

Mediating Role of Work Engagement Between Transformational Leadership and Project Success

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Abstract

The study examines the impact of transformational leadership style on project success with mediating role of work engagement. A total of 203 Project professionals from Pakistan participated in the study by providing their responses on self-administrated questionnaires. The study analyzed the data using parital least square strctural equation modeling. The results reveal that transformational leadership style positively impacts work engagement and project success. Further, the study finds a significant mediating role between transformational leadership and project success. Based on the results, the study concludes that a project manager possessing transformational leadership attributes significantly contributes to project success. Also, effective transformational leadership impacts work engagement and thus, the project's outcomes are satisfied. The results are helpful for organizational development practitioners and policymakers to craft policies for project managers by incorporating the need for transformational leadership. A future avenue of study is suggested in the end.

Keywords: Project manager, transformational leadership style, project success, work engagement, Project management, job satisfaction.

1. Introduction

Today's economy thrives by investing and contributing to several public and private projects. According to Serrador and Pinto (2015), when economies invest in such projects, they account for more than trillion dollars annually. Leadership style is one of the most crucial attributes considered a critical success factor in project management. To satisfy the criteria of project success, leadership plays an essential role. It is one of the attributes required to be present in a project manager, which increases the efficiency and effectiveness of the project. Organizations focus on this trait because team members get a clear vision about the project and work under supervision according to the schedule (Ahmed & Abdullahi, 2017). Moreover, leadership is also crucial because it motivates the team's individuals toward the project's success. Hence, good leadership is mainly cultivated according to organizational culture to gain effective and profitable results.

A plethora of research studies have determined the importance of leadership style in leading a successful project (Afzal, Khan, & Mujtaba, 2018; Hussain, Akbar, & Van, 2020; Naeem & Khanzada, 2017). If a project manager follows a specific leadership style, there are significant chances for him/her to meet the project's criteria leading to the project's success (Iqbal, Zaman, Siddiqui, & Imran, 2019). The prior studies have also explored that when an impactful leadership style is adopted, it develops effective work engagement and thus, there are greater chances for a project to meet certain criteria. In this regard, Afzal et al. (2018) investigated that the human factor is equally vital in project success and found that leadership style encourages the team to achieve the project goals. Another study also investigated the relationship between a project manager's leadership style and project success and found a positive relationship between these two factors (Aga, Noorderhaven, & Vallejo, 2016).

A project manager can adopt any leadership style depending on different organizational factors. Among all the leadership styles, transformational leadership is effective and results-driven, one of the prominent and inspirational leadership styles in any organization (Zainab, Akbar, & Siddiqui, 2022). Vinger and

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Cilliers (2006) discuss that transformational leadership is a role model for any project team. It has special features and characteristics which make a project manager an inspiring leader for its team members. Also, when a project manager adapts a transformational leadership style, it embraces the change and understands the needs of the team members effectively. This is ultimately the most important factor that makes it a significant leadership style in achieving project goals. Hence, the transformational leadership style is more effective in terms of the positive outcomes of a project and is preferred by every organization.

Kozak-Holland and Procter (2020) state that transformational leadership enables a project manager to provide a clear vision to team members. Also, it helps them to know what is suitable and essential in achieving the project success, whereas other leadership styles are more focused on encouraging the individuals to stick to the goals and expect better outcomes. In this way, project managers following transformational leadership style tend to have focused and more followers compared to other leaders.

In the previous studies, the importance of leadership is discussed in detail, but there is little evidence of the impact of transformational leadership on project success. The focus of prior studies was on other leadership styles due to the change in organizational culture and project manager traits. From a theoretical perspective, there is a positive relationship between leadership style and project success. Similarly, the transformational leadership style impacts project success significantly, but there are many other underlying aspects that affect the defined perspective of the two elements. Hence, there is a need to examine the mediating role through which transformational leadership enhances project success.

