

The Effects of the Transformational Leadership on Project Success: Sequential Mediation of Team Building and Team Work

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Abstract

Abstract

The primary aim of the study is to find-out the Project Success (PS) through Transformational Leadership (TL) with sequential mediation of team-building and Teamwork Quality (TWQ). The design of the study is quantitative. A structured questionnaire has been used to collect data from 374 project managers of various levels of working on information systems development projects. Hypotheses were tested with help of regression analysis technique with the help of process macros of Prof. Hayes. The relationship between the project managers' TL and PS is mediated separately and serially by teamwork and teambuilding. The project manager's TL style intensifies PS by employing Team-Building Practices (TBP) and TWQ. To ensure a successful project, the TL improves TWQ's communication, coordination, and cohesiveness. The results indicate that team-building and teamwork are repeated mediators of TL and PS. This nascent method has never been used in a specific study to investigate the connection between TL and PS.

Key words: Sequential Mediation, Project Success, Transformational Leadership, Team Building, Team Work

Introduction

The widespread project success (PS) phenomenon will continue in the near future in the majority of organizations employing their survival strategy in term of project success (PS) (Afsar, Badir, Saeed, & Hafee, 2017). Due to diversity and swift expansion of the organizations, PS becomes a most attractive research topic for the researches of Project Management (PM). The literature on leadership reveals the effects on project's success and management but there is more attention is required to understand the projectized organizations (Albert, Balve, & Spang, 2017). Psychological relationship of organizations and their employees was interestingly discussed in last thirty years by the researchers and practitioners (Barattucci, Teresi, Pietroni, Iacobucci, Presti, & Pagliaro, 2021). The researchers trying to study the primary mechanism of leadership affect the ISD projects.

Full range theory describes the three underlying leadership styles like transactional, transformation and laissez-faire (Sohmen, 2013). It is observed that Laissez-faire leadership style has destructive effects in the project management as compare to other styles (Skogstad, et al., 2007). Transactional and transformation leadership styles got much attention in the project management. A meticulous leadership styles is adopted by some project leaders in order to boost their project performance (Yang, Huang, & Wu, 2011).

According to Raziq et al., the leader wants his or her subordinates to achieve the objective through communication and influence. Literature on project management (Hsu, Chang, Klein, & Jiang, 2011; Gundersen, Hellesøy, & Raeder, 2012) places an emphasis on certain prerequisites for PM and PS, like communication, collaboration, cohesiveness and efficient team-building (Aga, Noorderhaven, & Vallejo, 2016), that are some outcomes of competent project management. From project inception to closure of the project in accordance with the anticipated specifications of all the stakeholder of projects, the project leader's role is crucial throughout the project. Modern methods of management seek to comprehend the leader's attitude, particularly toward others (Tasci & Titrek, 2020). Huemann and Silvius (2017) revealed that rapid change in the environment is responsible for sustainable development and presents both challenges and opportunities for successfully completing the project. Shao (2018) argued that project leader's job is to set and accomplish the desired objective. Any business's ultimate objective is project success; therefore, project management researchers must study it (Albert, Balve, & Spang, 2017; Antonakis, Avolio, & Sivasubramaniam, 2003). Complex projects required high level team cohesiveness, collaboration, and communication, complex for their success. (Burke, Stagl, Klein, Goodwin, Salas, & Halpin, 2006).

The underlying aim of this research is to get better comprehension of the mechanisms TL of project managers that influences PS. However team processes as mediators affect the relationship of TL and team performance (Gundersen, Hellesøy, & Raeder, 2012). A number of policies have been developed by the Pakistani government to make it easier for companies that work in information technology (IT) to encourage the exports of the industry of IT like software(s) to other countries. Project leadership is also essential to PS, as previous research (Shao, 2018) despite a number of studies (Basten, Joosten, & Mellis, 2011; Pollack & Matous, 2019) on these leadership styles on construction project of NGOs and other industries are lacking of the understanding of the leadership including ISD sector as well because the product is intangible, approaches and the environment of ISD projects are very diverse these industries.

