Literature review of the organizational citizenship behavior of employees in the public sector

Muhammad Iqbal (a)* Ika Nurul Qamari (b) Arni Surwanti (c)
(a) Master of Management, Universitas Muhammadiyah Yogyakarta, Brawijaya Street, Bantul, Yogyakarta 55183, Indonesia
(b) Lecturer, Department of Management, Universitas Muhammadiyah Yogyakarta, Bantul, Yogyakarta 55183, Indonesia

Introduction

There is a growing demand from the public sector for personnel to perform additional hours in service (Potipiroon & Faerman, 2020). However, certain constraints in terms of human resources hinder meeting these requirements. This condition has the capacity to impede the enhancement of employee performance (Notanubun, 2021). Organizational Citizenship Behavior (OCB) is a crucial element of human resources in public enterprises. Dynamic and fiercely competitive alterations in the environment distinguish the relevance of promoting a positive organizational culture, fostering transformational leadership, and enhancing work motivation to encourage OCB among public sector employees and finally (ii) the results of this study indicate that influential factors have a positive impact significantly on the OCB in the public sector.
Research findings indicate that organizational culture, transformational leadership, and work motivation positively influence employees' OCB (Jafarpanah & Rezaei, 2020). Currently, the indicators for each investigated variable are restricted. Prior study has not examined the impact of different independent variables on OCB. The studies determined that organizational culture exerts a substantial impact on OCB (Krajcsák & Kozák, 2022; Chang et al., 2021). Four unique organizational cultures (clan, hierarchy, adhocracy, and market) have a notable impact on OCB, with the exception of hierarchical culture (Jeong et al., 2019). The hindrance to OCB is due to the requirement for complete obedience to superiors in a hierarchical culture (Sarfraz et al., 2022).

The current negative consequence of OCB is manifested as a reduction in the well-being of individual employees due to the additional hours of OCB during the main working hours, resulting in emotional exhaustion (Potipiroon & Faerman, 2020). "Change-Oriented" OCB, specifically referring to employees actively advocating for good changes inside the organization, has the capacity to have significant influence over the organization, leading to internal tension (Li & Xie, 2022). Over the past twenty years, there has been a lack of substantial impact of leadership style on OCB. The impact of transformational leadership on OCB has only become significant in the past decade (Khan et al., 2020).

Since the 1990s, the correlation between work motivation, namely job satisfaction, and OCB has been consistently positive and statistically significant (Alsheikh & Sobihah, 2019). In the public sector, particularly in the sphere of education, school management that prioritizes the creation of a favorable environment for teaching and learning, and shows appreciation for teachers, has a beneficial impact on teachers' OCB (Zia et al., 2022). This demonstrates the significance of granting employees and teachers the authority and resources necessary to effectively oversee schools in a professional manner. This research, with its comprehensive breadth, has the potential to contribute significantly to the advancement of the nation and state (Mello, 2019).

In comparison to other studies, this research is more extensive and diverse in terms of the variables and indicators examined, providing comprehensive and integrated information in the public sector, particularly in the field of education. Consequently, this research remains pertinent. Nevertheless, the amount of study conducted on OCB in the public sector has been limited (De Geus et al., 2020). Therefore, there is a potential for further investigation and exploration in this field. The hypotheses of this study are organizational culture, transformational leadership, and work motivation as significant determinants of employees' OCB in the public sector align with existing literature. The literature review demonstrates that each conceptually supports the developed framework.

**Literature Review**

This study contributes to our understanding of employee behavior in governmental organizations. This paper aims to demonstrate the effects of organizational culture, transformational leadership, and work motivation on organizational citizenship behavior. Every variable possesses unique dimensions and indicators.

