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LINKING TRANSFORMATIONAL LEADERSHIP AND PROJECT SUCCESS: ROLE OF WORK ENGAGEMENT AND PROJECT COMPLEXITY

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ABSTRACT

This study examines the direct, mediating, and moderating effects of Transformational Leadership (TL), Work Engagement (WE), and Project Complexity (PC) on Project Success (PS). Using survey methods and multivariate data analysis through structural equation modeling with 326 project managers in Vietnam, the results show that TL scientifically predicts PS; TL positively impacts WE; WE strongly influences PS; and the link between TL and PS is moderated by PC and mediated by WE. The results indicate that project-oriented businesses should consider TL when hiring for project management roles and offer transformational leadership training to assist project managers in becoming more exceptional. Future studies could use longitudinal research to understand better how the impact of these antecedents on project success changes over time.

Keywords: transformational leadership; project success; work engagement; project complexity

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INTRODUCTION

Since many project-based businesses view project success as their main goal, it is an important topic for academics researching project management (Fernando et al., 2018). The human element is the most valuable resource in project-oriented businesses (Kaliyeva et al., 2022). (Kaliyeva et al., 2022). This is also the main cause of poor project performance (Zaman, 2020), as the work environments can be sensitive to leadership behaviors (Hoffman & Sergio, 2020). In projects, transformational leadership is one of the human factors that needs to be considered. Transformational leadership always inspires and builds cohesion in the leader-follower relationship (Raziq et al., 2018). Regarding how transformational leadership affects organizational performance, opinions about it continue to differ despite an increase in studies on the topic in temporary organizations like projects. Research has shown that efficacy, efficiency, and project success have all been positively correlated with transformational leadership (Ali et al., 2021; Zaman et al., 2020). Meanwhile, some other studies have suggested that successful project implementation will be hindered by transformational leadership (Tajasom et al.,

2015; Zheng et al., 2017). These differing views prove that previous studies have disagreed with the findings on the correlation between transformational leadership and project success. Therefore, the effectiveness of transformational leadership in project-based organizations remains inconclusive (Abbas & Ali, 2023). Hence, the role of leadership (Zhang et al., 2018) and especially leadership style (Aga et al., 2016) on project success needs further research. Given the above arguments, it can be said that leadership style, specifically transformational leadership style, needs further exploration in terms of its relationship with project success. Therefore, this study's first goal is to continue investigating whether transformational leadership affects project success.

The reason for the difference in research results related to the impact of transformational leadership on project success may be due to the existence of a mechanism between these two concepts (Zhao et al., 2021). One of the mediating mechanisms between transformational leadership and project success proposed by transformational leadership theory is the mediating effect of follower attitudes (e.g., work engagement) (Juyumaya & Torres, 2022). Transformational leadership fosters work engagement by enabling followers to perform their duties effectively and remain involved in their employment (Barroso Castro et al., 2008). Followers with high work engagement are always enthusiastic about their work, building a balance between work and life (Schaufeli and Bakker, 2010), so it is not surprising that the result creates project success. From the perspective of emotional contagion theory (Schoenewolf, 1990), followers' work engagement is predicted to be a key factor in creating project success through transformational leadership. Transformational leadership and follower work engagement correlate directly (Balwant et al., 2019). A favorable exchange relationship will be developed between the leader and follower when the leader displays positive emotions, thereby stimulating the follower's work motivation (Gemeda and Lee, 2020). For this reason, the second objective of this study is to evaluate the mediating role of follower work engagement between transformational leadership and project success.

Because project activities are temporary and have uncertain factors such as rapid changes or unknown risks (Amoatey and Hayibor, 2017), the project's boundary circumstances may also have an impact on how strongly or weakly transformative leadership and project performance are related. Contingency theory suggests that contextual conditions (as moderating variables) influence organizational performance (Donaldson, 2001). According to Ali et al. (2021), project complexity is one contextual factor essential to the project level. Among the contextual variables, project complexity is an expected boundary condition most emphasized in requiring further exploration when investigating project success (Parent-Rocheleau et al., 2020). This evidence represents a research gap that is empirically investigated further through the third objective of the study.