According to Antonakis et al. (2003), FRLT includes TL as a fundamental leadership styles. The strategy that has been proposed is to use empirical evidence to investigate the unanswered question that has been addressed by previous literature. To investigate the effects of sequential TBP and TWQ on the association of TL and PS is the primary purpose of this study. Pollack and Matous (2019) suggested that there are fewer studies available in the literature which describes this unique relationship of TBPs on teamwork. The researchers also contend in order to find the association of leadership styles with TBPs and TWQ which ultimately illustrates the PS. The study will elaborate effects of sequential mediation of TBP and TWQ on PS which ultimately boost the sustainable success of projects.

Conceptual Framework

Project Success

PS is discussed extensively by the researchers in the literature of project management (Bass & Avolio, 1996; Zhang, Cao, & Wang, 2018). According to PMI (2013), the triangle of scope, cost, and time have always been considered as a vital element to measure PS. On the other hand, the evaluation of PS takes into account additional aspects like customer and stakeholder acceptance, commercialization, and opportunities for future projects (Cooke-Davies, 2002). Kuthyola et al., (2017) described in their study that cost, time and quality are the essential elements of PS and information systems and R &D are the products that are always been come in account of outcomes of a project (Ika, 2015).

Khang & Moe, (2008) conducted research on PS criteria, despite the fact that there is no consensus among researchers in the project management literature are extensive and useful for projects in the development sector. The following factors are suggested as PS determinants by an investigation: the benefits the project, key partners,

customer satisfaction, project team, potential for marketing and goal achievement (Afsar, Badir, Saeed, & Hafee, 2017). We are able to comprehensively describe the factors that make up PS in light of the aforementioned determinants: project completion within the scope, on time, within budget, at a high quality, to the satisfaction of customers and stakeholders, and in accordance with the project organization's goals and objectives (Aronson, Reilly, & Lynn, 2006).

Transformational Leadership Style

Even though leadership has been the subject of research for a number of decades, there hasn't been much empirical research on project management (Aga, Noorderhaven, & Vallejo, 2016). FRLT encompasses leadership styles. It is the most widely accepted leadership theory (Mittal, 2016). Gundersen and others (2012) argued that project-based organizations place a high value on the TL style and is strong personal association with leader by forming the well shared future vision and building significant relationship between the subordinates and leader which required a positive transformation of the compensation and reward without any self-obligation (Musawir, Serra, Zwikael, & Ali, 2017).

The subordinates' primary motivation and encouragement to effect positive change comes from the leader (Raziq, Borini, Malik, Ahmad, & Shabaz, 2018). Researchers unanimously agreed on the four aspects of TL in the literature that are individual consideration, intellectual stimulation, idealized influence and inspirational way of motivation. The leader's behavior that elicits strong emotions from followers and fosters a profound shared understanding is idealized influence (Qin, Hsu, & Stern, 2016).

The leader's intellectual stimulation inspires the followers to think outside the box and leads them to come up with novel or creative solutions to problems. When a leader offers demanding tasks and higher expectations for them, as well as aligning the followers with vision and encouraging them refers to inspirational way of motivation. Individualized consideration refers to the practice of providing followers with support, encouragement, and coaching additionally paying attention to each individual follower and their particular requirements (Shao, 2018).

Team-Building Practices

According to the literature, TBP is regarded as an essential component of project-based organizations' HRM (human resource management) (Vaccaro, Jansen, Bosch, & Volberda, 2012). It refers to the group of interventions at various team-levels in formal or informal priorities, social interaction and role clarification as well as resolving interpersonal task and issues that impair team performance (Klein, et al., 2009). These elements of team-building are generally agreed upon in the literature:

setting of clear goals, clearly defined roles, interpersonal procedures, and skills of problem solving. Strategies formulated in the goal-setting phase consider as a vital elements in setting general and specific goals of the project by defining sub-task and schedules establishment. Team members who are specifically related to the target setting are always engaged in the active action planning are more enthusiastic to align the strategies with specific goals (Aga D. A., 2016). Better communication plays a vital role in clarifying the roles of the team members in the projects. It is proved that the team-members who voluntarily participate in the activities related to role-clarification shows better understanding towards their responsibilities, roles in the team (Al-Ghazali, 2020). This includes making clear the requirement of individual role, mutual responsibilities and team norms (Aga, Noorderhaven, & Vallejo, 2016). Conflict management within members of team and the disclosure of any unseen agenda are both components of the interpersonal process (Qin, Hsu, & Stern, 2016). In order to cultivate skills pertinent to the task, problem-solving practice places an emphasis on comprehending significant challenges in group tasks. The team members go through this process of determining the issues, gathering a lot of useful data, engaging in and action planning and strategic thinking carrying out and reviewing action plans (Zhang, Cao, & Wang, 2018).

Teamwork Quality

The effectiveness of working in a team has been the subject of numerous studies. The initial TWQ model examined the level of interaction and tested collective team-task processes (Hoegl & Gemuenden, 2001). In previous research (Kuthyola, Liu, & Klein, 2017; Fornell & Larcker, 1981) found that in NPD projects, coordination, communication, mutual support, learning and cohesion are based on team efficiency which is measures as a second order construct. Oh et al., (2019) utilized the TWQ construct: cohesion, cooperation, BMC (balance of member contribution), coordination, and shared support the free exchange of information, formalization, and the frequency with which team members interact are all aspects of communication.

Coordination is necessary to understand the project team members while working on parallel subtask. This is will agree team members easily on budget, schedule, structure and deliverables. The capacity to utilize the skills of team members to its full strength is balance of member contribution (Avolio, Zhu, Koh, & Bhatia, 2004). The contribution ought to reflect the team members' particular expertise and knowledge. The willingness and capacity of team members to assist and support one another in carrying out their responsibilities is known as mutual support (Burke, Stagl, Klein, Goodwin, Salas, & Halpin, 2006). The capability and readiness of team members to divide up the work and give priority to group activities over other tasks is effort of sub-construct (Ding, et al., 2017).

Research Model and Hypotheses

Hypotheses and conceptual framework will be discussed under this heading. It will also emphasize relationship between variables used in this research. Conceptual Framework of this research is described in Figure 1.

Transformational Leadership and Project Success

According to the literature (Zaman, Nawaz, Tariq, & Humayoun, 2019; Kozlowski & Ilgen, 2006), project leaders' appropriate attitudes is vitally important to achieve the better performance of the project. Employee entrepreneurial behavior is positively associated with the TL style (Afsar, Badir, Saeed, & Hafee, 2017), employee behavior that is novel (Wang, Demerouti, & Blanc, 2017), the creativity of employees (Ding, Li, Zhang, Sheng, & Wang, 2017), employee retention (Caillier, 2018), and the commitment of the organization (Delegach, Kark, Katz-Navon, & Dijk, 2017), effectiveness (Jansen, Vera, & Crossan, 2009), proactivity and adaptability of employees (Wang, Demerouti, & Blanc, 2017) and job satisfaction (Ding, Li, Zhang, Sheng, & Wang, 2017). Anantatmula (2010) and Keller (1992) elaborated that style of leadership has a significant relationship with PS and PP in a project environment.

According to Al-Ghazali (2020), the qualities of TL respect, inspiration, open communication, obligation, support and individualized consideration have a ominously higher possibility in achieving success. TL catalytically plays an important role in repositioning of strategies and makes possible a significant and positive change according to the stakeholders. The approach of TL enhanced the knowledge of many obstacles and issues related to projects which are necessary for improvement efforts. As a result, the transformational leaders inspires their teams to achieve the challenging objective and targets of the projects. A transformational leader in a project team ensures the project's success by fostering high engagement, positive relationships on workshop and cohesiveness (Musawir, Serra, Zwikael, & Ali, 2017). The team members perform with their full potential and complete projects in this manner. As a result, we offer our initial hypothesis:

H1. The project manager's TL style has a positive and significant impact on the PS.