Buil, Martínez, and Matute (2019) have highlighted the need to explore the mediating mechanisms in the relationship between transformational leadership style and project success. It indeed requires more effort to understand the concepts and explore the underlying theories, which provides a strong phenomenon between the two. It can also be seen that prior studies paid little attention to examining the mediating role of work engagement in the process of transformational leadership toward project success (Henkel, Marion Jr, & Bourdeau, 2019). According to Mittal and Dhar (2015), transformational leadership influence the employees to understand and embrace the transformation, which enhances productivity and engagement among them. Based on the above discussion, the study finds the gaps in the domain of project management that there is a gap to find how transformational leadership can contribute to succeed in project management. The study further aims to find the role of work engagement between transformational leadership and project success. The study also investigates the mediating role of work engagement between transformational leadership and project success. Consequently, when there is a positive work engagement noticed in managing a project, it is ensured that the employees are valuing project manager's leadership style. In this way, there is an excellent possibility for the project to accomplish its goals (Wen, Ho, Kelana, Othman, & Syed, 2019).

2. Literature Review and Hypotheses Development

2.1 Transformational Leadership and Project Success

Lehmann-Willenbrock, Meinecke, Rowold, and Kauffeld (2015) investigated that project management is a discipline associated with several fields, specifically construction and engineering. In these fields, the success criteria of any project are well-accepted, objective, and measurable, and these success factors are conventionally related to budget, time, and quality (Fareed & Su, 2022). Nowadays, project management has become ubiquitous in almost all service sectors, where the primary purpose is to work on projects specific to social determinants. In this way, different definitions of the project's success depend on its demand, scope, and expectations.

Between 1960 and 1980, the concept of 'iron triangle' originated in the project management discipline (Aga et al., 2016; Kozak-Holland & Procter, 2020). The factors in the triangle, i.e. quality, budget, and time, dominate the project success concept. There are many other factors as well. However, these three are more significant than other factors determining a project's success, including strategic organizational objectives, benefits to project team members, benefits to stakeholders, and the benefit to the organization, client satisfaction, and business success (Ali, Li, Khan, Shah, & Ullah, 2021).

The concept of leadership styles in the context of project success has been in academic research for several decades. It can be seen that researchers are taking an interest in the area of study but still, not much attention is given to a particular leadership style (Henkel et al., 2019). Among many leadership theories, the full-range theory is fundamental in the context and thus, it focuses on some of the leading leadership styles, including transactional, transformational, and laissez-faire styles (Akbar, Mohezar, &

Jaafar, 2021; Baig et al., 2019). However, the study only focuses on the transformational leadership style; therefore, the theory is narrowed to a particular aspect. It is also found that past research considered the transformational leadership style as significant because it has a positive relationship with organization-related projects.

Wen et al. (2019) state that transformational leadership consists of four dimensions, i.e. intellectual stimulation, idealized influence, individualized consideration, and inspirational motivation. Each of these dimensions corresponds to human nature, and thus, it significantly impacts the project. Idealized influence is an emotion-based dimension that develops in the follower with the significant impact of the leader. Similarly, when the leader communicates an appealing and inspiring vision to the team members, it is said to trigger arousal of inspirational motivation (Gomes, Carvalho, & Romão, 2021). In this way, the team members have to perform some challenging activities concerning increased expectations. Besides, intellectual stimulation is another dimension that relates to the behaviour of the team members, whereas individualized consideration is related to providing them support and encouragement.

From various research studies, it has been found that transformational leadership has a positive impact on several workplace outcomes (Jaroliya & Gyanchandani, 2022). Among these outcomes, project success is the most significant, only achieved when a project manager possesses the right leadership attributes. Since there is not ample research conducted on the transformational leadership style, a few pieces of evidence from different studies reportedly suggest that transformational leaders have skills to innovate the work environment that enhances the productivity and devotion of the employees (Nasir, Zakaria, & Zien Yusoff, 2022). As a result, there are greater chances for the team to accomplish the project's goals. Moreover, the leadership style may have a different influence on the project's success in different organizations.

By analyzing the literature, it is confirmed that project managers' skills are crucial in obtaining project's success. The concept is perceived as followers being inspired by the behaviour and performance of the project manager, which helps them stay within the scope and achieve the targets in the best possible way. In addition, they tend to promote healthy work culture and create bonding that becomes profitable and productive for the project. Such project managers develop cohesiveness in the team and mutual understanding. This helps in decision-making and motivates the employees to perform according to innovative measures. In addition, a transformational leader also facilitates open discussion and productive participation of the team in which analytical behaviour and innovative perspective are essential, which mainly leads to the project success (Nauman, Musawir, Munir, & Rasheed, 2022). Hence, an engaging atmosphere is developed where the team members have the right to participate in the transformation and is believed to affect project success positively. By considering the justifications stated above, the hypothesized relationship between transformational leadership style and project is as follows:

H1: Transformational Leadership has a positive impact on project success.

