The Role of Lean Human Resources in Promoting Organizational Citizenship Behavior: A Systematic Literature Review

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ABSTRACT

Keywords:
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SLR

In addressing the complexity of modern organizational environments, the implementation of Lean Human Resources (Lean HR) has emerged as a strategic approach to enhancing efficiency and employee empowerment. This study aims to examine the relationship between Lean HR and Organizational Citizenship Behavior (OCB), as well as to explore the role of organizational culture as a moderating variable in that relationship. The method employed is a Systematic Literature Review (SLR) based on the PRISMA protocol, analyzing 40 empirical articles from the Scopus database published between 2024 and 2025. The analysis was conducted using VOSviewer and Biblioshiny to support bibliometric mapping and thematic visualization. The findings indicate that Lean HR principles—such as process efficiency, empowerment, continuous training, and transparency—have a positive relationship with OCB dimensions, including altruism, civic virtue, and conscientiousness. Moreover, an organizational culture that fosters collaboration and learning plays a crucial role in strengthening the influence of Lean HR on OCB. Bibliometric visualizations identified "employee" and "organization" as central nodes in the relevant literature. In conclusion, the integration of Lean HR with an adaptive organizational culture significantly fosters the development of OCB. This study offers both theoretical and practical contributions to the advancement of strategic human resource management in navigating contemporary organizational dynamics.

INTRODUCTION

In the era of globalization and increasingly tight market competition, organizations are required to manage human resources effectively and efficiently to support the achievement of strategic goals. One approach that is currently widely discussed and implemented is Lean Human Resources (Lean HR), which is an adaptation of the principles of lean manufacturing into human resource management. Lean HR aims to improve operational efficiency by reducing waste in work processes, while increasing employee engagement and empowerment (Bhasin, 2012). In practice, Lean HR emphasizes transparency, active employee participation in decision-making, and improved internal communication as foundations for creating a collaborative and productive work environment (Emiliani, 1998).

Simultaneously, organizations are becoming more aware of the importance of extra-role behavior, or Organizational Citizenship Behavior (OCB), as a key driver of long-term success. OCB refers to voluntary behaviors that go beyond formal job descriptions, such as helping coworkers (altruism), complying with rules without supervision (conscientiousness), and contributing to the organization's development (civic virtue) (Podsakoff et al., 2000). In this context, an important question arises as to the extent to which Lean HR practices can facilitate and encourage OCB within complex and dynamic work environments. Recent literature reviews indicate a positive trend between Lean HR approaches and the enhancement of OCB quality (Bamber et al., 2014); (Paposa & Paposa, 2023); (Bocquet et al., 2019), however, systematic studies that thoroughly examine this relationship remain limited.

The core problem underlying this study is the lack of a deep understanding regarding the mechanisms through which Lean HR influences various dimensions of OCB across different organizational contexts. While many organizations adopt lean principles in pursuit of process efficiency, not all are able to implement them consistently to promote employee engagement in extra-role behaviors. In some cases, implementation focuses only on technical aspects and cost efficiency, neglecting the impact on employee motivation and behavioral dynamics. This underscores the need to identify Lean HR approaches that are not only operationally efficient but also effective in shaping a work culture that supports OCB.

Common solutions proposed in previous studies involve integrating lean values into human resource policies and practices, including employee involvement in strategic decision-making, the provision of continuous training, and the delivery of open and constructive feedback (A. D. Furlan et al., 2006); (Bonavia & Marin-Garcia, 2011). By encouraging decentralization of authority and granting employees autonomy, organizations foster a greater sense of responsibility, which in turn enhances ownership and the desire to actively contribute to organizational progress. This approach is viewed as bridging the need for efficiency with aspirations for employee engagement.

Furthermore, more specific solutions emerge from research emphasizing the importance of creating a supportive, safe work environment that offers opportunities for professional development. Such work conditions have been shown to increase employee loyalty and commitment and to naturally foster the emergence of OCB (Sparrow & Otaye-Ebede, 2014). Lean HR, when formulated with consideration for employees' psychological and social needs, can serve as a powerful platform for building positive reciprocal relationships between the organization and its workforce.

In this context, several studies highlight that the implementation of Lean HR must align with organizational cultural values to produce optimal outcomes. Organizational cultures that are open to change, supportive of collaboration, and appreciative of individual initiative have been shown to strengthen the relationship between Lean HR and OCB (Netland & Powell, 2016). Conversely, in bureaucratic and hierarchical work cultures, efforts to empower employees are often hindered by rigid authority structures. Therefore, this study considers it essential to examine the role of organizational culture as a moderating variable that determines the success of Lean HR implementation in fostering OCB.