The Mediating Role of TBP

According to Aga et al., (2016), there is a significantly positive correlation between Transformational Leadership and Team-Building Practice. According to Hsu et al., (2011) team-building improves team results by facilitating the sharing of information and joint understanding of team members. Yang, et al., (2011) looked into the following four aspects of project managers' leadership styles that affect TBP: goals for the project, empowerment, the environment, and human resources. Effective project leadership lays out the constraints and defines the objectives for subordinates in the project goal. The TL approach should be adopted by project managers so that members of the team can investigate, evaluate, and decide on the strategies they will use to solve problems and complete tasks.

An effective leadership style is essential for projects managers in order to keep expertise and project information in their respective teams and other groups of the organization for making right decision on right time. Communication mechanisms are used in this process to share information with individuals of teams about goals of project and change their responsibilities and role. An effective leadership style is necessary to build trust, to increase team commitment and in establishing constructive working relationship in teams. Burke et al., (2006) emphasized that appropriate leadership is necessary for the project team to be effective, despite the team's high performance and appropriate skills and methods. Conventional team-building strategies, such as interpersonal communication, role clarification, problem solving and goal setting, TL skills are needed being a project managers in order to inspire the subordinates (Aga, et al., 2016).

H2: TBPs have the mediating role on the relationship of TL styles and PS.

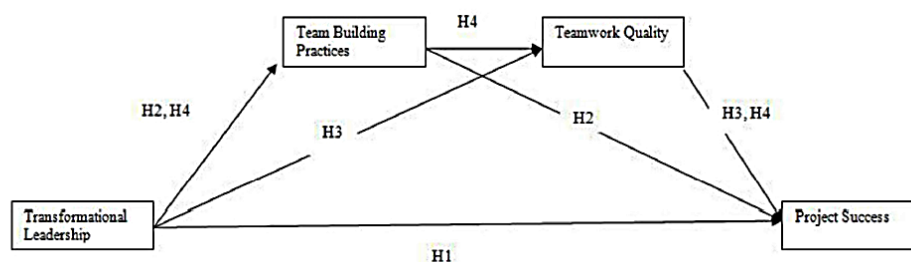


FIGURE 1 | The proposed model.

The Mediating Role of TWQ

Teamwork quality plays a significant role in success of project. In complex environments, teamwork is necessary for evaluation and progress of project

performance (Qin, Hsu, & Stern, 2016). It is also very essential that TWQ has a mediating role between various leadership styles and performance of the project in a number of studies (Aronson, Reilly, & Lynn, 2006). These leadership styles and entrepreneur governance network are correlated with TWQ and PS. TWQ also mediates the relationship of leadership and PS (Zaman, Nawaz, Tariq, & Humayoun, 2019). TWQ was examined as a mediating variable between the leader's personality and out of project a NPD (New Product Development) project under uncertainty level in variety of conditions (Aronson, Reilly, & Lynn, 2006). A different study (Dionne, Yammarino, Atwater, & Spangler, 2004) delineated how the relationship of leadership and project outcomes mediated by TWQ. TL style improves TWQ and leads towards completion of project and its success in a controlled setting.

H3: TWQ has significant mediating impact on relationship of TL style and PS.

The Serial Mediating Role of TBP and TWQ

The duration and cost of a project's success can be significantly affected by the team's success; most of the time, few related guidelines suggest teamwork as a soft skill or studies of how it affects project outcomes (Turner, 2014). One way for businesses to improve teamwork efficiency is through team building. It is an intervention in which cohesive working groups use a planned agenda to learn how to work together better (Mittal, 2016). Klein et al., (2009) revealed that Team-building improved cognitive thinking (such as declarative knowledge of teamwork competencies), affective outcomes for team members (such as team power and trust), processes (such as coordination and communication), and team performance outcomes (such as productivity measures). Xu et al., (2010) discovered that TWQ acts as a mediator between the IT project's success and human and technical IT infrastructure capabilities. The success of project management is predicated on effective and efficient team building, cohesiveness, and collaboration (Raziq, Borini, Malik, Ahmad, & Shabaz, 2018). The process of teamwork is linked to the process of teambuilding, and that teambuilding occurs after teambuilding (Shao, 2018).

