

# PROJECT SUCCESS THROUGH HIGH-PERFORMANCE WORK PRACTICES: ROLE OF PROJECT MANAGER LEADERSHIP STYLE AND TEAM PERFORMANCE

**ABSTRACT:** This research endeavours to examine the primary determinants influencing the efficacy of projects within entities operating in the oil, gas, and mining sectors. The objective of this investigation was to scrutinize the association between team performance and the accomplishment of projects. Moreover, the study delved into the intervening function of high-performance work practices within this association, along with the moderating impact of leadership styles. Furthermore, this inquiry has employed leadership styles characterized as task-oriented and relationship-oriented, considering them as distinct typologies. Method: This research employs a quantitative methodology, collecting data from 239 individuals employed in the oil, gas, and mining sectors in the Kingdom of Saudi Arabia. To scrutinize the correlations under consideration, the STATA program was utilized. The study performed a structural equation modelling analysis using the software. Findings: This study reveals significant associations between team performance and project achievement. Furthermore, it reinforces the crucial mediating role played by high-performance work practices in connecting team performance to project success. Moreover, the research discloses that both task-oriented and relationship-oriented leadership styles wield a substantial moderating influence on the relationship between team performance and project success. Originality/significance: This study investigates the impact of team performance, high-performance work processes, and leadership styles on project success within organizations, offering novel perspectives. It sheds light on the interplay between high-performance practices, leadership styles, and project outcomes across diverse organizational contexts. The study underscores the imperative of understanding how leadership styles influence these dynamics, thereby potentially enhancing overall project performance. The practical significance of this approach lies in its provision of actionable solutions for augmenting teamwork, work practices, and leadership, thereby contributing to the overall improvement of project performance within organizations.

**Keywords:** Project Success, Team Performance, High-performance Work System, Relationship-oriented Leadership, Task-oriented Leadership.

## 1. Introduction

The success criteria in project management are usually conventional, which is quite practical. A variety of factors frequently have an impact on a project's outcome (Dartey-Baah, 2022). One factor that has been identified as contributing to success is the leadership style, specifically the positive influence of effective leadership (Mohsin, 2021). The presence of strong leadership within an organisation is recognised as a key factor in determining its success. Through the implementation of a strong leadership style, project performance can be improved (Saleem et al., 2021). Therefore, in contrast to previous research on project success factors, recent studies have acknowledged the importance of project leaders and their leadership style and competence (Podgórska & Pichlak, 2019). Therefore, it is imperative to prioritise the study and implementation of leadership in projects, as it is gaining more importance and prevalence in the overall budget (Ahmed, Philbin, & Cheema, 2021).

The researchers discussed the various inquiries regarding the relationship between project leader qualities and project success. As per the findings of Fareed, Su, and Awan (2021), effective communication, unwavering dedication, and strong leadership emerge as the key determinants of initiative success. Furthermore, project directors employ distinct leadership behaviours to optimise project performance (Podgórska & Pichlak, 2019). Therefore, the capacity to effectively guide others is closely tied to the measurable indicators of project achievement. Efficiently managing limited resources through meticulous planning is strongly associated with various measures of success Imam and Zaheer (2021). The project leader has a vital role in improving project performance and must actively contribute to ongoing improvement efforts in project-based organisations (Wu, Hu, & Zheng, 2019). Organisations benefit from team leaders with diverse cultural backgrounds as they promote innovative objectives, improve team communication, and

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achieve consistent outcomes in terms of team innovation (Wang et al., 2019).

Teams with strong leadership abilities facilitate various transformations, such as fostering a supportive atmosphere built on trust and coordination, efficiently managing resources, and maintaining organised communication to accomplish tasks (Batırlık, Gencer, & Akkucuk, 2022). Effective teamwork requires team members to have excellent communication skills, a shared commitment, and a prompt response rate. These attributes are crucial for improving project efficiency and achieving success. To ensure the successful completion of the project, it is crucial for teams to possess key characteristics (Bagga, Gera, & Haque, 2023). Recognising and appreciating a leader for acknowledging the commitment demonstrated by team members during a project can significantly boost team performance. To foster project dedication among team members, the team leader's support is crucial. This lift further enhances comprehension of the organisation's objectives, thereby bolstering the project's success (Errida & Lotfi, 2021). Effective communication plays a crucial role in determining the success of a project. Both formal and informal channels of communication have the potential to impact the outcome. In a recent study by Imam and Zaheer (2021), it was discovered that formal communication played a significant role in enhancing project success. Informal communication has a negative impact on the success of projects. Thus, it is imperative to improve formal communication among various project teams during project execution (Shakeri & Khalilzadeh, 2020).

The vertical leadership paradigm has long been acknowledged as a prominent aspect in the realm of leadership (Hunt & Fedynich, 2019). The study of employee behaviour has gained significance in relation to project performance, alongside the role of the project manager (Graham, Nikolova, & Sankaran, 2020). However, the COVID-19 pandemic has had a profound impact on how leadership is perceived and how leadership strategies are implemented (Döös & Wilhelmson, 2021). In today's rapidly changing business landscape, the conventional model of top-down leadership may no longer yield the desired results for organisations undergoing a transition (Gichuhi, 2021). Shared and balanced leadership is highly valued, especially in the realm of project management (Graham et al., 2020). The significance of adopting a well-balanced leadership approach in project environments is emphasised by Vaagaasar, Müller, and De Paoli (2020). This approach entails the efficient transfer of leadership authority between project managers and team members. Relying on traditional leadership concepts is insufficient for effectively managing complex crises and unpredictable

environments. It is crucial for individuals to develop the necessary skills to effectively navigate complex situations and adapt to the ever-changing work environment (Graham et al., 2020).

Although project governance and high-performance work practices are acknowledged as essential components for achieving project success, there exists a notable scarcity of empirical evidence concerning their collective influence within a unified framework. This study has undertaken the development of a comprehensive and innovative framework for assessing project success in the software industry, drawing insights from a thorough analysis of scientific literature. The framework, characterized by its comprehensiveness and innovativeness, systematically examines the conjoined impact of project governance and high-performance work practices on the nexus between project management innovation and project success. The primary aim of this study is to explore two specific research questions with precision and depth. First, what is the effect of team performances on project success? Furthermore, does the implementation of high-performance work practices serve as a mediator in the relation between team performances and project success? How do different leadership styles impact the relationship between team performance and project success?