Nonetheless, despite the growing number of studies touching on the relationship between Lean HR and OCB, comprehensive and systematic reviews remain scarce. Existing literature tends to be fragmented and does not yet provide an integrated picture of lean principles within the context of organizational behavior. Few studies specifically map Lean HR practices and link them to relevant forms of OCB across various organizational types and cultural settings. This opens up opportunities for research to address a gap in the academic literature, particularly concerning the conditions under which Lean HR can act as a catalyst for improving OCB.

Despite the growing number of studies touching on the relationship between Lean HR and OCB, comprehensive and systematic reviews remain scarce. The research gap lies in three main areas: (1) the absence of integrative frameworks linking Lean HR practices to specific OCB dimensions, (2) limited understanding of the moderating role of organizational culture in this relationship, and (3) lack of bibliometric analysis to map the intellectual structure of this research domain. This study addresses these gaps by providing a systematic synthesis of recent empirical evidence and employing visual bibliometric approaches to reveal research trends and thematic patterns.

The novelty of this research is threefold: First, it systematically maps Lean HR practices and links them to relevant forms of OCB across various organizational types and cultural settings. Second, it explicitly examines organizational culture as a moderating variable that determines the success of Lean HR implementation in fostering OCB. Third, it employs bibliometric visualization tools (VOSviewer and Biblioshiny) to provide a comprehensive intellectual landscape of the Lean HR-OCB relationship, which has not been extensively explored in previous literature.

Based on this background, the present study aims to systematically examine the relationship between Lean Human Resources and Organizational Citizenship Behavior through a review of academic literature. The study offers a novel contribution by integrating both conceptual and empirical understandings of Lean HR as a strategic management approach that not only emphasizes efficiency but also plays a vital role in shaping positive organizational behavior. The scope of the review includes identifying Lean HR practices, relevant forms of OCB, and organizational culture factors that influence their relationship. The research questions posed include: (1) How does the implementation of Lean HR affect Organizational Citizenship Behavior (OCB) in organizations? (2) Is there a positive relationship between Lean HR principles and employee OCB levels? (3) What role does organizational culture play in moderating the relationship between Lean HR and OCB?

The benefits of this research include both theoretical and practical contributions. Theoretically, this study enriches the academic literature by integrating Social Exchange Theory (Blau, 1964) and Resource-Based View (Kraaijenbrink et al., 2010) to explain how Lean HR creates value through enhanced OCB. It also advances understanding of organizational culture as a critical contingency factor in HR-behavior linkages. Practically, this research provides evidence-based guidelines for HR practitioners and organizational leaders to design Lean-based HR policies that simultaneously achieve operational efficiency and cultivate positive employee citizenship behaviors. The findings can inform strategic human resource management decisions in navigating contemporary organizational dynamics across public, private, and educational sectors.

METHOD

The Systematic Literature Review (SLR) methodology was employed in this study. SLR is a structured and methodical approach to reviewing existing literature in order to address specific research questions. In the context of investigating the influence of leadership on Organizational Citizenship Behavior (OCB), SLR enables researchers to comprehensively identify, evaluate, and synthesize findings from various relevant studies. According to (Ourzik, 2022), SLR differs from traditional narrative reviews as it adopts a transparent, scientific, and reproducible process aimed at minimizing bias. This process involves extensive literature searches, including both published and unpublished sources, as well as the creation of an audit trail that documents researchers' decisions, procedures, and conclusions. As such, SLR provides a solid foundation for understanding the relationship between leadership and OCB, while also identifying gaps in the existing literature.

In applying the SLR methodology to this topic, the researchers followed established steps as proposed by (Kitchenham & Charter, n.d.), which include formulating research questions, developing inclusion and exclusion criteria, and conducting data analysis based on the selected studies (García-Peñalvo et al., 2021). Furthermore, SLR can be supplemented with literature mapping to provide clearer insights into research trends and patterns. For example, a study (López-Domínguez et al., 2013) demonstrated that transformational leadership has a positive effect on OCB, emphasizing the importance of understanding specific leadership components that can foster citizenship behavior within organizations. Through the SLR

approach, researchers can not only summarize existing findings but also offer recommendations for future research based on the collected evidence.

This study employed the Systematic Literature Review (SLR) methodology. As the "Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)" guidelines are widely recommended for SLRs, this framework was used to structure the article selection process and to report the findings. Typically, a predefined protocol is required for conducting an SLR, which outlines the inclusion criteria for articles and the analytical methods to be used. Accordingly, we designed the review protocol prior to article retrieval and adopted the PRISMA framework for selecting relevant studies. PRISMA consists of three key stages "Identification," "Screening," and "Inclusion" each of which must be completed to justify the inclusion of selected articles. Decisions regarding search terms, eligibility criteria, databases, and data extraction techniques fall under the "Identification" phase (Page et al., 2021). Therefore, the search query employed the Boolean combination : ("Lean HR" OR "Lean Human Resources") AND ("Organizational Citizenship Behavior" OR "OCB"), applied within the Scopus database.

