

The Effects of Project Citizenship Behavior on Project Management Performance: A Comprehensive Review

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Abstract: This paper examines the effects of Project Citizenship Behavior (PCB) on Project Management Performance. Despite the importance of these behaviors, there is a research gap in understanding how these voluntary behaviors are transformed into tangible project outcomes. The main objective of this study is to comprehensively analyze the mediating role and antecedents of these behaviors in project-based environments. By conducting a structured review of studies published between 2016 and 2026, we used a descriptive-analytical and thematic synthesis approach. The results show that transformational, inclusive, servant, and collaborative leadership are the most important antecedents of PCB, which are achieved through strengthening psychological empowerment and trust. Also, teamwork quality and effective communication, as key mechanisms, facilitate the positive impact of PCB on project success. The importance of these findings is that they prove that project success depends on the creation of behavioral and cultural platforms beyond technical tools. This research will greatly assist researchers in developing new theoretical frameworks and project managers in adopting management strategies to enhance extra-role behaviors.

Keywords: Project Citizenship Behavior, Project Management Performance, Project Success, Project Leadership, Teamwork Quality, Psychological Empowerment, Project Communication

I. Introduction

In recent years, the project management literature has witnessed a paradigm shift from focusing solely on technical tools, standardized methodologies, and structured processes to understanding the importance of behavioral and social factors. However, despite extensive advances in project management hardware, there is still a significant knowledge gap in understanding how voluntary and extra-role behaviors of team members, or Project Citizenship Behavior (PCB), affect project outcomes. Many projects, despite the use of up-to-date tools, fail due to the lack of platforms for collaboration, mutual support, and voluntary commitment; a topic that has been sporadically examined in previous research and lacks a unified framework. The main motivation of this research is to address this gap by identifying the antecedents and mediating mechanisms through which PCB can lead to improved project management performance. By providing a comprehensive analysis, this study seeks to show that project success depends not only on mastering technical tools, but also on building behavioral capacities that ensure team effectiveness beyond formal contracts.

Moreover, the attention of project management researchers has expanded from purely technical and time-cost-quality indicators to behavioral, relational, and social factors affecting project success. In the meantime, Project Citizenship Behavior (PCB), as a set of voluntary, extra-role, and non-binding behaviors of team members that go beyond formal job requirements, has become one of the key constructs in explaining project performance. These behaviors, including voluntary cooperation, knowledge sharing, peer support, flexibility, initiative, and responsible participation, can increase the capacity of project teams to deal with uncertainty, complexity, and environmental pressures. Early research has shown that PCB isn't just directly and positively tied to project performance, but in a bunch of cases it also works as a mediating mechanism, between leadership, justice, culture, and empowerment on one side and project outcomes on the other (Guo et al., 2019; Shafi et al., 2021; Zhang et al., 2022).

That's pretty important since projects are basically temporary, multi-disciplinary, and they rely on tight, close interaction between people; so their success doesn't only hinge on whether formal structures and procedures exist, but also on how good those voluntary behaviors are, the ones that build team cohesion, encourage learning, and support coordination. In

this regard, evidence points to PCB as something that can strengthen sustainable project performance and the impact tends to look stronger in more complex projects (Guo et al., 2019).

Success, according to Radujković and Sjekavica (2017), is probably the most valued word any project manager may possess. The discipline of project management is becoming more and more subject to stakeholder expectations and change (Radujković et al., 2021). Also, the positive connection between organizational justice and project success seems to be explained via the PCB pathway, which basically highlights how social exchange, along with perceived fairness, nudges people to show extra role behaviors in project based settings (Shafi et al., 2021). From a motivational angle, leadership empowerment together with psychological need satisfaction seems to create a supportive context where PCB can emerge, and then, it helps improve project well-being and overall effectiveness (Zhang et al., 2022).

A rather significant body of literature says that project leadership is one of the most critical precursors to PCB, at least in the way researchers tend to frame it. Luo et al. (2023) reported that vision oriented leadership, plus context engagement, and team building can shape project performance via PCB. And sort of in the same way, inclusive transformational servant distributed, and authentic leadership styles have each, in their own way, been able to explain how citizenship behaviors come about, also how you end up with better project related outcomes (Muterera et al., 2024; Khattak et al., 2024; Korkmazurek & Korkmazurek, 2025; Bibi et al., 2025).

In the construction sector, and in information technology projects, the results look pretty consistent. They say inclusive and empowering leadership somehow reinforces PCB by pushing work engagement, trust, intrinsic motivation, and that sense of organizational support; then it follows that project success can actually move forward (Xiao et al., 2025; Wu et al., 2025; Asif et al., 2025).

Besides leadership, the teamwork quality and all those intra-team processes, seem to matter a lot in how PCB connects with project management performance. Research has indicated that teamwork caliber, cohesion, coordination, solid communication and knowledge sharing form the kind of base that supports citizenship behaviors, and it also directly lifts how well projects run (Ali & Jiang, 2024; Wang et al., 2024; Adekiya et al., 2025). Even when teams are virtual or more digitally oriented shared leadership plus psychological safety, along with clear communication, can make it easier for people to step in willingly and then raise the overall quality of project execution (Papadonikolaki & Morgan, 2025; Kausar & Kausar, 2025). Additionally, newer assessments in project team management suggest that communication, emotional intelligence trust, and interpersonal responsiveness, are all key bits for strengthening team performance, and for shaping those supportive behaviors seen in projects too (Purasinghe, 2024; Rehan et al., 2024).

The recent literature also indicates that psychological and contextual factors are hugely important for clarifying PCB and how it affects project management performance. Psychological empowerment, psychological capital, commitment, satisfaction, innovation culture, and organizational support are some of the constructs that can either work as precursors to PCB, or help reinforce the way PCB connects to performance (Caruajulca & Khalilzadeh, 2024; Hapsari et al., 2025; Wang & Luong, 2026). Beyond that, project complexity, time conflict, cultural differences, and even industry type can shift the intensity and the direction of these links; like for instance, in IT projects, inclusive leadership may lessen the harmful impacts of time pressure, and also raise the team's ability to keep up performance even when conditions feel stressful (Siddiquei et al., 2026).

Meanwhile, in knowledge based, and virtual teams, distributed leadership via work engagement seems to help form citizenship behaviors, which is pretty crucial for today's project settings where responsibilities are spread out, and structures are more decentralized (Elkafarna & İyigün, 2026). Even though this area has grown, the literature still feels a bit fragmented, and many results have been developed separately, in isolation across different leadership, teamwork, empowerment, and organizational contexts. Some studies have looked at PCB as a mediating mechanism, others treat it as the outcome of leadership styles or individual traits, and another stream highlights how PCB connects to broader project success or performance (Bibi et al., 2025; Khalil et al., 2025; Govindarajoo & Cheah, 2025). Therefore, a coherent review is needed to clarify how and under what conditions PCB affects project management performance and what mechanisms explain this relationship.

The main objective of this study is to conduct a comprehensive review of the existing literature from 2016 to 2026 to critically analyze and synthesize thematic patterns on the relationship between Project Citizenship Behavior (PCB) and Project Management Performance. This study seeks to provide a clear map of the current state of knowledge by accurately identifying core themes, theoretical gaps, and methodological constraints in previous studies, and ultimately, to outline suggested future research directions for the theoretical and practical development of this field. In this regard, the research questions are formulated as follows:

- Research Question 1: What are the core thematic patterns in the research literature on the antecedents, functional mechanisms, and contextual variables of Project Citizenship Behavior (PCB)?
- Research Question 2: What are the current research gaps and, based on the synthesis of the findings, what priorities are proposed for future research directions to further develop the concept of PCB in project-based environments?