## 2. Literature Review

Extensively researched in project management, project success is under active exploration by researchers, leading to the formulation of comprehensive lists and multidimensional frameworks (Wang et al., 2023; Zaman et al., 2022). Traditionally, success is defined as completing a project within predefined scope, schedule, and cost constraints (Hussain et al., 2022). However, this perspective overlooks vital elements in the project life cycle and environment. According to Shaukat et al. (2022), these include contingency, complexity, restrictions, and stakeholder expectations. The revised definition of project performance criteria takes into account efficiency, the impact on business, the project team, and client satisfaction (Tannir, Mills, & Kalra, 2021). A project's impact on clients, the economy, and the environment are just a few variables that can determine its success. Other indicators of success include efficient resource utilisation, meeting the goals of stakeholders, effective project dissemination, and a reduction in disengagements and disagreements (Tam et al., 2020).

Zid, Kasim, and Soomro (2020) provide a definition of project success that encompasses project overrun, cost

overrun, project performance, and client satisfaction. Some experts describe project success as the extent of transformation achieved through the project's deliverables, whether it be changing the current state to an expected state or improving operational mechanisms to align with business objectives (Watanabe et al., 2024). In their study, Kumar, Pandey, and Singh (2023) introduced a comprehensive evaluation framework for project performance. This framework goes beyond traditional metrics like cost, time, and quality and considers factors such as customer satisfaction and stakeholder feedback. According to Khahro et al. (2023), stakeholders' expectations should serve as a guide for integrating project success dynamics into the business's strategic vision. In support of this argument, Kumar et al. (2023) crafted a survey instrument through interviews with project managers and specialists. Their results underscore the significance of incorporating diverse stakeholder perspectives for the successful attainment of project objectives.

In the ongoing debate surrounding the definition of project success, this study examines the findings of Khahro et al. (2023), who argue for an inclusive definition. According to their research, project success should consider various factors, such as stakeholder perspectives, project nature, temporal considerations, and organisational aspects. In their study, Saleem et al. (2021) provide a definition of project success that emphasises the achievement of specific goals and the use of measurable benchmarks to quantify success after the project is completed.

## Team Performance

Establishing a strong foundation for a project starts with meticulous planning and the assembly of a capable team. A dedicated and skilled team typically ensures the successful completion of a project (Wamba-Taguimdje et al., 2020). Enhancing team effectiveness greatly relies on the level of cooperation among team members. According to Choi et al. (2019), considering the quality of cooperation is crucial for maximising team performance. Practices that prioritise commitment, such as delivering value to team members and fostering a supportive environment, have been shown to enhance team performance. In addition, team members can gain a clearer understanding of the objectives, purpose, and plans by participating in these routines (Tam et al., 2020). The level of trust within a team significantly influenced their task completion. Achieving team success necessitates members depending on each other for support when confronted with demanding tasks (Newman & Ford, 2021). Emotionally intelligent teams cultivate an environment of trust by establishing norms and standards that enhance both individual and group performance (Hunt & Fedynich, 2019).

Furthermore, Vaagaasar et al. (2020) study revealed that teams with members strongly committed to the team's objectives demonstrated superior performance in innovative endeavors. Enhanced communication skills among team members, as recognized by Watanabe et al. (2024), contribute to improved mutual understanding, task completion, and heightened efficiency. The remarkable performance of teams with heightened communication awareness is attributed to consistent and timely communication during practical work, as indicated by Wamba-Taguimdje et al. (2020). Team stability directly influences information processing and member effectiveness, establishing a positive correlation (Tam et al., 2020). The effectiveness of a team can be gauged through both communication and satisfaction dimensions, with acknowledgment of colleagues' skills elevating their chances of success in daily tasks (Tam et al., 2020; Wamba-Taguimdje et al., 2020). Effective team planning further augments overall team performance. (Tam et al., 2020). Therefore, this study has proposed that,

H1: Team performance significantly influences the project's success.

## High Performance Work Practices as a Mediator

The focus of human resource management (HRM) has evolved from a traditional, detached approach to a more inclusive and cooperative strategy that recognises employees as valuable contributors who can positively impact the company's overall performance (Jewell, Jewell, & Kaufman, 2022). As a result of this change, HPWPs can now leverage the expertise of the human resources department to gain a competitive advantage in the market. (Nasifoglu Elidemir, Oztüren, & Bayighomog, 2020) found that HPWPs improve organisational performance in several industries and geographies. The productivity benefits of HPWPs have long been recognised. An optimal combination of HPWPs can help managers strategically steer employee performance to improve company success, according to Kaufman (2020). The AMO paradigm includes ability, motivation, and opportunity. The authors of a study by Abotaleb and Elnagar (2022) shed light on the relationship between worker competence and job performance. They emphasise that competent workers not only excel in their tasks but also demonstrate a proactive attitude towards self-improvement when motivated. High-performance work programmes (HPWPs) have a substantial influence on workers' skills, knowledge, and capacity to capitalise on opportunities (Rehman, 2021). According to the study by Tam et al. (2020), HPWPs offer several benefits: Improved knowledge, skills, and attitudes, along with increased motivation to encourage desired behaviour and enhance employee contributions towards

achieving overall goals. An improved chance for the transmission of training, cross-functional communication, participatory decision-making, and knowledge exchange (Rehman, 2021).

In their study, Tam et al. (2020) highlighted the importance of providing workers with training in modern methods to effectively meet the increasing demands of various industries. In their study, Graham et al. (2020) investigated the relationship between HPWPs (i.e., training, collaboration, continuous feedback, recognition, and rewards) and project success. According to the study, project managers require HPWPs that can facilitate crucial changes to the project scope, enhance competencies, inspire the team, and enable participatory decision-making (Gichuhi, 2021). These initiatives support organisations in achieving project success through the formation of capable teams, enhanced employee engagement and involvement, promotion of information sharing, and the development of a skilled workforce (Döös & Wilhelmson, 2021). Hussain et al. (2022) found that implementing high-performance work-life programmes (HPWPs) can enhance project success rates. These programmes promote positive work attitudes and foster a dynamic work environment aligned with performance objectives.

or optimal project management effectiveness, it is imperative that all involved individuals possess a comprehensive understanding of the requisite task completion steps (Nasifoglu Elidemir et al., 2020). Zid et al. (2020) found that prioritizing employee skills and motivation in High-Performance Work Practices (HPWPs) at the project level correlates with elevated levels of creativity (Tam et al., 2020). Project-based organizations foster creativity by entrusting competent, well-prepared workers with extensive project knowledge (Kaufman, 2020). Despite the primary challenge being a shortage of skilled personnel, as identified by Jewell et al. (2022), effective project management can enhance performance through meticulous planning, incentives, and motivation. Numerous studies indicate that HPWPs increase the likelihood of skill enhancement, knowledge dissemination, utilization of shared learning, and generation of innovative ideas, thereby enhancing project efficacy (Rehman, 2021). Extant research establishes a positive correlation between HPWP implementation and improved project outcomes and performance (Khahro et al., 2023). This study seeks to explore the potential relationship between team performance, project success, and high-performance work practices.