**Theoretical and Conceptual Background**

*Organizational citizenship behavior (OCB)* involves positive employee conduct that can be evaluated through voluntary participation and harmonious relationships among colleagues. It involves attentiveness to challenges, social awareness, active contribution of suggestions, willingness to offer assistance, and the demonstration of fairness and honesty in interactions with co-workers (Alsheikh & Sobihah, 2019; Habeeb, 2019; Jeong et al., 2019; Khan et al., 2020; Bartlett et al., 2022; Hermanto & Srimulyani, 2022; Sarfraz et al., 2022). Organizational success is achieved when employees engage in OCB, which includes voluntary actions, personal choice, and helping fellow employees outside of work hours without complaining (Kim et al., 2020; Marcos et al., 2020; Arshad et al., 2021; Notanubun, 2021). This behavior promotes positive engagement and does not expect compensation (Osman et al., 2019; Potipiroon & Faerman, 2020). OCB has a significant impact on the organization's effectiveness and future profitability (Massoudi et al., 2020). It benefits all aspects of organizational activity (Yuwono et al., 2023). In contrast, when there is a weak corporate culture, job satisfaction falls, resulting in low levels of OCB (Endrejat, 2021). Cultural variables contribute to variations in the aspects of OCB across different regions (Habeeb, 2019).

*Organizational culture (OC)* refers to the set of norms that an organization adopts. Examining the organization's adherence to spiritual values, the presence of a family-like atmosphere, and the level of respect shown towards superiors provides an assessment (Jeong et al., 2019; Sani & Ekowati, 2019; Solís & Brenes Leiva, 2019; Jafarpanah & Rezaei, 2020; Rathee & Rajain, 2020; Rocha & Pinheiro, 2021). OC can measure by evaluating the organization's norms related to adaptation, innovation, creativity, flexibility, target achievement, and work result orientation (Jeong et al., 2019; Lopez-Martin & Topa, 2019; Hamzah et al., 2020; Balluerka et al., 2021; Gorostiaga et al., 2022). Prior studies indicate that a favorable OC has the ability to influence OCB (Hooi et al., 2022) by means of employee empowerment (Jeong et al., 2019), consequently fostering a sense of contentment in their work (Habeeb, 2019) as a manifestation of pleasant emotional experiences among employees (Men & Yue, 2019). Similarly, a work environment characterized by demands and changes benefits from an adaptive culture, which is favorably correlated with OCB (Gorostiaga et al., 2022). The establishment of norms among employees plays a key role in fostering a culture of spirituality and kinship, which in turn has a notable impact on OCB (Jafarpanah & Rezaei, 2020). Several factors influence the achievement of good work performance. One important factor is the freedom to openly express one's beliefs, as well as the ability to put those beliefs into practice (Sani & Ekowati, 2019; Rathee & Rajain, 2020; Rocha & Pinheiro, 2021). Effective communication and openness about values are also crucial (Sarfraz et al., 2022; Jeong et al., 2019). Additionally, having clear targets and a focus on achieving results are important for work performance (Lopez-Martin & Topa, 2019).
Transformational leadership (TL) is characterized by several qualities. These include having a clear vision (Khan et al., 2020; Hermanto & Srimulyani, 2022; Sarfraz et al., 2022), being able to control members’ emotions (Grego-Planer, 2019; Men & Yue, 2019; Jafarpanah & Rezaei, 2020; Khan et al., 2020; Bartlett et al., 2022; Sri Ramalu & Janadari, 2022), being responsive (Men & Yue, 2019), serving (Li & Xie, 2022), being aware of one's own shortcomings, collaboration, fair commitment and support (Han Tran & Choi, 2019), being innovative, proactive, brave to take risks and able to influence its members (Lee et al., 2022), and offering loyalty (Jeong et al., 2019; Lopez-Martín & Topa, 2019; Khan et al., 2020; Notanubun, 2021; Bartlett et al., 2022). In order to improve teacher performance, school principals in the education sector create equitable policies, include teachers in decision-making, and foster positive relationships between employees and superiors (Hermanto & Srimulyani, 2022). This is because motivated employees work hard to establish a professional and welfare organizational culture that fosters organizational commitment (Yuwono et al., 2023) by generating a set of shared norms (Khan et al., 2020).

