JISR management and social sciences & economics
2023, VOL. 21, NO. 3, 92–117, e-ISSN: 1998-4162, p-ISSN: 2616-7476
https://doi.org/10.31384/jisrmsse/2023.21.3.5

The mediating role of team performance between affiliative leadership and project success in the IT Sector

Aqeel Wahab Siddiqui[1]*, Muhammad Bilal Shaukat[1] and Moeen ud Din Nasir[1]
1-Department of Management Science, Abasyn University, Peshawar, Pakistan
*Corresponding Author: aqeelwahab@gmail.com

ABSTRACT

By utilizing the Resource Based View theory, this research seek to establish the effect of affiliative leadership on project success. This study further examines the mediating role of team performance in the given relationship. The data was gathered from a sample of 300 project-team professionals employed within the IT sector of Pakistan. The PLS-SEM method was used to test the direct and mediating impacts. The findings indicated a significant influence of a affiliative leader on project success, with team performance playing a mediating role. The result showed that affiliative leader significantly influences project success and the team performance mediates the relationship between affiliative leadership and project success. This research stands out as one of the few studies that delve into the inter-relationships between affiliative leadership, project success, and team outcomes. It is worth noting that research in the developing countries context is notably scarce in this area. This study makes a significant contribution in IT sector by validating that affiliative leadership impacts project success while team performance mediates this relation. Our research brings a dual contribution to the literature, emphasizing the originality of our study. It establishes connections between affiliative leadership, team performance, and project success within the framework of the Resource-Based View, focusing on the unique context of the thriving IT sector in Pakistan. This originality extends our findings' applicability to practitioners and researchers in diverse settings.

Article Type: Original Research Article

OPEN ACCESS

Received:
26 June, 2023
Revised:
25 August, 2023
Accepted:
20 September, 2023
Published:
30 September, 2023

Keywords: *resource Based View, affiliative leadership, team performance, project success*

JEL Classification: *M12, M54, L86, J24*

How to cite this article (APA): Siddiqui, A. W., Shaukat, M. B., & Nasir, M. u. D. (2023). The mediating role of team performance between affiliative leadership and project success in the IT Sector. *JISR management and social sciences & economics*, *21*(3), 92–117.
https://doi.org/10.31384/jisrmsse/2023.21.3.5

INTRODUCTION

Project management has become increasingly critical in the contemporary business landscape, given the integration of multiple initiatives within organizations. Effective project managers with specific skills are in high demand due to the unique demands and integration challenges of various projects. Leadership, especially when it embodies positive attributes, has emerged as a pivotal factor in the success of projects, programs, and businesses. Many studies emphasized that leadership play a significant role in predicting project performance and achieving success (Aga et al., 2016; Latif et al., 2020). Consequently, leadership is recognized as a unique organizational resource (Galbreath, 2005). This study emphases on the effect of leadership practices on project success. Existing research assessed several different leadership styles and their impact on project success, for instance, transformational leadership (Aga et al., 2016), entrepreneurial leadership (Latif et al., 2020), transactional leadership (Khan et al., 2019), knowledge-oriented leadership (Mariam et al., 2022), ethical leadership (Javed et al., 2017). However recently there has been an inclination of research scholars towards assessing new leadership styles and how those affect project success. Among other leadership style Affiliative leadership style is an emerging source of project acceptance and success (Wachira et al., 2018).

The IT industry, including project-based businesses, has embraced modern project management techniques to enhance performance (Haq et al., 2019). The success of software development projects is crucial in this industry, which experiences a relatively high rate of project failures in both evolving and advanced nations (Haq et al., 2018). IT project management literature has extensively documented factors affecting IT project performance, including various hard and soft skills (Stevenson & Starkweather, 2017). Unlike traditional projects, IT projects are characterized by openness and flexibility (Pradhan et al., 2017).

Pakistan's thriving IT sector has made significant strides, with over 2500 registered IT companies employing highly qualified professionals. The sector generates over $2.8 billion in revenue, with $1.6 billion from software and IT services exports, contributing towards country's economic development (Techjuice, 2015). For the successful execution of IT projects, firms have placed considerable emphasis on software project management and advanced methodologies (Schwalbe, 2015). The evolving nature of current IT projects, characterized by empowered teams and flattened organizational hierarchies, has led to a shift from traditional leadership styles (Pearce & Sims, 2002). In this environment, conventional leadership models may no longer be applicable (Pretorius et al., 2018). An ineffectual leadership style can increase irregularity and jeopardize project success (Müller & Turner, 2007). Therefore, examining leadership

behaviours from an affiliative leader perspective is crucial (Wachira et al., 2018).

Despite its potential significance, the influence of affiliative leadership practices on project success have received limited attention in the existing literature (Khan, 2020). Scholars like Wachira et al. (2018) have argued that Affiliative leadership practices have not been adequately evaluated for their performance outcomes, and a necessity exists to assess the relationship between Affiliative leadership and project success. Moreover, incorporating mediating variables can elucidate the leadership role in achieving project success and establish the avenues by which leadership influences project outcomes (Aga et al., 2016; Latif et al., 2020). Affiliative leadership, as an emerging concept, may require a mediating mechanism to understand its direct association with project success. Therefore, this study incorporates team performance as a mediator in the relationship between Affiliative leadership and project success, a unique contribution to the literature. To the best of our knowledge, no empirical study has examined team performance as a mediator in the relationship between Affiliative leadership and project success.

The existing body of literature reveals several critical knowledge gaps that demand the attention of scholars in the context of affiliative leadership, team performance, and project success. First, while the concept of affiliative leadership is evolving, its practical application remains significantly underdeveloped. Project management professionals have yet to fully integrate affiliative leadership practices into their project management strategies for more efficient outcomes (Wachira et al., 2018). Second, Affiliative leadership role in project success received limited exploration in the current literature. Khan (2020) asserts that affiliative leadership practices are pivotal for the success of contemporary project management, mainly in domains like IT projects. Chaithanapat et al. (2022) note a lack of empirical evidence specifying how project outcomes may be influenced by the adoption of affiliative leadership. Third, there is a growing call within the existing literature for the examination of team factors, such as team performance, to better elucidate the impact of leadership on performance-based outcomes (Aga et al., 2016; Latif et al., 2020). Fourth, Bao et al. (2019) highlight the increasing adoption of leadership practices in information technology firms. Yet, research exploring the relationship between leadership and project success in the Information Technology sector within the context of developing nations is still in its nascent stages (Zia, 2020). To address these significant knowledge gaps, our study delves into the correlation between AL, team performance, and IT project success. Our study's research questions are:

1. Does affiliative leadership impact project success and team performance?

2. To what extent does team performance mediate the relationship between affiliative leadership and project success?

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Resource-Based View

During the previous three decades, the resource based view (RBV) has developed into a critical rationale for the decision-making that firms utilize to attain and preserve competitiveness in altering markets. The RBV essentially lays out how leaders utilize firm resources to acquire and keep this benefit. The RBV claims that physical and intangible resources have distinctive features which provide the basis for such features. The RBV's natural attractiveness has led to its application in a variety of organizational and commercial contexts (Nason & Wiklund, 2018).