In several respects, the project management literature is enhanced by this study. First, it expands upon understanding how transformational leadership affects project outcomes. Second, it looks into whether transformational leadership may be a reliable indicator of followers' work engagement. Third, it evaluates whether transformational leadership and project success are mediated in terms of employee work engagement. This is the basis for a better theoretical understanding of the mediating mechanism of work engagement through which transformational leadership leads to project outcomes. And fourth, there are not enough studies on how complexity and project success are related. Project complexity will be related to transformational leadership and effective project outcomes; this study elucidates the relationship and to the body of knowledge in project management. By tackling the aforementioned study goals, scholars can gain a comprehensive scholarly understanding of transformational leadership within project environments, consequently comprehending the mechanisms that contribute to the triumph of any project.

LITERATURE REVIEW

Conceptually, idealized influence, individual consideration, intellectual stimulation, and inspirational drive are some qualities used to describe transformational leadership (Bass and Avolio, 1994). Transformational leaders encourage people to accomplish objectives by

creating a long-term vision (Adhyke et al., 2023). Previously, researchers have examined the effectiveness of transformational leadership in various contexts. Several studies have examined the impact of transformational leadership on employee outcomes in functional organizations, such as job performance (Lai et al., 2020) and organizational effectiveness (Alrowwad et al., 2020). However, there is little research on the impact of transformational leadership on project-related outcomes (Abbas & Ali, 2023). There is some conflicting evidence on the relationship between transformational leadership and project outcomes/organizational outcomes. Many studies have shown the positive impact of transformational leadership on project outcomes. For example, transformational leadership guides and motivates staff to achieve organizational goals by articulating a vision that makes employees more aware of the relevance of the organization's objectives, core values, and achievements (Jensen and Bro, 2018). The primary goal of transformational leadership is to inspire and motivate team members to complete projects successfully (Zaman, 2020). Leaders who embody transformation provide bright things about the future of projects by promoting stakeholder engagement, eventually resulting in the project's success (Aga et al., 2016). However, in contrast to the above results, Alshehhi et al. (2023) found that transformational leadership does not significantly impact organizational performance in the United Arab Emirates. Zheng et al. (2017) suggested that leaders may have difficulty applying transformational leadership to nurture the intrinsic long-term needs of employees from project-based organizations in China. Keller (2006) found a negative relationship between transformational leadership and cost performance in US-based organizations. Therefore, the project management literature still requires further exploration of the relative relationship of leadership style to project success (Abbas & Ali, 2023). Transformational leadership significantly affects Project performance among workplace outcomes (Fareed & Su, 2021; Kabore et al., 2021). Therefore, this study proposes the first research hypothesis as follows:

Hypothesis H1: Transformational leadership has a positive impact on project success.

Three characteristics of positive work-related attitudes are included in work engagement: dedication, vigor, and absorption (Schaufeli and Bakker, 2010). Given that highly engaged employees are consistently excited about their work and eager to put in more effort, followers' work engagement is anticipated to play a significant role in the project's success (Gutermann et al., 2017).

It is possible to use the emotional contagion theory to explain how transformational leadership and work engagement affect project success. Transformational leadership has a strong emotional component, and one reason it might influence project outcomes is by increasing follower involvement (Bass, 1985). Emotional contagion occurs as people observe each other and social norms are constructed. According to Wu and Wu's (2019) research, leaders commonly use various emotional expression techniques to sway their followers. Employees feel less intimidated and are more likely to offer creative ideas without fear of repercussion when leaders express positive emotions and are less critical of them (Barrick et al., 2015). As a result, a favorable exchange relationship will be developed between the leader and the employee, thereby increasing the employee's willingness to contribute to work (Wu and Wu, 2019). In a project context, because the project manager is in a senior position, emotional contagion can be stronger than the influence of an ordinary employee (Torrente et al., 2013).

According to Rich et al. (2010), engaged employees tend to work more intensely, pay closer attention, and focus more on their tasks over extended periods. They have higher trust in their organization and have better relationships with their employers, and are less likely to quit and are more satisfied with their jobs (Babcock-Roberson and Strickland, 2010). Because engaged employees often view the organization's success as their success, they are more likely to respond positively to job requirements and contribute to organizational performance (Buil et al., 2019).

A project is a temporary organization (Turner and Müller, 2003). Thus, it is not unexpected that a fundamental aspect of follower work engagement is its connection to project success (Gutermann et al., 2017). Matthews et al. (2018) recognized that several people-related factors

lead to project success, including follower engagement. The primary factor boosting the efficacy of all project types is human engagement from the project manager and the team (Haffer and Haffer, 2015). Even so, not much study has been done on how transformational leadership and follower engagement interact, and how this affects project success. Consequently, the following hypotheses are put forth:

Hypothesis 2a: Transformational leadership (TL) is positively related to work engagement (WE).

