, 1970; Winkler, 2010), and above literature discussion, we, therefore, propose the following hypothesis:

H1: *TFTL is positively related to Project Success.*

2.2 | Leader-Member Exchange as Mediator

LMX was primarily anticipated based on role theory (Graen, 1976; Graen & Scandura, 1987; Graen & Uhl-Bien, 1995). TFTL fosters a positive team culture emphasizing collaboration, trust, and respect. As a result, team members have a habit of having more positive perceptions of their relationship with their leader, which can lead to higher-quality LMX. The higher quality level of LMX not only provides higher support of leaders to their subordinates but also gives empowerment and motivation (Young et al., 2021), for the smooth accomplishment of organizational goals. Also, this higher relationship (e.g., LMX) increases the workplace and career outcomes of the employees (Lyons et al., 2023). Employees benefit most from their supervisor's encouragement and adaptability when they can engage with them in a relatively casual environment (Adhyke et al., 2023). It has also been observed that a higher level of LMX reduces the negative emotions, attitudes, and behaviors of the subordinates and enables them to deal with interpersonal workplace challenges positively (Lyons et al., 2023). When leaders focus on the development of their team members, they can create a sense of shared vision and purpose, which can help to

create a strong sense of camaraderie among team members, and TFTL often uses this sense of harmony to build relationships with team members ([Ha, 2022](#); [Sun et al., 2022](#)). Moreover, when employees receive high-quality support from their leaders/managers in the form of LMX, they feel more confident and demonstrate positive behaviors and attitudes, i.e., creativity, work engagement, employee safety voice behaviors, high-job performance, and OCBs ([Ha, 2022](#); [Liu et al., 2023](#); [Maqsoom et al., 2022](#); [Sun et al., 2022](#); [Wang, Kim, & Milne, 2017](#)). Numerous studies have been found where researchers used LMX as a mediating variable in different organizational and regional contexts ([Duarsa & Riantoputra, 2017](#); [Els et al., 2016](#); [Gholipour Soleimani & Einolahzadeh, 2017](#); [Maqsoom et al., 2022](#); [Şahin, 2012](#); [Sun et al., 2022](#)), for the enhancement of positive outcomes. Based on the discussion of the above-given literature, the present study proposes that the TFTL will increase its liking in the team member; as a result, team members will reciprocate similarly. TFTL can have a positive impact on leader-member exchange by creating a positive team culture, building trust and respect between the leader and team members, and providing support and development opportunities to team members ([Lai, 2019](#)). Based on the role theory of leadership ([Biddle, 1986](#); [Rizzo, House, & Lirtzman, 1970](#); [Winkler, 2010](#)), researchers propose the following hypothesis:

H2: *LMX mediates the relationship between TFTL and Project success.*

2.3 | Team Cohesiveness as Moderator

In today's cutthroat business climate, success hinges on the capacity to generate creative approaches and then choose and implement those with the most effective potential ([Karimi et al., 2023](#)). Team operational, or team interconnection, shows the degree to which followers/members are enthusiastic to one another in accomplishing team objectives. Cohesiveness is the level to which team members want to remain a part of the team ([Campion, Medsker, & Higgs, 1993](#)); this includes both the professional and interpersonal attachments that connect and retain individuals performing together ([Filho, Tenenbaum, & Yang, 2015](#)). TC describes the magnitude to which team members perceive an understanding of affiliation and are encouraged to prolong being a team member ([Schermerhorn Jr et al., 2011](#)). TC improves over time because of interpersonal and group-level desirability, over-collaboration, and a sense of fit-in. TL motivates and transforms earlier discouraged subordinates into energetic followers by intensifying enthusiasm and imparting a sense of determination ([Burns, 1998](#)). Research has shown that TC can have a momentous influence on both the leader-subordinate relationship and project success ([Fung & Cheng, 2015](#)). Overall, TC can have a noteworthy effect on the leader-subordinate relationship and project success. When team members work together effectively and are committed to the team's success, this can lead to higher performance and a greater likelihood of success. However, it is imperative for leaders to balance the benefits of team cohesion with the need for diversity of thought and open communication. The leader is perfect and symbolizes behavior that stimulates the follower's commitment ([Seltzer & Bass, 1990](#)). TL is usually positively linked to the usefulness of the leader ([Bass, 1985](#)). A superior leader member's relationship with high TC enhances the success of projects. Studies in other disciplines show that the interaction of LMX and TC is positively linked with team members' efforts and assurance to the team, which in turn leads to PS ([Kirkpatrick & Locke, 1996](#)). Even though there is a scarcity of empirical shreds of evidence in the existing literature, few studies discuss the moderating role of TC with other variables in different organizational and cultural contexts ([Shin & Park, 2009](#)). The proposed model suggests that TC and LMX will positively impact project teams' overall performance.