2.2 Transformational Leadership and Work Engagement

The most important behaviour in transformational leadership is a leader acting as a role model depicting an influential behaviour to the followers (Karimi, Ahmadi Malek, Yaghoubi Farani, & Liobikienė, 2023). Such role model supervisors can build trust, devotion, and loyalty while paying more attention to others' interests than their own. In this case, the positive outcome is followers emulating the same behaviours as their transformational leaders because they see them acting in a healthy way to acquire the trust and loyalty of others. Hence, the followers who follow the paths of their transformational leaders are likely to support the vision or virtues of the supervisor, which in turn avoids resistance to any change (L. Guarana & Avolio, 2022). Moreover, in the organization, the employees under the supervision of transformational leaders are likely to perform effectively and demonstrate positive energy in fulfilling their goals. They tend to work beyond self-interest while striving to contribute to every activity that encourages productivity and enhances organization performance.

Lehmann-Willenbrock et al. (2015) also agree with the prior research and further explained that when transformational leaders offer their exemplary support to their followers, they are setting themselves as an example to them. In this way, the employees tend to follow their principal values and significant contribution, enhancing and engaging them in the overall work process. The study also focused on another prominent behaviour of a transformational leader: individualized consideration (Bakker,

Hetland, Olsen, & Espevik, 2022). This certain behaviour is about paying attention to the individual followers by responding to their needs and demands and providing exceptional care effectively. In this way, a transformational leader enhances growth and achievement prospects in the individuals.

According to Nawaz and Irfanullah (2016), social exchange theory best explains individualized consideration behaviour in a transformational leader's work engagement context. The theory presents principles regarding the interactions between leaders and their followers. Several scholars have agreed on these principles and critically related the concepts for examining the relationship. One of the applications explained by Chen, Zheng, Yang, and Bai (2016) is that transformational leaders mainly demonstrate their fair consideration and care to each team member, and they tend to motivate them to contribute to the activities that improve their sense of belonging towards the organization. In this way, it is possible that members of the team follow the same behavior and provide positive response to the special care given by the leader (Karimi et al., 2023).

From the application and related findings, it becomes evident that the transformational leadership style works as a motivational factor for the employees. It enhances their devotion and sensual abilities through which the employees perceive the situation positively and feasibly embrace the transformation. In many places, it is also argued that such behaviour of the leader towards the individuals enhances work engagement in the workplace. As Chandani, Mehta, Mall, and Khokhar (2016) stated, leaders with stimulating intellectual abilities tend to create a supportive environment for the employees, resulting in improved productivity and positive feelings regarding work engagement. By considering the justifications stated above, we have hypothesized it as:

H2: Transformational leadership significantly impacts work engagement

2.3 Work Engagement and Project Success

Several factors influence project success to a great extent. Among these factors, work engagement is considered necessary because when the team is engaged, there is high probability of the project meeting the goals effectively. Mencl, Wefald, and van Ittersum (2016) state that an engaging team utilises team members' efforts and skills to meet the organization's objectives. In this way, the individuals in the engaged team are considered passionate, dedicated, enthusiastic, and trustworthy. Moreover, with their enhanced productivity, the team tends to complete the project tasks in the said timeline, thus becoming good resources for the company. It is also indicated by Aalbers and Dolfsma (2015) that an engaged team is more customer-focused, offers safe obligations, and strives to perform in favor of the organization.

Similarly, Jalil (2017) also mentions in his work that an engaged team is likely to provoke engagement from the stakeholders to attain success while staying within the scope. The key stakeholders are informed, well-treated, and appreciated with this work engagement attribute. However, this is only possible when a project manager is clear about the goals and focuses on the desired vision only. Likewise, a project manager needs to possess skills and attributes that keep the team engaged, which in turn impacts the project success. If a project manager has specific skills, the team will be energized; thus, a collaborative and engaging environment will be created for the members to perform. As a result, individuals are more likely to perform productively and effectively meet project goals.