In addition to that, for efficient resource deployment, entrepreneurs use their discretion to complete the many tasks related to resource management. They use their industrial knowledge as they are now or as they would like them to be, as well as their foresight, insight, and flashes of retrospect. Due to their goals, past experiences, cognitive distortions, intuitions, and blind spots, entrepreneurs commonly make "irrational" judgments while managing resources (such as allocation). Hence, emphasizing these actions might help address an issue with some past RBV study that appears to ignore the part that human actors play (Mosakowski, 2002). Indeed Mosakowski draws attention to the fact that Barney places far less stress on managerial judgment than Penrose (1959), who recognizes the necessity of it in resource management. Mosakowski's discovery is perplexing given that J. B. Barney (2001) emphasizes the significance of agency in evaluating and utilizing firm resources to gain benefit.

Moreover, the fundamental assumptions of RBV appear to be based on human judgments about the worth of resources. Yet, although it is essential, this judgment is frequently missed in discussions about RBV in entrepreneurial enterprises using people. Since it affects efficiency and because it is an area where business owners may utilize their ingenuity to develop new operating models or significantly modify ones that already exist in their industry, concentrating on the resource management process is essential. This invention is the foundation of entrepreneurial resourcefulness. For instance, several businesses have altered how their industries operate by using lean and green manufacturing techniques (Koester, 2016). This affects decisions that will be made in the future regarding the choice, collection, and coordination of resources in such sectors.

According to RBV, resources are distinctive, unique and sustainable (Collis & Montgomery, 1995). Although resource acquisition, assembly, and orchestration have garnered significant attention (Clough et al., 2019), resource manage-

ment and the RBV's potential benefits have gotten far less attention. One aspect causing this study gap is to focus on leadership practices in the quest for competitive gain. Leadership is considered one of the key resources to an organization and the affiliative leadership style mainly relies on the emotive milieu of the corporate culture, its principles, transparent communication, and collaboration among members to improve productivity and effectiveness (Koman & Wolff, 2008).

Affiliative Leadership

Affiliate means to link up with, collaborate with, connect with, or form alliances with individuals (Gagnon et al., 2012). Affiliative leaders develop emotional connections and are acknowledged as an appropriate leadership style for subordinate management. Affiliative leadership structures teamwork and encourages subordinates to form socio-emotional bonds with one another by raising harmony among them (Kasapoğlu, 2014). Within the emotional intelligence category of leadership styles, the affiliative leadership style is an important management approach. Whenever group members seek inspiration during a difficult situation, this style of leadership is quite efficient (Goleman, 2000). Independence between employees grows as a result of affiliative leadership style, owing to members' faith in each other that the activity and job will be completed regardless of the procedure utilized (Preston et al., 2015).

For a leader to be successful at work, building emotional connections with their team is essential (Koman & Wolff, 2008). Affiliative leadership attends the emotional needs of the project team and grants them the flexibility to work effectively in their area of competence (Goleman, D, 2001). To improve the outcome at work, the affiliative leader relies heavily on the emotive milieu of the corporate culture, its principles, transparent communication, and collaboration among members (Koman & Wolff, 2008). Leaders should use the affiliative strategy when aiming to promote team cohesiveness, raise morale, improve communication, or rebuild shattered trust (Goleman et al., 2013). Affiliative leadership promote liberty among subordinates to complete their tasks successfully in the most optimal manner which contributes to minimal stress and effective performance outcomes (Preston et al., 2015). Moreover, affiliative leadership offers a solid basis for trust and aids in satisfying people's need to be recognized and cherished.

Affiliative Leadership and Project Success

Affiliate leadership style has a beneficial impact on the management and subordinates (Romero & Arendt, 2011). Affiliative leadership is a type of leader who

develops and improves harmony among subordinates promotes collaboration and builds association which drives superior performance outcomes (Wachira et al., 2018). Affiliative leadership aids in the creation of a good social environment in which workers are likely to want to engage in a good connection with them leading to project success (Kuiper et al., 2010). The available literature highlighted the significant role of affiliative leadership on project success. Young et al. (2013) concluded that leadership practices and team talents should be aligned to enhance efficiency in achieving goals, which in turn results in increased performance. Wachira et al. (2018) explored the impact of affiliative leadership style on firm performance and found substantial outcomes. Zacher and Rosing (2015) stated that leaders positively augment project success by ensuring adaptability and creativity in achieving collaboration efficiency. In addition, Sarros et al. (2008) addressed the influence of leadership on relational processes that are critical for the establishment of positive connections, such as those between management and subordinates, in her theoretical work that is required for a project to be successful. Moreover, Khan (2020) conducted a study to assess the digital transformation of IT services firms. They highlighted that situational and affiliative leadership styles are the key sources of IT project success. Furthermore, Aga et al. (2016) found a positive relationship between leadership practices and project success.

The relationship between affiliative leadership and project success can be gleaned from RBV theory (J. Barney, 1991; Wernerfelt, 1984). Affiliative leadership, with its emphasis on fostering a positive emotive corporate culture, transparent communication, and team work, is considered a valuable asset for the organization. RBV posits that certain resources with distinctive features provide the basis for competitive advantage, and in this case, affiliative leadership contributes to creating a distinctive resource (J. B. Barney, 2001; Preston et al., 2015). Affiliative leadership, when effectively implemented within an organization, enhances the human aspect of resources. It relies on the unique qualities of leaders who promote teamwork, trust, and a sense of belonging among team members (Khan, 2020). These qualities are distinctive and can lead to improved team performance and project success, aligning with RBV's principle that unique and sustainable resources are key to competitive advantage. Therefore, affiliative leadership can be seen as a resource within the RBV framework that, when leveraged properly, contributes to project success by enhancing team dynamics, collaboration, and ultimately, the organization's competitive advantage. Considering the preceding discussion we formed following hypotheses:

H1: Affiliative leadership has a significant impact on project success.

Affiliative Leadership and Team Performance

Project management research in leadership realm is becoming increasingly significant while, affiliative leadership styles are identified as an important element of research (Balliet & Ferris, 2013). Affiliative leadership excel at bringing people together, and as a result, they foster an environment that is conducive to productivity. Affiliative leadership is useful when inspiration is required during challenging situations, or when relationships between individuals or groups need to be strengthened. Goleman et al. (2013) argued that leaders who wish to foster cohesion, morale, and interaction, or repair broken trust, should use the extroverted approach, whose motto is "people first". They further stated that affiliative leadership acknowledges people's emotional need and foster high-performing environments to have a beneficial influence on team performance. Affiliative leadership promotes collaboration and partnerships, which raises productivity, fidelity, and devotion.