Furthermore, researchers of the current study argue that TC positively affects project teams' overall performance. Based on the role theory of leadership ([Biddle, 1986](#); [Rizzo, House, & Lirtzman, 1970](#); [Winkler, 2010](#)), researchers of the present study propose the following hypothesis:

H3: TC moderates the relationship between TFTL and Project Success, such that a higher level of TC will strengthen the relationship between TFTL and Project Success.

H4: TC moderates the relationship between LMX and Project Success, such that a higher level of TC will strengthen the relationship between LMX and Project Success.

H5: TC moderates the indirect effect of TFTL on Project Success via LMX in the sense that a higher level of TC will strengthen the indirect effect of LMX.

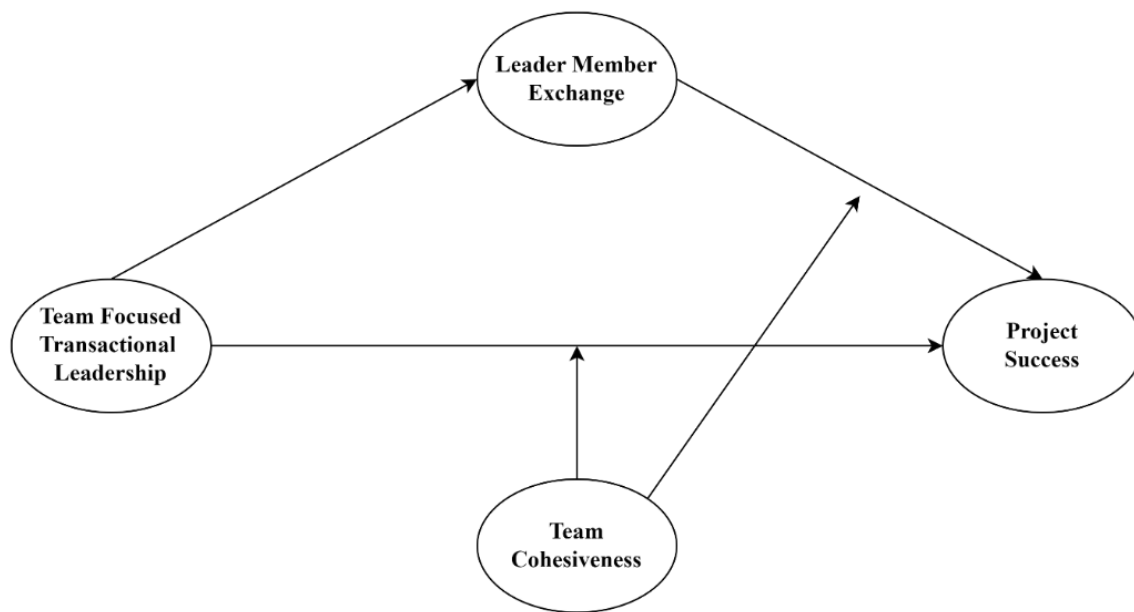


Figure 1. Conceptual Model

3 | METHODOLOGY & DESIGN

3.1 | Sampling and Data Collection

The current study examines the impact of TFTL on PS with a population of employees working in different construction firms in two major cities (Lahore and Faisalabad) of Punjab, Pakistan. Data were collected in two time lags to diminish the common method variance ([Podsakoff et al., 2003](#)); during 1st wave of data collection, we mentioned the specific ID on the questionnaire and asked employees about their opinion regarding their leaders' style of leadership and TC and during the 2nd time-lag we contacted only those employees and report their level of exchange relationship with their leaders and perception about the efficacious accomplishment of projects. Employees working in the different construction organizations (housing societies construction organizations) in two major cities (Lahore and Faisalabad) of Punjab, Pakistan, were selected as the population for the present research. For data collection, the organization's management was informed about the study's objectives, and after their approval, questionnaires (survey forms) were distributed among the employees of those organizations. In the first phase, 350 questionnaires (survey forms) were circulated through a self-administered technique to the employees (in both cities through HR departments); 301 questionnaires (survey forms) were received back at the end of the first phase. In the second phase, questionnaires (survey forms) were distributed to those participants

who filled out survey forms in the first phase, and at the end of the second phase, 263 survey forms were received back which were completed from all aspects, and the response rate was 74.57%.