As Kerzner (2015) researched, one more positive aspect seen in an engaged team is the pleasure in performing their job roles. Concerning project success, there is a positive relationship between work engagement and project success. According to Hoda and Murugesan (2016), when individuals in a team are satisfied with their job and are motivated to accomplish the tasks, they are more involved in the project, and as a result, their productivity enhances. The project's impact is often measured as positive, showing that work engagement effectively fulfils the project's objectives.

Concerning Harvard Business Review, organizations with engaged employees tend to flourish and have higher success rates than those with less engaged and productive employees. In another research study, the authors examined that engaged individuals in a team have an urge to work productively compared to less engaged employees (Bakker & Schaufeli, 2015). Moreover, it is also found that these employees are more trustworthy while they are loyal to the project activities, which further increases their job satisfaction and devotion to the organization. Hence, projects with an engaged team have higher chances to accomplish the objectives than projects with a less engaged team. By considering the justifications stated above, the hypothesized relationship between work engagement and project success is defined as:

H3: Work engagement positive impacts project success.

2.4 Mediating Role of Work Engagement between Transformational Leadership and Project Success

According to Barik and Kochar (2017), many organizations in the past required helpful information and innovative ideas to build their reputation in the competitive industry. However, these dimensions are only fulfilled when employee work engagement is promoted. It is the most important key factor of any successful organization that ensures quality outcomes, enhanced productivity, improved business turnover, better managerial effectiveness, and guaranteed customer satisfaction. Contrary to this, organizations that do not promote work engagement among employees often notice decelerated efficiency, less output, and higher costs (Vujko, Vuković, Demirović Bajrami, Zečević Stanojević, & Zečević, 2022). Hence, the phenomenon examined by the scholars clearly states that work engagement is important for any organization where innovation and creativity are significant in achieving the objectives.

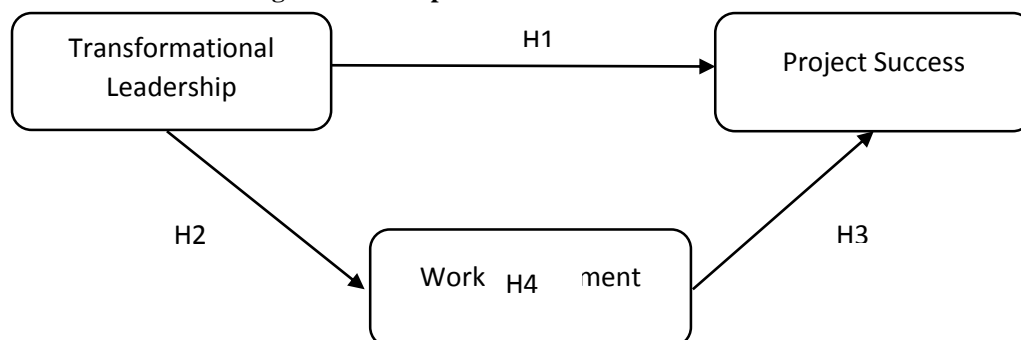
Leadership is another vital element in enhancing work engagement in the organization. Moreover, when an effective leadership style adheres, there is a greater chance for the team to perform productively whereas it results in project success on the whole. Among many leadership styles, transformational leadership plays a vital role in achieving project success and promoting work engagement (Buil et al., 2019). This is because it lets the employees feel pleasure in performing their job responsibilities while committing to achieving the objectives by staying within the scope and budget. A few studies were conducted in the past which examined the principle and noticed that transformational leadership leads to project success, whereas employees are motivated to engage themselves that impacts the performance and goals accomplishment to a great extent (Nauman et al., 2022).

Ding, Li, Zhang, Sheng, and Wang (2017) state that transformational leadership style enhances devotion and satisfaction in the employees. This means that for a project, they are motivated to learn from the project manager's approach and perform likewise. In addition, it is also clear from the research that in meeting the project's objectives, a project manager has to consider individual needs and preferences, whereas it has to pay serious attention to the change so that the employees can obey its instructions significantly. Thus, this phenomenon indicates that transformational leadership influences project success; however, work engagement among employees is a mediating factor that improves their performance and productivity towards meeting the goals and objectives. By considering the justifications stated above, the hypothesized relationship between the identified elements is as follows:

H4: Work engagement mediates transformational leadership style and project success.