Hypothesis 2b: Work engagement (WE) is positively related to project success (PS).

Hypothesis 2c: Work engagement (WE) mediates the relationship between transformational leadership (TL) and project success (PS).

In the field of project management, project complexity is one of the most significant issues (Lu et al., 2015). Project complexity includes task complexity, uncertainty, risks, and project team structure (Tyssen et al., 2014); it is also considered an important contextual characteristic (Luo et al., 2017). According to Luthans and Stewart's (1977) contingency theory, contextual variables influence the causal relationship between performance and management variables. Making appropriate judgments in practice to manage projects effectively will stem from understanding the requirements' complexity (Geraldi et al., 2011).

Because emerging features can open up new options, project complexity can benefit project outcomes (Bjorvatn & Wald, 2018). Transformational leadership has a greater impact on transient organizations, such as projects, due to the project's complexity (Tyssen et al., 2014). Mata et al. (2023) showed that project complexity negatively and positively moderates project success. On the positive side, Mata et al. (2023) reasoned that most complex projects can be managed successfully if they are handled by examining previous successful initiatives.

Leaders with a transformational leadership style who are always enthusiastic, optimistic, innovative, and creative (Bass & Avolio, 1994) will most likely be able to meet the complex requirements of the project. Therefore, this study assumes that project complexity enhances the influence of transformational leadership on project success, which is consistent with the views expressed by Mata et al. (2023) and Tyssen et al. (2014). As a result, the subsequent hypothesis is offered:

Hypothesis H3: Project complexity moderates the relationship between transformational leadership and project success.

METHODOLOGY

Participants and procedure

This study investigates the impact of project manager transformational leadership on project success by mediating follower engagement and under the moderating effect of project complexity. In previous studies, followers could be used to evaluate leaders' leadership abilities as well as their attributes (e.g., Ahmad et al., 2022; Charbonnier-Voirin et al., 2010). In the present study, the unit of analysis is a single completed project in any project management sector in Ho Chi Minh City, Vietnam. Respondents were asked to provide feedback on any project completed no more than five years ago and in which they participated as members. Many researchers have applied such sampling techniques (e.g., Ahmad et al., 2022; Aga et al., 2016), and the convenience sampling method with direct sampling was used for the quantitative survey. Cross-sectional data were used in this quantitative analysis. 450 questionnaires were sent to members who worked on projects. The total number of samples meeting the requirements was 326 (accounting for 73%).

Regarding gender, men accounted for 62% and women 38%. The average age of respondents was 36.2 years old. In terms of project management fields, information technology projects accounted for 22.2%, engineering and construction projects 34.4%, environmental projects 20.3%, new product manufacturing projects 14.2%, and other projects 8.9%.

Measures

A 5-point Likert scale was used in the questionnaire, with 1 denoting "strongly disagree" and 5 denoting "strongly agree." The scales employed to evaluate the correlations between variables were derived from reputable earlier project management studies. In particular, the study inherited Bass's 12-item transformational leadership scale (1985) to

measure individualized consideration, intellectual stimulation, inspirational motivation, and charismatic influence. These four dimensions of transformational leadership are closely related to each other and are combined into a single overall measure (Cheung & Wong, 2011; Wang and Rode, 2010). The study conducted by Aga et al. (2016) is the source of the 14-item project success (PS) structures. The Utrecht Work Engagement Scale-9 [UWES-9] (Schaufeli et al., 2006) is a condensed version that assesses vigor (VI), dedication (DE), and absorption (AB) as three components of work engagement. These dimensions of work engagement were measured using a total of 9 items with 3 items per dimension. Four items comprise project complexity, based on Tyssen et al. (2014).

SmartPLS 4.0.9.5 was used for the data analysis process.

DATA ANALYSES AND RESULTS

Measurement model

Convergent Validity, discriminant Validity, and internal consistency of the constructs are among the aspects of the measuring model that were assessed. As the initial part of the measurement model, internal consistency was evaluated using composite reliability (CR) and Cronbach's alpha, with a goal threshold value of 0.70 (Ringle et al., 2018). The next component of the measurement model was convergent Validity. This component was evaluated through an Average Extracted Variance (AVE) index with a limiting criterion value of 0.50 (Ringle et al., 2018). Based on Table 1's findings, the model's latent constructs all exhibit composite reliability and convergent Validity. To evaluate the discriminant Validity of the notions, the Heterotrait-Monotrait Ratio (HTMT) was utilized, which makes up the third component of the measurement model. Henseler et al. (2016) stated that the values of the HTMT ratio to verify discriminant Validity should be between 0.190 and 0.85. All of the HTMT values in this investigation meet the criteria. As a result, Table 2 indicates that the constructs' discriminant Validity was satisfied.