II. Research Methodology

This study is an applied-developmental study in terms of purpose and a comprehensive review in terms of nature in the field of the effects of project citizenship behavior on project management performance. According to **Tranfield et al. (2003)**, a comprehensive review approach is appropriate when the researcher's goal is to draw an integrated picture of the state of existing knowledge, identify major trends, synthesize scattered findings, extract research gaps, and present future agendas. Given that the literature on project citizenship behavior has developed in an interdisciplinary manner in recent years, the use of a comprehensive review allows this body of knowledge to be analyzed coherently from a conceptual, contextual, and methodological perspective.

Type and design of the study

This study is a comprehensive, structured, and explanatory literature review that focuses on identifying, evaluating, classifying, and synthesizing studies published between 2016 and 2026. Following the methodological guidelines proposed by **Snyder (2019)** for conducting literature reviews, the process of searching, screening, selecting sources, and extracting data is designed systematically to ensure transparency and replicability. While the main goal is not a statistical meta-analysis, the study employs a structured approach to provide a deep understanding of patterns in the literature, placing it on the border between a structured review and an interpretive review.

Time and subject scope of the study

The time scope of the study includes studies published from January 2016 to the end of 2026. This time period was chosen for two reasons: first, the project citizenship behavior literature has grown significantly during this period, and many conceptual and empirical models related to PCB have been developed in these years; Second, focusing on this time period allows for the examination of new trends, especially newly published studies in 2026, which is essential for keeping the article up-to-date.

Thematically, the present study focuses on studies that directly or indirectly address one of the following areas:

- Project citizenship behavior and its dimensions;
- The relationship between project citizenship behavior and project performance or project management performance;
- The mediating or moderating role of project citizenship behavior in the relationships between leadership, empowerment, justice, culture, teamwork quality, and project success;
- Antecedent, consequence, and contextual factors related to PCB in project-based environments.

Resource search strategy

To obtain relevant studies, a resource search was conducted in several stages using reputable international scientific databases. The most important databases used included:

- Scopus
- Web of Science
- ScienceDirect
- SpringerLink
- Emerald Insight
- Taylor & Francis Online
- Wiley Online Library
- SAGE Journals
- Google Scholar (to complete the search and identify potential established studies)

In order to increase the comprehensiveness of the search, a combination of primary keywords and conceptual synonyms was used. Examples of search strings were:

- "Project Citizenship Behaviour" OR "Project Citizenship Behavior"
- "Project citizenship behavior" AND "project performance"
- "PCB" AND "project management performance"
- "organizational citizenship behavior in projects"
- "project-oriented citizenship behavior"

- “leadership” AND “project citizenship behavior”
- “teamwork quality” AND “project performance”
- “psychological empowerment” AND “project citizenship behavior”
- “project success” AND “extra-role behavior”
- “project management” AND “citizenship behavior”

In designing the search strategy, an attempt was made to identify, in addition to the precise term Project Citizenship Behaviour/Behavior, studies that used similar concepts such as extra-role behavior in projects, organizational citizenship behavior in project contexts, or extra-role behavior in project settings. A manual search was also conducted in the reference lists of key articles to find complementary studies.

Inclusion and Exclusion Criteria for Studies

To ensure the consistency and quality of the selected sources, a set of inclusion and exclusion criteria was defined.

Inclusion Criteria

Studies were included in the final review that met the following conditions:

1. Published between 2016 and 2026;
2. Published in English;
3. Published in scientific research journals, peer-reviewed publications, authoritative conference proceedings, or indexed scientific book chapters;
4. Directly addressed the concept of project citizenship behavior or very closely related concepts in the context of the project;
5. Examined one of the variables related to project performance, project success, project management effectiveness, project team efficiency, or project behavioral outcomes;

Exclusion Criteria

The following studies were excluded from the review process:

1. Sources published outside the desired time period;
2. Studies for which the full text was not available;
3. Non-scientific works such as notes, blogs, informal reports, and materials lacking scientific review;
4. Studies that only addressed organizational citizenship behavior in non-project contexts and had no clear link to the project environment;
5. Duplicate sources in different databases;

Screening and Study Selection Process

The study selection process was carried out in several steps. In the first step, an initial search was conducted in the aforementioned databases and all retrieved records were entered into the initial list. In the second step, duplicate studies were eliminated. In the third step, the title and abstract of the sources were reviewed for thematic relevance. In the fourth step, the full text of the selected articles was studied and based on the inclusion and exclusion criteria, a decision was made about their presence or exclusion. Finally, the studies that were most relevant to the topic of the article, namely the effects of project citizenship behavior on project management performance, entered the final analysis stage.

To increase accuracy, screening was conducted by focusing on three levels of relevance:

- Direct relevance: studies that directly examined the relationship between PCB and project performance/project management;
- Strong indirect relevance: studies that analyzed PCB as a mediating or outcome variable in models related to project success;
- Contextual relevance: Studies that, although not directly focused on PCB, examined key explanatory variables such as leadership, teamwork quality, empowerment, and trust in a project environment.

Assessment of study quality

In this comprehensive review, the quality of studies was assessed based on several key indicators:

- Clarity of the research objective;
- Appropriateness of the theoretical framework;
- Transparency of methodology;
- Adequacy of sample size and statistical population in empirical studies;
- Validity and reliability of measurement instruments;
- Transparency of data analysis;
- Coherence between results and conclusions;

Accordingly, studies that were methodologically weak or provided ambiguous and unreliable data received less weight in the final analysis. In contrast, articles published in reputable journals and studies that had a clear conceptual model, appropriate analytical method, and credible findings were used as core sources in the final synthesis.

Data analysis and synthesis of findings

In this article, qualitative content analysis and narrative-comparative synthesis were used to analyze the selected studies. This approach aligns with the thematic synthesis methodology described by **Gough et al. (2017)**, where findings are not merely described but are integrated into a coherent explanatory structure. The findings of each study were examined independently and then compared with each other based on conceptual commonalities, recurring patterns, and contextual differences to answer the following secondary questions:

- How does project citizenship behavior affect project management performance?
- What are the most important antecedents of PCB in project environments?
- What mediating mechanisms and moderating factors explain this relationship?
- In which contexts and industries have these relationships been most studied?
- What are the most important theoretical and empirical gaps in the existing literature?

In the synthesis process, an attempt was made not to simply describe the findings, but to integrate them into a coherent explanatory structure. For this reason, the studies were also analyzed in terms of convergence, divergence, explanatory power, contextuality, and generalizability.

Validity and reliability of the review

To increase the validity of this comprehensive review, several steps were taken: first, a search was conducted in several reputable scientific databases to reduce the risk of bias due to being limited to a single source. Second, a combination of primary and synonymous keywords was used to increase the comprehensiveness of the study retrieval. Third, inclusion and exclusion criteria were clearly defined from the outset. Fourth, the selection of studies was based on thematic relevance and methodological quality. Fifth, contextual, industrial, and cultural differences were considered in the interpretation of the findings to avoid hasty generalization of the results.

Descriptive Characteristics of Selected Studies

To provide an overall picture of the direction of the reviewed literature, the selected studies were analyzed in terms of scientific fields and frequently occurring covariates. This statistical description helps to identify the disciplinary focus of the research as well as to understand the dominant conceptual patterns in the project citizenship behavior literature. Accordingly, the distribution of studies by scientific fields as well as the distribution of frequently occurring covariates with project citizenship behavior are presented in the figures below.