3.2 | Instrumentation

Measurement scales of the present research were espoused from earlier well-reputed published studies, and responses were obtained for study variables through the five-point Likert scale (“1= fully disagree to 5= fully agree”). All items of the scales used in this study were in the English language, as English is taught in Pakistani academia at educational levels from secondary schooling to university level, and in public and private organizations, English is used as a mode of correspondence ([Naseer et al., 2018](#); [Naseer et al., 2020](#)), so there is no issue of understanding of questions for the respondents. Team-Focused Transformational Leadership perceptions of employees about their leaders were assessed using a 14-item scale which was developed by Wang and Howell. Leader-Member Exchange perceptions of subordinates about LMX between employees and subordinates were measured using an 11-items scale by Liden and Maslyn ([1998](#)). Team Cohesiveness was measured by using a 5-item scale which was developed by Wendt et al. ([2009](#)); one item was removed with cannot meet the minimum threshold limit of factor loading (.700) as suggested by Hair et al. ([2019](#)). Project Success was assessed using a 14-item scale to measure the project's success developed by Aga et al. ([2016](#)).

4 | RESULTS AND ANALYSIS

4.1 | Demographic Results

According to demographic statistics, 85.2% of respondents were male, whereas 14.8% were female. Age wise 14.4% of respondents fall between the age of 18-25 years, 44.5% were from the age of 26-33 years, 23.9% lie between 34-41, 10.5% lie between 42-49, and 6.7% fall between the age group of 50 years and above. Most of the population were married, 62.2% and 37.8% of respondents were unmarried. Accordingly, 30.5% of respondents have matriculation qualifications, 15.5% were intermediate, 20.5% were graduates, 25.5% were master's degree holders, and 8% have an M. Phil degree. 63 (23.95%) belong to Dascon Construction Company, 49 (18.63%) persons belong to Habib Construction Services, 42 (15.97%) persons belong to Izhar Group of Companies, 37 (14.07%) respondents belong to Eden Builders (Pvt) Ltd, 33 (12.55%) respondents belong to Gul Construction Company, and 39 (14.83%) persons belong to Yukon Builders and Developers.

4.2 | Descriptive Statistics and Correlations

Table 1

Descriptive, Reliability Statistics and Correlations

	Variables	Mean	SD	CR	AVE	1	2	3	4
1	TFTL	3.44	0.9624	0.98	0.78	(.88)	.494**	.102**	.328**
2	LMX	3.50	0.9528	0.96	0.78		(.86)	.260**	.431**
3	TC	3.22	0.9138	0.84	0.63			(.86)	.218**
4	PS	3.29	1.0215	0.98	0.80				(.89)