To identify articles during the Identification phase, we established the following inclusion criteria: "Final Journal Articles," written in English, based on Empirical Studies relevant to Lean Human Resources (Lean HR) and Organizational Citizenship Behavior (OCB). Articles must contain terms such as "behavior," "Lean HR," "Lean Human Resource," "Organizational Citizenship Behavior," or "OCB," and must have been published between 2024 and 2025. The inclusion of journal articles ensured methodological consistency sufficient to yield relevant outcomes and uphold internal validity.

The PRISMA flow diagram requires that identified articles be screened according to the established inclusion criteria. The screening process included Automated filtering using database options, Manual filtering by independent reviewers, Extraction of bibliometric data into an Excel file, Manual evaluation of the methodological quality of each article, and downloading the full-text versions of screened articles. In both automated and manual screening, any article that did not meet the inclusion criteria was excluded from the review.

The information in the Excel sheet was then loaded into Biblioshiny and VOSviewer software to generate output for bibliometric analysis. VOSviewer was mainly used to construct the keyword co-occurrence network visualization, a component of bibliometric analysis. VOSviewer was used to answer the first and second objectives. The first objective was How does the implementation of Lean HR affect Organizational Citizenship Behavior (OCB) in organizations and the second objective was Is there a positive relationship between Lean HR principles and employee OCB levels?, and the third What is the role of organizational culture in moderating the relationship between Lean HR and OCB?.
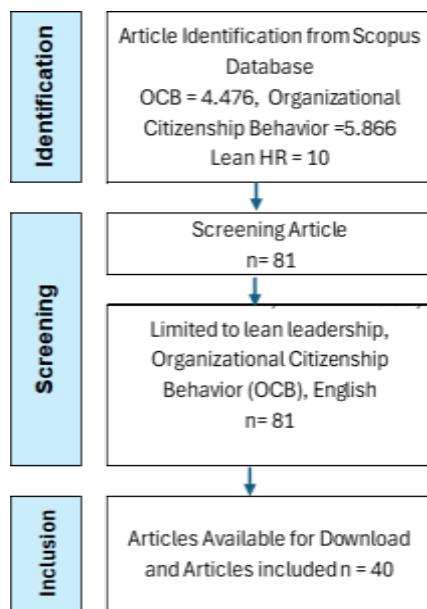
Figure 1. PRISMA Diagram

The "PRISMA flowchart" requires that identified articles must be screened based on the inclusion criteria. The screening process includes automated screening using the database option, manual screening by independent reviewers, retrieval of bibliometric data from articles in an Excel file, manual assessment of the methodological soundness of each article, and downloading the full version of each screened article. In both automated and manual screening, articles that did not meet the inclusion criteria were removed, describing the full article selection process, and a section explaining the number of articles excluded.

RESULTS AND DISCUSSION

Our study found related to articles during the identification stage, as shown by the PRISMA flowchart. After that, filtering was carried out to 81. The automatic database filtering feature is limited to article, limited to Organizational citizenship behavior/OCB, limited to article Lean, Lean leadership, Lean Transformational, Lean Human Resource, so that articles that meet the criteria are eligible to be 40.

Table 1. Literature Summary

No	Author	Year	Country	Method	Focus	Main Results
1	Muhammad Iqbal, Ika Nurul Qamari, Arni Surwanti	(2024)	Indonesia	Literature Review dengan VOSviewer	Organizational Citizenship Behavior in Public Sector	Organizational factors have a positive impact on OCB in the public sector
2	Daryl Powell, David Romero, Jiju Antony, Paolo Gaiardelli	(2024)	International	Conceptual Review	Digitalization of Lean Manufacturing	Integration of Lean and digital technologies forms Lean 4.0
3	Solomon Lartey	(2024)	UK	Review Konseptual	Supply Chain Management complexity	Complexities in SCM require comprehensive management methods including lean
4	Ahmad Badawi Saluy, et al.	(2024)	Indonesia	Structural Equation Modeling (SEM)	OCB, leadership transformation and job satisfaction	Leadership and job satisfaction positively affect OCB, but commitment does not directly influence
5	Syaiful Arifin, Bagus S. Narmaditya	(2024)	Indonesia	Structural Equation Modeling (SEM)	OCB and transformational leadership in civil services	Transformational leadership and commitment positively affect OCB and employee performance
6	Mahmoud Abu Joma, et al.	(2024)	Jordan	Quantitative Survey (PLS)	Job enrichment and OCB in industries	Job enrichment positively impacts OCB, especially skill diversity
7	Zulpikar, Ida Aju Brahmasari, Ida Aju Brahma Ratih	(2024)	Indonesia	Structural Equation Modeling (SEM)	Cultural change, training, rewards, OCB and Islamic work ethics	OCB and employee engagement mediated by Islamic work ethics enhance performance