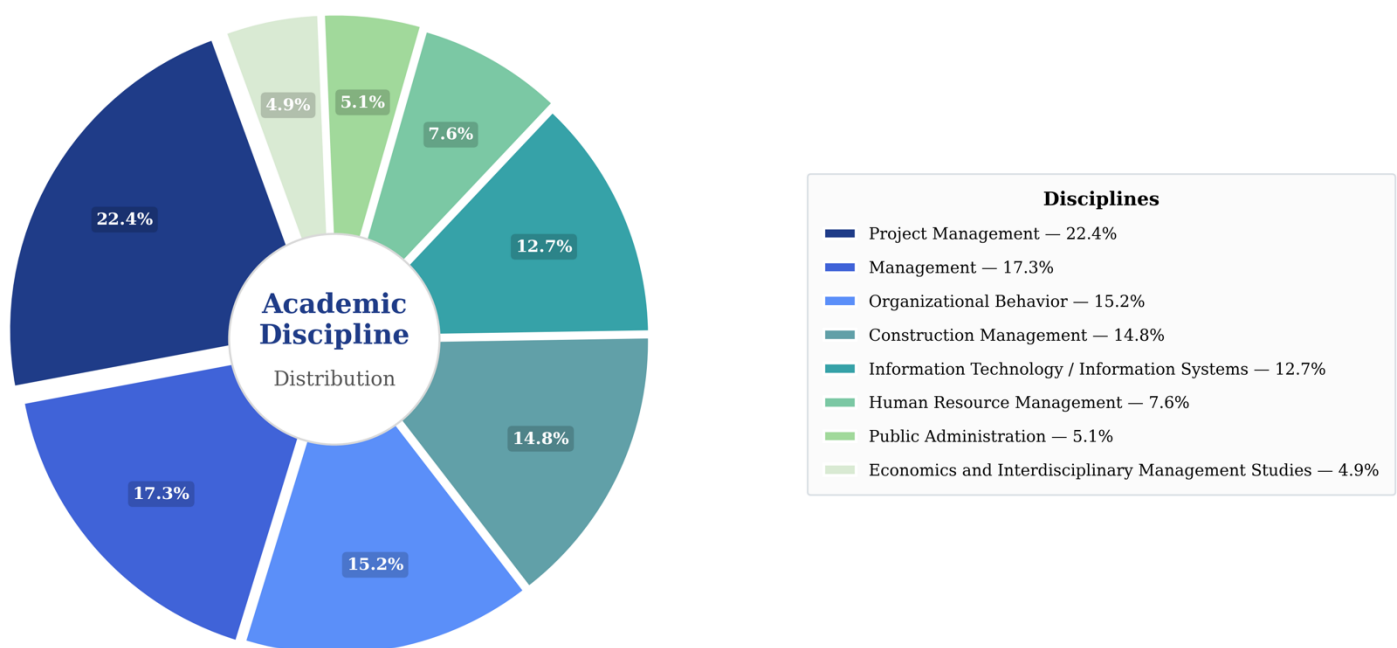


Figure 1. Distribution of Selected Studies by Academic Discipline

According to Figure 1, the largest share of selected studies is allocated to the field of project management, which includes 22.4% of the total literature reviewed. This is followed by the fields of management with 17.3%, organizational behavior with 15.2%, and construction management with 14.8%. This distribution shows that the literature on project citizenship behavior, although it has its main roots in project management, is also influenced by the fields of organizational behavior, general management, human resource management, and information technology. As a result, it can be said that this field of knowledge has an interdisciplinary nature and has been formed at the border between behavioral, managerial, and executive topics.

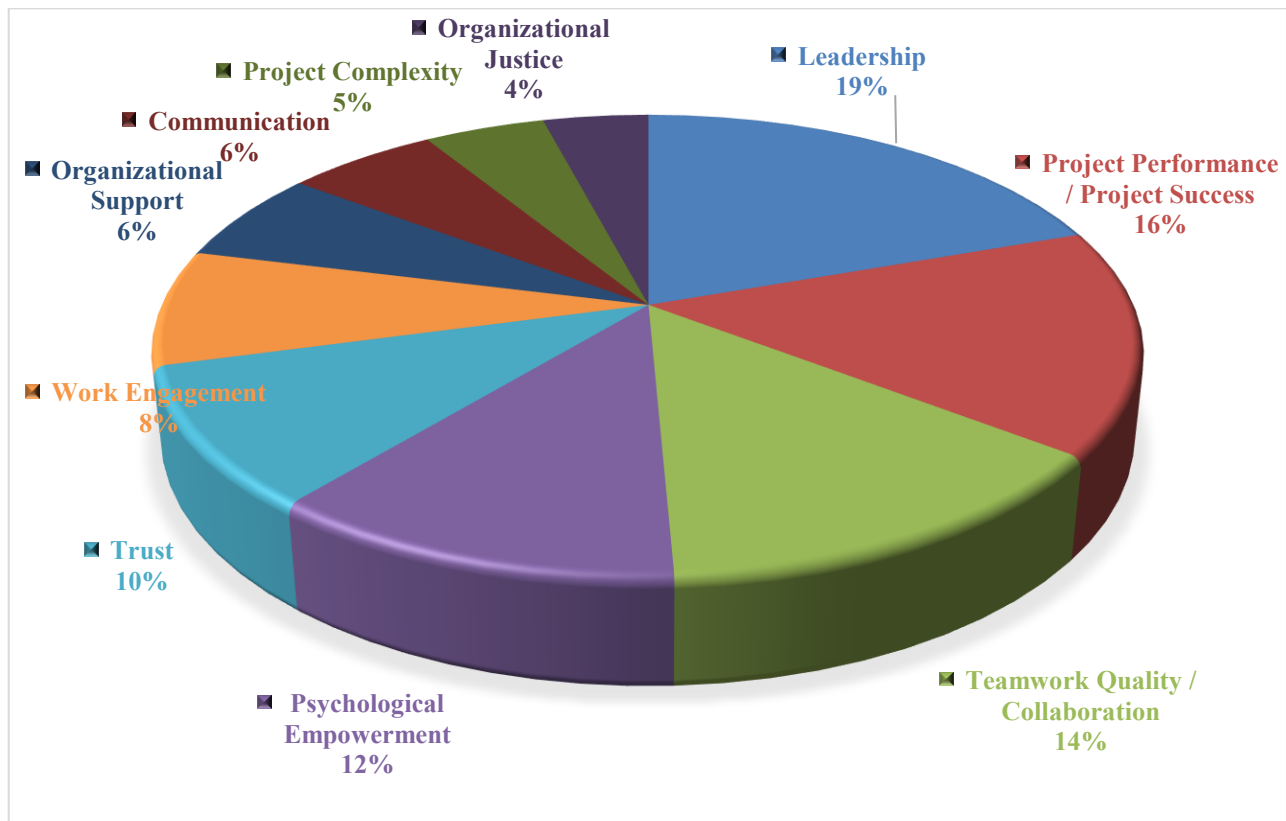


Figure 2. Distribution of Frequently Associated Variables

Figure 2 shows that leadership was the most frequently associated variable with project citizenship behavior in the selected studies with 19.6%. This finding indicates that in a significant part of the literature, PCB has been investigated in direct relation with leadership styles, leader competencies and the quality of project managers' effectiveness. In the next ranks, project performance or success with 15.8% and teamwork/collaboration quality with 13.9% are located, indicating a close link between PCB and performance outcomes and interaction mechanisms at the project team level. In addition, variables such as psychological empowerment, trust and work engagement also have a significant contribution, indicating the importance of motivational and relational mechanisms in the formation of this behavior.