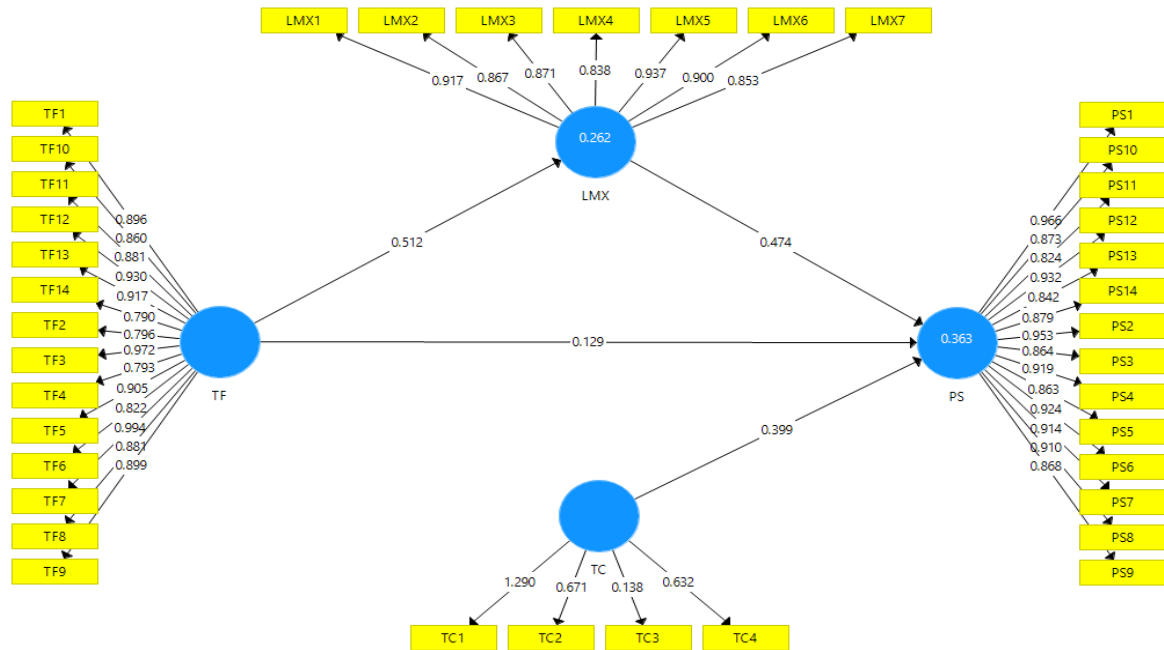
Note. TFTL, team-focused transformational leadership; LMX, leader-member exchange; PS, project success; TC, team cohesiveness; **P < 0.01; Reliability Statistics are in parenthesis; CR, composite reliability; AVE, average variance extracted

For cross-verification and validation of measurement items, model fitness (SEM) was done using Smart-PLS, represented in Figure 2, performed using PLS software. Table 1 illustrates the discriminant and convergent

values of the values (CR and AVE), which meet the minimum criterion of standard 0.500 suggested by (Hair et al., 2010); according to the results shown in Table 1, all items are correlated positively and significantly.

Figure 2

SEM (Smart-PLS)



4.3 | Hierarchical Regression

Table 2

Heretical Regression

Variable	PS			
	M1	M2	M3	M4
Gender → PS	.237	.254	.165	.191
Age → PS	-.029	.000	-.013	-.042
Education → PS	-.105	-.097	-.108	-.158
Experience → PS	.064	.037	.058	.089
TFTL → PS		.351***	.165*	.151*
LMX → PS			.377***	.484***
TC → PS				.400***
R²	.010	.119	.212	.330
R² Change	.009	.098	.188	.307
F	.533	5.500***	9.042***	14.158***

Note. TFTL, team-focused transformational leadership; LMX, leader-member exchange; PS, project success; TC, team cohesiveness; *** $p < .001$, ** $p < 0.01$, * $p < 0.05$

Results in Table 2 demonstrate that TFTL significantly and positively influenced the PS ($\beta = 0.151^*$, $p < 0.05$, LMS significantly and positively impacted the PS ($\beta = 0.484^{***}$, $p < 0.001$), and TC significantly and positively influenced the PS ($\beta = 0.400^{***}$, $p < 0.001$). Thus, these results support H1.