Work motivation (WM) is a psychological incentive that motivates workers to perform better through assessments of their well-being, attachment, and happiness (Habeeb, 2019; Lopez-Martín & Topa, 2019; Jafarpanah & Rezaei, 2020; Nurjanah et al., 2020; Bartlett et al., 2022); facilities and infrastructure (Notanubun, 2021; Zia et al., 2022); feeling valued and part of the organization, feeling cared for by superiors, maintaining a healthy work-life balance, and supervision (Osman et al., 2019; Abdullah & Marican, 2020; Arshad et al., 2021; Abdullah & Wider, 2022; Bartlett et al., 2022). Work motivation fosters better, more positive OCB behavior and increases confidence in one's ability to proactively handle problems (Abdullah & Marican, 2020). Effectiveness and integrity (Alanazi, 2021), a commitment-based attitude, and independence in completing the primary task (Habeeb, 2019; Jeong et al., 2019; Jafarpanah & Rezaei, 2020) are measures of work motivation. Employees will progressively improve their work performance as a show of gratitude if they receive improvements in their quality of life, facilities and infrastructure, worker health, satisfaction, feeling recognized, and rewards (Lopez-Martín & Topa, 2019; Osman et al., 2019; Nurjanah et al., 2020; Jafarpanah & Rezaei, 2020; Balluerka et al., 2021; Notanubun, 2021; Bartlett et al., 2022; Zia et al., 2022).

Those that are owned and run by the government are included in the public sector, which is a subset of the economy. This sector includes schools, hospitals, and other public services. The public sector's primary goal is to provide services deemed essential for societal well-being. The public sector is increasingly utilizing collaborative innovation as a tactic to address complex issues and enhance productivity (Baa & Chatторaj, 2022). In the public sector, OCB frequently appears as a result of a shortage of skilled workers, leading them to willingly put in more time without pay in order to improve the organization (Yuwono et al., 2023). Public sector managers must demonstrate creativity, proactiveness, and the skill to persuade subordinates to seize opportunities (Lee et al., 2022). To enhance teacher performance, for instance, the principal implements policies that include equitable rewards, teacher participation in decision-making, and peaceful relationships between subordinates and superiors (Hermanto & Srimulyani, 2022). These policies aim to cultivate a professional and thriving organizational culture that promotes organizational commitment (Yuwono et al., 2023) by establishing shared norms (Khan et al., 2020).

Empirical Review and Hypothesis Development

Previous research suggests that a favorable OC has a significant positive influence on OCB, as evidenced by the studies conducted by Hooi et al. (2022), Chang et al. (2021), and Krajscak & Kozak (2022). Employees that exhibit ethical conduct, creativity, and flexibility are more inclined to earn the confidence of their colleagues and successfully adjust to working alongside them, readily offering assistance in overcoming any obstacles they encounter (Balluerka et al., 2021). An adaptive organizational culture allows employees to independently carry out their main duties without feeling compelled to go beyond those duties to help their colleagues (Abdullah & Marican, 2020). Conversely, an ethical organizational culture fosters transparent and truthful communication, hence fostering positive employee behavior, such as OCB (Thelen & Formanchuk, 2022). Cultural values encompass attitudes that encourage voluntary participation in responsibilities beyond the core work (Hermanto & Srimulyani, 2022).

According to Khan et al. (2020), Nurjanah et al. (2020), and Budur & Demir (2022), the TL has a significant positive influence on OCB. Grego-Planer (2019) investigates the correlation between employee emotional engagement with the company and positive outcomes such as prosocial behavior or OCB. Another aspect contributing to employee engagement is the development of emotional attachment to the firm through training or discussions. As a result, there is a rise in emotional connection, contentment, and a perception of equity towards the company, which motivates employees to feel obligated to reciprocate by delivering useful services to the organization. Indeed, he intentionally and freely participates in prosocial behavior or OCB. As per the findings of Sri Ramalu & Janadari (2022), when employees view their boss as someone who is inspiring, ethical, and serves as a role model, it positively affects their psychological well-being and encourages them to actively participate in OCB.

