Examining the Effect of Servant Leadership, Employees Psychological Empowerment and Innovative Work Behavior on Project Success: Evidence from Construction Industry

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ABSTRACT

This research work aims to study the association between servant leadership (SL) and project success (PS). The study also examines the mediating role of employee innovative work behavior (IWB) and psychological empowerment (PE) in the relationship between SL and PS. Current study collected data from 350 construction industry professionals working on different construction projects in Pakistan. SPSS and SmartPLS software were used to analyze the gathered data. The analysis result show that SL is positively related to PS. IWB and PE also significantly influenced the relationship between SL and PS. This research is one of the first attempts to examine the nexus between SL and PS through the mediating role of employ IWB and PE in the construction industry.

Introduction

In recent times, the success of projects, being a key concern of project management (PM), has attracted significant attention from practitioners and scholars (Khan et al., 2022; Malik et al., 2021). The success of projects depends on various factors including the project manager leadership style (Khattak et al., 2022). Plethora of research works have validated the significance of several leadership styles such as spiritual leadership (Khan et al., 2020a), transformational leadership (Khan et al., 2020), and inclusive leadership (Khan et al., 2021). However, the importance of SL in the PM domain is still in the early stage (Nauman et al., 2022a) and there is a need to conduct more studies on the association between SL and PS (Malik et al., 2022). However, various studies highlighted that SL significantly improve the performance of project team (Nauman et al., 2022a; Ellahi, et al., 2022). This is because SL focuses on the development and well-being of the project individuals, which in turn nurtures a positive and productive work environment in the project (Nauman et al., 2022b). According to Graham (1991), it is "a holistic approach to leadership that encompasses the rational, relational emotional, moral, and spiritual dimensions of leader-follower relationships such that followers enhance and grow their capabilities". Keeping in mind the above evidence, this research aims to examine this un-explored linkage between SL and PS.

It may also be important to examine how servant leaders enhance the IWB of their followers while attaining PS in the construction industry. Current research assumes that IWB as PE is a parallel mediator between SL and PS. According to Janssen (2000), innovation happens when an individual develops, encourages and implements novel ideas as critical elements of IWB. When servant leaders show followers-centered leadership attitude through serving others orientation, followers can build the skills and show willingness to engage in IWB (van Dierendonck, 2011). IWB can enable project individuals to quickly resolve job-related issues (Khan et al., 2022), hence accelerating the speed as well as overall PS (Mubarak et al., 2022).
Another potential mediator between SL and PS is PE (Khattak et al., 2022). Studies indicated that positive attributes of leaders are important for follower PE in the project context (Ali et al., 2020). Hence, this study assumes that servant leaders can support and encourage their subordinates by empowering followers, prioritizing the fulfillment of follower requirements, and inspiring the follower’s full potential (Yang et al., 2019) that can ultimately lead to PS. Servant leaders are able to contribute to the development of follower’s intrinsic motivation and involvement in creative performance (Neubert et al. 2016). Empowered followers are in better positions to provide better results in the project setting (Khattak et al., 2022). Hence, this work aims to study the nexus between SL and PS. The study also investigates the role of IWB and PE as a mediator in this relationship.

The study can shed light on the effectiveness and applicability of SL within the unique context of the construction industry. This sector often faces distinct challenges and dynamics that could impact the leadership style's efficacy. By investigating the linkages between SL and PS, the research can identify critical success factors beyond traditional leadership approaches, which may be more effective in ensuring project outcomes in construction projects. The study's exploration of the mediating role of IWB can help construction industry stakeholders understand how encouraging innovation can positively influence PS under SL. The research can bring attention to the PE of construction workers and its impact on PS. Understanding this mediating role can lead to strategies that foster a more empowered and engaged workforce. Ultimately, the research can have implications for the overall PM practices in the construction industry, potentially leading to better project outcomes, increased efficiency, and higher job satisfaction among workers. It's important to note that the actual contribution of any study depends on various factors such as the research methodology, sample size, data analysis techniques, and the strength of the empirical findings. Furthermore, each study adds to the cumulative knowledge of a particular field, contributing to further research and understanding.