2.5 Conceptual Framework

Figure 1: Conceptual framework of the research



3. Research Methodology

The study uses post positivist approach considering the research question. This study tests the hypothesis for which the quantitative research method was used. Previous research studies also focused on similar topics, including project success, work engagement, and transformational leadership.

Therefore, a quantitative approach was undertaken to cover these topics precisely. This research study was conducted in Karachi, Pakistan and only covered professionals engaged with the projects from reputed organizations to record their responses on self-administrated questionnaires. Convenience sampling was used to collect the data as it was important to find the managers who are engaged in the project and they are on the leadership role. The inclusion criteria for manager was that they have at least supervised the team and are engaged with the project at present or have been engaged with any project. Primarily, IT organizations and software houses were targeted to get the ideal responses for the research study. The total number of participants was expected to be 384, but due to COVID19, only 203 responses were collected. SmartPLS Software was used to analyze the collected responses.

3.1 Measurement of the Variables

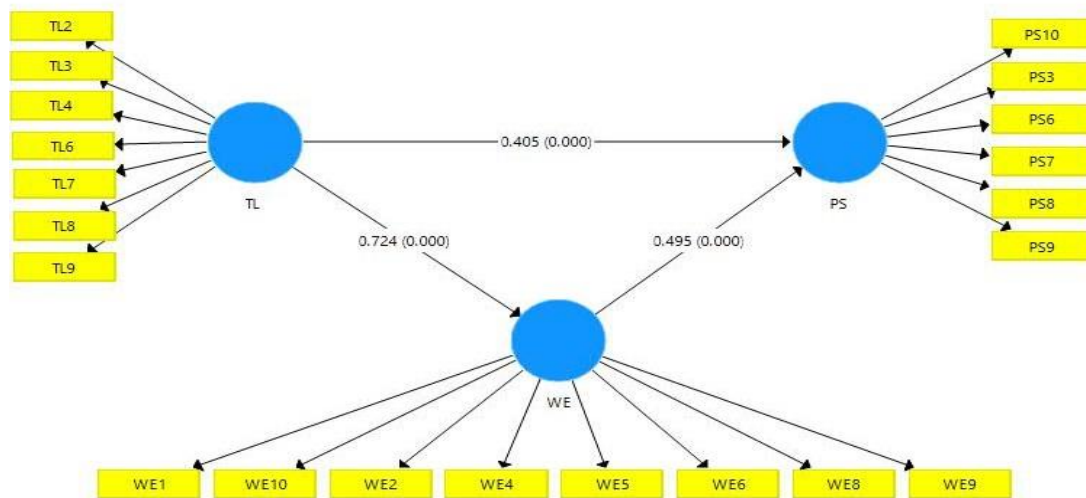
For each variable, different scales were used to analyze the impact of transformational leadership on project success with the mediating role of work engagement. These questionnaire items were adopted by doing a thorough study of literature. All the items were measured on five-point Likert scale. In this research, the following scales were adopted.

3.2 Transformational Leadership: The study adopted transformational leadership with 7 items from previous studies by Mehmood and Arif (2011) and Vinger and Cilliers (2006).

3.3 Project Success: A 6-item scale was adapted from previous research by Mir and Pinnington (2014) and Aga et al. (2016).

3.4 Work Engagement: The present study used the Utrecht scale of work engagement adopted from (Harju, Hakanen, and Schaufeli (2016)) study.

Figure 2 Path Diagram of Structural Equation Model



3.5 Profile Analysis

As shown in Table 1, the majority of respondents in this study were men, accounting for approximately 75% of the total participants. The majority of answers come from the 26 to 30 age group. However, responses from the next age group accounted for only 20% and 4.5% of the total responses. In the over 41 years of age group, only 07 responses were received.