In this study, Suharnomo & Hashim (2019) provided evidence that WM has a significant positive influence on OCB. The impact is particularly significant in terms of offering leadership assistance, as emphasized by Abdullah & Marican (2020). Employees experience higher levels of satisfaction and stronger organizational attachment when their superiors actively contribute, display genuine concern for their well-being, and demonstrate flexibility (Arshad et al., 2021). This results in the development of OCB, which refers to a voluntary inclination to assist others and cultivate harmonious connections with coworkers (Abdullah & Wider, 2022; Alsheikh & Sohihah, 2019; Jeong et al., 2019; Hermanto & Srimulyani, 2022; Sarfraz et al., 2022). Assessing the performance of employees and giving them incentives can significantly boost their motivation to participate in OCB (Habeeb, 2019). The reason for this is because employees perceive a sense of concern from the organization, prompting them to willingly contribute more hours.
of work as a gesture of appreciation (Osman et al., 2019; Arshad et al., 2021). In addition, the employees' confidence and self-assurance in their work are strengthened, which promotes prosocial behavior or OCB, that is advantageous for the organization (Abdullah & Wider, 2022).

Figure 1 describes about the preposition of the variables that showed as below:

P1: The better of OC that positively significant to OCB
P2: The better of TL that positively significant to OCB
P3: The better of WM that positively significant to OCB

The purpose of this study is to substantiate the expressed preposition. Figure 1 depicts three relationships between independent and dependent variables. The literature review demonstrates that each conceptually supports the developed framework.

![Figure 1](image)

Figure 1 Model of literature review of the influence of organizational culture, transformational leadership, and work motivation on organizational citizenship behavior

Research and Methodology

The study falls under bibliometric research and employs a quantitative approach to conceptual mapping. The study applies a variety of bibliometric analytic tools (Bretas & Alon, 2021). The study conducts a literature evaluation on OCB of public sector employees using VOSviewer to visually represent research progress. First stage that the keyword "TITLE-ABS-KEY (organizational AND citizenship AND behavior AND public AND sector) AND PUBYEAR > 2018 AND PUBYEAR < 2024 AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (SRCTYPE, "j")) searched Scopus for publications. Through a search in the Scopus database with the keywords "organizational citizenship behavior public sector," the study identifies 85 relevant documents and saves them in RIS format for extracting analytical findings and research document conclusions from Scopus search results.

The top 25 documents as references are selected via Publish or Perish (version 8.9.4554.8721). The Publish or Perish software opens files saved in the RIS format and selects the 25 top documents by looking at the rank column in this software. According to Van Dalen (2021), ranking assessment by publish or publish is based on the value of impact factors, Hirsch-indexes, the number of publications, and other metrics. Then, the 25 top documents are analyzed using the VOSviewer program (version 1.6.20). The application of VOSviewer for visualizing research progress adds value by providing a clear and intuitive representation of the scholarly landscape. Visualizing connections and clusters among documents can facilitate the identification of key themes and research directions. According to Bukar et al. (2023), VOSviewer, originally developed for bibliometric analysis, as a powerful tool for text analysis and data visualization. It can extract bibliographic networks from bibliographic data based on data files downloaded from RIS format.

The use of the Scopus database, supplemented by additional sources from Google Scholar and ProQuest, ensures the breadth and depth of literature coverage. By focusing on documents published within a specific timeframe (2019-2023), the study captures recent developments and trends in OCB research. Finally, the study finds that organizational culture, transformational leadership, and work motivation significantly influence employees' OCB in the public sector. Consult Figure 2 to observe the stages of data collection and analysis.
Findings and Discussions

Results of publication number, journal name, journal country, and research field

A total of 85 documents were examined from the search results obtained from the Scopus database for the topic of "organizational citizenship behavior in the public sector" for the period of 2019 to 2023. Overall, the number of publications consistently rises from 2019 to 2023, with the exception of a decline in 2021 (Figure 3 and Table 1). The paucity of publications on the issue of OCB indicates that research in this area is still scarce and needs additional development in the future.