4.4 | Indirect Effects

Table 3

Indirect Effect of M between X and Y

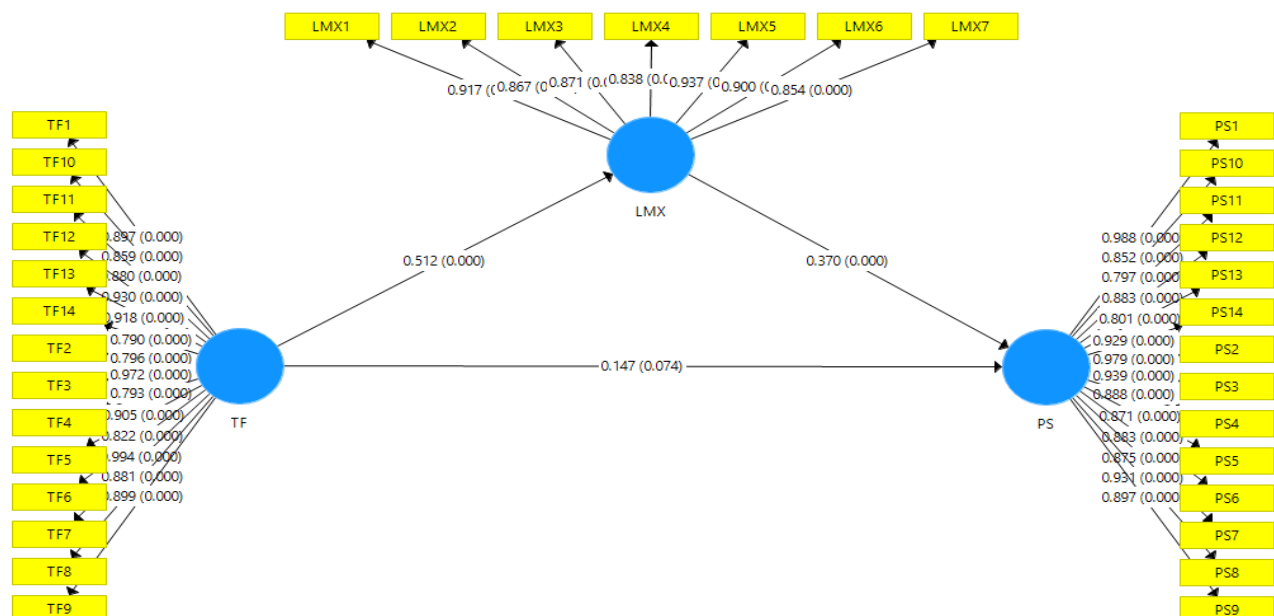
Model	Effect	SE	t	z	p	LL & LL 95% CI
<i>Baron and Kenny Mediation Effect</i>						
TFTL → PS	0.35	0.07	5.00		0.00	
TFTL → LMX	0.49	0.06	8.18		0.00	
LMX → PS	0.46	0.06	6.88		0.00	
<i>Mediation Effect through PROCESS-macro</i>						
Total	0.35	0.07				0.21, 0.49
Direct	0.16	0.08				0.01, 0.31
Indirect	0.19	0.05				0.10, 0.29
<i>Normal theory tests for indirect effect (Sobel)</i>						
TFTL → LMX → PS	0.19	0.04		4.23	0.00	

Note. TFTL, team-focused transformational leadership; LMX, leader-member exchange; PS, project success; TC, team cohesiveness;

Mediation test for this study was done in this study with the use of three different analysis techniques; firstly, the mediation was tested by using the method of Baron and Kenny (1986), with the use of Sobel (1982), test, and by following the Model-4 of PROCESS as suggested by Hayes (2018). Results shown in Table3 demonstrate that the TFTL positively affect PS where ($\beta = 0.35$, $p < 0.001$) and LMX where ($\beta = 0.49$, $p < 0.001$) and LMX significantly and positively influence PS where ($\beta = 0.46$, $p < 0.001$), which proves mediation of LMX. Furthermore, we test mediation through PROCESS, where the relationship between TFTL and PS was mediated by LMX, where there is no zero between the LL and UL values of indirect effect = 0.19 (0.10, 0.29). These values were also proved by the Sobel test value where $z = 4.23$, $p < 0.001$. Given below, Figure 3 also authenticates the mediation analysis result which was done by using Smart-PLS. Thus, these results proved H2.

Figure 3

Mediation Analysis (PLS)



4.5 | Moderation Interaction Effects

Table 4

Moderation Analysis

Variable	Moderation Model of TC					
	M1			M2		
	β	SE	t	β	SE	t
Intercept	3.101***	.372	8.329	3.239***	.335	9.656
Gender → PS	.307	.182	1.687	.204	.164	1.247
Age → PS	-.019	.099	-.191	-.070	.089	-.779
Education → PS	-.101	.148	-.686	-.095	.134	-.708
Experience → PS	.044	.128	.346	.121	.115	1.055
TFTL → LMX	.405***	.068	5.976			
TC → LMX	.317***	.071	4.444			
TFTL x TC → LMX	.168**	.068	2.481			
LMX → PS				.561***	.063	8.956
TC → PS				.371***	.066	5.627
LMX x TC → PS				.234***	.060	3.913
R ²	.211			.364		
R ² Change	.184			.341		
F	7.689***			16.403***		