No	Author	Year	Country	Method	Focus	Main Results
8	Jefri Heridiansyah, et al.	(2024)	Indonesia	Structural Equation Modeling (SEM)	Transformational leadership, QWL, and OCB	Quality of work life significantly mediates the relationship between transformational leadership and OCB
9	Kopally Nageswara Rao, et al.	(2024)	India	Kuantitatif (SEM)	Workplace spirituality and its influence on OCB	Workplace spirituality has a positive effect on OCB
10	Diana Hasan, et al.	(2024)	Indonesia	Systematic Literature Review	Organizational culture, organizational commitment, career development and OCB	Organizational culture and organizational commitment have a positive effect on OCB through career development mediation.
11	Wagih Mohamed Salama	(2024)	Egypt	Quantitative (Structural Equation Modelling)	Green Human Resource Management (GHRM) and its impact on OCB	GHRM has a positive effect on OCB, job satisfaction, and organizational commitment.
12	Olivia Syanne Nelwan, et al.	(2024)	Indonesia	Quantitative (SEM-PLS)	The influence of servant leadership on employee creativity and OCB	OCB mediates the relationship between servant leadership and employee creativity.
13	Ferry Hermawan, et al.	(2024)	Indonesia	Quantitative (PLS-SEM)	Transformational leadership, job satisfaction, organizational commitment to OCB	Transformational leadership, job satisfaction, and organizational commitment have a positive effect on OCB.
14	Emily M. David, et al.	(2024)	Multi-national	Multi-wave, Multi-source Quantitative	Corporate Social Responsibility (CSR) and its effects on employee behavior	Corporate-level CSR is positively related to OCB through supervisors' supportive family behavior.
15	Nessrin Shaya, et al.	(2024)	United Arab Emirates	Hierarchical Linear Modeling (HLM)	Illegitimate tasks, negative affectivity and their impact on OCB	Tasks that are perceived as illegitimate increase negative affectivity which has a negative impact on OCB.
16	Temesgen Abebaw Wonda	(2024)	Ethiopia	Descriptive causal research (SEM)	OCB and employee performance	Helping behavior, sportsmanship, civic virtue, organizational loyalty, and individual initiative positively influence performance
17	Bambang Utoyo Sutiyoso & Dodi Faedlulloh	(2024)	Indonesia	Quantitative analysis (AHP)	Social capital, OCB and performance in bureaucracy	Social capital and OCB significantly affect civil servants' performance, with civic virtue and altruism as most impactful factors
18	Mohammadjafar Chabokrow, et al.	(2024)	Australia	Mixed methods (Regression and SEM)	Spirit at work, job satisfaction, OCB in higher education	Spirit at Work significantly predicts OCB, job satisfaction, and organizational commitment, challenging prior findings about staff type differences
19	Izhak Berkovich	(2024)	Israel	Quantitative (Regression analysis)	Leadership styles and teachers' motivation by OCB levels	Intrinsic motivation in high OCB teachers linked to passive leadership, identified motivation in low OCB teachers linked to transactional leadership
20	Haidong Sun, et al.	(2024)	International	Meta-analysis and SEM	Transformational leadership, organizational commitment and OCB	Transformational leadership significantly enhances organizational commitment and OCB; organizational commitment mediates leadership's impact on OCB
21	Liao et al.	(2025)	China	Hierarchical Regression	Occupational stigma and moral cleansing effects on OCB	Stigma increases OCB through loss of moral credibility
22	Ji et al.	(2025)	China	Hierarchical Regression & Mediation	Organizational justice, burnout and OCB	Positive procedural justice, negative burnout on OCB
23	Maria & Pancasasti	(2025)	Indonesia	SEM with SmartPLS	Emotional intelligence, teamwork, and OCB	EI and teamwork enhance OCB
24	Kirrane et al.	(2025)	International	Mediation Analysis	Psychopathy, morality, and OCB	Psychopathy facets differently related to OCB, boldness positif
25	Su & Hahn	(2025)	China & Korea	Multilevel SEM	Ethical leadership effects on OCB	Ethical leadership positively affects OCB through ethical climate
26	Cheng et al.	(2025)	China	PLS-SEM	Servant leadership, trust, and OCB	Trust and PLC mediate servant leadership effects on teacher OCB
27	Park & Kim	(2025)	South Korea	Mediation Regression	Public service motivation and OCB	Public service motivation boosts OCB improving job performance
28	Abdulmawla et al.	(2025)	Egypt	PLS-SEM	Transformational leadership, intrinsic motivation and OCB	TFL enhances OCB through intrinsic motivation and organizational commitment