The predominant focus of publications on "organizational citizenship behavior in the public sector" from 2019 to 2023 is on journals. Based on the information provided in Figure 4 and Table 2, it is evident that out of the ten journals that covered this topic, two journals, namely Frontiers In Psychology and Personnel Review, have the highest number of duplicated publications. Additionally, the Cogent Business and Management has the second position. Regarding the lowest number of duplicate publications by others. Nevertheless, the disparity in the quantity of articles among journals is not statistically significant.
Documents per year by source

<table>
<thead>
<tr>
<th>Source</th>
<th>Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frontiers In Psychology</td>
<td>4</td>
</tr>
<tr>
<td>Personnel Review</td>
<td>4</td>
</tr>
<tr>
<td>Cogent Business and Management</td>
<td>3</td>
</tr>
<tr>
<td>Behavioral Sciences</td>
<td>2</td>
</tr>
<tr>
<td>Employee Responsibilities and Rights Journal</td>
<td>2</td>
</tr>
<tr>
<td>Global Business and Organizational Excellence</td>
<td>2</td>
</tr>
<tr>
<td>Global Business Review</td>
<td>2</td>
</tr>
<tr>
<td>International Journal of Management Practice</td>
<td>2</td>
</tr>
<tr>
<td>International Journal of Public Administration</td>
<td>2</td>
</tr>
<tr>
<td>Management Research Review</td>
<td>2</td>
</tr>
</tbody>
</table>

The top three countries that have published the most publications on "organizational citizenship behavior in the public sector" are Pakistan, Malaysia, and China. As a result, India, Australia, Ghana, and Indonesia follow. The countries with the three lowest rankings are South Africa, Spain, and the United Kingdom. Figure 5 and Table 3 contain additional information on the ranking of countries. The significant participation of developing countries from Asia and Africa indicates that the public sector is a highly debated topic in those regions.
In preparation for the upcoming discussion, the researcher identified 15 specific subjects or fields related to “organizational citizenship behavior in the public sector” in order to classify each research study. The publishing of papers is predominantly dominated by the sphere of business, management, and accounting, as well as the social sciences. Psychology has a significant impact on document dissemination processes. Conversely, some, as seen by Figure 6 and Table 4, generate materials at a slower rate.
Iqbal et al., International Journal of Research in Business & Social Science 13(4) (2024), 209-222

Figure 6: Research fields that published documents on OCB in public sector

Table 4: Research fields that published documents on OCB in public sector

<table>
<thead>
<tr>
<th>Subject area</th>
<th>Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business, Managemet, and Accounting</td>
<td>51</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>38</td>
</tr>
<tr>
<td>Psychology</td>
<td>19</td>
</tr>
<tr>
<td>Computer Science</td>
<td>7</td>
</tr>
<tr>
<td>Energy</td>
<td>7</td>
</tr>
<tr>
<td>Engineering</td>
<td>7</td>
</tr>
<tr>
<td>Decision Sciences</td>
<td>5</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>5</td>
</tr>
<tr>
<td>Art and Humanities</td>
<td>4</td>
</tr>
<tr>
<td>Economics, Econometrics, and Finance</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
</tr>
</tbody>
</table>

Literature review map of OCB by VOSviewer

A total of 85 documents on the topic of ‘organizational citizenship behavior in the public sector’ were retrieved from the Scopus database. The study then exported these documents to RIS format and imported them into the software RIS to conduct bibliometric analysis. The researchers utilized the acquired metadata to generate network visualizations, overlays, and density metrics using VOSviewer. This facilitated the identification of the bibliometric network that connects the articles. According to Bukar et al. (2023), VOSviewer, originally developed for bibliometric analysis, as a powerful tool for text analysis and data visualization. It can extract bibliographic networks from bibliographic data based on data files downloaded from RIS format.