One in every five projects is deemed unsuccessful due to poor communication, making effective communication an essential component of teamwork. Team-building strategies alter and extend team procedures until they are established and stable. We suggest that TBPs contribute to improving TWQ, which will then have a positive impact on PS, based on the aforementioned arguments (Pollack & Matous, 2019).

H4. TBP and TWQ have serial mediating effects one association of TL style & PS.

Materials and Methods

Research Setting and Participants

Projects can be categorized in a variety of ways. Information systems development (ISD) projects are the focus of this study. ISD projects do not produce tangible results. In terms of real-time data, improved communication, increased output, and a safe location, the development of the ISD projects aims to improve organizational management. The purpose of the study was to determine whether TL and PS are associated with the sequential mediation of TBPs and TWQ. ISD project managers are the participants in this study.

Sample and Data Collection Procedure

The target industries of the study were IT companies that work on ISD projects. From January 2020 to April 2020, data were gathered from ISD project managers employed by leading Pakistani IT companies. The information came from companies that were registered with the Pakistan Software Export Board (PSEB). We obtained the company's information (name, contact information, website, and city) from the PSEB website. The following Pakistani major cities served as the source of the data: An online survey was used to collect responses from Quetta (12.0%), Peshawar (17.1%), Islamabad (19.0%), Karachi (21.9%), Lahore (20.1%), and other cities (9.9%). Cross-sectional methods have been used in some significant studies to determine the success of project (Jansen, Vera, & Crossan, 2009; Musawir, Serra, Zwikael, & Ali, 2017).

The managers have already observed, detected and witnessed the outcomes of these particular project features. The concept of self-reported surveys is more appropriate (Zaman, Nawaz, Tariq, & Humayoun, 2019). More than 800 ISD project managers received a link of online questionnaire from us. 374 responses were provided; there were 46.75 percent responses. Each organization provided one participant for this research. Respondents having experiences of ISD projects are required for this study.

Measures

Project Success

The PS criteria are the subject of debate in literature of project management. The aggregative method was utilized by some researchers (Yang, Huang, & Wu, 2011), while other studies utilized the distributive PS criteria (Diallo & Thuillier, 2004). Measurement of a multi-dimensional project performance construct based on the interpretation of specific parameters by project managers was the aggregate approach utilized in this study. A well-validated study by Aga (2016) derived six project success constructs that address time, cost, quality, client use, satisfaction, and efficacy. On a

five-point Likert scale ranging from "strongly disagree" to "strongly agree," the project managers evaluated each item.

Transformational Leadership

We used the ideas developed by Aga et al. (2016), which are based on the study that Bass and Avolio conducted in 1996. In leadership research, Bass and Avolio's (1996) study has been regarded as a well-validated study. We adopted eight TL principles, which include idealized influence, intellectual stimulation, inspirational motivation, and individual consideration. The five-point Likert scale served as the basis for the items that ranged from 1 (strongly disagree) to 5 (strongly agree) respectively.

Team-Building Practices and Teamwork Quality

In the research model, Project TBPs and TWQ serve as serial mediator variables. Goal setting, role clarification, interpersonal processes, and problem-solving are all components of the multifaceted concept of team-building (Klein, et al., 2009). We used eight items from the Aga et al. (2016) study regarding TBPs. The project managers gave each item a score between "strongly agree" and "strongly disagree" on a five-point Likert scale.

Six items adapted from Oh et al. (2019) and Yang et al., (2011) describe the quality of teamwork, which includes communication, coordination, the BMC, mutual support, effort, and cohesion.

Covariates

ISD project managers participated in this study. There is a list of the control variables that were used to reduce false positives and improve internal validity. The controls variables describe the categories of demographic information of the project managers. There are two groups of gender represented female = 2 and male = 1, eight age groups i.e. 21 years, 21–25 years, 26–30 years, 31–35 years, 36–40 years, 41–45 years, 46–50 years, and more than 50 years, qualification of the respondents are categorized into 3 different groups like intermediate, graduate, master/doctorate, and the experience of ISD project 1 year, 2–5 years, 6–9 years, 10–13.