The extant literature highlighted the significant role of affiliative leadership style in team performance. For instance, scholars like Aritzeta et al. (2007) stated that team leadership is an important and crucial factor for directing and scheduling teams following the project deadline. Wachira et al. (2018) found that affiliative leadership places a strong emphasis on employees, teamwork, partnering, and forming alliances. Bakker et al. (2013) argued that affiliative leadership style significantly impacts team effectiveness. In addition, the affiliated person is aware of forming teams and prioritizing personnel. By uniting people, affiliative leadership emphasizes the importance of collaboration and promotes group cohesion for effectiveness (Bennis, 2007). Wachira et al. (2018) found a positive relationship between affiliative leadership and team performance. Workers are inspired to contribute towards organizational goals when empathy, relationships, and communication are prioritized. Leadership employee team building capability helps to foster unity, which leads to a good work environment.

The connection between affiliative leadership and team performance can be justified within the RBV framework, which underscores how organizations leverage distinctive resources to realize and sustain competitive advantages. Affiliative leadership, characterized by its emphasis on fostering collaboration, trust, and a positive work environment, aligns with the RBV's concept of distinctive resources. RBV's core principles emphasize that resources should be valuable, rare, inimitable, and organizationally embedded (VRIO) to contribute to competitive advantage (J. B. Barney, 2001). Affiliative leadership's impact on team performance meets these criteria as it enhances the effectiveness and productivity of teams, a valuable outcome in any organization (Bakker et al., 2013). High-performing teams, nurtured by affiliative leadership, can be a source of enduring competitive advantage as they consistently contribute to project

success and overall organizational success. Therefore, the RBV framework serves as a compelling motivation for linking affiliative leadership with team performance, highlighting the strategic importance of affiliative leadership in the context of project management and organizational competitiveness (Wachira et al., 2018). Considering the preceding discussion, we formed following hypotheses:

H2: There is a significant impact of affiliative leadership on team performance.

Team Performance and Project Success

Performance is the outcome attained by organizations throughout a specific period, including both profit and non-profit-oriented organizations. Team performance is the degree to which a project team comes across the known organizational aims and objectives (Salas et al., 2008). Team performance is referred to as the outcome or level of success of a group in carrying out their responsibilities throughout a given period. Team performance cannot be achieved arbitrarily by applying instant managerial decision, however, it can be achieved through observation of team members concerning the firms actions from varied social insights (Lin et al., 2021).

The existing literature highlighted the significant role of team performance on project success. Iqbal et al. (2017) questioned whether team performance affects project success. They found that teamwork has become a key element and significantly augments greater project success. Similarly, Zwikael and Unger-Aviram (2010) accentuated that proficient project team members are vital for the attainment of the undertaken project success. Project success be contingent to the aptitude of project team members to work competently since the project team has been mirrored as an important resource for project success (Guchait et al., 2016). Scholars like Latif et al. (2020) incorporate various team factors such as team identity, team commitment and team performance to examine their contingent effect in their research model. They found that team performance positively impacts project success. Based on the above discussion this research formed the given hypotheses:

H3: Team performance has a significant impact on project success.

Mediating Role of Team Performance

A team is defined as a group of two or more individuals who engage in dynamic and interrelated interactions with the shared purpose of attaining an esteemed goal and objective. Each team member accepts a specific responsibilities, and the membership has a finite period (Salas et al., 1992). Team

performance is becoming more important as a result of the global economy's fast development since it affects employee career prospects (Malec et al., 2007). Team performance is defined as the employees combining their efforts on a project or assignment to achieve an organizational goal and enhance the reputation of the organization (de Mora Schmidt et al., 2013). Team performance is the degree to which a person concentrates on organizing and carrying out his daily duties as well as the degree to which each team member is steady and focused at work (Singh et al., 2016). Teamwork has grown to be a more in-depth research topic as more firms start to rely on teams to meet their goals (Mathieu et al., 2008). Project team synergy is vital, as individual competences are inherently limited. This collaboration significantly improves overall firm performance (Akob et al., 2020; Mappamiring et al., 2020).

Leadership role in evaluating team performance and effectiveness. To perform daily tasks, employee effort depends on the leader's behaviour and the way he treats and mentors his team members. Zhu and Chen (2016) claim that leadership significantly affects team dynamics and performance. Leadership is viewed in terms of personal traits such as such as talents, abilities, and behaviours that directly impact team performance (Day et al., 2004). Kissi et al. (2013) stated that the perception of team regarding working environment affects their motivation and effort throughout project execution. They further suggest that leadership can impact a project's success by fostering an environment which enable team to achieve project goals. While discussing the team participation during project inception, project managers frequently voice their discontent (Özpolat et al., 2014).

The past literature showed that team performance mediates the relationship between leadership and project success. Lee et al. (2011) found that team member talents and leadership may be aligned to enhance efficiency in achieving goals, which in turn results in increased performance. According to Zacher and Rosing (2015), success may be attained through ambidextrous leadership that ensures adaptability. They also emphasize the role of creativity in achieving collaboration efficiency. Hence, achieving project success depends on the efficacy of the team as well as the efficient and cooperative workings of the project. In addition, Zahur et al. (2022) indicated that leadership had a substantial impact on fostering innovative team progress within enterprise resource planning, ultimately leading to project success.

The mediating role of team performance in the relationship between affiliative leadership and project success can be understood through the lens of the RBV. From the RBV perspective, team performance becomes a critical capability that emerges as a result of affiliative leadership (Bakker et al., 2013). This capability can significantly contribute towards project success by ensuring that

the team functions smoothly and efficiently, thus optimizing the use of available resources and capabilities (Zhu & Chen, 2016). Therefore, organizations with leaders who practice affiliative leadership are more likely to encourage team performance capabilities, which ultimately mediate the relationship between affiliative leadership and project success, leading to positive outcomes for the organization (Zacher & Rosing, 2015).

Considering the preceding discussion this study forms the following hypotheses:

H4: Team Performance positively mediates the relationship between affiliative leadership and project success.

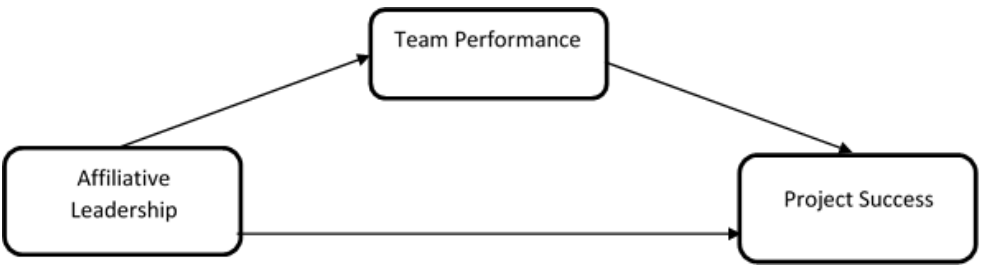

Figure 1: *Research Model*

METHODOLOGY

Research Design

This study used a cross-sectional quantitative method. To confirm our data and arrive at the correct findings, we performed a thorough quantitative analysis. To get significant information, a legitimate strategy for information assortment has been chosen to accomplish the data collection process. Survey questionnaire has been widely utilized to gather information for research (Barling, 2014). Thus, the study utilized a questionnaire source for information assortment.