Table 1. Internal consistency reliability and Convergent Validity

Variables	Cronbach's Alpha	CR	AVE
Transformational leadership (TL)	0.955	0.960	0.650
Vigor (VI)	0.825	0.896	0.741
Dedication (DE)	0.848	0.908	0.768
Absorption (AB)	0.754	0.860	0.672
Project Complexity (PC)	0.929	0.949	0.824
Project success (PS)	0.950	0.955	0.606

Source: author's work.

Table 2. Discriminant Validity using HTMT

Variables	AB	DE	PC	PS	TL	VI
AB						
DE	0.865					
PC	0.392	0.311				
PS	0.616	0.595	0.477			
TL	0.524	0.436	0.548	0.567		
VI	0.880	0.789	0.386	0.604	0.524	

Source: author's work.

Structural model assessment

The structural model of the proposed research model illustrates the connections among its constructs. These associations were investigated using the PLS-SEM (Partial Least Squares Structural Equation Modeling) approach on 5000 bootstrapped samples. The purpose of Hypothesis H1 is to investigate if TL benefits PS. With p = 0.000 and β = 0.258, Table 3's findings demonstrate that TL positively affects PS, and Hypothesis H1 is therefore supported. The next hypothesis is H2a, which considers whether TL positively impacts WE. With β = 0.488 (p = 0.000), the results in Table 3 show that TL significantly impacts WE. Hypothesis H2a is therefore supported. Hypothesis H2b examines whether WE has a positive influence on PS. Table 3's results (β = 0.415, p = 0.000) support the acceptance of H2b.

Mediation analysis

Next, hypothesis H2c investigates whether WE mediate the TL and PS interaction. With β TL -> WE -> PS = 0.202 (p = 0.000). The results in Table 4 show that the impact of TL on PS is completely through WE, therefore H2c is accepted.

Table 3. Hypothesis results

Hypothesis	Path	Path coefficients	P-value	Results
H1	TL -> PS	0.258	0.000	Supported
H2a	TL -> WE	0.489	0.000	Supported
H2b	WE -> PS	0.414	0.000	Supported

Source: author's work.

Table 4. Mediating analysis (Hypothesis 2c)

Relationship	Path	Path coefficients	P value	Confidence intervals bias corrected	
				Lower confidence level	Upper confidence level
Indirect effects	TL -> WE -> PS	0.203	0.000	0.151	0.266
Total effects	TL -> PS	0.461	0.000	0.365	0.558

Source: author's work.

Moderating analysis

Finally, H3 evaluates whether PC strengthens or weakens the impact of TL on PS. The results in Table 5 with β PC x TL -> PS = 0.065 (p = 0.034) show that there is a positive effect in this interaction, meaning that hypothesis H3 is approved.

Table 5. Moderating analysis (Hypothesis 3)

Hypothesis	Path	Path coefficients	P value	Results
H3: PC x TL -> PS	PC and TL -> PS	0.064	0.039	Supported

Source: author's work.

DISCUSSION

The project manager is the strategic leader in charge of ensuring project success (Zhang et al., 2018). Since inadequate leadership is the reason for 80% of project failures, more empirical studies on transformational leadership are needed, according to current project management literature (Raziq et al., 2018; Zaman et al., 2020). This study has looked at how transformational leadership affects project success, as well as the effect of work engagement and project complexity.

First, the first hypothesis, which examines the connection between project success and

transformational leadership, yielded positive results. The conduct of project managers is essential to the projects' success (Shao, 2018). Transformational leadership is vision-focused leadership, which uses behaviors to positively express the vision and encourage followers to achieve goals consistent with the vision. These are the important factors needed in project coordination and leading the project to success (Balwant, 2019). The results supporting hypothesis H1 are themselves supported by previous project success studies (Aga et al., 2016; Ali et al., 2021; Fareed and Su, 2021; Kabore et al., 2021).

Second, the study has shown that both work engagement and project success are significantly correlated with transformational leadership and that transformational leadership's impact on project success is partly mediated by work engagement. These associations are confirmed by support for hypotheses H2a, H2b, and H2c, respectively. When employees feel they are being treated well and appreciated by their employers, they are more likely to increase their work efforts and enhance their work engagement (Alfes et al., 2013). Transformational leaders nurture employees' positive mental states, helping them realize their potential, which increases employee work engagement (Yan et al., 2021). Engaged workers put more effort into their work and make greater contributions to the goals of the company (Buil et al., 2019). It can be seen that leadership is important in creating more favorable conditions for employees in an effective work group (Eubanks et al., 2016).