2. Literature Review

2.1. Servant Leadership and Project Success

Research suggests that SL positively influences project collaboration (Bilal et al., 2021). Servant leaders create a supportive atmosphere with an open communication and promote a culture of respect and trust (Ellahi, et al., 2022). This fosters effective collaboration among team members, improving project coordination, problem-solving, and overall success (Nauman et al., 2022b). SL has been found to enhance employee motivation in project settings (Harwardt, 2020). By focusing on the needs of their team members, servant leaders empower and support individuals, which in turn increases intrinsic motivation, job satisfaction, and commitment to PS (Malik et al., 2022). Motivated employees are more likely to invest their efforts and contribute to achieving project objectives (Ellahi, et al., 2022). Effective communication is essential for PS, and SL plays a crucial role in facilitating communication processes (Nauman et al., 2019). SL prioritize active listening, encourage open dialog, and ensure that information flows freely within the team (Khan et al., 2022). This transparent and inclusive communication enhances understanding, reduces conflicts, and promotes alignment among team members, ultimately leading to improved project outcomes (Krog and Govender., 2015). SL promotes ethical behavior within project teams (Malik et al., 2022) Servant leaders prioritize integrity, fairness, and ethical decision making (Nauman et al., 2022a).

In the construction industry, projects often involve complex tasks, tight deadlines, and large teams. Effective leadership is crucial to ensure PS, which includes meeting deadlines, staying within budget, and delivering quality work (Khan et al., 2020a). Traditional leadership styles may focus more on authority and command, which can lead to a top-down approach that may not fully engage and motivate team members (Khan et al., 2020b). In the construction industry, where teamwork and coordination are crucial, SL can have several positive impacts on PS. It can enhance communication and collaboration among team members, leading to improved coordination and problem-solving (Malik et al., 2022). These leaders also empower their followers (team members) to own their work, fostering a sense of accountability and responsibility (Khan et al., 2021)

Based on this evidence, this study assumes that SL plays a important role in PS. Therefore, this study set the following hypothesis.
H1: SL is positively related to PS.

2.2. Mediating Role of IWB between SL and PS

SL creates a conducive environment for IWB to flourish (Cai et al., 2018). Servant leaders exhibit behaviors such as empowerment and providing support, which encourages followers to take ownership of their work, engage in creative thinking, and explore novel methods to problem-solving (Khan et al., 2021). By fostering a psychological safety and autonomy climate, servant leaders stimulate employees' intrinsic motivation, leading to increased IWB (Khan et al., 2022). IWB positively impacts PS (Ali et al., 2020). When team members engage in IWB, they are more likely to come up with creative solutions, adapt to changing project requirements, and identify opportunities for improvement (Khan et al., 2022). IWB can enhance project outcomes by improving efficiency, effectiveness, and the ability to meet project goals within the defined constraints (Mubarak et al., 2022; Qahir et al., 2022). It promotes adaptability, resilience, and continuous improvement, which are crucial for successful project completion (Spanuth and Wald, 2017).

In the context of SL and PS, IWB acts as a mediating mechanism. SL influences employees' perceptions, motivation, and behavior, which in turn affects PS (Nauman et al., 2019). The mediating role of IWB suggests that the positive impact of SL on PS is partially explained by the encouragement and facilitation of IWB within project teams. SL influences employees' perceptions and attitudes by promoting a supportive and empowering work environment (Khan et al., 2020). This fosters employees' intrinsic motivation, creativity, and engagement (Ellahi et al., 2022). Employees who feel valued and supported by servant leaders are more likely to engage in IWB (Cai et al., 2018). This IWB, characterized by generating and implementing creative ideas, contributes to PS by enhancing problem-solving, adaptability, and overall project performance (Mubarak et al., 2022). Thus, considering the above evidence, below is hypothesized

H2: IWB positively mediates the relationship between SL and PS

2.3. Mediating Role of PE between SL and PS

PE refers to the intrinsic motivation, sense of competence, and belief in one's ability to influence work outcomes (Spreitzer, 1995). SL is a leadership style that stresses serving and supporting the requirements of others, promoting their growth and development, and encourage empowering and collaborative work atmosphere (Cai et al., 2018). This theoretical explanation explores the mediating role of PE between SL and PS (Nauman et al., 2022a). SL practices create an empowering environment that promotes PE among team members (Tripathi et al., 2020). Servant leaders exhibit behaviors such as providing support, delegating authority and recognizing individual strengths and contributions (Khan et al., 2020). These actions enhance employees' feelings of competence, autonomy, and self-efficacy, fostering their PE (Nauman et al., 2022b). PE positively impacts PS (Ali et al., 2020). When employees feel itself psychologically empowered, they show more willingness to take initiative, demonstrate proactive behavior, and contribute to the achievement of project objectives (Khattak et al., 2022).

![Figure 1: Research Model](image-url)
PE enhances employees' motivation, commitment, and sense of ownership, which in turn improves project outcomes such as task performance, problem-solving, and goal attainment (Khan et al., 2020). Leadership, such as SL practices, influence employees' perceptions, motivation, and attitudes, which subsequently influence PS (Nauman et al., 2022). The intervening role of PE suggests that the positive effect of SL on PS is partially explained by the PE experienced by employees. PE acts as an intervening mechanism between humble leadership and PS (Ali et al., 2020). PE also positively mediates the linkages between inclusive and authentic leadership and PS (Khan et al., 2020; Khattak et al. 2022). Therefore, this study set the following hypothesis.