No	Author	Year	Country	Method	Focus	Main Results
29	Fauziah et al.	(2025)	Indonesia	Linear Regression	OCB and teacher performance	OCB significantly improves teacher performance
30	Arokiasamy et al.	(2025)	Malaysia	Regression & Bootstrapping	Office design, work engagement, and OCB	Office design influences OCB via work engagement positively
31	Daniel Dewantoro Rumani	(2025)	Indonesia	SEM (Structural Equation Modeling)	The Influence of Servant Leadership on Strategic Change Management	Servant Leadership has direct and indirect positive effects on SCM through OCB and POS.
32	Mohammad Alqahtani	(2025)	Saudi Arabia	Smart PLS (Partial Least Squares)	Employee empowerment in the hospitality industry	Empowerment has a positive effect on OCB, mediated by self-efficacy.
33	Diana Hayati, Ahmad Rifani	(2025)	Indonesia	SEM (Structural Equation Modeling)	The Relationship between Employee Engagement and Leader-Member Exchange (LMX)	Employee engagement and good relationships with leaders increase Organizational Commitment and OCB.
34	Henry Aspan et al.	(2025)	Indonesia	SEM (Smart-PLS)	Effectiveness of lecturer work	Work motivation and OCB have a positive influence on the effectiveness of lecturer work
35	Abdullah Sarwar et al.	(2025)	Malaysia	Multiple Regression, ANOVA	Effect of Organizational Commitment on OCB in the financial sector	Affective commitment is significant on OCB, demographic factors also affect OCB
36	Pooja Kanojia et al.	(2025)	India	Statistik Deskriptif, ANOVA	Big Data and IoT adoption in improving OCB	Demographic factors are significant in improving OCB
37	Muhammad Khan et al.	(2025)	Internasional	PLS-SEM	The impact of OCB on supply chain performance and corporate sustainability	OCB dimensions significantly improve supply chain performance which supports corporate sustainability
38	Bang Nguyen-Viet & Tien Vo Tri Chau	(2025)	Vietnam	Smart PLS	The relationship between CWB and OCB with the mediation of moral identity	CWB, moral identity, and organizational justice are significant to OCB.
39	Pradeep Yanamala & Amruta Deshpande	(2024)	India	SEM and SPSS	Transformational leadership style towards customer satisfaction in the pharmaceutical industry	Transformational leadership style increases OCB which directly affects customer satisfaction.
40	Patrik Fröhlich et al.	(2025)	Jerman	Longitudinal Mediation Analysis	The role of workplace happiness as a mediator	Workplace happiness mediates the positive relationship between instrumental leadership and OCB.

Table 1 contains 40 recent studies (2024-2025) where Organizational Citizenship Behavior (OCB) is an important theme that continues to be researched in the context of public organizations, education, industry, and the service sector. Most studies use Structural Equation Modeling (SEM), Partial Least Squares (PLS), and other quantitative approaches to test the influence of various variables such as leadership style (transformational, servant, ethical), employee engagement, employee empowerment, organizational culture, and commitment to improving OCB. OCB has been consistently proven to have a positive impact on individual and organizational performance, with key dimensions such as altruism, conscientiousness, civic virtue, and sportsmanship. Several studies highlight the importance of mediating factors such as morality, trust, work engagement, and perceptions of fairness in strengthening the influence of various managerial practices on OCB.

In the context of Lean Human Resources (Lean HR), although there are not many explicit studies that directly examine the relationship between Lean HR and OCB in this table, there are strong indications that the Lean approach, including Green HRM, employee empowerment, and other HR efficiency practices play an important role in driving OCB. Lean HR principles that emphasize efficiency, eliminating waste, and increasing employee participation have been shown to align with OCB characteristics such as initiative, loyalty, and voluntary behavior. Studies by (Lartey, 2024) and (Powell et al., 2024) provide a conceptual basis that the integration of Lean and digital technology (Lean 4.0) has significant implications for the dynamics of efficient and agile organizations. Therefore, Lean HR has the potential to be a catalyst in forming a work culture that supports OCB behavior, especially if supported by

an adaptive leadership style and a work system that is responsive to employee needs in facing the challenges of the VUCA environment.
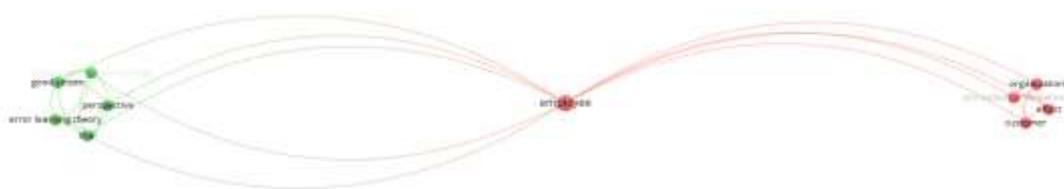
Figure 2. Network Visualization VOSviewer