Finally, supporting evidence for the hypothesis of project complexity is provided by H3, which demonstrates how this boundary condition increases the positive impact of transformational leadership on project success. A skilled project manager can overcome obstacles by establishing guidelines, such as planning for flexibility or forming problem-solving teams to handle ambiguities (Zaman et al., 2020). A leader with a transformational leadership style will most likely be able to meet the requirements posed by the project's complexity because they are always enthusiastic, optimistic, innovative, and creative (Hartono et al., 2019). Consequently, the more complex the project, the higher the impact transformational leadership has on project success.

CONCLUSION, IMPLICATIONS, AND RECOMMENDATION

By addressing the three research objectives mentioned above, this study has partly clarified the hesitation that has existed in many previous studies about the correlation between transformational leadership and project success. The study examined the mediating and moderating functions of work engagement and project complexity in the causal link that exists between transformational leadership and project success. An explanation for the higher likelihood of project success among project managers who adopt a transformational leadership style could be provided by this data. This could be because project success is a direct result of followers' increased work engagement and motivation brought about by transformational leadership.

These results imply that transformational leadership is required to encourage followers' work engagement and accomplish project success. The results also indicate that to help project managers become better, project-oriented organizations should consider candidates' transformational leadership styles when hiring for project management roles. They should also look into the best ways to train project managers in transformational leadership. These are necessary because they contribute to promoting project success, which in turn improves operational efficiency for project-oriented organizations.

Certain shortcomings with this study need to be fixed in further studies. First, data were gathered from Vietnamese project managers, so future research models must be replicated in other contexts. Next, leadership styles other than transformational leadership may be examined to gain a clearer view of how a project's success is affected by leadership style. Additionally, future research could use longitudinal research to understand better how the correlation of these antecedents on project results changes over time.

REFERENCES

Abbas, M., & Ali, R. (2023). Transformational versus transactional leadership styles and project success: A meta-analytic review. *European Management Journal, 41*(1), 125-142. https://doi.org/10.1016/j.emj.2021.10.011

Abbasianchavari, A., & Moritz, A. (2021). The impact of role models on entrepreneurial intentions and behavior: a review of the literature. *Management Review Quarterly, 71*, 1-40. https://doi.org/10.1007/s11301-019-00179-0

Adhyke, Y. P., Eliyana, A., Sridadi, A. R., Septiarini, D. F., & Anwar, A. (2023). Hear Me Out! This Is My Idea: Transformational Leadership, Proactive Personality and Relational Identification. *SAGE Open*, *13*(1), 21582440221145869. https://doi.org/10.1177/21582440221145869

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

Ahmad, M. K., Abdulhamid, A. B., Wahab, S. A., & Nazir, M. U. (2022). Impact of the project manager's transformational leadership, influenced by mediation of self-leadership and moderation of empowerment, on project success. *International Journal of Managing Projects in Business*, *15*(5), 842-864. https://doi.org/10.1108/IJMPB-03-2021-0066

Alfes, K., Shantz, A. D., Truss, C., & Soane, E. C. (2013). The link between perceived human resource management practices, engagement and employee behaviour: a moderated mediation model. The international journal of human resource management, 24(2), 330-351. https://doi.org/10.1080/09585192.2012.679950

Ali, H., Chuanmin, S., Khayyam, M., Tikhomirova, A., & Mahmood, A. (2021). Transformational Leadership and Project Success: Serial Mediation of Team-building and Teamwork. *Frontiers in Psychology*, 3698. https://doi.org/10.3389/fpsyg.2021.689311

Alrowwad, A. A., Abualoush, S. H., & Masa'deh R. (2020). Innovation and intellectual capital as intermediary variables among transformational leadership, transactional leadership, and organizational performance. *Journal of Management Development*. https://doi.org/10.1108/JMD-02-2019-0062

Alshehhi, H. A., Jano, Z., & Kudus, N. (2023). Mediating Effect of External Factors to the Relationship Between Leadership Styles and Organizational Performance. International Journal of Sustainable Construction Engineering and Technology, 14(2), 7-22.