Table 1 Demographics

Categories		Frequency	Percentage
Gender	Male	152	74.9
	Female	51	25.1
Age (yrs)	21 – 25	17	8.4
	26 – 30	129	63.5
	31 – 35	41	20.2
	36 - 40	9	4.4
	41 and above	7	3.4
Qualification	Intermediate/Diploma	8	3.9
	Bachelors	91	44.8
	MS/M.Phill	95	46.8
	PhD	9	4.4
Experience (yrs)	02 – 04	53	26.1
	05 – 07	102	50.2
	08 – 10	21	10.3
	11 – 13	14	6.9
	14 and above	13	6.4

Almost 90% of total responses were collected from the respondents having qualifications of Bachelors and Masters. The rest of the 10% respondents were intermediate and PhD is collectively. 50% of the respondents had a working experience of 5 to 7 years in the IT and software industry. Respondents with an experience of 2 to 4 years were 26%.

4. Results

Smart PLS3 was employed to analyze the data. Different tests were carried out to assess and evaluate the reliability of each result in order to draw reliable and valid findings. The final results obtained from the analysis were used to test the hypothesis.

4.1 Factor Loading, Composite Reliability and Convergent Validity

Reliability refers to evaluating the consistency of a project's internal measurement with a given construct. Cronbach's alpha reliability coefficient measures the consistency between items of a given construct, and its value range is 0 to 1. The project reliability is higher when Cronbach's alpha value is close to 1. However, if a given construct produces consistent results for its measurements and produces a value greater than 0.7, the scale is considered to be generally reliable (George & Mallery, 2003). The Cronbach's alpha of all three constructs is above the acceptable value of 0.7, which means there is reasonable agreement between the items of each scale. As shown in table 2, indicator reliability is evaluated by the outer loadings of the item. To ensure satisfactory reliability of the indicator, the load of each item should be greater than 0.7 (Hashim, 2012). An outer load value of 0.5 is acceptable (Shukor & Mohammed). Table 2 shows that the outer loads of all items of each construct exceed the satisfactory value of 0.7. Average variance Extracted (AVE) is used to check the convergent validity. AVE shows the amount of variance illustrated in the construct compared with its related items consequent from the measurement error (Chin, 1998). Convergence validity indicates the correlation between all items

measuring one construct and attempting to evaluate a common variable based on the relevant theory (Kline, 2015). The acceptable value of AVE is greater than 0.5 to make the convergent validity practically acceptable.

Table 2 Factor Loadings, Convergent Validity and Composite Reliability

Construct	Item	Loadings	Composite Reliability	AVE
Project Success	PS10	0.849	0.931	0.691
	PS3	0.762		
	PS6	0.822		
	PS7	0.853		
	PS8	0.858		
	PS9	0.839		
Transformational Leadership	TL2	0.752	0.914	0.603
	TL3	0.766		
	TL4	0.752		
	TL6	0.803		
	TL7	0.815		
	TL8	0.784		
	TL9	0.762		
	Work Engagement	WE1		
WE10		0.731		
WE2		0.754		
WE4		0.854		
WE5		0.788		
WE6		0.872		
WE8		0.775		
WE9		0.768		

4.2 Discriminant Validity

Discriminant validity is used to evaluate the specific structure construct in the model are not related to any other construct, so the correlation of items of the different construct should be low. This is because each construct item measures a separate theoretical concept. The discriminant validity was established with Fornell-Larcker Criterion and cross-loadings,

The Fornell-Larcker Criterion is the method for evaluating the discriminant validity of the construct. It relates the square root of the AVE value with the correlation of the construct. The AVE square root of each construct should be greater than its highest correlation with other constructs in the model (Fornell & Larcker, 1981). This shows that compared to any other construct in the model, the difference between the construct with its indicator is larger. Table 3 shows that the results conform to the Fornell-Larcker criteria and the highlighted diagonal line represents the highest correlation value between the square root of each structure and its relationship to other constructs.

Table 3: Fornell Larcker Criterion

	PS	TL	WE
PS	0.831		
TL	0.764	0.777	
WE	0.788	0.724	0.794

To evaluate the discriminant validity of constructs, cross-loading is another method to do so. Compared to the loading of other constructs, the load of a given construct with higher value should be depicted (Straub, Boudreau, & Gefen, 2004). This shows that by explaining the individual construct of the model as opposed to other constructs in the model. Table 4 lists the highest loading of each construct. Their constructs have higher loading than other constructs, thus indicating that all the constructs used in this study have satisfactory discriminant validity.