Instrument

The scale for variables questionnaire was adopted from extant literature (Appendix-A). The questionnaire items comprised three variables which include affiliative leadership, project success, and team performance.

- **Project success:** The project success scale was taken from Aga et al. (2016). All 14 items were adopted. An example question from this scale is "project specifications were met before handing over to the end user".

- **Affiliative leadership:** The scale for affiliative leadership was adopted from (Kasapoğlu, 2014). All 5 items were adopted. The sample question of affiliative leadership is "my manager prefers to establish strong relationships with his team members".
- **Team performance:** The scale for team performance was adapted from (He et al., 2007). All 5 items were adopted. The sample question of team performance is "The team members produced high-quality products".

Sample and data collection

Data collection employed convenience sampling technique from project managers and project team members working in the IT sector of Pakistan. The data gathered through online Google forms while taking into safety measures concern in light of the ongoing pandemic situation, and in cases where applicable, conducting personal visits. Google Forms link was sent through email to 350 respondents and a total of 322 questionnaires were received. 22 respondents were excluded as a result of multiple statements being left blank by respondents. In total, 300 questionnaires were found correct for further analyses, with a response rate of 85.71%. The data represented that male respondents included (94.3%) and female respondents included (5.7%). Most of the study participants fall within the age group of 26-33, with 118 (39.3%). Most participants (n = 202) hold a bachelor degree, account for 67.3%, whereas master's degree holders (n = 82) made up 27.3% per cent. The average working experience of respondents in IT firms was about 3 to 5 years. Table 1 shows demographical information of participants.

Data Analysis Procedure

For data analysis, IBM SPSS version 21 and Smart-PLS4 statistical packages were used. First, data entering and screening were done through IBM SPSS and filtered data were taken for data analysis. The variables' data reliability was tested through outer loading, alpha, and composite reliability. The convergent validity of the variables tested using the AVE while discriminant validity established through HTMT ratio. Structural equation modelling was performed to determine the significant relationship among variables. The Preacher and Hayes method was utilized to carry out mediation and to ascertain the mediating effect between independent and dependent variables. (Preacher & Hayes, 2004).

Table 1.
Demographics profiling of respondents

Criteria		No of participants	%
Gender	Male	283	94.3
	Female	17	5.7
	Total	300	100
Age	18-25	76	25.3
	26-33	118	39.3
	34-41	56	18.7
	42-49	26	8.7
	50 and above	24	8.0
	Total	300	100
Education	Intermediate	9	3.0
	Bachelor	202	67.3
	Masters	82	27.3
	PhD	7	2.3
	Total	300	100
Experience	1-5 years	221	73.67
	6-10 years	43	14.33
	11 and above	36	12.0
	Total	300	100

RESULTS

Descriptive Statistics

Descriptive statistics were used to summarize key characteristics of affiliative leadership, project success, and team performance. The findings presented mean and standard deviation for each item, which are detailed in Table 1. The mean value of 3.89 indicates agreement among respondents with affiliative leadership items. For project success items, the mean score is 4.13, signifying agreement. Similarly, a mean score of 4.16 shows agreement with the items related to team performance.

Measurement Model

We assess the measurement model by using factor loadings, alpha, composite reliability, convergent and discriminant validity. The typical limit for loadings is > 0.50 (Bagozzi & Yi, 1988). All items have loadings within specified range, except for one item related to PS, which was removed being low loading. The limit for composite reliability of a construct is 0.7 (Bagozzi & Yi, 1988). The typical limit for

Cronbach' alpha is 0.7 (Nunnally, 1978), and the outcomes confirm that reliability is well-established. Convergent validity assessed by AVE, with an acceptable limit of 0.5 (Fornell & Larcker, 1981), and all variables holds this criterion. The details are in Table 2.

Table 2.
Factorloding, reliability, and validity

Variable	Items	Loadings	Alpha	CR	AVE
Affiliative leadership	AL1	0.988	0.994	0.995	0.977
	AL2	0.988			
	AL3	0.984			
	AL4	0.989			
	AL5	0.994			
Team performance	TP1	0.763	0.914	0.937	0.751
	TP2	0.954			
	TP3	0.922			
	TP4	0.937			
	TP5	0.730			
Project success	PS2	0.933	0.978	0.980	0.793
	PS3	0.867			
	PS4	0.917			
	PS5	0.862			
	PS6	0.919			
	PS7	0.815			
	PS8	0.930			
	PS9	0.937			
	PS10	0.813			
	PS11	0.866			
	PS12	0.938			
	PS13	0.936			
	PS14	0.823			

In this study, we examine discriminant validity through HTMT ratio, Fornell and Larker and cross-loading. As per Henseler et al. (2015), the threshold for the HTMT ratio is <0.9. In Table 3, the HTMT values for each construct remain comfortably below the specified limits thereby confirming convergent validity. Moreover, in line with Fornell and Larcker (1981) recommendation, it is necessary for the square root of the AVE of a construct to exceed the correlations with other constructs, this study meet the specified criteria. In addition, the cross-loading value Table A. 2 reflects that all constructs have a lower value than their loadings on the intended constructs.

Table 3.
HTMT ratio and Fornell and Larker Criterion

Variables	1	2	3
Fornell and Larker Criterion			
1. Affiliative leadership	0.988		
2. Project success	0.484	0.890	
3. Team performance	0.336	0.475	0.867
HTMT Ratio			
1. Affiliative leadership			
2. Project success	0.488		
3. Team performance	0.344	0.492	

STRUCTURAL MODEL

We assess the Structural Equation Modelling using the guidelines outlined by Hair et al. (2017). Initially, our evaluation includes the examination of the coefficient of determination (R2) and the predictive relevance measure (Q2). The findings showed 34% (R^2 0.344) variation detected in project success, and 11% ($R^2$0.113) variance detected in team performance through affiliative leadership. Moreover the Q^2 values of PS and team performance are 0.224 and 0.099. This further establishes the alignment of findings with the guidelines of Structural Equation Model (Hair et al., 2017).

HYPOTHESES TESTING

We tested the proposed hypotheses by examining both the direct and mediating effects. See Table 4. H1 examined whether Affiliative leadership has a positive impact on project success. The results demonstrated a significant positive influence of Affiliative leadership on project success (β= 0.366, t= 95.993, p < 0.000), thus supporting H1. H2 investigated whether Affiliative leadership has a substantial impact on team performance. The findings revealed a positive effect of Affiliative leadership on team performance (β= 0.336, t= 4.950, p < 0.000), confirming H2. H3 assessed whether team performance significantly impact project success. The results showed a positive impact of team performance on project success (β= 0.353, t= 5.401, p < 0.000), thereby supporting H3.