Amoatey, C., & Hayibor, M. V. K. (2017). Critical success factors for local government project stakeholder management. *Built Environment Project and Asset Management*. https://doi.org/10.1108/BEPAM-07-2016-0030

Babcock-Roberson, M. E., & Strickland, O. J. (2010). The relationship between charismatic leadership, work engagement, and organizational citizenship behaviors. *The Journal of psychology*, *144*(3), 313-326. https://doi.org/10.1080/00223981003648336

Balwant, P. T., Mohammed, R., & Singh, R. (2019). Transformational leadership and employee engagement in Trinidad's service sector: The role of job resources. *International Journal of Emerging Markets*. https://doi.org/10.1108/IJOEM-01-2019-0026

Barrick, M. R., Thurgood, G. R., Smith, T. A., & Courtright, S. H. (2015). Collective organizational engagement: Linking motivational antecedents, strategic implementation, and firm performance. *Academy of Management journal*, *58*(1), 111-135. https://doi.org/10.5465/amj.2013.0227

Barroso Castro, C., Villegas Perinan, M. M., & Casillas Bueno, J. C. (2008). Transformational leadership and followers' attitudes: The mediating role of psychological empowerment. *The International Journal of Human Resource Management*, *19*(10), 1842-1863. https://doi.org/10.1080/09585190802324601

Bass, B. M. (1985). *Leadership and performance beyond expectations*. Collier Macmillan.

Bass, B. M., & Avolio, B. J. (1994). *Improving organizational effectiveness through transformational leadership*. Thousand Oaks, CA: SAGE Donaldson, L. (2001). *The contingency theory of organizations.* USA: Sage.

Bjorvatn, T., & Wald, A. (2018). Project complexity and team-level absorptive capacity as drivers of project management performance. *International Journal of Project Management*, *36*(6), 876-888. https://doi.org/10.1016/j.ijproman.2018.05.003

Buil, I., Martínez, E., & Matute, J. (2019). Transformational leadership and employee performance: The role of identification, engagement and proactive personality. *International Journal of Hospitality Management*, *77*, 64-75. https://doi.org/10.1016/j.ijhm.2018.06.014

Charbonnier-Voirin, A., El Akremi, A., & Vandenberghe, C. (2010). A multilevel model of transformational leadership and adaptive performance and the moderating role of climate for innovation. *Group & Organization Management*, *35*(6), 699-726. https://doi.org/10.1177/1059601110390833

Cheung, M. F. Y., & Wong, C. (2011). Transformational leadership, leader support, and employee creativity. Leadership & Organization Development Journal, 32(7), 656–672. doi:10.1108/01437731111169988

Eubanks, D. L., Palanski, M., Olabisi, J., Joinson, A., & Dove, J. (2016). Team dynamics in virtual, partially distributed teams: Optimal role fulfillment. *Computers in human behavior, 61*, 556-568. https://doi.org/10.1016/j.chb.2016.03.035

Fareed, M. Z., & Su, Q. (2021). Transformational Leadership and Project Success: A Mediating Role of Public Service Motivation. *Administration & Society*, 00953997211040466. https://doi.org/10.1016/j.ijhm.2018.06.014

Fernando, Y., Walters, T., Ismail, M. N., Seo, Y. W., & Kaimasu, M. (2018). Managing project success using project risk and green supply chain management: A survey of automotive industry. *International Journal of Managing Projects in Business*. https://doi.org/10.1108/IJMPB-01-2017-0007

Gemeda, H. K., & Lee, J. (2020). Leadership styles, work engagement and outcomes among information and communications technology professionals: A cross-national study. *Heliyon*, *6*(4), e03699. https://doi.org/10.1016/j.heliyon.2020.e03699

Geraldi, J., Maylor, H., & Williams, T. (2011). Now, let's make it really complex (complicated): A systematic review of the complexities of projects. *International Journal of Operations & Production Management, 31*(9), 966-990. https://doi.org/10.1108/01443571111165848

Gutermann, D., Lehmann-Willenbrock, N., Boer, D., Born, M., & Voelpel, S. C. (2017). How leaders affect followers' work engagement and performance: Integrating leader–member exchange and crossover theory. *British Journal of Management*, *28*(2), 299-314. https://doi.org/10.1111/1467-8551.12214

Haffer, J., & Haffer, R. (2015). Positive Employee Attitudes As a Determinant of Project Successs and Business Excellence: The Case of Poland. *Journal of Positive Management*, *6*(4), 15-28. DOI:10.12775/JPM.2015.019