H2: High performance work practices significantly mediate the relationship between team performance and project success.

### Moderating Role of Leadership Style (Task Oriented, and Relations Oriented)

This study draws its conclusions based on the arguments presented by the behavioural and contingency schools of leadership. These schools support the notion that effective leaders possess a common set of traits, which are believed to be inherent rather than acquired. Verawati and Hartono (2020) support this theory and have played a significant role in the development of the behavioural school of leadership traits. These behaviours can be performed in various contexts, as explained by prominent scholars from the behavioural school. The contingency school has gone even further in its exploration and explanation of this point (Sharifi, 2022). A team of researchers has identified two primary patterns of leadership behaviour, each with its own specific terminology. In a study conducted by Rehman et al. (2020), task-oriented leadership behaviour was referred to as "achievement oriented." However, the Sharifi state leadership studies used the term "production-oriented behaviour" to describe the same concept.

Managers exhibiting relationship-oriented leadership are inclined to be more supportive and helpful to their subordinates, demonstrating trust, confidence, friendliness, and a proactive effort to understand and address their concerns (Lee & Kim, 2022). In contrast, task-oriented behavior emphasizes activities such as planning, scheduling, coordinating, and offering technical assistance (Tam et al., 2020). Adapting to new circumstances can be quite challenging for a project manager, but their role is vital in ensuring the successful completion of projects (Watanabe et al., 2024). Project managers must consider the personal needs of their subordinates to tap into their valuable technical expertise, which is crucial for project success (Wang et al., 2023). Managers must navigate uncertainty and risk when undertaking projects (Graham et al., 2020). During periods of uncertainty, it is crucial for leaders to take charge, demonstrate their expertise, and execute unprecedented measures. Therefore, these actions often require testing the boundaries of human and mechanical capacity (Imam & Zaheer, 2021). Improving employee job attitudes, such as satisfaction, engagement, and commitment, along with positive job outcomes like performance and retention, can be accomplished through contextually appropriate behavioral choices during interactions with subordinates (Batırlık et al., 2022).

Employees' unique strengths, interests, and areas of expertise can influence the informal leadership opportunities that vertical leaders present (Vaagaasar et al., 2020). To achieve their goal, leaders ensure that their subordinates are well-informed about company policies and procedures. They also provide guidance and direction to ensure a

comfortable working environment (Wang et al., 2023). Due to the support from their superiors, employees will experience increased job security within the company (Tannir et al.). Zid et al. (2020) highlight the importance of leaders in fostering trust among followers, guiding them towards long-term goals, and empowering them to take control of their own lives and the lives of those around them. Transformational leaders play a crucial role in nurturing their teams' concerns, growth, and accomplishments. They provide guidance, inspiration, and raise awareness to cultivate confidence and more (Wamba-Taguimdje et al., 2020). Transformational leaders place great importance on fostering their followers' sense of self-worth (Choi et al., 2019). Leaders motivate their followers to self-reflect on their performance and find fulfilment in their achievements at work, enabling them to efficiently and independently carry out their assigned tasks (Tam et al., 2020). The research investigated the connection between self-leadership and Khahro et al. (2023) full-range leadership model. In a study by Hussain et al. (2022), a positive correlation between self-leadership and active leadership traits was identified, while no such association was found with negative traits, such as passivity. Consequently, this study aims to scrutinize the impact of task-oriented or relationship-oriented leadership styles on the relationship between team performance and project success. Task oriented leadership style significantly moderates the relationship of team performance and project success.

H3: Relations oriented leadership style significantly moderates the relationship of team performance and project success.

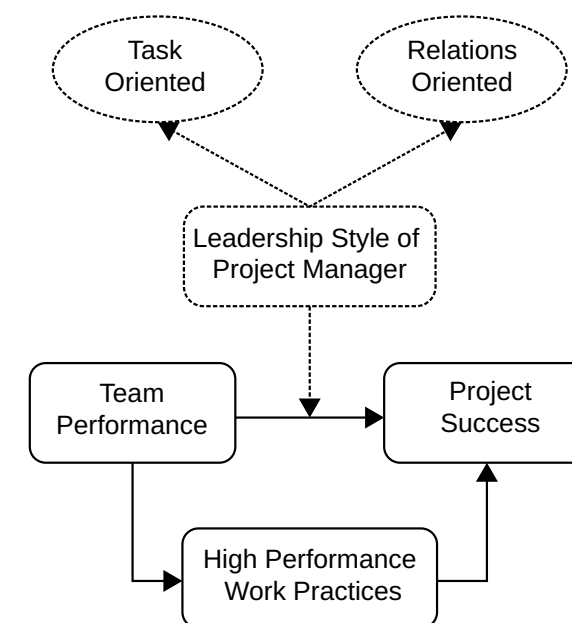


Figure 1: Proposed Framework.

### 3. Methodology

The study involved 239 employees working in the oil, gas, and mining industries in the Kingdom of Saudi Arabia. This group consisted of professionals in various roles, including operations managers, middle- and senior-level engineers, and other positions that are important in these industries. The researchers utilised a thorough method for selecting participants. The study utilised purposive and random sampling techniques to ensure a comprehensive representation across diverse organisational hierarchies and job categories within the specified sectors. Following the acquisition of informed consent from all participants, the researchers proceeded to administer a carefully designed questionnaire. This questionnaire was meticulously designed to gather in-depth information about participants' leadership style preferences, team-based performances, and work practices, all of which are crucial for measuring the success of the project (see Appendix 1). A scale consisting of eleven items, developed by UI Musawir et al. (2017), was employed to assess the success of the project. In addition, Özşahin (2019) created a scale consisting of eleven items to assess the leadership style of project managers (four task-oriented and seven relationship-oriented). The measurement of high-performance work practices was conducted using a six-item scale created by Zaman, Nawaz, and Nadeem (2020). The team's performance was assessed using a six-item scale created by Jitpaiboon, Smith, and Gu (2019).

During the analytical phase, the researchers utilised the functionalities of the STATA programme (version 13.0). The selection of STATA was based on its strong capability to handle complex statistical studies and its compatibility with the specific analytical approaches essential for this investigation. The gathered data underwent a comprehensive analysis. The initial investigations employed descriptive statistical methods to summarise the demographics of the participants and important characteristics of interest. In addition, sophisticated statistical techniques, such as regression analysis and factor analysis, were used to carefully examine relationships, reveal trends, and identify potential correlations within the dataset.