Data Analysis

Outliers, data accuracy, and missing values were examined prior to hypotheses analysis. Confirmatory Factor Analyses (CFA) was carried out by us using AMOS 23 and Plugins to investigate convergent and discriminant validity.

Independently, we looked into how TWQ and TBP mediated the association between TL and PS. Hayes's four-step mediation method adopted in this research for serial mediation. Firstly, there must be a connection between the independent variable

(TL) and PS is dependent variable. Secondly, the mediator construct (TBPs and TWQ) should be related to the independent construct (TL). Thirdly, there must be a connection between the mediator variable (TBPs and TWQ) and the dependent variable (PS). Finally, the effects of TL as independent variable on the PS as dependent variable are no longer noteworthy or significantly condensed when the mediator variable is controlled. Next, we looked at how teamwork and building teams acted as serial mediators in the association of TL and PS.

Results

The participant demographics are described by descriptive statistics in Table 1. There were 374 ISD project managers took part in this research. In this research, male were 73.5% of the respondents, while female were 21.1 percent. The ISD project managers belong to 5th group of age (38 years), fourth group of experiences and finally the qualification level of the majority of the respondents was graduation respectively.

Table 1
Demographic Information of Respondents

Variables	Frequency (N)	Percentage	Average
Gender			
Male	295	78.9	1.21
Female	79	21.1	
Total	374	100	
Age			
<21	4	1.1	5.31
21-25	6	1.6	
26-30	15	4.0	
31-35	34	9.1	
36-40	131	35	
41-45	115	30.7	
46-50	48	12.8	
>50	21	5.6	
Total	374	100	

Experience			
≤1	8	2.1	4.17
2-5	22	5.9	
6-9	88	23.5	
10-13	129	34.5	
14-17	82	21.9	
>17	45	12.0	
Total	374	100	
Education			
Intermediate	15	4.0	2.10
Graduation	315	84.2	
Master / Doctorate	44	11.8	
Total	374	100	

Validity and Reliability Analyses

The convergent validity is the internal consistency of multiple dimensions of each variable. The recommended threshold value for internal consistency in the CR statistics is 0.75 (Antonakis, Avolio, & Sivasubramaniam, 2003). IC of the CRs of TBPs (0.874), TWQ (0.812), TL (0.920) and PS (0.795) table 2 depicts the values. The factor loadings all exceeded 0.50. The measure of how distinct each model construct is from the others is called discriminant validity. The discriminant validity variables can be assessed by using the AVE (average variance extracted). The acceptable threshold value for AVE ought to be greater than 0.50 (Fornell & Larcker, 1981). Each construct has an acceptable AVE value, as shown in Table 2: Internal consistency was found for TBPs (0.528), TWQ (0.508), TL (0.621) and PS (0.510). Additionally, the square roots of the AVEs of TL (0.801), TBPs (0.820), TWQ (0.741), and PS (0.712) were higher than the correlations between the constructs. The recommended discriminant and convergent validity thresholds were thus met by all of the tests.

According to Gaskin and Lim (2016), AMOS Plug-in and AMOS 23.0 were used as model fit tool. The dimensionality and fitness of the CFA model were examined in Table 3. The outcomes demonstrate that our hypothesized model accurately reflected the data. The following are the values for each fitness indicator: The acceptable range includes DF = 321, CMIN = 60.910, CMIN/DF = 1.814, CFI of 0.935, SRMR of 0.051, SMSR for approximation is 0.052, and a P Close value of 0.561.