Hartono, B., Wijaya, D. F., & Arini, H. M. (2019). The impact of project risk management maturity on performance: Complexity as a moderating variable. *International Journal of Engineering Business Management*, *11*, 1847979019855504. https://doi.org/10.1177/1847979019855504

Henseler, Hubona, G., & Ray, P. (2016). Using PLS path modeling in new technology research: updated *guidelines*. *Industrial Management & Data Systems, 116*(1), 2-20. https://doi.org/10.1108/IMDS-09-2015-0382

Hoffman, E. P., & Sergio, R. P. (2020). Understanding the effects of toxic leadership on expatriates' readiness for *innovation*: an Uzbekistan case. *Journal of Eastern European and Central Asian Research (JEECAR)*, *7*(1), 26-38. DOI: https://doi.org/10.15549/jeecar.v7i1.360

Jensen, U. T., & Bro, L. L. (2018). How

transformational leadership supports intrinsic motivation and public service motivation: The mediating role of basic need satisfaction. *The American Review of Public Administration*, *48*(6), 535-549. https://doi.org/10.1177/0275074017699470

Juyumaya, J., & Torres, J. P. (2022). Effects of transformational leadership and work engagement on managers' creative performance. *Baltic Journal of Management*, *18*(1), 34-53. https://doi.org/10.1108/BJM-11-2021-0449

Kabore, S. E., Sane, S., & Abo, P. (2021). Transformational leadership and success of international development *projects* (ID projects): moderating role of the project team size. *Leadership & Organization Development Journal*. https://doi.org/10.1108/LODJ-06-2020-0236

Kaliyeva, S., Baisalova, B., & Nathan, J. (2022). Managing formation of competitive human capital in project-oriented companies. *Journal of Eastern European and Central Asian Research (JEECAR)*, *9*(6), 992-1007. DOI: https://doi.org/10.15549/jeecar.v9i6.950

Keller, R. T. (2006). Transformational leadership, initiating structure, and substitutes for leadership: A longitudinal study of research and development project team performance. *Journal of applied psychology, 91*(1), 202. https://doi.org/10.1037/0021-9010.91.1.202

Lai, F. Y., Tang, H. C., Lu, S. C., Lee, Y. C., & Lin, C. C. (2020). Transformational leadership and job performance: The mediating role of work engagement. *Sage Open*, *10*(1), 2158244019899085. https://doi.org/10.1177/2158244019899085

Lu, Y., Luo, L., Wang, H., Le, Y., & Shi, Q. (2015). Measurement model of project complexity for large-scale projects from task and organization perspective. *International journal of project management*, *33*(3), 610-622. https://doi.org/10.1016/j.ijproman.2014.12.005

Luo, L., He, Q., Xie, J., Yang, D., & Wu, G. (2017). Investigating the relationship between project complexity and success in complex construction projects. *Journal of Management in Engineering*, *33*(2), 04016036. https://doi.org/10.1061/(ASCE)ME.1943-5479.0000471

Luthans, F., & Stewart, T. I. (1977). A general contingency theory of management. *Academy of management Review*, *2*(2), 181-195. https://doi.org/10.5465/amr.1977.4409038

Mata, M. N., Martins, J. M., & Inácio, P. L. (2023). Impact of absorptive capacity on project success through mediating role of strategic agility: Project complexity as a moderator. *Journal of Innovation & Knowledge*, *8*(1), 100327. https://doi.org/10.1016/j.jik.2023.100327

Matthews, J., Stanley, T., & Davidson, P. (2018). Human factors and project challenges influencing employee engagement in a project-based organisation (PBO). *International Journal of Managing Projects in Business*. https://doi.org/10.1108/IJMPB-04-2017-0043

Parent-Rocheleau, X., Bentein, K., & Simard, G. (2020). Positive together? The effects of leader-follower (dis) similarity in psychological capital. *Journal of Business Research*, *110*, 435-444. https://doi.org/10.1016/j.jbusres.2020.02.016

Raziq, M. M., Borini, F. M., Malik, O. F., Ahmad, M., & Shabaz, M. (2018). Leadership styles, goal clarity, and project success: Evidence from project-based organizations in Pakistan. *Leadership & Organization Development Journal*. https://doi.org/10.1108/LODJ-07-2017-0212

Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of management journal*, *53*(3), 617-635. https://doi.org/10.5465/amj.2010.51468988

Ringle, C. M., Sarstedt, M., Mitchell, R., & Gudergan, S. P. (2020). Partial least squares structural equation modeling in HRM research. *The International Journal of Human Resource Management*, *31*(12), 1617-1643. doi: 10.1080/09585192.2017.1416655. https://doi.org/10.1080/09585192.2017.1416655

Schaufeli, W. B., & Bakker, A. B. (2010). Defining

and measuring work engagement: Bringing clarity to the concept. *Work engagement: A handbook of essential theory and research*, *12*, 10-24. New York: Psychology Press.