### 4. Results

Table 1 presents the results of the internal consistency and reliability evaluation of multiple variables using Cronbach's Alpha. The analysis's consistent and strong evaluations across all aspects demonstrate a high level of reliability within the analysed constructs. The high level of internal consistency in measuring team performance is evidenced by the exceptional Cronbach's Alpha

coefficient of 0.817. The Cronbach's Alpha value of 0.868 indicates a high level of reliability and consistency for the project success metric within the project framework, implying that the project is well organised. Furthermore, the high-performance work practices exhibit a notable Cronbach's Alpha value of 0.897, indicating a high level of consistency in assessing their efficacy within the examined context. The validity of this leadership style test is supported by further data, namely the strong internal consistency demonstrated by both task-oriented (0.887) and relation-oriented (0.843) leadership styles. In general, the findings confirm the accuracy and reliability of the variables that were analysed, establishing a foundation for further investigation and comprehension within the study's boundaries.

Table 1: Cronbach's Alpha.

Variable	Cronbach's Alpha
Team performance	0.817
Project success	0.868
High performance work practices	0.897
Task oriented leadership style	0.887
Relations oriented leadership style	0.843

Table 2 presents a comprehensive assessment of the dependability and accuracy of the factors that were assessed. Composite dependability scores assess the extent to which the components within each construct can withstand and endure. The team's high composite dependability of 0.904 indicates that the components used to evaluate team performance are consistently reliable. Similarly, a composite reliability score of 0.936 for project success signifies a substantial level of internal consistency, which serves as a reliable indicator when assessing success in a project setting. Furthermore, the components that constitute high-performance work practices exhibit internal consistency and reliability, as evidenced by their commendable composite dependability of 0.864. The composite reliability ratings of 0.895 for task-oriented leadership styles and 0.915 for relation-oriented leadership styles indicate a high level of internal consistency. This confirms that the measurement for these diverse approaches to leadership is reliable (see figure 2).

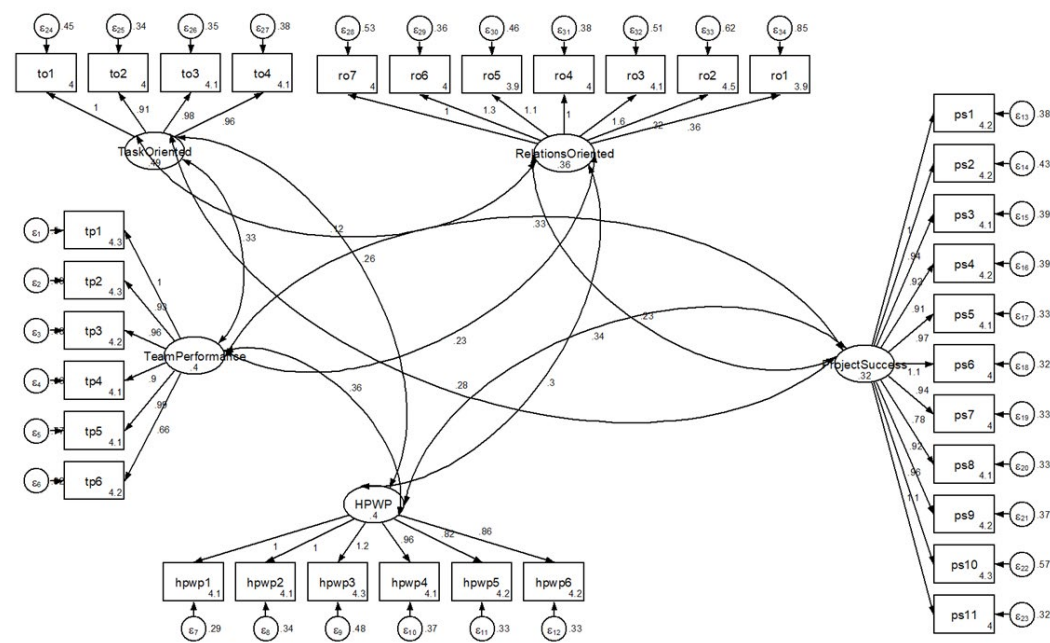


Figure 2: Estimated Model.

In addition, the Average Variation Extracted (AVE) shows how well the items capture variation related to measurement error and helps us understand the convergent validity of the constructs. The items measuring team performance have a satisfactory level of convergent validity, as they explain over 55% of the

variance (AVE = 0.559). An AVE of 0.610 indicates that the project's success also indicates a high level of convergent validity. The success indicators within the project domain account for more than 61% of the variance. In addition, it is worth noting that high-performance work practices have an AVE of 0.590.

This indicates that the items used to measure these practices contribute to approximately 59% of the total variation. This demonstrates the validity and reliability of the construct. Leadership styles that emphasise tasks (AVE = 0.529) and building relationships (AVE = 0.580) demonstrate strong convergent validity. The former accounts for over 52% of the variance, while the latter accounts for over 58%. The findings provide compelling evidence that the assessed constructs are both reliable and valid, establishing a solid foundation for drawing meaningful conclusions within the study's framework (see table 2).

Table 2: Validity and Reliability Confirmation.

Variable	Composite Reliability	Average Variance Extracted (AVE)
Team performance	0.904	0.559
Project success	0.936	0.610
High performance work practices	0.864	0.590
Task oriented leadership style	0.895	0.529
Relations oriented leadership style	0.915	0.580

The results of the Confirmatory Factor Analysis (CFA), which provides insights into the adequacy of the measurement model, are displayed in Table 3. The study presented the standardised coefficients, standard errors, z-values, p-values, and 95% confidence intervals for each construct using different measuring items. To comparison, the restricted coefficients for Team Performance (TP1) and High-Performance Work Practices (HPWP1) have been set to 1.000. Project Success (PS), Team Performance (TP), High Performance Work Practices (HPWP), Relations-Oriented (RO), and Task-Oriented (TO) leadership styles are components of a shared measurement model, with standardised coefficients indicating the strength and significance of their interrelationships. This study offers crucial insights into the robustness and appropriateness of the measurement model in this specific context. The coefficients and corresponding statistics provide valuable evidence of the validity and significance of each item in measuring its intended construct.

Table 3: Confirmatory Factor Analysis.