Table 4: Cross Loading

	PS	TL	WE
PS10	0.849	0.632	0.677
PS3	0.762	0.601	0.647
PS6	0.822	0.627	0.641
PS7	0.853	0.638	0.630
PS8	0.858	0.710	0.729
PS9	0.839	0.587	0.594
TL2	0.587	0.752	0.521
TL3	0.561	0.766	0.556
TL4	0.512	0.752	0.485
TL6	0.604	0.803	0.570
TL7	0.536	0.815	0.590
TL8	0.659	0.784	0.531
TL9	0.666	0.762	0.659
WE1	0.682	0.619	0.803
WE10	0.648	0.555	0.731
WE2	0.577	0.655	0.754
WE4	0.584	0.598	0.854
WE5	0.703	0.590	0.788
WE6	0.669	0.624	0.872
WE8	0.521	0.434	0.775
WE9	0.588	0.480	0.768

4.3 R – Square

The range of R-square values is 0 to 1. The closer the value is to 1, the variance of the dependent variable explained by the independent variable is better. Researchers have different views on the acceptable R square value. Hair, Risher, Sarstedt, and Ringle (2019) suggest that R Square values 0.75, 0.5 and 0.25 are considered strong, moderate, and weak, respectively. On the other hand, (Chin, 1998) interpreted the strong, medium, and weak values of R square as 0.67, 0.33, and 0.19. From the viewpoints of both the researchers, Table 5 describes the R Square values of the dependent variables

Table 5: R Square and Adjusted R Square

Variable	R Square	R Square Adjusted	Chin (1998)	Hair et al. (2013)
Work Engagement (WE)	0.524	0.522	Moderate	Moderate
Project Success (PS)	0.700	0.697	Strong	Strong

According to the researchers, the values of R Square show a moderate relationship between Transformational Leadership (TL) and Work Engagement (WE), with the R Square value of 0.5. Similarly, a strong relationship exists between TL and Project Success (PS) with the R Square value of 0.7.

4.4 Structural Model (Relationship between Indirect, Direct and Mediating Variables)

Hypothesis testing results based on the relationship between the Independent variable (TL), Mediating variable (WE) and Dependent variable (PS) are shown and explained in table 7. The same results are also further explained with the help of the path diagram of the model. This path diagram shows all the required values that help to test the hypothesis.

Table 7 Hypothesis Results

Hypothesis	Relationship	Original Sample	Standard Deviation	T Statistics	P Values	Decision
H1	TL -> PS	0.405	0.064	6.284	0.000	Accepted
H2	TL -> WE	0.724	0.040	18.304	0.000	Accepted
H3	WE -> PS	0.495	0.080	6.207	0.000	Accepted
H4	TL -> WE -> PS	0.358	0.057	6.252	0.000	Accepted

As mentioned in Table 7 above, Transformational Leadership (TL) positively impacts Project Success (PS), which satisfies the H1. TL also positively impacts Work Engagement (WE), which satisfies H2. WE also affects the PS, (H3). The relationship of TL and PS with the mediating role of WE also affects positively. T-statistics of all four hypotheses are greater than the value of 1.96.

5. Discussion

The current study investigated the impact of transformational leadership on project success. Moreover, it also examined the mediating role of work engagement. The results were acquired from the potential participants and analyzed using SmartPLS. From the results, it is evident that transformational leadership has a positive impact on project success, as well as work engagement. Further, it is also proved that work engagement mediates the relationship between transformational leadership and work engagement.

Based on the findings, the researchers found that a transformational leader's role influences project success. Several studies have also indicated that the relationship between the two variables is positive. For instance, Chen et al. (2016) state that if a project manager possesses a transformational leadership style, there are higher chances for the project to accomplish its significant goals. Similarly, Barik and Kochar (2017) also agree that transformational leadership is one factor that improves the organisation's performance and thus leads to the project's success. The main reason identified in the study is that leaders possess effective skills that allow team members to follow the right directions and perform accordingly.

The literature supports these hypotheses, which define the relationship between transformational leadership and project success. It can be seen from the responses also that when a leader can embrace transformation, it is likely to influence other members, and thus, better results are achieved (Guinan, Parise, & Langowitz, 2019). Also, a leader's skills positively impact individuals with respect to job satisfaction and job retention (Ohunakin, Adeniji, Oludayo, Osibanjo, & Oduyoye, 2019). It also increases team members' creativity, work engagement, and innovation (Li et al., 2019). Therefore, with the contribution of all these factors, the success of a project is guaranteed. Transformational leaders support constructive discussions and necessitate all stakeholders' involvement so that the issue can be resolved in a supervised manner (Zainab et al., 2022).