Table 2
Model Validity of Measures

	CR	AVE	MSV	MaxR(H)	TL	TBP	TWQ	PS
TL	0.920	0.621	0.498	0.931	0.820			
TBP	0.874	0.528	0.498	0.903	0.706***	0.720		
TWQ	0.812	0.508	0.103	0.872	0.254***	0.321***	0.741	
PS	0.795	0.510	0.060	0.861	0.219***	0.245***	-0.030	0.712

TBP = team building practices TWQ = teamwork quality PS = project success TL=transformational leadership,

Table 3
Model Fit of Measures

Measures	Estimate	Threshold	Interpretation
CMIN	605.910	--	--
DF	321	--	--
CMIN/DF	1.814	Between 1 & 3	Excellent
CFI	0.935	>0.95	Acceptable
SRMR	0.051	<0.08	Excellent
RMSEA	0.042	<0.06	Excellent
PClose	0.561	>0.06	Excellent

DF = degree of freedom CFI = Comparative fit index, RMSEA, root mean squared error of approximation, SRMR = standardized root mean square residual;; p-value = process value. CMIN = contrast media-induced nephropathy

Hypotheses Testing

A Hayes-provided analytical method was used for hypotheses testing. Approximately 374 valid responses were calculated by the PROCESS SPSS plug-in. According to Hayes (2013), this approach is very handy as compared to the older one mediating effects evaluation. Age, gender, education, and experience have been taken into account as control variables in this study. Standardized path coefficients are depicted in Figure 2. Tables 4, 5 provide a summary of the evidence that the zero is not included in 95% CI for all indirect effects. The results confirm that TBPs and TWQ have mediating effects on the relationship of TL and PS. Moreover, intervals of bias-corrected bootstrapped for path estimation is 98% and presented in Table 5.

According to Hypothesis 1, the project manager's TL style has a positive impact on PS. The analysis demonstrates overall direct effect of TL on project success for H1. Supporting H1, the results of regression analysis reveals that there is a significant effect of TL on PS ($b = 0.417$, $SE = 0.041$, $P = 0.000$). According to Hypothesis 2, TBPs play a mediating role in the relationship of TL and PS. To predict PS, the H2 analysis requires the indirect effect of TL via TBPs. Supporting H2, the findings demonstrate that TBPs significantly mediate the relationship between TL and PS. According to Hypothesis 3, the project manager's TL predicts TWQ, which has an

effect on PS. It is important to predict the indirect effects of the TL via TWQ on PS for significant testing of H3. The finding reveals that TWQ has the mediating effects on the association of the TL and PS significantly. Furthermore H4 is supported by H3 by the sequential mediation in the relationship of TL and PS. The findings of the hypothesis 4 depicts that TWQ and TBP have significant sequential mediating effects on the relationship of TL and PS. All hypotheses were confirmed by the findings.

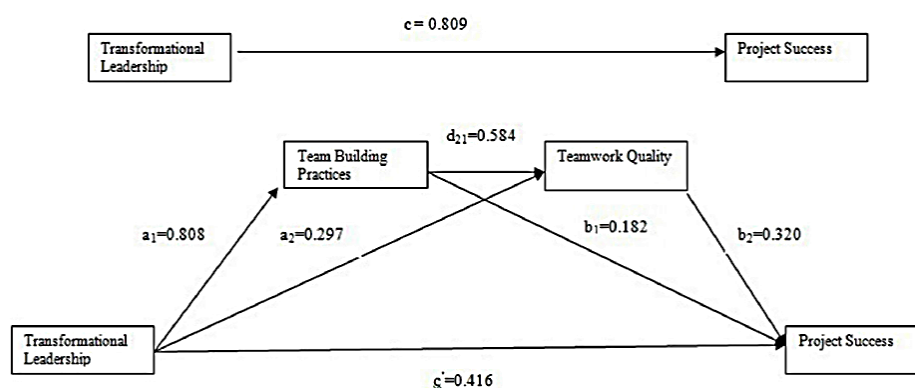


FIGURE 2 | Mediation model. Notes: N = 374, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Discussion

Through multiple mediation and vigorous analysis, the present study purpose to empirically investigate how PS directly and indirectly influenced through TL styles of project managers. Teamwork and strategies for building teams are required in project management. Gundersen and others (2012) suggested that project-based organizations place a high value on the TL style. The study came to the following significant conclusions:

First, the study demonstrates that PS is positively influenced by TL style. TL style of project managers helped the team members of project to take PS in a positive direction. The believe of the team members taking the projects in the right direction alleviate the risk factors of failure. Second, TBPs are positively correlated with TL style. The positive impact of TL elucidates the chief objective of the project, individual team members' responsibilities and expectations as well as tasks-related issues, ideas, and solutions.