Measurement	OIM Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
PS1	1	(constrained)				
PS2	0.751	0.069	10.699	0.000	0.616	0.887
PS3	0.552	0.062	8.824	0.000	0.431	0.674
PS4	0.879	0.069	12.604	0.000	0.744	0.817
PS5	0.849	0.067	12.574	0.000	0.718	0.979
PS6	0.818	0.067	12.012	0.000	0.687	0.950
PS7	0.794	0.068	11.538	0.000	0.661	0.927
PS8	0.899	0.070	12.614	0.000	0.761	0.840
PS9	0.754	0.069	10.857	0.000	0.620	0.889
PS10	0.601	0.064	9.298	0.000	0.476	0.726
PS11	0.692	0.070	9.811	0.000	0.555	0.828
TP1	1.000	(constrained)				
TP2	0.713	0.083	8.449	0.000	0.550	0.877
TP3	0.882	0.057	15.160	0.000	0.769	0.797
TP4	0.872	0.062	13.986	0.000	0.752	0.796
TP5	1.077	0.073	14.509	0.000	0.725	0.934
TP6	0.796	0.065	12.170	0.000	0.670	0.923
HPWP1	1.000	(constrained)				
HPWP2	0.717	0.061	11.548	0.000	0.597	0.837
HPWP3	0.731	0.063	11.479	0.000	0.608	0.855
HPWP4	0.916	0.067	13.433	0.000	0.784	0.850
HPWP5	0.828	0.068	11.972	0.000	0.694	0.962
HPWP6	0.857	0.068	12.505	0.000	0.725	0.793
RO1	1.000	(constrained)				
RO2	0.880	0.080	10.788	0.000	0.722	0.840
RO3	0.644	0.067	9.495	0.000	0.513	0.775
RO4	0.866	0.073	11.755	0.000	0.723	0.811
RO5	0.790	0.064	12.101	0.000	0.664	0.917
RO6	0.873	0.067	12.930	0.000	0.742	0.806
RO7	0.902	0.066	13.552	0.000	0.773	0.833
TO1	1.000	(constrained)				
TO2	0.322	0.064	4.955	0.000	0.196	0.448
TO3	0.604	0.070	10.067	0.005	0.503	0.830
TO4	0.856	0.081	12.081	0.002	0.705	0.869

Table 4 presents the fitness statistics of the measurement items, providing an indication of their individual performance within the model. The original sample indicators for each variable display the different levels of goodness-of-fit for the individual items: Project Success (PS), Team Performance (TP), High Performance Work Practices (HPWP), Relations-Oriented (RO), and Task-Oriented (TO) leadership styles. The numerical indicators demonstrate the degree of alignment between each item and the intended construct. Higher values typically indicate strong representation and alignment within the measurement model, as well as a more favourable fit between the item and its construct. In contrast, lower numbers may suggest that the item is less accurately aligned or represented within the given construct. By analysing this data, we can assess how each measurement item contributes to the overall measurement model's ability to accurately represent its associated construct. It is essential to assess the model's ability to accurately capture the variables under study in order to determine its validity and reliability.

Table 4: Measurement Items Fitness Statistics.

Variable	Indicator	Original Sample
Project success	PS1	0.740
	PS2	0.731
	PS3	0.652
	PS4	0.704
	PS5	0.757
	PS6	0.781
	PS7	0.803
	PS8	0.723
	PS9	0.948
	PS10	0.794
Team performance	TP1	0.651
	TP2	0.841
	TP3	0.791
	TP4	0.823
	TP5	0.778
	TP6	0.748
High performance work practices	HPWP1	0.618
	HPWP2	0.563
	HPWP3	0.672
	HPWP4	0.722
	HPWP5	0.760
	HPWP6	0.781
Relations oriented leadership style	RO1	0.707
	RO2	0.604
	RO3	0.597
	RO4	0.530
	RO5	0.519
	RO6	0.549
	RO7	0.806
Task oriented leadership style	TO1	0.710
	TO2	0.705
	TO3	0.734
	TO4	0.750

The Chi-square Fit statistics are presented in Table 5, offering valuable insights into the model's fit with the observed data. The proposed model's deviation from ideal or baseline models is evaluated using the Likelihood Ratio, which is calculated to be 16875.259 for the model compared to the saturated model and chi2\_bs at 14835.092 for the baseline compared to the saturated model. The p-values for both tests, 0.002 and 0.001, respectively, indicate the likelihood of a chance difference between the observed discrepancies of the ideal or baseline models and the proposed model. Lower p-values often indicate a significant difference between the ideal and proposed models, suggesting potential issues with the model's fit to the observed data. The statistics play a crucial role in assessing the overall fit of the model to the data and its ability to explain the relationships between the variables being studied.

Table 5: Chi-square Fit Statistics.

Fit statistic	Value	Description
Likelihood ratio	16875.259	model vs. saturated
p > chi2	0.002	
chi2_bs (2526)	14835.092	baseline vs. saturated
p > chi2	0.001	

Table 6 presents a comparison of the Model Goodness of Fit Statistics for the Estimated Model and the Saturated Model. The Standardised Root Mean Square Residuals (SRMR) for both models are provided. The Saturated Model has an SRMR of 0.069, while the Estimated Model has an SRMR of 0.075. Lower values of the SRMR indicate a better fit, as it reflects the model's ability to accurately replicate the observed correlations among variables. The Saturated Model, which serves as the benchmark for perfect fit in this comparison, exhibits a slightly lower SRMR compared to the Estimated Model. Although the SRMR values do not vary significantly, it is evident that the Saturated Model outperforms the Estimated Model in terms of accurately reproducing the observed relationships between the variables.

Table 6: Model Goodness of Fit Statistics.

	Saturated Model	Estimated Model
SRMR	0.069	0.075

The R-square statistics shown in Table 7 show the percentage of the dependent variables' variance that the model's independent variables can account for. In relation to Team Performance, an R-square value of 0.596 indicates that the independent variables in the model can account for approximately 59.6% of the variation in Team Performance. Likewise, the R-square value for High Performance Work Practices

is 0.397, suggesting that the variables in the model explain around 39.7% of the variability in this area. The R-square values shed light on the explanatory power of the variables within the framework being studied. They show the percentage of variability in these particular constructs that these variables account for or predict.

Table 7: R-square Statistics.

Variable	R Square
Team performance	0.596
High performance work practices	0.397

Table 8, a Path Analysis, examines the intricate connections among significant variables in the model. The investigation uncovers significant conclusions regarding the interactions and influences between these variables in the studied setting. Based on the statistical analysis, it is evident that Team Performance significantly influences Project Success. The coefficient of 0.273 with a standard error of 0.099 and a z-value of 2.724 indicates this. This emphasises the positive impact that strong team performance has on the overall success of a project. This finding highlights the significance of team dynamics and productivity in determining project outcomes (see figure 3).