Mediating effect was performed to assess the mediating role of team performance on the linkage between affiliative leadership and project success (H4). The result revealed that total effect of affiliative leadership on project success was substantial (β = 0.366, t = 8.044, p < 0.001). With the inclusion of the mediating factor team performance, the impact of Affiliative leadership on

project success was found substantial (β = 0.336, t = 4.950, p = < 0.001). The indirect effect of Affiliative leadership on team performance through project success was found significant (β = 0.353, t = 3.475, p < 0.001). This revealed complementary partial-mediation, hence H4 accepted.

Table 4.
Direct and mediation analysis

					Confidence interval	
	Beta	**STDEV**	**T Stats.**	**P Values**	**5%**	**95%**
AL -> PS	0.366	0.061	5.993	0.000	0.263	0.464
AL -> TP	0.336	0.068	4.950	0.000	0.220	0.444
TP -> PS	0.353	0.065	5.401	0.000	0.243	0.458
Mediation Analysis						
Total Effect (AL→PS)			**Direct Effect (AL→PS)**		***Indirect Effect (AL -> TP -> PS)***	
t-value		p value	t-value	p value	t-value	p value
8.044		0.000	5.993	0.000	3.475	0.000

DISCUSSION

Khan (2020) conducted a study to assess the digital transformation of IT services firms. They highlighted that situational and affiliative leadership styles are the key sources of IT project success. Similarly, Khan et al. (2019) questioned whether there is an association between various leadership styles and project success. They found that transactional, transformational, and spiritual leadership styles have a substantiated impact on project success. This study also support the findings of Wachira et al. (2018) who investigated the influence of affiliative leadership style on firm performance and found a substantial effect of affiliative leadership on firm performance. The contributing relationship between affiliative leadership and project success is supported by (Aga et al., 2016) which is align with study's findings.

Mitchell et al. (2015) emphasized the importance of leadership and team performance relationships and found that leadership practices enhance team performance outcomes by promoting team identity. Din et al. (2022) hypothesized whether shared leadership style linked with team performance of IT-based software developmental projects and found significant impact. Moreover, Aga et al. (2016) stated that leadership has been considered an important influential factor of team performance. In addition, Carson et al. (2007) stated that leadership is a unique firm resource that enables project teams to develop mutual trust and enhance performance outcomes. Moreover, the productivity of the project team become more effective by the acceptance of project leader decision by

their project team (Moe et al., 2019). Hence, our study found that leadership practices improve team performance leads to more effective implementation of project management activities.

Our results are in accordance with literature, which validates the substantial influence of team performance. Iqbal et al. (2017) argued that project teamwork is considered a critical factor for project acceptance and success. The findings reflected that the performance of the project team has a significant impact on project success. Similarly, Zwikael and Unger-Aviram (2010) emphasized that competent team members are essential for the achievement of anticipated project success. Likewise, Shenhar and Dvir (1996) claimed that technically highly qualified team are very much facilitating factors for prospering project success. Hence, technically equipped project team professionals can become more effective in the timely processing of work activities by solving problems and participating in decision-making (Scott-Young & Samson, 2004). In addition, Baker et al. (2008) stated that to complete the project within the stipulated time and resources, project team members should meet the project's technical specifications. Hence, a project team having the desired proficiencies becomes an imperative tool for project success.

Lee et al. (2011) analyze the mediating role of team performance by utilizing team performance indicators including team cohesion, job satisfaction, and competence between the relationship of transformational leadership and performance outcomes. They affirm that team performance significantly mediates between leadership and performance relation. Similarly, Aga et al. (2016) concluded that organizations must implement effective leadership practices to ensure successful project completion. Likewise, they found that team building play a constructive part in the connection between leadership and project success. Moreover, Latif et al. (2020) analyzed the intervening role of team outcomes including team efficacy, commitment, and team performance between the relationship of social responsibility and firm performance. They found that team performance mediates the proposed relationship greatly as compared to other team outcome indicators. Likewise, Saleem et al. (2021) found the buffering role of team performance in the relationship between leadership style and project success. They establish positive effect of team performance to validate their proposed hypothesized research model.

CONCLUSION

Project-based organizations prioritize enhancing awareness of the factors influencing project success. In the milieu of software projects, this endeavor highlighted that affiliative leadership has become an imperative contributing

factor to project success. To the best of the author's knowledge, this endeavor is among the few that established the framework linking affiliative leadership with project success through team performance. Hence, it is concluded that affiliative leadership style plays a significant role in accomplishing the IT projects in Pakistan. As a result, software-focused businesses must encourage project managers to adopt leadership practices, for instance through leadership software development programs. Project leaders should strategize to enable the efficient use of affiliative leadership, fostering a dynamic working environment and empowering teams for more effective project completion. We feel that our study should serve as a model for future research on leadership, project team effectiveness and project success.

THEORETICAL AND PRACTICAL IMPLICATIONS

The study outcomes established the effect of affiliative leadership in enriching team performance and project success. Implementing affiliative leadership application by IT professionals improves team level results, including team performance and contributes to heightened project success. This underscores the importance of firms prioritizing affiliative leadership efforts that foster team development, cultivate a dynamic working environment, and promote the well-being, safety, and conduct of their teams.

Highlighting the pivotal role of affiliative leadership expands our understanding of leadership dynamics within technology-driven environments. The empirical evidence underscores that affiliative leadership, characterized by its emphasis on relationship-building and supportiveness, play an important role in modelling team dynamics and, consequently, project success.

This study highlights the importance of nurturing affiliative leadership practices within these firms. As a result, organizations can invest in leadership development programs that prioritize relationship-building, supportiveness, and collaboration among leaders. This, in turn nurture a more positive and conducive working environment, leading to superior team performance and project success. Companies can incorporate measures that assess team performance and the quality of team dynamics alongside traditional success indicators. Additionally, our research underscores the need for a culture that values collaboration, open communication, and supportiveness. IT firms can work towards instilling such a culture, aligning it with affiliative leadership principles. Lastly, HR departments can use your research to refine their recruitment and leadership selection processes, identifying and promoting leaders who exhibit affiliative leadership traits and recognizing their potential to positively impact project success within the IT sector.

LIMITATION AND FUTURE DISCUSSION

It is worth noting that the data gathered for this study is were specific to employees in the IT sector of Pakistan. To enhance the study framework applicability and its outcomes, upcoming research should consider applying the same model in various study settings or across different industries to assess the generalizability of the observed relationships. Secondly, this study relied on cross-sectional data, providing a snapshot of the connections between AL, team performance, and PS at a single point in time. To delve deeper into these dynamics and capture potential changes and trends over time, future research could employ longitudinal data-gathering techniques. Addressing these limitations in future research studies can expand our knowledge and provide a more holistic view of the interactions between affiliative leadership, various team-related factors, and the ultimate success of projects, with potential implications for a wide array of organizational contexts. In addition, future studies should expand their focus from affiliative leadership to include entrepreneurial and sustainable leadership styles and examine their impact on firm performance. Additionally, exploring the role of absorptive capacity, innovation and sustainability as mediating factors in this relationship opens the avenues for further research.