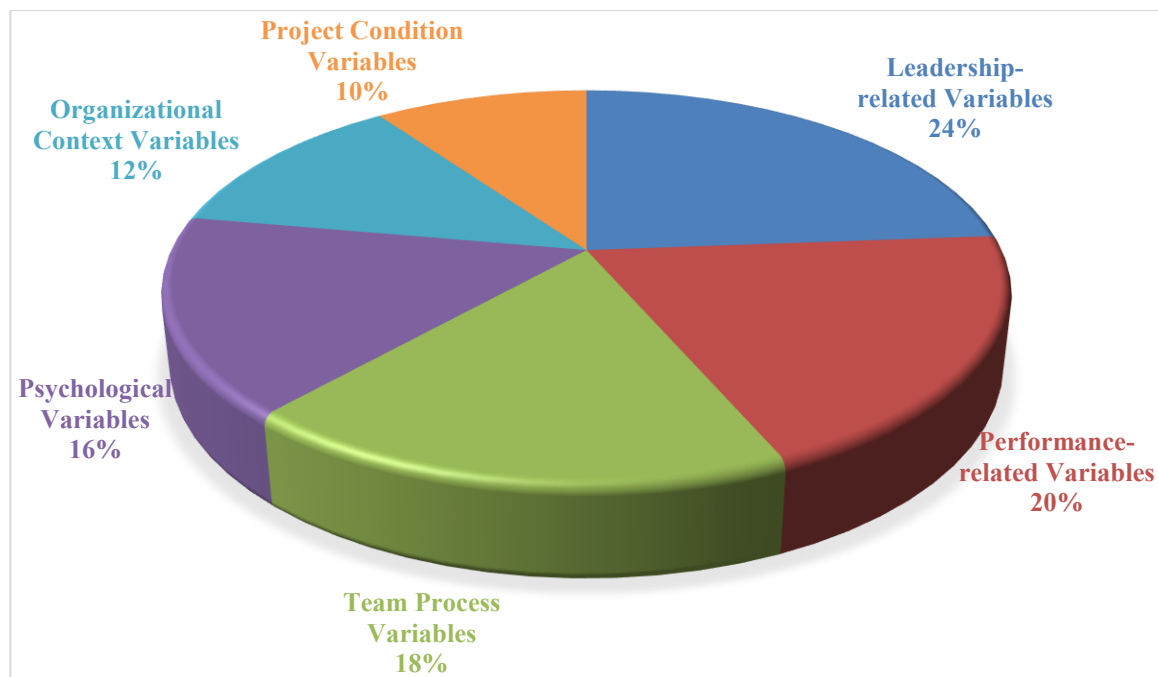


Figure 3. Grouped Categories of Frequently Associated Variables

According to Figure 3, the largest share of variables associated with project citizenship behavior is related to leadership-related variables, which include 23.8% of the total classified variables. This finding confirms that leadership is considered the main antecedent and explanatory context of PCB in the literature in this field. After that, performance-related variables are 19.7% and team processes are 18.1%, which shows that existing studies have analyzed project citizenship behavior mainly in relation to project outcomes and the quality of team interactions. Also, the contribution of psychological variables, organizational context, and project conditions shows that this behavior is a multilevel phenomenon and is influenced by individual, team, organizational, and environmental factors.

In general, the descriptive analysis of the selected studies showed that the project citizenship behavior literature is more focused on the field of project management on the one hand, but on the other hand, it has also expanded significantly in the fields of management, organizational behavior, construction management, and information technology. Also, in terms of frequently occurring covariates, the literature has placed the greatest emphasis on leadership, project performance, teamwork quality, and psychological empowerment. These findings indicate that project citizenship behavior in the existing literature is not only an individual transrole behavior, but also a key construct in explaining team effectiveness and project success.

III. Results

3.1. Identification of Main Themes

In the process of analyzing the selected studies, to identify the main themes, the articles were categorized based on conceptual focus, frequently occurring variables, type of relationships explained between the constructs, and common application areas. In other words, instead of simply classifying based on year, country, or method, an attempt was made to examine the theoretical logic governing the literature; that is, what axes the research has focused on explaining the effect of Project Citizenship Behavior (PCB) on Project Management Performance. Accordingly, the reviewed studies fell into several major conceptual clusters, including the role of leadership styles, teamwork dynamics, communication, psychological empowerment, organizational culture, the mediating and moderating roles of PCB, leadership in digital and virtual teams, sectoral contexts, particularly construction and IT, as well as emerging focuses such as psychological safety, innovation culture, and employee well-being. These themes demonstrate that the PCB literature is not only multivariate, but also multilevel and interdisciplinary, extending from the individual to the team, organizational, and contextual levels.

Leadership Styles and Their Effects on Project Citizenship Behavior and Performance

A lot of the literature kind of circles around how leadership styles end up shaping project citizenship behavior, and then somehow, improving project management performance too. What several studies show is that leadership isn't just some plain, background contextual thing, but rather one of the main routes for triggering extra-role actions inside the project

setting. In other words, leadership acts like a mechanism, not just a label. Styles like inclusive, transformational, servant, distributed, collaborative, and coaching-oriented leadership give a kind of foundation for PCB, mainly by growing trust, commitment, cohesion, and also that feeling that the work actually carries some deeper meaning. So here PCB isn't only a result of leadership, it's more like the bridge that passes the leadership impact into more concrete outcomes – like project success, efficiency, smoother coordination, and better quality of execution (Zhang et al., 2022; Paracha et al., 2024; Bibi et al., 2025; Elkafarna & İyigün, 2026; Siddiquei et al., 2026).

A deeper analysis of these studies shows that the effect of leadership style on PCB also depends, on the type of project environment, which is kind of key. In complex, varying, multicultural, or virtual settings, inclusive plus transformational leadership styles become more important, because they have a stronger ability to form psychological safety, drive voluntary participation, and bring about cognitive alignment among team members. Particularly, in projects where uncertainty is high, or where cross-functional collaboration is really intense, leadership works best when it goes past plain formal control and still motivates behaviors that are more self-initiated and voluntary.

For this reason, some recent research suggests that the role of leadership in the PCB literature has been elevated from a simple independent variable to a structural and multifaceted variable that affects both the psychological conditions of employees and the collective mechanisms of the team (Khalil et al., 2025; Kausar & Kausar, 2025; Hatefi et al., 2025). From an analytical perspective, the importance of this theme is that it shows that project management performance is no longer just a function of planning, controlling, and allocating resources; it is also strongly influenced by the quality of the project leader's social influence. The literature in this area implicitly suggests a paradigm shift: from project management as a purely technical activity to project management as a socio-behavioral process. In this framework, project leaders are more successful when they can unleash behavioral energy beyond the formal role in team members through supportive and collaborative styles; Behavior that, in the form of PCB, leads to synergy, voluntary responsibility, and support for project goals (Bibi et al., 2025; Elkafarna & İyigün, 2026; Siddiquei et al., 2026).

Teamwork Dynamics and Their Role in Enhancing Project Success

Another main theme is teamwork dynamics and how they contribute, indirectly or otherwise to overall project success. In this stream of ideas, you see notions like teamwork quality, cooperation, cohesion, conflict management, and coordination showing up as kind of the central pieces. They matter because they don't only steer project performance by themselves, but they also help clarify the link between leadership and what the project actually achieves. A bunch of studies suggest that PCB is formed in a team setting, and that if the internal exchanges inside the team aren't at the right level, then the odds of building steady voluntary behaviors drop quite a lot. So, in the current literature, teamwork isn't just some secondary feature of the group, it becomes the main social arena where PCB shows up in the first place and then gets turned into project success (Luo et al., 2023; Ali & Jiang, 2024; Waleed et al., 2024; Wajid et al., 2025).