Note. TFTL, team-focused transformational leadership, LMX, leader-member exchange, PS, project success, TC, team cohesiveness; ***p < .001, ** p<0.01, * p<0.05

Moderation analysis for this study followed Model 15 of PROCESS suggested by Hayes (2018), through SPSS. As per Table 4, the relationship between TFTL and PS was moderated by TC, where ($\beta = 0.17$, $p < 0.01$); therefore, it proves H3. Similarly, the relationship between LMX and PS was moderated by TC, where ($\beta = 0.23$, $p < 0.001$); therefore, it proves H4. Figure 4 authenticates the moderation analysis result, which was done by using Smart PLS. According to the results, as shown in Table 4 and Figure 4, when individuals were at a higher level of TC, this act increased the chances of successful project accomplishment with the support of LMX and TFTL.

Figure 4

Moderation Analysis (PLS)

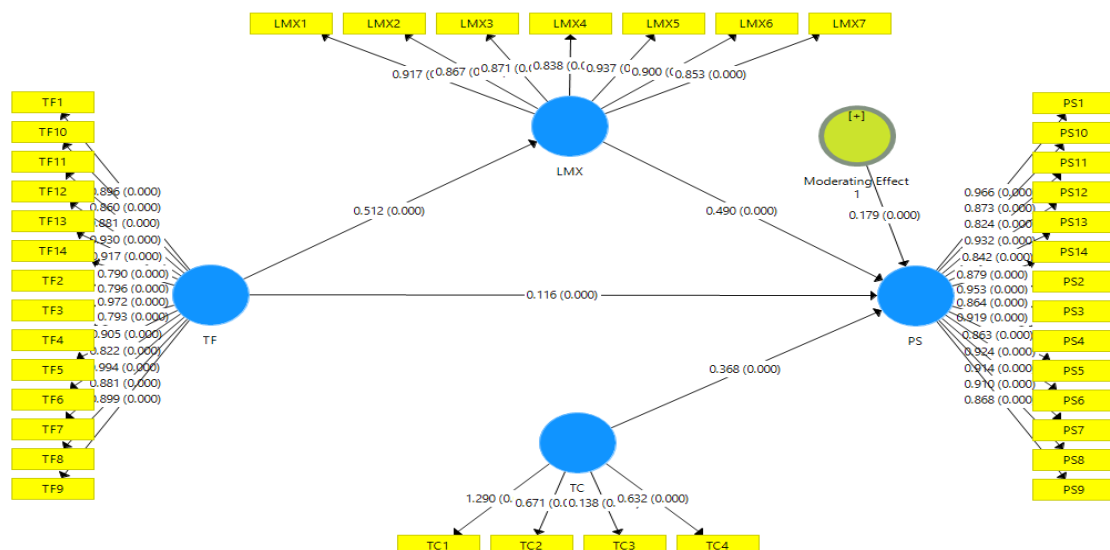
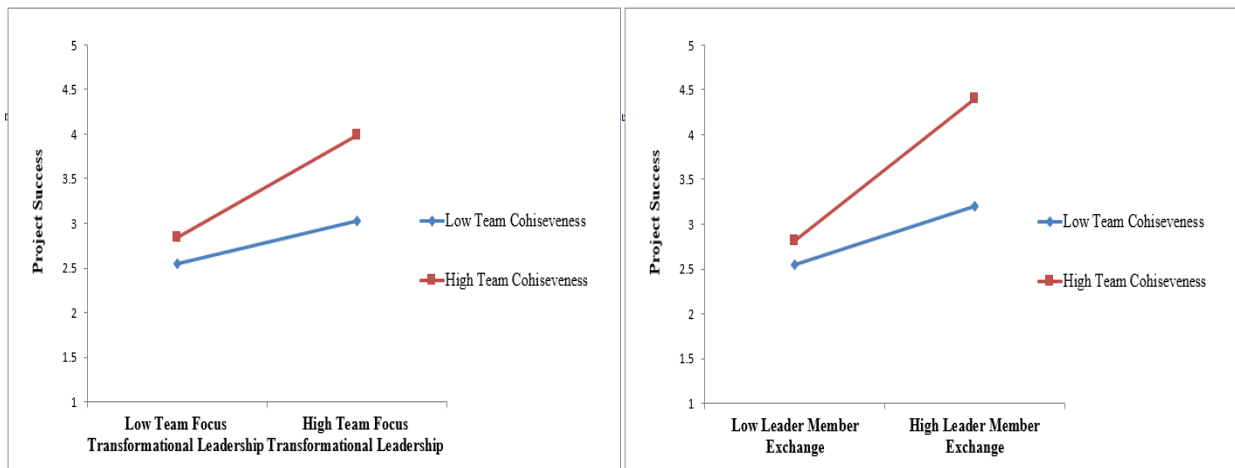