CONFLICT OF INTEREST

The authors unequivocally affirm that there are no existing financial or personal conflicts of interest that could influence the outcome of this study. Additionally, no financial assistance or remuneration has been received for the execution of this research or the composition of this article. We also confirm that we have no direct financial or personal affiliations that could potentially bias the results or interpretations presented herein.

REFERENCES

Aga, D. A., Noorderhaven, N., & Vallejo, B. (2016). Transformational leadership and project success: The mediating role of team-building. *International Journal of Project Management*, *34*(5), 806–818. https://doi.org/10.1016/j.ijproman.2016.02.012

Akob, M., Arianty, R., & Putra, A. H. P. K. (2020). The mediating role of distribution Kahn's engagement: An empirical evidence of salesforce in Indonesia. *The Journal of Asian Finance*, *7*(2), 249–260. https://doi.org/10.13106/jafeb.2020.vol7.no2.249

Aritzeta, A., Swailes, S., & Senior, B. (2007). Belbin's team role model: Development, validity and applications for team building. *Journal of Management Studies*, *44*(1), 96–118. https://doi.org/10.1111/j.1467-6486.2007.00666.x

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science*, *16*, 74–94. https://doi.org/10.1007/BF02723327

Baker, B. N., Murphy, D. C., & Fisher, D. (2008). Factors affecting project success. 6. In *Project Management Handbook* (2nd ed., Vol. 35, pp. 902–919).

Bakker, R. M., Boroş, S., Kenis, P., & Oerlemans, L. A. (2013). It's only temporary: time frame and the dynamics of creative project teams. *British Journal of Management*, *24*(3), 383–397. https://doi.org/10.1111/j.1467-8551.2012.00810.x

Balliet, D., & Ferris, D. L. (2013). Ostracism and prosocial behavior: A social dilemma perspective. *Organizational Behavior and Human Decision Processes*, *120*(2), 298–308. https://doi.org/10.1016/j.obhdp.2012.04.004

Bao, Y., Liao, S., Liao, J., Zhang, Y., Deng, C., & Guo, Z. (2019). A study of the mechanism of the congruence of leader-follower power distance orientation on employees' task performance. *Frontiers in Psychology*, *10*, 615–615. https://doi.org/10.3389/fpsyg.2019.00615

Barling, J. (2014). The science of leadership: Lessons from research for organizational leaders. USA: Oxford University Press.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Barney, J. B. (2001). Is the resource-based "view" a useful perspective for strategic management research? Yes. *Academy of management review*, *26*(1), 41–56. https://doi.org/10.5465/amr.2001.4011938

Bennis, W. (2007). The challenges of leadership in the modern world: Introduction to the special issue. *American psychologist*, *62*(1). https://doi.org/10.1037/0003-066X.62.1.2

Carson, J. B., Tesluk, P. E., & Marrone, J. A. (2007). Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of Management Journal*, *50*(5), 1217–1234. https://doi.org/10.5465/amj.2007.20159921

Chaithanapat, P., Punnakitikashem, P., Oo, N. C. K. K., & Rakthin, S. (2022). Relationships among knowledge-oriented leadership, customer knowledge management, innovation quality and firm performance in SMEs. *Journal of Innovation & Knowledge*, *7*(1), 100162–100162. https://doi.org/10.1016/j.jik.2022.100162

Clough, D. R., Fang, T. P., Vissa, B., & Wu, A. (2019). Turning lead into gold: How do entrepreneurs mobilize resources to exploit opportunities. *Academy of Management Annals*, *13*, 240–271. https://doi.org/10.5465/annals.2016.0132

Collis, D. J., & Montgomery, C. A. (1995). How do you create and sustain a profitable strategic? Competing on resources. *Harvard business review*, *73*(4), 118–128.

Day, D. V., Gronn, P., & Salas, E. (2004). Leadership capacity in teams. *The Leadership Quarterly*, *15*, 857–880. https://doi.org/10.1016/j.leaqua.2004.09.001

de Mora Schmidt, A. C., Cristóbal, R. P., & Redondo, E. M. S. (2013). Identificación de actuaciones para la mejora del atractivo turístico de una ciudad a través de la metodología Concept Mapping. *Papers de Turisme*, 111–124.

Din, M. S. U., Haq, S. U., Chughtai, M. A., & Rashid, M. M. (2022). The impact of shared leadership on project success: Mediating role of degree of autonomy and team performance. *KASBIT Business Journal*, *15*(4), 31–43.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.1177/002224378101800104

Gagnon, S., Vough, H. C., & Nickerson, R. (2012). Learning to lead, unscripted: Developing affiliative leadership through improvisational theatre. *Human Resource Development Review*, *11*(3), 299–325. https://doi.org/10.1177/1534484312440566

Galbreath, J. (2005). Which resources matter the most to firm success? An exploratory study of resource-based theory. *Technovation*, *25*(9), 979–987. https://doi.org/10.1016/j.technovation.2004.02.008

Goleman, D., Boyatzis, R. E., & Mckee, A. (2013). *Primal leadership: Unleashing the power of emotional intelligence*. Harvard Business Press.

Goleman, D. (2001, February 23). *Emotional Intelligence: Five Years Later*. New Horizons for learning. Retrieved from https://www.edutopia.org/emotional-intelligence-five-years-later

Guchait, P., Lei, P., & Tews, M. J. (2016). Making teamwork work: Team knowledge for team effectiveness. *The Journal of psychology*, *150*(3), 300–317. https://doi.org/10.1080/00223980.2015.1024596

Hair, J. F., Jr, Hult, G. T. M., Ringle, C., & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). SAGE Publications. https://doi.org/10.1007/978-3-319-64069-3_9

Haq, S. U., Gu, D., Liang, C., & Abdullah, I. (2019). Project governance mechanisms and the performance of software development projects: Moderating role of requirements risk. *International Journal of Project Management*, *37*(4), 533–548. https://doi.org/10.1016/j.ijproman.2019.02.008

Haq, S. U., Liang, C., Gu, D., Du, J. T., & Zhao, S. (2018). Project governance, project performance, and the mediating role of project quality and project management risk: an agency theory perspective. *Engineering Management Journal*, *30*(4), 274–292.