From an analytical perspective, what really shows this theme is that project citizenship behavior is deeply relational, it's kind of not something that shows up in a vacuum. It kinda grows through everyday team interactions, like small moments and ongoing exchanges. When team members have cohesion, mutual trust, clear role boundaries and communicative routines that actually work, they tend to push beyond formal job duties, and then they volunteer to help colleagues or move the project forward. In virtual and multicultural projects, this is even more crucial, because distance, diversity, and overall complexity can quietly weaken the collaboration quality. So, in a sense, the presence of healthy team dynamics becomes a basic condition, that turns individual abilities into collective performance (Wahab et al., 2023; Adekiya et al., 2025; Khalil et al., 2025).

Another important point is that the literature in this field has gradually moved away from the simple view of "good team = good performance" and towards understanding the internal mechanisms of the team. Studies show that the quality of teamwork can both mediate the effect of leadership on project success and be a condition for strengthening or weakening the effect of PCB on project outcomes. Therefore, the team is not only the site of the project, but also the main engine for converting behavioral capital into performance achievements. This perception highlights the importance of actively managing team relationships in projects and shows that project success is difficult to achieve without social engineering of team interactions (Luo et al., 2023; Yap et al., 2020; Ali & Jiang, 2024).

Communication Practices as a Driver of Project Management Effectiveness

Communication shows up as another big theme in studies, kind of a main engine for how well project management works. From what research suggests when communication is effective it helps the project results, mostly because it boosts transparency, makes expectations clearer, builds trust, and helps people really understand each other on the team. And in this setting, communication isn't just about handing over information. It's also a social, sort of interpretive process that can either help or actually weaken extra-role behaviors. If the communication channels stay more open, more accurate, and

more responsive, then team members are more likely to jump in on problem solving on their own, to back other people, and to keep the project together as one group (Rehan et al., 2024; Karimi et al., 2024; Adham & Sukkar, 2024).

From a scan of recent studies, it seems that the role of communication in multicultural, virtual, and complex projects has gone up quite a lot. In these kinds of settings, the real obstacle is not only the absence of info, but more the usefulness and finesse of how that info gets translated, interpreted and then made consistent, or maybe aligned, between the different stakeholders. So communication ends up acting like a sort of strategic ability inside the project, not just for day to day coordination, but also for how well people relate, how much trust forms, and even how motivated the team feels. More recent work also points out that digital tools and well-structured communication methods can help in closing temporal, spatial and cultural gaps, which in turn increases the chances for better PCB outcomes (Papadonikolaki & Morgan, 2025; Govindarajoo & Cheah, 2025).

From an analytical perspective, communication is seen in this literature as more than an individual soft skill; it is seen as a mechanism for generating social capital within the project team. For this reason, good communication not only reduces misunderstandings but also helps to activate voluntary energy and responsible participation. This is important for the present article, as it shows that PCB is shaped not only by individual motivation, but also by the project's communication architecture. Therefore, any analysis of the impact of PCB on project management performance without considering the quality of communication would be incomplete (Papadonikolaki & Morgan, 2025; Rehan et al., 2024; Adham & Sukkar, 2024).

Psychological Empowerment and Motivation in Project Citizenship Behavior

The theme of psychological empowerment and motivation is, like, one of the main axis that helps explain PCB. Research here suggests that when project members feel that their work is more meaningful, competent, autonomous, and effective, they tend to be more prepared to show extra-role, even voluntary behaviors. So, in a way PCB, which is an external and observable behavior, is not really "coming from nowhere", it is planted in internal experiences and the psychological perceptions people carry around. For that reason, psychological empowerment is not only some covariate, but also among the most important antecedents of PCB (Xiao et al., 2025; Wu et al., 2025; Wang & Luong, 2026). One key thing in the analysis of this topic is that the related literature often frames PCB through self-determination theory and social exchange theory. In these views, when the organization, or maybe the project leader, sets up conditions where a person feels respected, backed, and empowered, the individual's "natural" reaction is more likely to show up as participation that goes beyond the required role. Put simply, PCB can be treated as a behavioral reaction to empowerment experiences and also to perceived fairness. There are studies too that show how factors like perceived organizational support, cultural intelligence, and job involvement can either strengthen or weaken the link, and this suggests the whole theme is more multifaceted and highly dependent on context (Asif et al., 2025; Caruajulca & Khalilzadeh, 2024; Khattak et al., 2024).

On a deeper level, this theme kind of implies that the effect of PCB on project performance cannot be handled just via outside mechanisms. Sure, structures, procedures, and policies matter, but it's the overall quality of the psychological experience that team members get that really decides if they will end up in voluntary, responsible, and encouraging behaviors. Because of that, the research and literature in project management has shifted to pay more attention to the mental and motivational layers. This also feels more urgent in international, migrant, and knowledge-based project settings, where the feeling of belonging, personal agency, and adaptive capacity are crucial for keeping PCB steady and, you know, lifting the results of the project (Wang & Luong, 2026; Xiao et al., 2025; Zhang et al., 2022).

Organizational Culture and Its Influence on Project Citizenship Behavior

Organizational culture shows up pretty clearly as one of the main themes across the reviewed papers. A bunch of studies in this cluster argue that the values, norms, and general orientations that dominate inside the organization, like social responsibility, customer focus, innovation, and knowledge exchanging, can really shape how PCB forms. In this kind of setting, project citizenship behaviors don't feel like "special" or rare acts, but more like they come out of the everyday logic behind how work is done between people. So in the end, organizational culture matters a lot, either it normalizes these extra-role behaviors, or it suppresses them a bit (Tasleem et al., 2024; Zhao et al., 2023; Hapsari et al., 2025).

If we look at it more analytically, organizational culture feels like this soft infrastructure behind PCB. In organizations where a supportive, cooperative, and learning oriented culture is the norm, project members tend to step forward on their own initiative, they share what they know, and they back coworkers (or the project objectives) when situations get critical. On the other hand, cultures that are too competitive, too closed, or that rely on interorganizational conflict can act like a brake and limit these same behaviors. All together, these results hint that PCB isn't only a result of individual traits, or just leader behavior. Instead, it is made and remade within a cultural environment (Tasleem et al., 2024; Hapsari et al., 2025).

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The importance of this theme is that it establishes a link between the micro and macro levels of analysis. If leadership, communication, or empowerment are considered proximate factors of PCB, organizational culture is a more distant but more enduring factor that determines the scope of their effectiveness. For this reason, management interventions to enhance PCB may remain temporary or superficial if they are not accompanied by cultural reforms. This view leads the present paper to a more institutional understanding of project citizenship behavior; one that sees PCB within the system of organizational values and norms, rather than simply at the level of short-term project interactions (Zhao et al., 2023; Hapsari et al., 2025).

Mediation and Moderation of Project Citizenship Behavior in Project Success

One of the most analytically identified themes is the mediating and moderating role of PCB in relation to project success. In this context, PCB is often presented as a mechanism through which the effect of leadership, organizational justice, or supportive practices is transmitted to project performance and success. In other words, many studies show that managerial and organizational variables alone do not lead to project success unless they are first translated into voluntary and responsible behaviors of project members. This elevates PCB from a small kind of behavioral variable into sort of a central construct in explanatory models of project performance (Luo et al., 2023; Shafi et al., 2021; Bibi et al., 2025).

At a more granular, like step-by-step level, the literature in this cluster argues that PCB can be shaped at the same time by moderators such as project complexity, psychological contract, and cultural factors. This matters, because it basically implies the effect of PCB on project success is not linear or really uniform. In complex projects, for instance, even when PCB is high it still might not deliver the outcomes people want, unless there is the right structure or support in place; while in projects with high cohesion and strong perceived justice, these same behaviors can take on a much bigger, reinforcing role. Overall, these results point to a kind of relative maturity, since studies moved from direct, simple links to multi-stage and context dependent models (Caruajulca & Khalilzadeh, 2024; Bibi et al., 2025).