Figure 5 shows the moderation interaction graph, and according to this graph, a higher level of TC strengthens the relationship between TFTL and PS, which means that a higher level of TC increases the level of success of the project with the higher support of TFTL. In contrast, a higher level of TC similarly strengthens the relationship of LMX and PS, which shows that when higher levels of individuals for TC increase the efficiency of teams, that further results in a higher level of successful completion of projects with a higher level of LMX.

Figure 5.

Moderation Interaction Graph



4.6 | Moderated Mediation Effects

Table 5

Conditional Indirect Effects

Conditional indirect effects (TFTL → LMX x TC → PS)					
Mediator	TC (Moderator)	Effect	Boot S. E	Boot LLCI	Boot ULCI
LMX	-0.91	0.14	0.05	0.04	0.24
LMX	0.91	0.34	0.06	0.24	0.47
Moderated Mediation Index (TFTL → LMX x TC → PS)					
LMX (Mediator)		Index	Boot SE	Boot LLCI	Boot ULCI
TC (Moderator)		0.11	0.03	0.07	0.17

Note: TFTL, team-focused transformational leadership, LMX, leader-member exchange, PS, project success, TC, team cohesiveness; N= 263

According to Table 5 values, the indirect effect of TFTL on PS via LMX was moderated by TC, and all results were found significant with one plus (effect = 0.14, SE = 0.05, LL-UL-CIs = 0.04, 0.24) and one minus (effect = 0.34, SE = 0.06, LL-UL-CIs = 0.24, 0.47) S.D. Moreover, Table 5 also shows the moderated-mediation result where (index = 0.11, SE = 0.03, LL-UL-CIs = 0.07, 0.17), which means TC strengthens the relationship between TFTL and PS via LMX; consequently, it proves H5. Results demonstrated in Table 5 also clarify that a higher level of TC with the indirect support of TFTL via LMX also increases the chances for the success of the project.