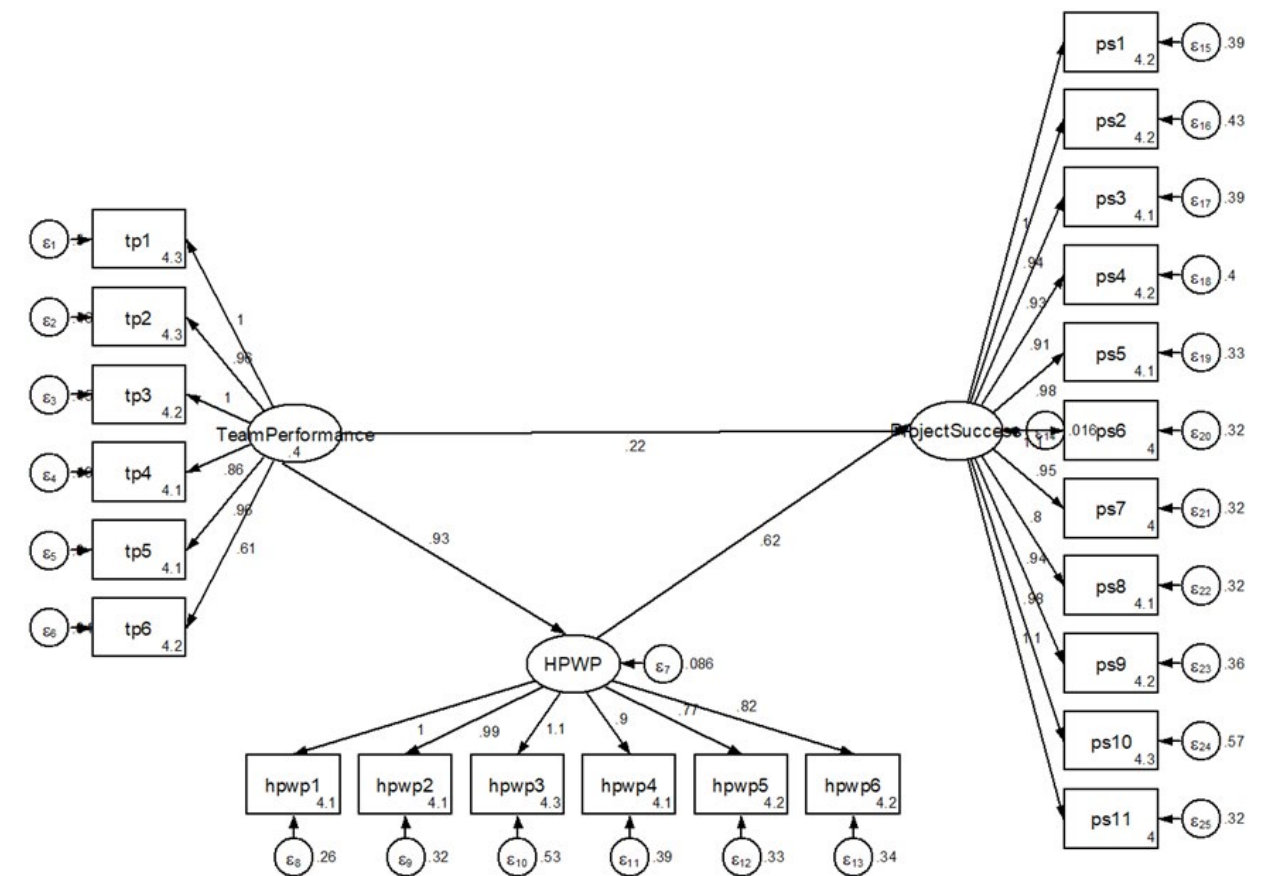


Figure 3: Structural Model for Direct and Mediated Path Analysis.

The Path Analysis examines the impact of different leadership philosophies on the connection between project success and team performance. The Task-Oriented Leadership Style emerges as a significant moderator, as indicated by its moderate effect (coefficient: -0.070), standard error (0.375), and z-value (-0.188). It can be inferred that task-oriented leadership, although to a lesser extent, has a multifaceted impact on the correlation between team performance and project success. High Performance Work Practices

play a crucial role in the relationship between Project Success and Team Performance. A z-value of 1.767 and a substantial coefficient of 0.879 with a standard error of 0.490 support this. Based on this mediation, implementing high-performance work practices can enhance the positive impact of team performance on project success. Creating a positive work environment and implementing effective procedures can enhance teamwork and ultimately lead to greater project success (see table 8).

Table 8: Path Analysis.

	OIM Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
Team performance significantly influences the project's success.	0.273	0.099	2.724	0.006	0.079	0.466
High performance work practices significantly mediate the relationship between team performance and project success.	0.879	0.490	1.767	0.000	0.673	0.851
Task oriented leadership style significantly moderates the relationship of team performance and project success.	-0.070	0.375	-0.188	0.009	0.582	0.665
Relations oriented leadership style significantly moderates the relationship of team performance and project success.	-0.207	0.100	-2.043	0.038	-0.404	-0.311

Similarly, the Relations-Oriented Leadership Style emerges as a significant moderator with a more pronounced influence. The coefficient of -0.207, along with the standard error of 0.100 and z-value of -2.043, suggests that relation-oriented leadership has a notable moderating effect on the connection

between team performance and project success. This emphasises the importance of relationship-oriented leadership in potentially mitigating the impact of team performance on project success, indicating a more complex connection between project outcomes and leadership approaches (see figure 4).