Thirdly, the findings suggest that TBPs has mediating effects on the relationship of TL and PS. There is a significant association among the TL style of project managers, PS, and TBPs. Team-building exercises mediated the relationship of TL and PS (Aga, Noorderhaven, & Vallejo, 2016).

Fourth, TL style of project managers promotes TWQ. The team of project finds out the strengths and weaknesses of every person and allocates work based on those strengths. The members of the project team work together to be supportive and helpful. Fifth, TWQ mediates the relationship of TL and PS. The positive effects of TWQ are emphasized in TL as individual consideration, intellectual stimulation and inspirational motivation. TWQ, on the other hand, raises PS levels. Sixth, and most importantly, the studies also found that the TL style project managers and PS are linked through TBPs and TWQ serially. This is almost first study to overtly identify the sequential role of TBPs and TWQ with regard to TL and PS.

Theoretical Implications

This study contributes in the literature of project management by explaining the sequential mediating role in the relationship of TL style and PS. According to the findings of the study, PS's TL-ISD relationship is linked by TBP and TWQ. The research also illustrates that TBPs and TWQ act as serial mediators between PS's TL and ISD. Our understanding of the importance of TL in project management is bolstered by this finding.

Our findings indicate that, TL styles affect PS with and without the presence of mediation of team-building and teamwork mediation. It is also determine in the literature of Project Management that TL explains the PS directly and indirectly in connection of team-building and TWQ (Yang et al., 2016). The presented results demonstrate that TL has an effect on TBPs that influence TWQ, which in turn predicts PS's ISD. To put it another way, TBPs and TWQ repeatedly intervene in TL and PS's path.

Future Direction and Limitation

There are some limitations in our research that would be taken into consideration when planning future research. First, only ISD projects are covered by the suggested practical implications. We only gathered information from ISD project managers in Pakistan, which limits its generalizability. Our findings ought to be reevaluated and reaffirmed in various workplaces and nations as the primary focus of subsequent research. Second, the data were gathered simultaneously from the same source ISD project managers for a variety of constructs. As a result, a standard approach may be a concern. Nevertheless, the CFA findings also demonstrate that the study variables are empirically discrete and that the variables utilized in this research are broadly applicable to other studies.

Thirdly, cross-sectional approach was used for data rather than longitudinal approach because longitudinal data make it difficult to infer strong causality. Future

researchers can use longitudinal approach for data in order to get more generalized findings.

Fourth, the study has not examined the project type as a control variable. The PS may be influenced by the type of project in terms of cost, complexity team size. The research suggests that upcoming researchers can examine the project type impact on PS.

Finally, moderating role of age, gender, and experience of the respondents should be investigated. May be it would be the first study which demonstrate sequential mediating effects of TWQ and team-building among TL and PS. This study urges the future researchers to expand this model and investigate additional routes to project success.

Implications and Conclusions

This study aims to determine how TL style affects ISD projects both directly and indirectly. The study demonstrated that TL directly affects ISD's PS. The results of this study confirm that TBPs and TWQ act as serial mediators in the relationship of TL and PS. Furthermore, we demonstrated that team building and TWQ have mediating effects on relationship of TL and PS independently and sequentially. Through leadership development programs, project-based organizations should encourage project managers to use the TL style.

The study has various practical implications. Project Managers intensify the project success by adopting TL style With TBPs and TWQ. The ability project managers to perform better can be enhanced by the TL style (Vaccaro, Jansen, Bosch, & Volberda, 2012). Consequently, project success as well as organizational benefit is associated with TL. The purpose of team building is to clarify roles, improve social relationships, and resolve task-oriented issues. Coordination, cohesiveness and TWQ's communication are the key factors for successful accomplishment of the projects. Project managers should adopt TL styles in order to get a better chance of PS and properly implement all team-building and TWQ elements. The transformational leader is responsible for fostering an environment that encourages all aspects of teamwork and team building.

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