H3: PE positively mediated the relationship between SL and PS.

3. Research Methodology

A quantitative research design would be suitable for examining the linkages between SL and PS through the mediating role of IWB and PE. This strategy allows for the gathering and analysis of statistical data to find the extent of the connection and the influence of SL behaviors on project outcomes in the presence of IWB and PE. Data were collected from different construction firms located in Islamabad. 460 survey questionnaires were distributed by employing simple random techniques. Overall, 350 complete survey questionnaires were received. The complete details of demographics are given in Table 1:

### Table 1: Demographic Details

<table>
<thead>
<tr>
<th>Demographic details</th>
<th>Frequency</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Age</td>
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<tr>
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<td>25</td>
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<tr>
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<td>Male</td>
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<td>68</td>
</tr>
<tr>
<td>Female</td>
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<tr>
<td>Experience</td>
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<td></td>
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<td>35</td>
</tr>
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<td>38</td>
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<tr>
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<tr>
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<tr>
<td>Master</td>
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<td>35</td>
</tr>
<tr>
<td>MS/MPhil</td>
<td>52</td>
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</tr>
</tbody>
</table>

3.1. Measurement

Items in the survey questionnaire were evaluated on a 05 Likert scale. To assess SL, Liden et al. (2015) 07 item scale was used. This study used the Janssen (2000) 09-item scale to assess IWB. PE was evaluated by the 11-item scale modified by Khan et al. (2020). PS was assessed through the 14-item scale of Aga et al. (2016).

3.2. Results of the Study

The descriptive statistics and correlations between all study variables are presented in Table 2. SL significantly and positively correlated with IWB, PE, and PS. The results also revealed that IWB and PE positively and significantly correlated with PS. The findings also revealed that the correlation among variables of the study ranged between 0.791 to 0.482.

### Table 2: Descriptive Statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>IWB</th>
<th>SL</th>
<th>PS</th>
<th>PE</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative Work behaviour (IWB)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>3.192</td>
<td>0.966</td>
</tr>
<tr>
<td>Servant Leadership (SL)</td>
<td>.482**</td>
<td>1</td>
<td></td>
<td></td>
<td>2.813</td>
<td>0.951</td>
</tr>
<tr>
<td>Project Success (PS)</td>
<td>.676**</td>
<td>.627**</td>
<td>1</td>
<td></td>
<td>3.178</td>
<td>0.837</td>
</tr>
<tr>
<td>Psychological Empowerment (PE)</td>
<td>.791**</td>
<td>.737**</td>
<td>.748**</td>
<td>1</td>
<td>2.890</td>
<td>0.842</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Furthermore, we use structural equation modeling because it combines latent elements for a more thorough investigation of the constructs of interest and enables simultaneous analysis of all the variables in a single model. This approach has been used in similar related studies.
(kakar et al., 2023; Kakar et al., 2021; Saufi et al., 2020). To assess the model of the study, we ran a series of confirmatory factor analyzes (CFA) using SmartPLS software. The measurement model results revealed that all study items were reliable as the factor loading values exceeded 0.60 thresholds (Bryne, 2010). The findings also supported the study internal consistency reliability as the Cronbach Alpha and composite values were in the acceptable range (ranging between 0.886 and 0.930) (Hair et al., 2022). The variables of the study also ensured convergent validity since the average variance extracted values were greater than 0.5 thresholds (Hair et al., 2022).

The study results also ensured that all study variables were discriminantly valid since the square root of the AVE of all variables was greater than the variables' intercorrelations. Thus, the measurement results show that the study variables are valid and reliable.

The study's structural model was examined to assess its explanatory power, predictive capacity, and the statistical significance and applicability of the path coefficients. This model's explanatory and predictive capabilities were assessed using R² and Q² values, respectively. The model results showed that SL explained 60.9% variance in PS, 54.7% PE, and 24.4% in IWB. The values of Q² greater than 0 indicate that the model has predictive relevancy.

We then determined each p-value and standardized coefficient using bootstrapping (subsamples of 5000). The results showed that SL is positively and significantly related to PS (β = 0.22 , p = 0.000, T-Statistics = 3.538). Thus H1 is supported. In addition, we used (Preacher & Hayes, 2008) bootstrapping procedure to test the mediating role of IWB and PE in the relationship between SL and PS. The results revealed that IWB significantly mediated the relationship between PS and SL (β = 0.133 , p = 0.000, T-Statistics = 3.855), thus supporting H2. The study also supported H3, which showed that the impact of SL on PS is mediated by PE (β = 0.273 , p = 0.000, T-Statistics = 3.933), hence, H3 is supported.