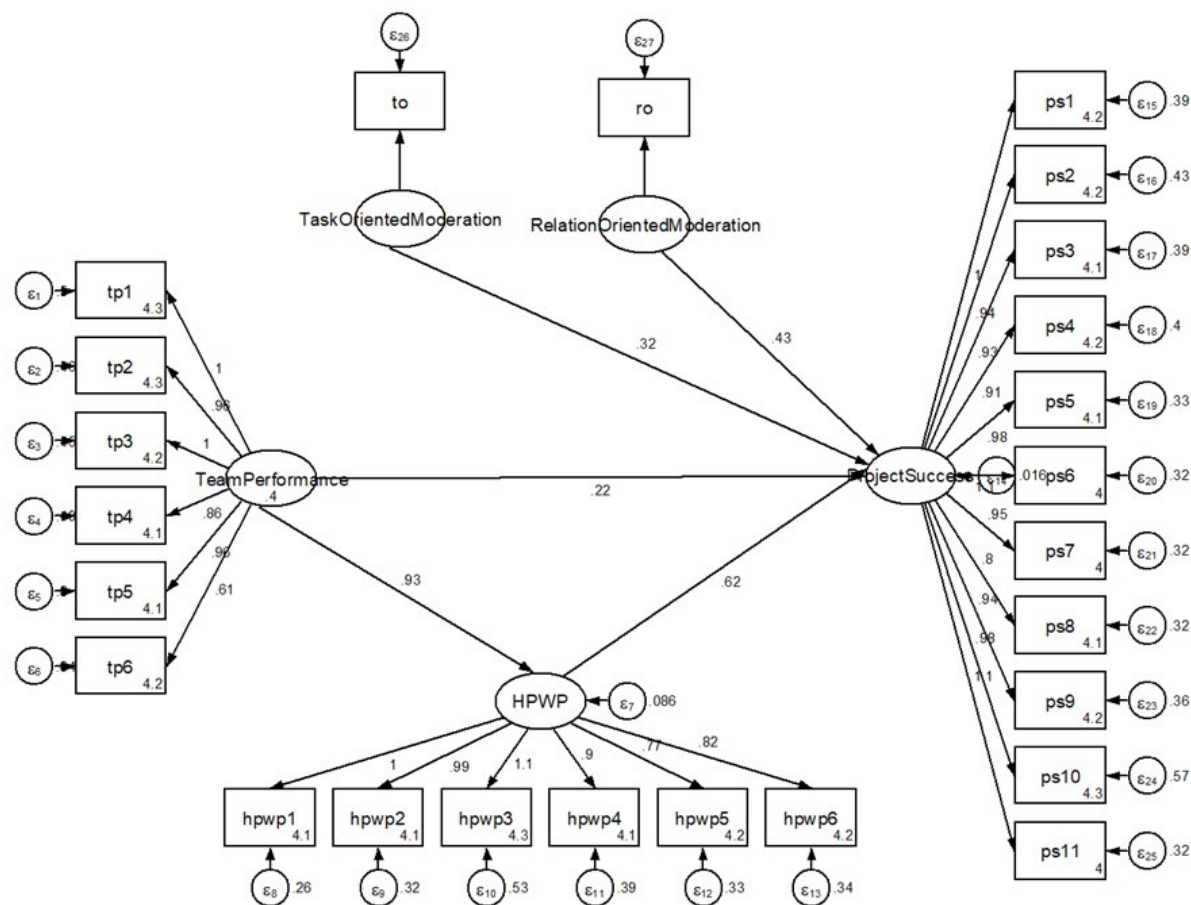


Figure 4: Structural Model for Moderating Path Analysis.

This Path Analysis provides a comprehensive understanding of the intricate connections that influence project success, specifically in relation to team performance, high performance work practices, and different leadership philosophies. This analysis emphasises the interconnectedness of these factors

and their collective impact on project outcomes, offering valuable insights for managerial decision-making and strategic interventions in organisational contexts.

**5. Discussion**

This study's findings greatly enhance our

comprehension of the intricate dynamics present in organisational contexts. The first hypothesis (H1) suggests that the performance of a team has a notable influence on the success of a project. The findings of Jitpaiboon et al. (2019) strongly support this hypothesis. The results presented here support existing principles in the fields of organisational psychology and project management. They highlight the crucial role of efficient team collaboration in determining the success of a project. High-performing teams excel at handling challenges, making decisions, and adapting to new situations, all of which are crucial for the project's overall success. The H1 evidence sheds new light on the relationship between team performance and project success, adding to our existing knowledge on the subject. A high-performing team goes beyond a group of talented individuals. It is a collection of diverse skills collaborating to accomplish shared objectives. The study's findings align with contemporary organisational theories that emphasise the team's significance in optimising a company's operations.

Furthermore, the second hypothesis (H2) suggests that the use of high-performance work practices plays a role in connecting team performance and project success. The research conducted by Saleem et al. (2021) further reinforces these findings and emphasises the importance of efficient procedures, clear communication, and a welcoming work environment. The characteristics play a crucial role in the project's overall success by establishing a strong correlation between the team's performance and task completion. To optimise team productivity and achieve outstanding project results, it is crucial for businesses to establish a conducive work environment. The proof of H2 also highlights the significance of organisational strategies in enhancing team performance and ensuring project success. The text highlights the significance of strategic management in human resources, encompassing policies that foster employee engagement, skill development, and a favourable work atmosphere. These techniques enhance the performance of teams, helping them achieve project objectives efficiently and effectively.

Examining the third hypothesis (H3), this study examines the potential moderating effect of a task-oriented leadership style on the relationship between team performance and project success. This finding, supported by research conducted by Tam et al. (2020), highlights the importance of leaders prioritising goal setting, work organisation, and performance monitoring. Such leaders play a crucial role in helping the team achieve important project goals by

defining objectives, optimising resource allocation, and thoroughly analysing the project's scope. They achieve this by ensuring that the team's work is closely aligned with the project's primary objectives. The validated H3 provides a comprehensive analysis of leadership dynamics and highlights the significance of task-oriented leaders in effectively guiding teams towards achieving project success. These leaders demonstrate a strong ability to establish precise objectives, establish a framework, and closely monitor performance to ensure that team actions align directly with project goals. Their commitment to productivity and effectiveness enables them to stay focused amidst rapid changes in the workplace, thereby enhancing the probability of achieving successful results.

Simultaneously, The fourth hypothesis (H4) explores the moderating influence of a relationship-focused leadership style on the connection between team performance and project success. The findings of Khahro et al. (2023), underscoring the importance of relationship-based attributes in leadership, provide additional support for this hypothesis. Leaders prioritizing relationships establish an environment where team members cultivate trust, collaborate, and offer mutual support. By placing significant emphasis on nurturing relationships, these leaders facilitate effective communication, conflict resolution, and teamwork—essential elements for overall project success. The confirmed H4 underscores the critical role of relationship-focused leadership in fostering a supportive and collaborative work environment. Leaders employing this approach must recognize the importance of relationships, trust-building, and conflict resolution, cultivating a sense of belonging and mutual appreciation among team members. Environments characterized by such qualities encourage open communication, creativity, and the generation of fresh ideas—vital components for the successful completion of complex tasks.

The findings suggest that project success encompasses multiple dimensions. The effectiveness of team efforts in achieving successful project outcomes is greatly influenced by shifts in leadership styles and organisational processes. To ensure project success, it is crucial to take a well-rounded approach that emphasises both team development and the implementation of effective leadership and organisational practices. The study found that team success, leadership dynamics, and organisational practices have interconnected relationships. This highlights the importance of adopting a thorough approach to project management. To achieve

optimal outcomes, businesses should have a comprehensive understanding and effective utilisation of various interconnected factors. These factors include maximising team potential, employing effective leadership tactics, and receiving adequate organisational support. The findings highlight the interconnectedness of teamwork, leadership styles, and project success. They illustrate the multiple aspects of successful project management. Efficient team performance is crucial, and the leadership style employed, whether focused on tasks or relationships, can greatly influence and enhance the success of team efforts in achieving project outcomes.

## 6. Conclusion

This study conducts a comprehensive analysis of the interrelationships among project success, leadership styles, high-performance work practices, and team performance within organizational contexts. The findings illuminate the nuanced dynamics influencing project outcomes. Notably, the study reveals that high-performance work practices enhance the effectiveness of proficient team performance, underscoring the significance of cohesive team dynamics and effective leadership in achieving successful project results. For organizations aiming to optimize project outcomes, it is valuable to scrutinize how various leadership philosophies, especially relational leadership, may influence the connection between team performance and project success. This research substantially advances our understanding of the intricate dynamics among these factors and bears practical implications for businesses seeking to enhance project outcomes. Specifically, it underscores the importance of collaborative learning, flexible work schedules, and adaptable leadership styles aligned with project requirements.