From a theoretical angle, this strand is especially relevant for the present paper, because it clarifies why PCB ought to sit at the center of the analysis about the relationship between management and project performance. If PCB does function as a key mediating mechanism, then it is not enough to only look at leadership style, team structure, or organizational policies. Instead, we need to explore how, and under what conditions, those elements turn into project extra role behaviors. So, this line of reasoning nudges the paper toward a more explanatory model where PCB isn't just a dependent variable, but more like the axis through which management effects travel to project success (Luo et al., 2023; Shafi et al., 2021; Caruajulca & Khalilzadeh, 2024).

Digital and Virtual Project Leadership and Team Dynamics

The theme of leadership and team dynamics in digital and virtual projects reflects the new developments in project-based work environments. Studies in this area emphasize that in distributed and digital teams, leadership must be able to reproduce psychological safety, trust, and emotional commitment in the absence of direct physical contact. In this environment, PCB takes on a doubly important role, since a large part of the success of a project depends on the willingness of members to cooperate voluntarily, to be accountable beyond the task, and to maintain team cohesion; things that are naturally more fragile in a virtual environment than in face-to-face teams (Papadonikolaki & Morgan, 2025; Ali & Jiang, 2024; Kausar & Kausar, 2025).

The analysis of this theme shows that digitalization has not only brought fresh tools for projects, but also shifted how leadership and teamwork actually works. In digital settings, direct control is kinda reduced, and instead the role of more horizontal leadership, flexibility, communication transparency, and facilitation is pushed much more. Because of that, project citizenship behaviors become a critical value for virtual teams, since with no constant monitoring and no physical presence around, a lot of coordination processes and mutual support stay alive only through employees' initiative and voluntary responsibility (Papadonikolaki & Morgan, 2025).

From a broader perspective, this theme suggests that the PCB literature is adapting to the new realities of project management. Today's projects are more global, distributed, and technology-dependent than ever before; therefore, an understanding of PCB would be incomplete without taking into account the digital infrastructure and new leadership paradigms. This evolution is one of the signs of the dynamism of the contemporary literature and shows that PCB has gradually transformed from a classical behavioral concept to a construct compatible with modern work ecosystems (Ali & Jiang, 2024; Kausar & Kausar, 2025).

Sector-Specific Applications: Construction and IT Project Contexts

The theme of sector specific applications, mainly in construction and IT, suggests that PCB does not show up in the exact same manner across every industry, and yeah the consequences are also highly dependent on the contextual traits that belong to each sector. In construction projects, things like the severity of the work setting, strong interdependence,

implementation risk, cultural variety, and time pressure, all push leadership, team coordination and communication into a more visible position when it comes to shaping PCB. Meanwhile, in IT projects and agile environments, issues like knowledge sharing, psychological empowerment, leadership capability, and mental flexibility are treated more often and more broadly (Luo et al., 2023; Gul et al., 2025; Wahab et al., 2023; Xiao et al., 2025).

From an analytical perspective, this theme suggests that PCB is a universal but not homogeneous construct. That is, although the principle of voluntary and supportive behaviors is important in most projects, its drivers, forms of manifestation, and consequences vary across industries. In construction, PCB is most closely associated with safety, operational collaboration, and conflict management, while in IT it is most closely associated with innovation, learning, knowledge sharing, and agile responsiveness. These differences suggest that any theoretical explanation or management prescription of PCB should be context-sensitive and avoid one-size-fits-all prescriptions (Siddiqui et al., 2023; Adham & Sukkar, 2024; Gul et al., 2025).

The importance of this theme for the present paper is that it demonstrates that the relationship between PCB and project management performance must be understood in its operational context. Although the literature suggests general patterns, the magnitude and trajectory of PCB impacts are not the same across industries. Therefore, by highlighting these sectoral differences, this comprehensive review can help develop a more nuanced and realistic understanding of PCB that is both generalizable and sensitive to the specific characteristics of each industry (Luo et al., 2023; Xiao et al., 2025; Adham & Sukkar, 2024).

Emergent Focus on Psychological Safety, Innovation Culture, and Employee Well-being

A last kind of important theme that keeps coming up is that psychological safety, an innovation culture, and employee well-being are now getting more attention. In fact these studies seem to indicate that the PCB literature in recent years has moved past the more classical stuff like leadership and performance, and it is looking at deeper drivers that really help sustain citizenship behaviors inside the project setting. Psychological safety, for instance, makes a kind of base platform where team members can brainstorm, share ideas, and also volunteer without feeling they will be judged or punished. And when that kind of atmosphere exists, it tends to connect to better learning, more creativity, and smoother collaboration. So it can basically nourish PCB at a more sustainable, steady level (Papadonikolaki & Morgan, 2025; Purasinghe, 2024; Phuong et al., 2023).

Also, an innovation culture along with employee well-being has been proposed as something like long-term prerequisites for extra-role behaviors. This turn is kind of important because it implies that PCB isn't only the outcome of short-term management "fixes", but it really hinges on how good the overall work experience is for people who are involved in the project. If employees feel burned out, unsettled, or insecure, they tend to not show up in those steady, volunteering type behaviors. On the other hand, contexts that promote innovation while still caring about individuals' psychological well-being tend to create a better setting for citizenship behaviors and then, as a chain reaction, better project performance (Lu & Ma, 2024; Purasinghe, 2024).

From an analytical angle, this line of thinking looks like a kind of maturity in the PCB literature, and it also broadens the scope. New studies are trying to explain what makes PCB sustainable over time, rather than something that just pops up now and then. This movement away from purely structural drivers toward experience-based and human-centered factors is pretty crucial for what comes next in project management research, because it indicates that contemporary projects rely more than before on the quality of the team members' psychological and social lifeworld (Papadonikolaki & Morgan, 2025; Phuong et al., 2023; Lu & Ma, 2024).

3.2. Research Gaps

Despite the significant growth of the literature on Project Citizenship Behavior (PCB) and its role in improving project management performance, a review of studies shows that this field still faces significant theoretical, methodological, and contextual shortcomings. The majority of existing research has been able to demonstrate the relationship between PCB and variables such as leadership styles, teamwork quality, psychological empowerment, and project success, but our understanding of the causal mechanisms, boundary conditions, cross-sector generalizability, and dynamics of these relationships is still incomplete. In other words, the existing literature has focused mainly on identifying meaningful relationships in specific contexts rather than moving towards deep and multi-level explanations.

Therefore, identifying research gaps is not only necessary to guide future studies, but can also contribute to the theoretical coherence of this field. Based on the analysis of the reviewed literature, six main gaps in the literature can be identified, each of which can provide important directions for the future development of knowledge in the field of PCB and project management practice.

Longitudinal and Causal Research on PCB Effects

One of the most basic gaps in the literature is that so many studies use cross sectional designs, and because of that it becomes kinda hard to argue causal relationships between PCB and project performance. A lot of existing work says that PCB is positively linked to things like project success, team quality, or leadership effectiveness, but almost all of these studies lean on cross sectional data. So they usually cant really tell if PCB actually causes better performance , or if PCB is sort of a byproduct, coming from more supportive project and management conditions. This feels especially important in a domain like project management where relations among variables are not static – they’re dynamic, interlocking, and also time dependent (Luo et al., 2023; Bibi et al., 2025; Xiao et al., 2025). From an analytical view, the shortage of longitudinal studies has left the PCB research stream a bit thin when it comes to explaining how citizenship behavior changes across the whole project timeline. There’s still a lot of uncertainty about when exactly PCB matters the most for performance , whether shifts in leadership or team composition reshape it, and if the impact lasts rather than fades. Because of this, future research should likely move toward longitudinal designs, multi wave data collection, and maybe even quasi experimental approaches, so we can clarify the causal routes and the timing of PCB effects in a more reliable way. Otherwise, the design of evidence based management interventions will stay pretty constrained (Luo et al., 2023; Bibi et al., 2025).