5 | DISCUSSION

The first hypothesis (H1) of this study predicted a direct influence of TFTL on PS, and the result indicates a positive direct effect of TFTL on PS, proving H1, which is verified by the previous studies ([Aga, Noorderhaven, & Vallejo, 2016](#); [Allen et al., 2014](#); [Dong et al., 2017](#); [Sayrani & Ataolahi, 2015](#)). As TL contains the quality to modify things at the workplace, modifications at the team level also play their role in the project's success without any further cost ([Chen & Cuervo, 2022](#); [Ratnaningtyas, Handaru, & Eryanto, 2021](#)). Such leaders are careful to be more influential and effective in the workplace to make changes in the working routine and provide motivation to their followers for better decision-making, and all efforts by the leaders contribute to the accomplishment of a successful project ([Afsar, Masood, & Umrani, 2019](#); [Afsar & Umrani, 2019](#)). The second hypothesis (H2) of this study predicted that LMX mediates the affiliation between TFTL and PS, and findings of the study proved H2 as there is full mediation of LMX between the relationship of TFTL and PS, which also proved by evidence of earlier studies ([Duarsa & Riantoputra, 2017](#); [Els et al., 2016](#); [Gholipour Soleimani & Einolahzadeh, 2017](#); [Rockstuhl et al., 2012](#); [Sahin, 2012](#)). In other words, the LMX indirectly causes the project's success with TFTL ([Siswanto & Yuliana, 2022](#)). Moreover, TFTL covers numerous aspects of the organization, i.e., triggering motivation intrinsically, developing skills, increasing moral standards, initiating changes, increasing maturity, and creating a supportive climate for PS ([Imran et al., 2019](#); [Zaman et al., 2019](#)). The third hypothesis (H3) of this study predicted that TC moderates the relationship between TFTL and PS, and the results of this study provide full support to H3 as there is a moderation of TC in the relationship between TFTL and PS. In other words, we can say that TC strengthens the positive relationship between TFTL and PS; these findings also align with the previous studies ([Lee, Gabelica, & Fiore, 2016](#); [Shin & Park, 2009](#); [Thompson et al., 2015](#)). Moreover, the fourth hypothesis of this study predicted that TC moderates the relationship between TFTL and PS, and the results of this study prove H4, as there was a moderation of TC in the relationship between TFTL and PS. However, it is worth noting that team cohesion can also have adverse effects if it leads to groupthink or a lack of diversity of thought. This can result in a failure to consider alternative perspectives, which can lead to poor decision-making and project outcomes. Therefore, it is important for leaders to encourage team cohesion while also promoting a culture of open communication, constructive conflict, and diversity of thought. The findings of this study reveal that when the team member was at a high level of their cohesiveness, they were more persuasive by their leadership for the success of the project ([Riisla et al., 2021](#); [Thompson et al., 2015](#)). This study's fifth and final hypothesis predicted the moderated mediation effect of TC between the indirect effect of TFTL and PS via LMX. The study's findings prove the H5 of this study, which shows that TC moderates the mediated relationship of TFTL and PS through the LMX. The study's findings also clarify that TC strengthens the positive relationship between TFTL and PS and the relationship between LMX and PS. In the construction industry, team-focused transformational leadership can lead to positive outcomes regarding leader-member exchange. By emphasizing teamwork, collaboration, and mutual support, team-focused leaders can foster a sense of trust and respect between themselves and their team members. This can lead to higher levels of job satisfaction, commitment, and engagement among team members, which can ultimately improve the team's overall performance. Construction projects are complex undertakings that require effective teamwork and collaboration to ensure success. The cohesiveness of the team is a critical factor in determining the success of any construction project.

5.1 | Theoretical and Managerial Implications

This study extends the lens of the role theory of leadership ([Biddle, 1986](#); [Rizzo, House, & Lirtzman, 1970](#); [Winkler, 2010](#)) and explains how TFTL influence their followers by their role behaviors and fulfill the expectations of their followers in the form of motivation, supportive climate, skill development that further leads to the successful completion of the project. This study also contributes to the literature on LMX and TC by explaining the mechanism of moderated mediation between the relationship of TFTL and PS. Leadership roles influence subordinates' behavior, enhancing LMX and cohesiveness between the team members. The present study suggests various managerial, organizational, and employee participation of a practical type and offers many suggestions for the development and construction projects that firms might expand upon. Because of the project-based nature of many businesses in the development and construction sectors, the group has chosen to emphasize TL as the gracious leadership style best appropriate to Pakistani social values. Trustworthiness is valuable from a cultural viewpoint, while transformational leaders' capabilities to inspire and intervene with other individuals to achieve a unified goal are highly valued in the developmental and construction industries. It is anticipated that the results of this research will encourage practitioners to employ LMX in developing empathetic, inspirational leadership and innovative staff subordinates to ensure the successful completion of projects. The construction and development sectors both have the potential for improvement, notwithstanding the diversity of the projects they work on. The TC workforce generates a competitive advantage for the organization by efficiently completing projects on a timetable, within budget, and to the standard agreed upon in the contract, despite every project presenting its unique challenges.

5.1 | Future Directions and Limitations

Because data were collected from multiple sources, but only over two time periods, this study had some inherent temporal limitations; future research should consider multi-source data collected at varying time lags to produce more robust findings. To evaluate the outcomes of PS in established and emerging nations or Eastern and Western situational contexts, future research should investigate distinct characteristics of TFTL independently for each culture. The current study only focused on TFTL, which is popular because of its cultural relevance, but future studies could consider other cultural dimensions in addition to TFTL and the project's success. The present study was limited to the construction and development sector, and the data came from project-based businesses, casting doubt on the study's capacity to be applied to other industries. Furthermore, PS research in the future should investigate both trait-based and behavior-based leadership models. Finally, future researchers should gather information from other manufacturing sectors to learn how TFTL has affected various industries.

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