### Implications of the study

The findings of this study have significant implications for organisational management and managerial practices. It is evident that there is a significant correlation between project success and team performance, highlighting the need for businesses to enhance collaboration and teamwork. It is crucial to establish a culture that fosters effective collaboration through an emphasis on teamwork, communication, and shared objectives. Organisations can utilise these findings to determine which team-building initiatives to invest in, how to promote information sharing among individuals, and how to effectively communicate roles and responsibilities to enhance team performance and project outcomes. Additionally, the mediation analysis

has important strategy implications that emphasise the necessity of implementing high-performance work methods. Organisations can leverage this knowledge to their benefit by establishing and reinforcing policies that promote positive work practices. This entails providing individuals with sufficient financial resources, offering them opportunities for education and personal development, optimising operational procedures, and fostering a climate conducive to innovation. Creating an environment that fosters optimal performance can enhance team productivity and give them a competitive advantage in project delivery and completion.

The nuanced insights into Leadership Styles offer valuable guidance for organizational management and the enhancement of leadership capabilities. Understanding how Task-Oriented and Relations-Oriented Leadership Styles impact the relationship between project success and team performance is pivotal. Armed with this understanding, organizations can tailor their leadership approaches to better align with project requirements. When considering goals and direction, emphasizing relational leadership proves equally essential as task-oriented leadership in fostering team cohesion, support, and resilience. This distinction underscores the imperative for leaders to adapt their approach according to the specific demands of each project. Effectively leading in a project setting poses challenges, and the study's findings can aid businesses in formulating strategies and managing their workforce more effectively.

Once organisations grasp the impact of team relationships, work practices, and leadership styles on project outcomes, they may reconsider their approach to employee recruitment, training, and retention. To succeed in project-driven settings, it is essential to identify and enhance the necessary leadership skills. Investing in leadership development programmes that cover both task-oriented and relationship-oriented skills is crucial for equipping future leaders with the ability to effectively handle tasks. Ultimately, the study's findings illuminate strategies that organizations can employ to augment project success. Effective approaches for optimizing performance encompass cultivating robust work habits, promoting collaborative teamwork, and ensuring leaders possess the adaptability to navigate diverse project scenarios. By implementing these concepts, organisations can foster welcoming atmospheres that promote efficient collaboration. This will enhance project success and the business's competitiveness in the contemporary business landscape.

## Limitations and Future Research Directions

The study's findings are noteworthy as they shed light on the factors that influence project success in business environments. However, it is important to highlight certain issues that need to be addressed. It should be noted that the reliability of the results may be compromised due to the utilisation of self-reported data, a well-known methodological limitation. Further research could potentially overcome this issue by incorporating multiple data sources. For instance, the combination of poll data, objective performance measurements, and observational data can provide a more comprehensive and precise understanding of the interplay between these factors. One limitation of the study is its narrow scope, potentially limiting the generalizability of its findings to different work environments. Further research could be conducted in various industries, business types, and cultural settings to assess the strength and practicality of the connections identified in this study. One possible approach is to utilise cross-cultural studies or ongoing studies to examine the impact of situational differences on the relationships between Leadership Styles, High Performance Work Practices, Team Performance, and Project Success.

While this study concentrated on a limited number of traits, it is crucial to acknowledge the myriad factors influencing project success within organizations. In future studies, researchers must delve deeper into additional elements that impact project success, such as organizational culture, technological advancements, external influences, and team composition. This exploration will enhance the understanding of how these factors interact in intricate ways. Examining these factors alongside the variables scrutinized in this study could provide a more comprehensive understanding of their collective impact on project success. The study's emphasis on reduction and mediation effects establishes a foundation for future research endeavours.

Further research is necessary to investigate the potential impact of High-Performance Work Practices on the correlation between Team Performance and Project Success. Furthermore, delving into the fundamental mechanisms that govern the impact of various leadership styles on this group may enhance our comprehension of the ways and rationales behind the influence of different leadership styles on project outcomes. Ultimately, this study provides valuable insights, yet it also presents certain limitations that offer intriguing avenues for future investigation. To

address these challenges, we can employ alternative approaches, consider additional variables, broaden the scope of our investigation to encompass diverse scenarios, and delve into fundamental mechanisms. This will enhance our comprehension of the intricate dynamics that impact project completion in business environments. These methods have the potential to greatly enhance the efficacy of models and strategies, thereby increasing the likelihood of project success across various business contexts.

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**Appendix 1****Project Success (Eleven-item Scale)**

1. The project objectives were clearly defined and communicated.
2. Deadlines and milestones were consistently met during the project.
3. The project deliverables met or exceeded quality standards.
4. Resources were efficiently utilized throughout the project.
5. Communication within the project team was effective and open.
6. Stakeholder satisfaction was a priority throughout the project.
7. Changes or adjustments were managed effectively during the project.
8. The project team adapted well to unforeseen challenges.
9. Overall, the project achieved its intended goals.
10. The project was completed within the allocated budget.
11. The project's success positively impacted the organization.

**Task Orientation (Four-item Scale)**

1. My project manager emphasizes clear task objectives and goals.
2. The project manager ensures well-defined roles and responsibilities within the team.
3. Emphasis is placed on meeting deadlines and achieving objectives.
4. The project manager focuses on efficient resource allocation and utilization.

**Relationship Orientation (Seven-item Scale)**

5. The project manager fosters a supportive and collaborative team environment.
6. Open communication and feedback are encouraged by the project manager.
7. The project manager values and respects the opinions and contributions of team members.
8. Building strong interpersonal relationships is a priority for the project manager.
9. The project manager resolves conflicts or issues within the team effectively.
10. The project manager demonstrates empathy and understanding towards team members.
11. Team morale and motivation are actively promoted by the project manager.

**High Performance Work Practices (Six-item Scale)**

1. The team has access to the necessary resources and tools to perform effectively.
2. Continuous learning and skill development opportunities are provided to team members.
3. Decision-making within the team involves input from various stakeholders.
4. There is a culture of innovation and idea sharing within the team.
5. Performance feedback and evaluations are conducted regularly.
6. The team is encouraged to take initiative and responsibility for their work.

**Team's Performance (Six-item Scale)**

1. The team consistently meets or exceeds set performance targets.
2. Collaboration and teamwork within the team are strong.
3. The team demonstrates adaptability to changing circumstances or requirements.
4. The team effectively resolves conflicts or issues that arise.
5. Overall, the team's performance positively impacts the organization.
6. The team's performance aligns with the organization's strategic goals and objectives.

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