4. Discussion and Conclusions

The main objective of the current study was to extend our knowledge of the impact of SL on PS and the mechanism through which SL is linked to PS. For this purpose, we create a theoretical framework linking SL to PS via IWB and PE. In line with our hypotheses, we discover that SL is positively related to PS. This result implies that leaders with servant attributes are more successful in achieving and completing projects. This finding also aligns with the work of Nauman et al. (2022) that SL enhances firm performance and brings PS. The findings also corroborate that SL is an essential component in the success of IT projects (Harwardt, 2020).

One of the study's main findings is that IWB acts as a mediating mechanism between SL and PS. This result suggests that IWB mediates the impact of SL on PS and implies SL enhances IWB among employees resulting in PS. These results support the findings that the relationship between SL and PS is not direct but is mediated by other variables. In line with this study findings, we also found that team motivation, trust in leadership, and effectiveness mediate the impact of SL on PS (Hassan et al., 2021; Nauman et al., 2022). Furthermore, the study findings that PE acts as a mediating variable between SL and PS also agree with other scholarly works. For instance, this study is in agreement with Mubarak et al. (2022) findings that PE acts as a mediating variable between leadership and PS. This suggests that servant leaders help people feel a feeling of competence, autonomy, and significance in their work by providing a supportive and empowering work environment. As a result, their motivation, engagement, and dedication to the PS are consequently increased.

4.1. Implications of the Study

This study has both theoretical and practical implications. For instance, this study has extended the literature on SL by examining its impact on PS. The study has also contributed the literature on IWB and PE by specifying their role as psychological mechanisms between SL and PS. In terms of practical implications, the study suggests that SL encourage a culture of innovation, risk-taking, and learning. In addition, SL practises promote open communication, cooperation, and active participation in decision-making, which in turn foster IWB among employees. Furthermore, servant leaders put their followers' welfare and development as a top priority, resulting in PE. This PE facilitated by SL results in PS. Additionally, SL encourages a safe and encouraging environment where staff members feel comfortable proactively resolving problems, which makes it possible to identify and address project issues and implement creative solutions.
In order to improve teamwork and communication, servant leaders encourage collaboration, shared goals, and the virtues of empathy, trust, and respect, resulting in PS.

Construction industry organizations can consider providing training programs and workshops for their leaders and managers to adopt and implement SL principles. By cultivating a SL culture, leaders can focus on empowering and supporting their teams, which may lead to improved project outcomes. The study highlights the mediating role of innovative work behavior in the association between SL and PS. Therefore, construction companies should encourage a culture that values and rewards innovation. This can be achieved by providing resources, time, and support for employees to explore new ideas and implement creative solutions in their projects. Understanding the importance of PE as a mediator between SL and PS can prompt construction organizations to focus on enhancing employees' sense of autonomy, competence, and meaningfulness in their work. This can be achieved through improved communication, involvement in decision-making, and recognizing and valuing employees' contributions. Traditional leadership performance metrics that solely focus on project outcomes and financial results may not fully capture the effectiveness of SL. Companies should consider incorporating measures that reflect SL qualities, such as employee satisfaction, team collaboration, and innovation levels. Servant leadership emphasizes a strong focus on building and maintaining positive relationships with team members. Construction organizations can invest in team-building activities and initiatives that foster collaboration, trust, and open communication among project teams. Construction industry organizations that have successfully implemented servant leadership principles and witnessed improved project success can share their best practices and success stories with other companies. This knowledge sharing can benefit the industry as a whole and promote positive leadership practices. In summary, the practical implications of the research study can guide construction industry leaders in adopting servant leadership practices, fostering innovation and PE among their teams, and ultimately leading to improved project success rates and enhanced team performance. The study highlights the mediating role of IWB in the relationship between SL and PS. Therefore, construction companies should encourage a culture that values and rewards innovation. This can be achieved by providing resources, time, and support for employees to explore new ideas and implement creative solutions in their projects.

4.2. Limitations of the Study

Despite the significance of the study, it has several limitations that need to be addressed in future research. For instance, the cross nature of the study, self-reported data and common method bias are some of its limitations that hinder the generalizability of the study. In the future, the researcher may use a longitudinal study to test the model. The researcher may collect data from a diverse group of people to test the model. Likewise, increasing the sample size and adding additional variables as mediators and moderators in the model may enhance our understanding of SL effectiveness.

References