He, J., Butler, B. S., & King, W. R. (2007). Team cognition: Development and evolution in

software project teams. *Journal of Management Information Systems*, *24*(2), 261–292.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, *43*, 115–135. https://doi.org/10.1007/s11747-014-0403-8

Iqbal, S. M. J., Nawaz, M. S., Bahoo, S., & Abdul, M. L. (2017). Impact of project teamwork on project success in Pakistan. *South Asian Journal of Management*, *11*(1), 1–13. https://doi.org/10.21621/sajms.2017111.01

Javed, B., Khan, A. A., Bashir, S., & Arjoon, S. (2017). Impact of ethical leadership on creativity: The role of psychological empowerment. *Current Issues in Tourism*, *20*(8), 839–851. https://doi.org/10.1080/13683500.2016.1188894

Kasapoğlu, E. (2014). Leadership styles in architectural design offices in Turkey. *Journal of Construction Engineering and Management*, *140*(2). https://doi.org/10.1061/(ASCE)CO.1943-7862.0000799

Khan, M. A. (2020). The impact of project management styles on digital transformation: A Case Study of an IT services company. *International Journal of Project Management*, *4*(1), 1–9. https://doi.org/10.47672/ijpm.487

Khan, M. A., Ali, M. I., & Umar, M. (2019). Impact of leadership styles on project success: evidence from private sector firms of construction industry. *GMJACS*, *9*(2), 20–20.

Kissi, J., Dainty, A., & Tuuli, M. (2013). Examining the role of transformational leadership of portfolio managers in project performance. *International Journal of project management*, *31*(4), 485–497. https://doi.org/10.1016/j.ijproman.2012.09.004

Koester, E. (2016). Green entrepreneur handbook: The guide to building and growing a green and clean business. CRC Press. Retrieved from https://library.oapen.org/handle/20.500.12657/40084

Koman, E. S., & Wolff, S. B. (2008). Emotional intelligence competencies in the team and team leader: A multi-level examination of the impact of emotional intelligence on team performance. *Journal of Management Development*, *27*(1), 55–75. https://doi.org/10.1108/02621710810840767

Kuiper, N. A., Kirsh, G. A., & Leite, C. (2010). Reactions to humorous comments and implicit theories of humor styles. *Europe's Journal of Psychology*, *6*(3), 236–266. https://doi.org/10.5964/ejop.v6i3.215

Latif, K. F., Nazeer, A., Shahzad, F., Ullah, M., Imranullah, M., & Sahibzada, U. F. (2020). Impact of entrepreneurial leadership on project success: mediating role of knowledge management processes. *Leadership & Organization Development Journal*, *41*(2), 237–256. https://doi.org/10.1108/LODJ-07-2019-0323

Lee, P. K., Cheng, T. E., Yeung, A. C., & Lai, K. H. (2011). An empirical study of transformational leadership, team performance and service quality in retail banks. *Omega*, *39*(6), 690–701. https://doi.org/10.1016/j.omega.2011.02.001

Lin, Y., Yang, M., Quade, M. J., & Chen, W. (2021). Is the bottom line reached? An exploration of supervisor bottom-line mentality, team performance avoidance goal orientation and team performance. *Human Relations*, *75*(2), 349–372. https://doi.org/

10.1177/00187267211002917

Malec, J. F., Torsher, L. C., Dunn, W. F., Wiegmann, D. A., Arnold, J. J., Brown, D. A., & Phatak, V. (2007). The mayo high performance teamwork scale: reliability and validity for evaluating key crew resource management skills. *Simulation in Healthcare*, *2*(1), 4–10. https://doi.org/10.1097/SIH.0b013e31802b68ee

Mappamiring, M., Akob, M., & Putra, A. H. P. K. (2020). What Millennial Workers Want? Turnover or Intention to Stay in Company. *The Journal of Asian Finance*, *7*(5), 237–248. https://doi.org/10.13106/jafeb.2020.vol7.no5.237

Mariam, S., Khawaja, K. F., Qaisar, M. N., & Ahmad, F. (2022). Knowledge-oriented leadership, team cohesion, and project success: A conditional mechanism. *Project Management Journal*, *53*(2), 128–145. https://doi.org/10.1177/87569728211063128

Mathieu, J., Maynard, M. T., Rapp, T., & Gilson, L. (2008). Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future. *Journal of management*, *34*(3), 410–476. https://doi.org/10.1177/0149206308316061

Mitchell, R., Boyle, B., Parker, V., Giles, M., Chiang, V., & Joyce, P. (2015). Managing inclusiveness and diversity in teams: How leader inclusiveness affects performance through status and team identity. *Human Resource Management*, *54*(2), 217–239. https://doi.org/10.1002/hrm.21658

Moe, N. B., Dahl, B. H., Stray, V., Karlsen, L. S., & Schjødt-Osmo, S. (2019). Team autonomy in large-scale agile. *Proceedings of the Annual Hawaii International Conference on System Sciences (HICSS)*, 6997–7006. https://doi.org/10.24251/HICSS.2019.839

Mosakowski, E. (2002). Overcoming resource disadvantages in entrepreneurial firms: When less is more. *Strategic entrepreneurship: Creating a new mindset*, 106–126.

Müller, R., & Turner, R. (2007). The influence of project managers on project success criteria and project success by type of project. *European management journal*, *25*(4), 298–309. https://doi.org/10.1002/9781405164085.ch6

Nason, R. S., & Wiklund, J. (2018). An assessment of resource-based theorizing on firm growth and suggestions for the future. *Journal of management*, *44*(1), 32–60. https://doi.org/10.1177/0149206315610635

Nunnally, J. C. (1978). *Psychometric Theory*. New York, NY: McGraw-Hill.

Özpolat, K., Chen, Y., Hales, D., Yu, D., & Yalcin, M. G. (2014). Using contests to provide business students project-based learning in humanitarian logistics: PSAid example. *Decision Sciences Journal of Innovative Education*, *12*(4), 269–285. https://doi.org/10.1111/dsji.12044

Pearce, C. L., & Sims, H. P. (2002). Vertical versus shared leadership as predictors of the effectiveness of change management teams: An examination of aversive, directive, transactional, transformational, and empowering leader behaviors. *Group dynamics: Theory, research, and practice*, *6*, 172–172. https://doi.org/10.1037/1089-2699.6.2.172

Penrose, E. T. (1959). *The theory of the growth of the firm*. New York, NY: Oxford University

Press.

Pradhan, P., Costa, L., Rybski, D., Lucht, W., & Kropp, J. P. (2017). A systematic study of sustainable development goal (SDG) interactions. Earth's Future. *Earth's Future*, *5*(11), 1169–1179. https://doi.org/10.1002/2017EF000632

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, *36*, 717–731.

Preston, G., Moon, J., Simon, R., Allen, S., & Kossi, E. (2015). The relevance of emotional intelligence in project leadership. *Journal of Information Technology and Economic Development*, *6*(1), 16–16.