The network visualization of the results of the VOSviewer analysis (Figure 2) of the Organizational Citizenship Behavior (OCB) literature shows two main clusters that are interconnected with the focus on the keyword "employee". The green cluster on the left side illustrates the conceptual and internal dimensions of OCB, which includes keywords such as good citizen, perspective, error learning theory, and utilize green learning. This cluster reflects the theoretical approach and organizational learning that emphasizes the importance of values, learning from mistakes, and positive individual contributions in shaping organizational citizenship behavior. In this context, employees are considered as agents of change who interpret their roles proactively through the process of internalizing values and actively participating in organizational learning. Meanwhile, the red cluster on the right side shows the relationship between OCB and the external impact of the organization, indicated by keywords such as organization, customer, pro-customer behavior, and effect. This indicates that OCB is not only internal, but also makes a real contribution to organizational performance and customer satisfaction. The position of "employee" as the central node connecting the two clusters confirms that employee behavior is a link between the organization's internal values and external performance results. Thus, this visualization reinforces the understanding that developing OCB through approaches such as Lean Human Resources (Lean HR), which emphasizes efficiency, empowerment, and continuous learning, can be an effective strategy in creating a positive impact overall in the organization.
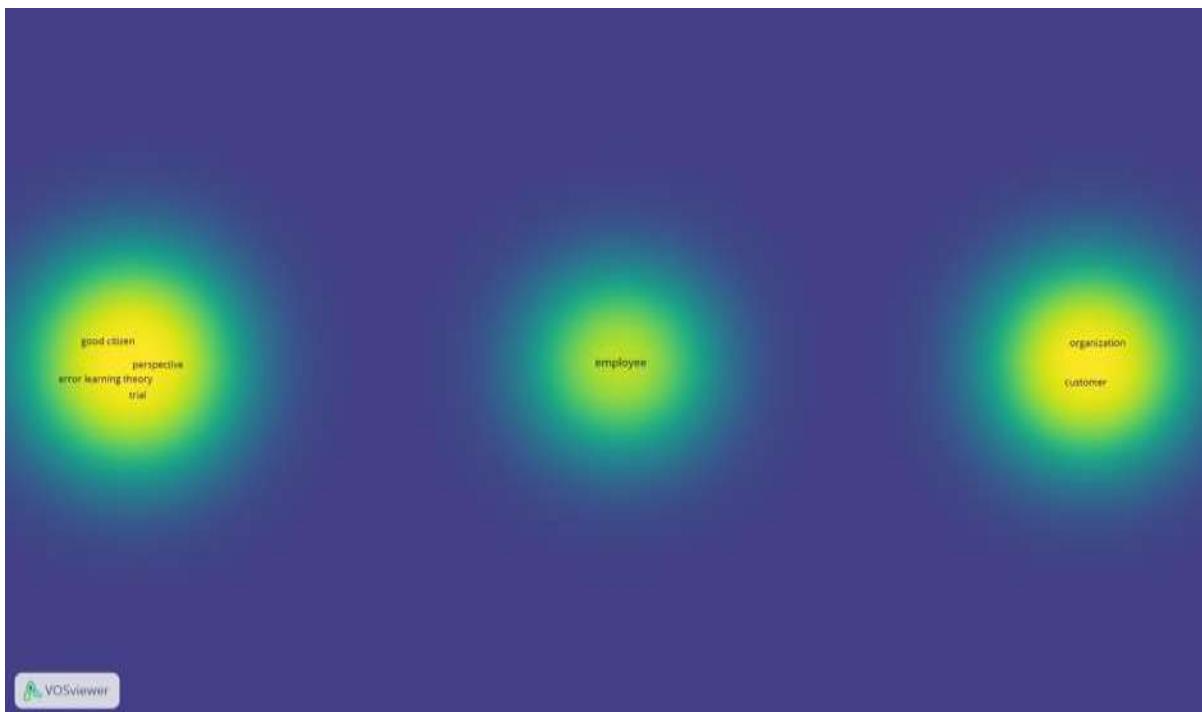
Figure 3. Density Visualization