Sectoral and Cultural Generalizability

Another important gap has to do with how generalizable the findings are across sectors and cultures. A big share of the studies that were reviewed got done in two main settings construction projects, and information technology projects, and also inside relatively narrow cultural frames, especially countries like Pakistan and China. This emphasis has helped build a fairly rich pool of knowledge in those contexts, but at the same time it really raises the chance of generalizing too quickly to other industries or cultures. In fact, we still do not know enough about whether the mechanisms that were identified between leadership, PCB, and project performance work in the same way in domains like health, manufacturing, public services, or international projects (Bibi et al., 2025; Zhao et al., 2023; Wang & Luong, 2026). The limitation is not only a matter of geography or sector, it goes straight to the external validity of the PCB literature. National and organizational cultures can steer how people interpret leadership, voluntary accountability, fairness, collaboration, and even what counts as project success. And the industry itself can affect how PCB shows up and what kind of outcomes it tends to create. So, building studies that cross cultures and cross sectors can not only make the results travel further, but it can also help surface less obvious moderators, plus contextual discrepancies that are easy to overlook. This route is key for the theoretical growth of the field, because without it PCB may keep behaving like an overly situation bound idea (Zhao et al., 2023; Wang & Luong, 2026; Bibi et al., 2025).

Virtual and Digitally Enabled Team Dynamics

Despite the rapid expansion of virtual, hybrid, and digital projects, one of the prominent gaps in the literature concerns the role of PCB in digital and distributed teams. Existing studies have still only partially addressed the question of how digital communication tools, lack of face-to-face contact, temporal and spatial distances, and new forms of leadership influence the emergence of PCB and its impact on project success. In virtual teams, however, the cooperative and supportive behaviors that tend to show up almost automatically in face-to-face contexts often need alternative, more deliberate mechanisms (Ali & Jiang, 2024; Papadonikolaki & Morgan, 2025; Kausar & Kausar, 2025). This gap feels important because the digitization of the project setting has, in a way, shifted how working relationships are formed. In virtual teams leadership cannot just depend on direct supervision or occasional in-person interaction, instead it has to encourage voluntary behaviors by shaping trust, psychological safety, communication transparency, and using technology in a smart manner. In those situations, PCB can turn into a key ingredient for keeping the team bonded and the project moving successfully, yet the available evidence is not sufficient, so it has been hard to clarify the exact way these processes work. So, later research should home in on virtual and hybrid teams and look at factors like digital communication tools, distributed leadership, and psychological safety in these circumstances (Papadonikolaki & Morgan, 2025; Ali & Jiang, 2024).

Integration of Psychological Empowerment and Organizational Culture

Even though psychological empowerment has been pointed out as a key precursor of PCB in a lot of studies, it has been looked at mostly as an individual matter, and comparatively less attention has been given to how it connects with organizational culture, plus the surrounding contextual conditions. Put a different way, many papers seem to imply that when people feel more competent, more empowered, and more meaningful, PCB is more likely to happen. Still, they do not really spell out how this inner state gets shaped, or even sustained, by the organization’s norms values, and overall cultural atmosphere (Wu et al., 2025; Caruajulca & Khalilzadeh, 2024; Zhao et al., 2023). This gap matters, because

psychological empowerment usually does not show up in isolation. Organizational culture can basically decide whether individuals are granted real authority, whether their input is appreciated, and whether extra-role conduct is treated as beneficial, or perhaps even as a required move. That kind of design could give a broader grasp of the real steps behind PCB formation, and also how PCB ends up affecting project performance (Zhao et al., 2023; Wu et al., 2025).

Moderating Role of Project Complexity and Environmental Factors

Another gap is about the moderating role of project complexity and various environmental factors. Even if several studies have already indicated some kind of influence from complexity, time conflict, or environmental uncertainty, these issues still have not been looked at in a systematic, and well coordinated way in PCB models. This matters because projects are kind of always being carried out across different degrees of complexity, so we should not assume that the effects of PCB or the leadership approach will stay the same in every situation. In fact complexity can either strengthen the whole backdrop for citizenship like behaviors , or it can squeeze them by raising pressure, increasing ambiguity, and feeding conflict (Bibi et al., 2025; Siddiquei et al., 2026; Gul et al., 2025). The fact that boundary variables like these have received too little attention has made parts of the literature end up with fairly straight, simple links between PCB and project success. But in real life, the usefulness of these behaviors may depend heavily on the setting, and not on the behaviors alone. For instance, in very complex projects, voluntary behaviors might not “carry enough weight” without structural coordination, or more directive leadership. Meanwhile, in projects with moderate complexity, the very same behaviors may generate notable extra value. So, for the next round of studies, researchers should examine more carefully how project complexity, environmental pressure, and contextual uncertainty moderate the linkages among leadership, PCB, teamwork quality, and project performance (Siddiquei et al., 2026; Bibi et al., 2025).

Mediating and Moderating Mechanisms Beyond Psychological Empowerment

A final important gap is still kind of about how narrow the mediating and moderating mechanisms are in most of the existing literature. In a lot of studies, the main focus is on psychological empowerment and job engagement, and other important psychological , as well as relational variables, just get less attention. But PCB is multidimensional in practice and it is probably shaped through different pathways , like trust, perceived justice, affective commitment, and emotional intelligence and affect project performance. If we only stick to one or two common mechanisms, it can turn out to be too reductionist for explaining this kind of complex behavior (Wu et al., 2025; Paracha et al., 2024; Kausar & Kausar, 2025; Shafi et al., 2021). Analytically speaking, broadening the scope of mediators and moderators should help us understand the PCB influence pathways in a more precise way. Like, in some projects, trust may become the central lever that transforms leadership into PCB. In other projects , organizational justice or affective commitment might be more decisive, and so the “best” pathway changes. Also, things such as cultural intelligence or perceived justice can affect when, and under what conditions, PCB ends up having a stronger impact on project success. So, future research should probably rely on more complex and multivariate models, in order to show the real network of relationships here. This would not only add theoretical richness to the literature, but it could also be very helpful for designing management interventions that fit different project conditions (Shafi et al., 2021; Paracha et al., 2024; Wu et al., 2025).

Table 1. Integrated Synthesis of Core Themes and Research Gaps in the PCB Literature (2016–2026)

Core Theme	Key Focus Areas (Themes)	Identified Research Gaps & Future Directions
1 Leadership Styles	Transformational, Inclusive, Servant, Collaborative leadership	Causal & Temporal Gaps: Relying on cross-sectional designs limits causal claims. Future research needs longitudinal/quasi-experimental designs to track PCB across the project lifecycle.
2 Teamwork Dynamics	Cohesion, coordination, conflict management, mutual trust	Relational Mechanisms: Moving beyond simple “good team = good performance” models to study complex internal mediation/moderation pathways.
3 Communication Practices	Transparency, digital tools, cross-cultural/virtual alignment	Virtual Team Dynamics: Insufficient evidence on how digital infrastructure and remote leadership motivate or restrict voluntary PCB in virtual/hybrid environments.
4 Psychological Empowerment	Meaningfulness, competence, autonomy, impact	Contextual Integration: Psychological factors are studied in isolation; need to integrate them with macro organizational cultures and values.
5 Organizational Culture	Innovation culture, supportive norms, learning orientation	Socio-Cultural Gaps: Current research is heavily clustered in specific regions (e.g., China, Pakistan); requires cross-cultural/cross-sector validation.