Pretorius, S., Steyn, H., & Bond-Barnard, T. J. (2018). Leadership styles in projects: Current trends and future opportunities. *South African Journal of Industrial Engineering*, *29*(3), 161–172. https://doi.org/10520/EJC-121284f8d5

Romero, E. J., & Arendt, L. A. (2011). Variable effects of humor styles on organizational outcomes. *Psychological reports*, *108*(2), 649–659. https://doi.org/10.2466/07.17.20.21.PR0.108.2.649-659

Salas, E., Diazgranados, D., Klein, C., Burke, C. S., Stagl, K. C., Goodwin, G. F., & Halpin, S. M. (2008). Does team training improve team performance? A meta-analysis. *Human factors*, *50*(6), 903–933. https://doi.org/10.1518/001872008X375009

Salas, E., Dickinson, T. L., Converse, S. A., & Tannenbaum, S. I. (1992). Toward an understanding of team performance and training. In *Teams: Their training and performance* (pp. 3–29). Ablex Publishing.

Saleem, H., Sajid, A., Aftab, R., & Malik, Z. (2021). A Journey to Cherish; How Transformational Leadership Affects Project Success through Team Performance. *PSYCHOLOGY AND EDUCATION*, *58*(1), 1156–1166.

Sarros, J. C., Cooper, B. K., & Santora, J. C. (2008). Building a climate for innovation through transformational leadership and organizational culture. *Journal of leadership & Organizational studies*, *15*(2), 145–158. https://doi.org/10.1177/1548051808324100

Schwalbe, K. (2015). Information technology project management. *Cengage Learning*.

Scott-Young, C., & Samson, D. (2004). Project success and project team human resource management: Evidence from capital projects in the process industries. In *Proceedings of the PMI Research Conference.*

Shenhar, A. J., & Dvir, D. (1996). Toward a typological theory of project management. *Research Policy*, *25*(4), 607–632. https://doi.org/10.1016/0048-7333(95)00877-2

Singh, S. K., Burgess, T. F., Heap, J., & Mehrzi, N. (2016). Competing through employee engagement: a proposed framework. *International Journal of Productivity and Performance Management*, *65*(6), 831–843. https://doi.org/10.1108/IJPPM-02-2016-0037

Stevenson, D., & Starkweather, J. A. (2017). IT project success: The evaluation of 142 success factors by IT PM professionals. *International Journal of Information Technology Project Management (IJITPM)*, *8*(3), 1–21. https://doi.org/10.4018/

IJITPM.2017070101

Techjuice. (2015). *20 reasons why Pakistan's technology industry is much more than a fake degree scam.* Retrieved from https://www.techjuice.pk/pakistan-technology-achievements/

Wachira, J. G., Karanja, K., & Iravo, M. (2018). Influence of Affiliative Leadership Style on Organizational Performance of Commercial State Corporations in Kenya. *European Journal of Business and Strategic Management*, *3*(3), 17–28. Retrieved from https://www.iprjb.org/journals/index.php/EJBSM/article/view/623

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, *5*(2), 171–180. https://doi.org/10.1002/smj.4250050207

Young, A. A., Millard, T., & Kneale, M. M. (2013). Enhancing school counselor instructional leadership through collaborative teaming: Implications for principals. *NASSP Bulletin*, *97*(3), 253–269. https://doi.org/10.1177/0192636513483356

Zacher, H., & Rosing, K. (2015). Ambidextrous leadership and team innovation. *Leadership & Organization Development Journal*, *36*(1), 54–68. https://doi.org/10.1108/LODJ-11-2012-0141

Zahur, H., Ali, M. I., & Gul, M. (2022). The Role of Knowledge-Oriented Leadership and Team Creativity in ERP Project Success. *Pakistan Social Sciences Review*, *6*(2), 721–732. Retrieved from https://ojs.pssr.org.pk/journal/article/view/170

Zhu, Y. Q., & Chen, H. G. (2016). Empowering leadership in R & D teams: A closer look at its components, process, and outcomes. *R&D Management*, *46*(4), 726–735. https://doi.org/10.1111/radm.12114

Zia, N. U. (2020). Knowledge-oriented leadership, knowledge management behaviour and innovation performance in project-based SMEs. The moderating role of goal orientations. *Journal of Knowledge Management*, *24*(8), 1819–1839. https://doi.org/10.1108/JKM-02-2020-0127

Zwikael, O., & Unger-Aviram, E. (2010). Hrm in project groups: The effect of project duration on team development effectiveness. *International Journal of Project Management*, *28*(5), 413–421. https://doi.org/10.1016/j.ijproman.2009.09.005

APPENDIX

Table A. 1.
Descriptive Statistics of Constructs

Item		Minimum	Maximum	Mean	*Std. Deviation*
AL1	300	1.00	5.00	3.8700	1.23214
AL2	300	1.00	5.00	3.8700	1.22397
AL3	300	1.00	5.00	3.8933	1.23303
AL4	300	1.00	5.00	3.8633	1.22869

Continued on next page

Table A. 1 continued

Item		Minimum	Maximum	Mean	*Std. Deviation*
AL5	300	1.00	5.00	3.8567	1.22520
TP1	300	1.00	5.00	4.0700	1.12961
TP2	300	1.00	5.00	4.1633	.97630
TP3	300	1.00	5.00	4.1433	.99301
TP4	300	1.00	5.00	4.1333	1.01274
TP5	300	1.00	5.00	4.1100	.98036
PS1	300	1.00	5.00	3.9567	1.13095
PS2	300	1.00	5.00	3.9567	1.11906
PS3	300	1.00	5.00	4.1367	1.05278
PS4	300	1.00	5.00	3.9500	1.13068
PS5	300	1.00	5.00	4.1067	1.05784
PS6	300	1.00	5.00	3.9600	1.13550
PS7	300	1.00	5.00	3.9967	1.06792
PS8	300	1.00	5.00	3.9733	1.13295
PS9	300	1.00	5.00	3.9567	1.13095
PS10	300	1.00	5.00	3.9633	1.08593
PS11	300	1.00	5.00	4.0967	1.06353
PS12	300	1.00	5.00	3.9533	1.12637
PS13	300	1.00	5.00	3.9600	1.12366
PS14	300	1.00	5.00	3.9900	1.06788
Valid N (listwise)	300				

Table A. 2.
Cross loadings

Variables	Items	1	2	3
	AL1	0.988	0.479	0.328
	AL2	0.988	0.475	0.332
1. Affiliative leadership	AL3	0.984	0.478	0.337
	AL4	0.989	0.473	0.326
	AL5	0.994	0.487	0.337
	PS2	0.401	0.933	0.433
	PS3	0.521	0.867	0.424
	PS4	0.393	0.917	0.424
	PS5	0.497	0.862	0.428
	PS6	0.393	0.919	0.430
	PS7	0.427	0.815	0.399
2. Project success	PS8	0.397	0.930	0.429
	PS9	0.397	0.937	0.433
	PS10	0.420	0.813	0.398
	PS11	0.491	0.866	0.420
	PS12	0.399	0.938	0.434
	PS13	0.400	0.936	0.434
	PS14	0.426	0.823	0.402
	TP1	0.208	0.302	0.763
	TP2	0.299	0.425	0.954
3. Team performance	TP3	0.274	0.383	0.922
	TP4	0.283	0.433	0.937
	TP5	0.351	0.467	0.730