Figure 3 shows the density visualization results of VOSviewer analysis of keywords related to Organizational Citizenship Behavior (OCB). In this visualization, the yellow color indicates areas with high density or keywords that often appear and are closely related in the literature, while the green to blue colors indicate lower densities. It can be seen that the keyword "employee" is at the center of the visualization and is surrounded by two main clusters: on the left side are terms such as "good citizen", "perspective", "error learning theory", and "trial" which emphasize the internal and theoretical dimensions of OCB. On the right side, there are terms "organization" and "customer" which represent the external and applicable dimensions of OCB in the context of organizations and customer satisfaction. The interpretation of this visualization shows that "employee" functions as the main node connecting the two major dimensions of OCB, namely the development of an individual's internal character and its impact on the external environment of the organization. The high density of words such as "good citizen" and "organization" indicates that the OCB literature intensively discusses employees' contributions to organizational values and customer service. This visualization supports the idea that Lean Human Resources (Lean HR), with its principles of empowerment and work efficiency, can play a strategic role in guiding employees to adopt OCB behaviors, both oriented towards internal learning and external outcomes. Thus, the Lean HR approach can serve as a bridge between individual potential and the achievement of overall organizational goals.

Discussion

Implementation of Lean HR affects Organizational Citizenship Behavior (OCB) in organizations

The implementation of Lean Human Resources (Lean HR) in organizations shows a significant influence on increasing Organizational Citizenship Behavior (OCB) among employees. Lean HR focuses on efficiency, reducing waste, and increasing added value in human resource management practices. These principles create a more responsive, transparent work environment and support voluntary employee involvement. A study by (Aspan et al., 2025) showed that high work motivation and organizational commitment significantly affect

OCB, which in turn impacts the effectiveness of lecturers' work. When Lean HR eliminates non-value-added processes and encourages transparency, employees feel more empowered and engaged, which ultimately increases extra-role behaviors such as helping coworkers, awareness of organizational responsibility, and institutional loyalty.

Furthermore, in the context of the public sector as shown by (Aspan et al., 2025) the application of Lean HR through increasing emotional intelligence and teamwork can increase the OCB of agricultural extension workers in Banten. OCB in this case acts as a mediator that strengthens the relationship between personal variables (such as teamwork and emotional intelligence) and performance. This proves that when Lean HR principles are applied to encourage collaboration and increase personal competence, employees tend to demonstrate behavior that supports organizational success voluntarily. These results are consistent with the Lean approach that emphasizes individual empowerment, continuous improvement, and active involvement in creating value. Thus, Lean HR is not only an efficiency strategy, but also an important catalyst in forming strong OCB behavior in various types of organizations.

Network visualization and density of the VOSviewer analysis results illustrate the relationship between the main concepts in Organizational Citizenship Behavior (OCB) research. In network visualization, the "employee" node is the central link between two large groups: one side is related to the concept of "organization", "pro-customer stance", and "customer"; while the other side is related to "good citizen", "perspective", "error learning theory", and "trial". This indicates that employee behavior becomes the main node connecting internal orientation (such as error learning and citizenship values) and external orientation (customer satisfaction and organizational goals). The implementation of Lean HR plays a role in strengthening these relationships by emphasizing continuous learning, process improvement, and employee empowerment.

Density visualization shows the distribution of dominant topic densities in the literature. The lighter yellow color around the words "employee", "organization", and "good citizen" reflects the high concentration of academic discussion, indicating the central role of these elements in OCB studies. This indicates that Lean HR which encourages efficiency, improved work quality, and collaborative culture has a strong influence in shaping employee extra-role behavior. Employees who are empowered through Lean HR not only show loyalty and contribution to the organization, but are also proactive in supporting coworkers and creating value for customers, in accordance with the main dimensions of OCB mapped in this visualization.

Positive Relationship between Lean HR Principles and Employee OCB Levels

Lean Human Resources (Lean HR) principles have a strong positive correlation with increasing Organizational Citizenship Behavior (OCB) in employees. Lean HR, which emphasizes process efficiency, individual empowerment, and elimination of non-value-added activities, encourages employees to contribute more than just their formal roles. In this context, a study by (Aspan et al., 2025) menegaskan bahwa komitmen organisasi dan motivasi intrinsik karyawan yang diperkuat melalui Lean HR secara langsung meningkatkan OCB, khususnya pada aspek-altruism dan conscientiousness. Begitu pula penelitian oleh (Nelwan et al., 2024) memperlihatkan bahwa penerapan Lean HR mendorong karyawan untuk bersikap proaktif dan menunjukkan loyalitas, yang menjadi ciri khas OCB. Peningkatan ini tercermin dalam perilaku sukarela, seperti membantu rekan kerja dan menjaga reputasi organisasi.