Aga et al. (2016) also suggest that transformational leaders possess the quality to influence team members in building innovative relationships with each other. It helps them to offer excellent solutions and innovate the process according to the scope. Perhaps, these leaders tend to impact the employees in terms of job satisfaction and credibility to perform efficiently in the project process, enhance job performance, improve creativity, and result in the organization's success. Our results ensure that the transformational leadership style effectively achieves a project success.

Another variable tested and analyzed in the following study was work engagement. It is also proved that work engagement is mediating when examining the relationship between transformational leaders and project success. The literature also supports the concept, and we have identified the basis with the help of social exchange theory. The leaders use various tools to improve the performance of their team members. For instance, work engagement is considered a vital tool that creates a strong bond between employees and results in increased performance. When leaders give autonomy to their team members, we see that they feel empowered, trusted, and motivated. Considering the case in project management, the project manager tends to practice the same thing and innovate the work practices of their members, which leads to the success of a project.

5.1 Implications of the study

In this digital era, every project manager must possess effective leadership skills to perform their job role efficiently and according to the organization's standards. Since these individuals are prominent figures in any organization, they have to build a reputation, which effectively fits the scenario. Moreover, project management also revolves around technical skills that make leadership effective and powerful in organizational circumstances. It is clear from the results of the study that when a project manager can embrace change and innovate their team, project success is guaranteed.

From all these perspectives, it is clear that an organization is built upon factors that ultimately increase employee performance, satisfaction, and trust. The role of a project manager seems to be vital in this case. Moreover, when a project's success is concerned, a project manager and its team must consider the norms that make them successful throughout achieving the milestones. Hence, leadership skills, credibility, innovation, creativity, communication, and team-building are significant in becoming a transformational leader, guaranteeing project success and encouraging work engagement.

Social exchange theory was also viewed in detail, which stressed the influence of a leader on their subordinates. This means that when a project manager motivates the employees to perform the activities efficiently, they tend to complete the work on time and thus build engagement. In this way, a project manager plays a vital role in satisfying the project and the employees at a time. The research carried out a quantitative research methodology to test the hypotheses. The results and analysis also prove that transformational leadership style positively impacts project success, while the mediating role of work engagement is also proved.

6. Conclusion

This study examined the relationship between transformational leadership style, workplace engagement, and project performance. The study showed that a transformational leadership style had a favorable impact on both job satisfaction and project success. This shows that transformational leadership qualities are more likely to be possessed by project managers, who are thus more likely to make a significant contribution to the success of their projects. Transformational leaders can raise staff engagement and eventually boost project results by exhibiting inspirational and visionary traits, encouraging teamwork, and encouraging personal growth.

In addition, the study found that a key mediating factor in the link between a transformational leadership style and project performance is work engagement. This suggests that the impact of transformative leadership on work engagement may help to explain some of the favorable effects of transformational leadership on project success. Project managers are more likely to accomplish project goals and satisfy stakeholder expectations when they are driven, devoted, and emotionally immersed in their work.

In conclusion, this study emphasizes how important transformational leadership is for promoting employee engagement and project success. It underlines how crucial it is for businesses to identify and foster in project managers the attributes of transformational leadership and to integrate these ideas into procedures and regulations. Organizations can improve project results and add to their overall success by doing this.

6.1 Strengths and Limitations of the study

One of the strengths of the current study is its methodology. The researcher has not practised the traditional approach; hence, the chosen method was appropriate to achieve the significant goals of the study. It ensures that potential effects are reduced, often with common methods and a single source. In this way, the study collected data from project managers and individuals who know about transformational leadership, work engagement, job satisfaction, and project success.

Other than this, there are a few limitations which can be eliminated in future work. Since the research was utterly based on transformational leadership, other researchers in future study can conduct the study on different leadership styles, and it will expand the scope and helps to determine the extent of each leadership style in the domain of project success. Moreover, future researchers can conduct the study in an international context and compare the trends and traditions.

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