6	PCB Mediation & Moderation	PCB as mediator, moderators like complexity & justice	Narrow Mechanisms: Over-reliance on psychological empowerment/engagement; needs broader pathways like trust, affective commitment, and emotional intelligence.
7	Sector-Specific Contexts	Construction (safety, risk) vs. IT/Agile (knowledge, learning)	Sectoral Generalizability: Highly concentrated in Construction & IT; lacking empirical data from healthcare, manufacturing, and public services.
8	Emergent & Boundary Factors	Psychological safety, well-being, project complexity	Environmental Moderation: Systematic lack of models testing how project complexity, environmental pressure, and temporal constraints moderate PCB outcomes.

The above integrated table (Table 1) provides a comprehensive and structured mapping of the current state of the research literature in the field of project citizenship behaviors (PCB) between 2016 and 2026. This synthesis shows that the literature in this field faces specific theoretical and methodological challenges and gaps that determine future research directions, while identifying the main drivers.

A cross-sectional analysis of the identified themes and gaps reveals several key points:

- Moving from simple analyses to dynamic and causal models: Although the role of leadership, communication, and psychological empowerment has been established as key antecedents of PCB, the dominance of cross-sectional methods prevents definitive proof of causal relationships between these variables and project management performance. The temporal dynamics of projects require that longitudinal research designs be used in the future to examine fluctuations in extra-role behaviors across different phases of the project.
- The need to expand contextual and geographical boundaries: Much of the existing empirical evidence is limited to the construction and IT sectors and focuses on developing countries in East and South Asia (such as China and Pakistan). This limited focus challenges the generalizability of the findings. Hence, examining the moderating role of national culture and comparing different service, health, and manufacturing sectors are priorities for future research.
- The need to examine more complex mediating mechanisms and boundary conditions: The traditional focus of the literature on narrow mediating variables (such as empowerment and job engagement) requires a conceptual extension to relational variables (such as organizational justice, emotional intelligence, and cultural intelligence). In addition, project structural variables such as “project complexity,” “time constraints,” and “digital/virtual work environments” act as boundary conditions that can weaken or strengthen the effectiveness of PCB on performance.

Overall, this integrated synthesis suggests that to improve project management performance through extra-role behaviors, organizations should not rely solely on unidimensional interventions; rather, improving performance requires creating supportive cultural contexts, enhancing digital communication architecture, and strengthening psychological safety and relationship-oriented leadership competencies, the effects of which are moderated in interaction with the project's local and structural complexities.

IV. Discussion

The findings of this review show that project citizenship behavior should be considered as one of the key components in improving project management performance; a component that, although seemingly voluntary, extra-role, and non-binding, can in practice become one of the main sources of project effectiveness. This result is important because the traditional project management literature has mainly focused on tools, structures, time, cost, and control, while the present review shows that a significant part of project success depends on behaviors that occur outside of the formal job description. In other words, successful projects are not just the product of careful planning, but also the result of people who act responsibly, collaboratively, supportively, flexibly, and voluntarily in complex situations. From a managerial perspective, the most important message of these findings is that PCB should not be viewed as a marginal or merely ethical phenomenon, but rather as a strategic behavioral asset in project management. If organizations and project managers want to sustainably improve project performance, they must move beyond formal control and traditional evaluation systems and create an environment in which citizenship behaviors can emerge, be reinforced, and be sustained. This means that the role of the project manager is no longer simply that of a coordinator of activities or a supervisor of work progress, but rather that of the architect of a social and psychological environment in which team members are willing to act beyond their formal roles.

The review of studies also shows that leadership plays a central role in this. Participatory, inclusive, transformational, servant, and collaborative leadership styles have been more successful in stimulating project citizenship behavior than other approaches. The reason for this is clear: these styles emphasize trust, respect, participation, empowerment, and

meaning in work rather than relying on formal power. Consequently, organizational policymakers and senior managers should go beyond technical competencies when designing systems for selecting, training, and evaluating project managers. Communication skills, emotional intelligence, the ability to build trust, the capacity to manage diversity, and the ability to build a culture of collaboration should be recognized as key project leadership criteria.

Another important outcome of this review is the highlighting of the role of the quality of teamwork and effective communication. Project citizenship behavior does not develop in a vacuum; rather, it develops in the context of daily interactions, interpersonal collaboration, communication clarity, team cohesion, and goal alignment. Therefore, if an organization wants to increase PCB, it should focus on designing mechanisms that enhance constructive interactions in project teams. This is especially important in complex, cross-functional, virtual, and multicultural projects; Where a lack of clear communication or mutual trust can undermine project performance faster than any technical factor. Therefore, establishing clear communication protocols, regular feedback sessions, conflict resolution mechanisms, and digital collaboration tools should be part of the core project management policies.

From an organizational policy perspective, the findings suggest that PCB is not solely a product of individual characteristics, but is strongly influenced by structural and cultural contexts. Organizational culture, perceived support, fairness, sense of psychological safety, empowerment, and quality of relationships all play a role in shaping these behaviors. This is important for policymakers because it shows that developing project citizenship behaviors cannot be achieved simply through individual advice or short-term training. If the organization structurally creates an environment based on distrust, excessive control, inequality, or ambiguity, it is unrealistic to expect PCB to occur. Therefore, organizational policies should be designed in line with the values of participation, learning, transparency, mutual respect, and support for initiative.

The results of the review also show that in new project-oriented environments, especially digital, virtual, and international projects, the importance of PCB has doubled. In such contexts, direct supervision is reduced and the project is more dependent than ever on the voluntary, self-directed, and coordinated behaviors of members. From this perspective, the future of project management is increasingly tied to the quality of social leadership, the communication maturity of teams, and the organization's capacity to produce transrole behaviors. This has a clear message for project policymakers, especially in large organizations, technology companies, the construction sector, and public institutions: investing in behavioral and cultural infrastructure is as important as investing in project tools and technologies.

4.1. Limitations of the Review

Although this comprehensive review provides valuable insights into the role of project citizenship behavior (PCB) in improving project management performance, it has several limitations that should be considered when interpreting the findings.

- First, this review was mainly limited to studies published in English, which may lead to language bias and neglect of valuable evidence from research in Persian, Chinese, Spanish, and other languages.
- Second, the main focus of the identified studies was in the two domains of construction and information technology; therefore, the generalizability of the findings to other sectors such as healthcare, public services, education, and manufacturing industries should be considered with caution.
- Third, due to the wide variety in the methodology of the primary studies (quantitative, qualitative, and mixed), the qualitative synthesis conducted may be somewhat subject to interpretation bias and the results may depend on the judgment of the researcher.
- Fourth, the focus on the period 2016–2026 has excluded some fundamental studies from the analysis prior to this period, which may reduce the initial conceptual roots of PCB in the overall picture.
- Fifth, the lack of access to some studies due to database access restrictions (paywall) may have omitted some relevant evidence.

These limitations also indicate future research directions: conducting multilingual reviews, expanding the scope of industry sectors, and utilizing quantitative synthesis methods (such as meta-analysis) could strengthen the validity of the findings of this review in the future.

V. Conclusion

In conclusion, project citizenship behavior needs to be moved from the margins of project management literature to the context of management strategies. Organizations seeking sustainable project success should consider PCB as an intangible but highly impactful asset and adopt a multi-level approach to enhance it – one that integrates leadership, team, culture, communications, and HR policies. Ultimately, the competitive advantage of projects in the future will depend not only on technical prowess, but also on the ability of organizations to instill responsible, participatory, and voluntary behaviors.

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