Furthermore, (Nelwan et al., 2024; Pancasasti et al., 2022) in their research in the public sector showed that aspects of Lean HR, such as improving teamwork and emotional intelligence, play a major role in creating a conducive work environment for the growth of OCB. The implementation of Lean HR creates a transparent and adaptive work system, thereby

strengthening employees' sense of ownership of the organization. This encourages the emergence of extra-role behavior that supports the overall effectiveness of the institution. Therefore, the integration of Lean HR principles is not only relevant in the context of managerial efficiency, but also as a strategic strategy to form a collaborative and initiative work culture, two main characteristics of OCB.

The visualization of VOSviewer results strengthens empirical evidence that Lean HR principles have a positive relationship to increasing the level of Organizational Citizenship Behavior (OCB) of employees in the organization. In the network visualization image, the concept of "employee" appears as the main node connecting two different poles: the left side represents individual values such as "good citizen", "perspective", and "error learning theory"; while the right side is connected to external entities such as "organization", "customer", and "pro-customer stance". This network shows that employees who are managed with Lean HR principles which emphasize efficiency, empowerment, and waste elimination are more likely to demonstrate extra-role behaviors such as helping coworkers, commitment to the organization, and concern for customers and work results. Meanwhile, the density visualization shows that the dense dots in bright yellow are concentrated around the words "employee", "organization", and "good citizen".

This indicates that these topics are dominant in the literature related to Lean HR and OCB. Employees who are given space to innovate, improve processes, and work in a lean work system tend to be more satisfied and intrinsically engaged, which leads to increased OCB. In this context, Lean HR is not only an efficiency approach, but also a driver of organizational culture that appreciates initiative, collaboration, and voluntary contributions from every individual in the organization.

The Role of Organizational Culture in Moderating the Relationship between Lean HR and OCB

Organizational culture plays an important role as a moderator variable in strengthening the relationship between the implementation of Lean Human Resources (Lean HR) and the improvement of Organizational Citizenship Behavior (OCB). An organizational environment that upholds collaborative values, openness, and commitment to continuous improvement can strengthen the impact of Lean HR principles on employees' extra-role attitudes and behaviors. Research by (Cheng et al., 2025) shows that trust and collaborative culture in professional learning communities (PLCs) in the education sector significantly increase leadership effectiveness and encourage OCB behavior among teachers. This proves that Lean HR principles will not be maximally effective if they are not supported by an organizational culture that supports empowerment and collective responsibility.

In addition, in the context of the public sector and bureaucracy, (Pancasasti, 2025) emphasizes the importance of organizational values such as collective emotional intelligence and teamwork in creating a work atmosphere that encourages the emergence of OCB. A positive organizational culture will strengthen employee perceptions of fairness, transparency, and shared goals—three aspects that are the main foundations in implementing Lean HR. Thus, organizations with adaptive and humanistic cultures are better able to direct the implementation of Lean HR to generate voluntary contributions, loyalty, and deep involvement from their employees. The role of organizational culture as a moderator is what bridges Lean HR into the main driver of sustainable OCB formation.

The results of network visualization from VOSviewer show that "employee" is the central point connecting two important spectrums in organizational practices: one side is related to "organization" and "customer" which represent external values, while the other side is related to "good citizen", "perspective", and "learning theory" which reflect the internal aspects of the individual. In this context, organizational culture functions as a cohesion enhancer between the two spectrums. An inclusive, participatory, and learning-oriented

organizational culture allows Lean HR principles (which emphasize efficiency and empowerment) to more effectively stimulate OCB. When organizational culture supports collaboration and autonomy, employees are more encouraged to demonstrate extra-role behaviors such as helping colleagues, being loyal to the institution, and being oriented towards customer satisfaction.

Meanwhile, in the density visualization, it appears that words such as "organization", "employee", and "good citizen" have a high density depicted in bright yellow. This indicates the importance of institutional and individual values in the formation of OCB. A strong organizational culture can strengthen the perception of fairness and meaning of work among employees, which in turn will maximize the impact of Lean HR in forming OCB behavior. Without a solid cultural foundation, the implementation of Lean HR risks becoming mechanistic and not touching the affective aspects of employees. Therefore, organizational culture is not just a background, but a crucial element that mediates and strengthens the relationship between a lean HR management system and constructive employee behavior in the organization.

CONCLUSION

Based on the systematic literature review, it can be concluded that the implementation of Lean Human Resources (Lean HR) positively and significantly enhances Organizational Citizenship Behavior (OCB) by fostering efficiency, empowerment, and a participatory work culture, which in turn encourages voluntary, extra-role contributions from employees. The relationship is further strengthened by a supportive organizational culture that values collaboration and continuous learning, acting as a crucial moderating variable. For future research, it is recommended to empirically test the integrative model of Lean HR, OCB, and organizational culture across diverse industrial and cultural contexts using quantitative methods, and to explore the longitudinal impacts of Lean HR interventions on the sustainability of OCB within dynamic and VUCA environments.

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