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and psychological measurement*, *66*(4), 701-716. https://doi.org/10.1177/0013164405282471

Schoenewolf, G. (1990). Emotional contagion: Behavioral induction in individuals and groups. *Modern Psychoanalysis*, *15*(1), 49-61.

Shao, J. (2018). The moderating effect of program context on the relationship between program managers' leadership competences and program success. *International Journal of Project Management*, *36*(1), 108-120. https://doi.org/10.1016/j.ijproman.2017.05.004

Tajasom, A., Hung, D. K. M., Nikbin, D., & Hyun, S. S. (2015). The role of transformational leadership in innovation performance of Malaysian SMEs. *Asian Journal of Technology Innovation*, *23*(2), 172-188. https://doi.org/10.1080/19761597.2015.1074513

Torrente, P., Salanova, M., & Llorens, S. (2013). Spreading engagement: On the role of similarity in the positive contagion of team work engagement. *Revista de Psicología del Trabajo y de las Organizaciones*, *29*(3), 153-159. https://doi.org/10.5093/tr2013a21

Turner, J. R., & Müller, R. (2003). On the nature of the project as a temporary organization. *International journal of project management*, *21*(1), 1-8. https://doi.org/10.1016/S0263-7863(02)00020-0

Tyssen, A. K., Wald, A., & Heidenreich, S. (2014a). Leadership in the context of temporary organizations: A study on the effects of transactional and transformational leadership on followers' commitment in projects. *Journal of Leadership & Organizational Studies*, *21*(4), 376-393. https://doi.org/10.1177/1548051813502086

Ul Haq, I., Paracha, A. T., & Shakeel, W. (2020). A multiple parallel mediation between transformational leadership and project-based performance—A process model. *International Journal of Financial Engineering*, *7*(03), 2050026. https://doi.org/10.1142/S2424786320500267

Wang, A. C., & Cheng, B. S. (2010). When does benevolent leadership lead to creativity? The moderating role of creative role identity and job autonomy. *Journal of organizational behavior*, *31*(1), 106-121. https://doi.org/10.1002/job.634

Wu, T. J., & Wu, Y. J. (2019). Innovative work behaviors, employee engagement, and surface acting: a delineation of supervisor-employee emotional contagion effects. *Management Decision*, Vol. 57 No. 11, pp. 3200-3216. https://doi.org/10.1108/MD-02-2018-0196

Yan, Y., Zhang, J., Akhtar, M. N., & Liang, S. (2021). Positive leadership and employee engagement: The roles of state positive affect and individualism-collectivism. *Current Psychology*, 1-10. https://doi.org/10.1007/s12144-021-02192-7

Zaman, U. (2020). Examining the effect of xenophobia on "transnational" mega construction project (MCP) success: Moderating role of transformational leadership and high-performance work (HPW) practices. *Engineering, Construction and Architectural Management*, Vol. 13, pp. 103-127. https://doi.org/10.1108/ECAM-05-2019-0227

Zaman, U., Nawaz, S., Tariq, S., & Humayoun, A. A. (2020). Linking transformational leadership and "multi-dimensions" of project success: Moderating effects of project flexibility and project visibility using PLS-SEM. *International Journal of Managing Projects in Business*, *13*(1), 103-127. https://doi.org/10.1108/IJMPB-10-2018-0210

Zhao, N., Fan, D., & Chen, Y. (2021). Understanding the Impact of Transformational Leadership on Project Success: A Meta-Analysis Perspective. *Computational Intelligence and Neuroscience*, *2021*. https://doi.org/10.1155/2021/7517791

Zhang, L., Cao, T., & Wang, Y. (2018). The mediation role of leadership styles in

integrated project collaboration: An emotional intelligence perspective. *International Journal of Project Management*, *36*(2), 317-330. https://doi.org/10.1016/j.ijproman.2017.08.014

Zheng, J., Wu, G., & Xie, H. (2017). Impacts of leadership on project-based organizational innovation performance: The mediator of knowledge sharing and moderator of social capital. *Sustainability*, *9*(10), 1893. https://doi.org/10.3390/su9101893

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