A bibliometric network consists of nodes and edges, as shown in Figure 7. Nodes are depicted as circular forms and may represent many entities, like papers, publications, investigators, or topics. Moreover, lines serve the purpose of not only indicating the existence of a connection between two nodes but also communicating the intensity of that interaction, as demonstrated by the distance. Nodes' proximity is directly proportional to the strength of their interaction. Keywords and terms that appear frequently are indicated by labels in the picture, while clusters are shown by colors. Researchers use image mapping to obtain a full representation of a bibliometric network, while performing grouping to gain insight into bibliometric grouping. It is used to gain a better understanding of bibliometric grouping. Figure 7 displays a visualization where each circle indicates a commonly occurring phrase or term. The researchers extracted these keywords from the headline and resume of the publication. The diameter of the node corresponds to the number of papers associated with the phrase, which includes both the article’s headline and resume. As the size of the circle increases, so do the number of papers related to the issue or topic.
Furthermore, Table 5 explicitly demonstrates that the literature study on the OCB of employees in the public sector is categorized into nine distinct clusters, which consist of many phrases frequently addressed in relation to OCB as well as the dimensions of the three independent variables. Each component, notably organizational culture (OC), transformational leadership (TL), and work motivation (WM), has a positive impact on OCB. Below is a comprehensive explanation of each preposition.

The preposition of OC, TL, and WM on OCB

Table 5 indicates that the OC variable encompasses various characteristics, including intention, outcome, adaptive performance, person organization fit, and personality. Prior studies indicate that a positive OC has a positive impact significantly on OCB (Hooi et al., 2022), as supported by the findings of Chang et al. (2021) and Krajcsák & Kozák (2022). Employees that demonstrate moral behavior, innovation, and adaptability are more likely to gain the trust of their co-workers and effectively adapt to work alongside them, willingly assisting with whatever challenges they may face (Balluerka et al., 2021). An adaptable organizational culture grants employees the autonomy to fulfill their primary responsibilities without feeling obligated to assist their colleagues beyond those responsibilities (Abdullah & Marican, 2020). Meanwhile, an ethical organizational culture promotes open and honest communication, which in turn cultivates favorable employee conduct, such as OCB (Thelen & Formanchuk, 2022). Cultural values not only encompass attitudes that promote voluntary engagement in duties beyond the primary work (Hermanto & Srimulyani, 2022).

Mindfulness, servant leadership, follower, authentic leadership, psychological capital, relations, employee perspective, and managerial effectiveness are some of the dimensions that make up the TL variable, as shown in Table 5. The TL has a positive impact significantly on influencing OCB according to Khan et al. (2020), Nurjanah et al. (2020), and Budur & Demir (2022). In Grego-Planer’s (2019) study, the author explores how employee emotional involvement with the business might lead to beneficial outcomes such as prosocial conduct or OCB. Another factor is when employees develop emotional engagement with the business through training or talks. This leads to increased attachment, satisfaction, and a sense of fairness towards the organization, prompting employees to feel compelled to reciprocate by providing valuable services to the organization. Indeed, he deliberately and willingly engages in prosocial behavior or OCB. According to Sri Ramalu & Janadari (2022), perceiving a boss as inspiring, ethical, and a role model leads to the development of a favorable psychological state in employees, motivating them to engage in OCB.

According to Table 5, the WM variable has multiple characteristics, including job satisfaction, public service motivation, supervisor support, and self-efficacy. Suharnomo & Hashim (2019) demonstrated that WM has a positive impact significantly on OCB. This effect is more pronounced when it comes to providing leadership support, as highlighted by Abdullah & Marican (2020). Employees feel satisfied and more connected to the organization when superiors contribute, show concern for welfare, and demonstrate flexibility, employees feel satisfied and become more connected to the organization (Arshad et al., 2021). This leads to the formation of OCB (Abdullah & Wider, 2022), which is a voluntary attitude of helping others and establishing harmonious relationships with colleagues (Alsheikh & Sobihah, 2019; Jeong et al., 2019; Hermanto & Srimulyani, 2022; Sarfraz et al., 2022). Evaluating employee work performance and presenting awards can effectively enhance the motivation to engage in OCB (Habeeb, 2019). This is because employees perceive a sense of care from the organization, which leads them to voluntarily contribute beyond their regular working hours as a form of gratitude (Osman et al., 2019; Arshad et al., 2021). Additionally, employees' confidence and self-assurance in their work are bolstered, thereby fostering prosocial behavior or OCB that benefits the organization (Abdullah & Wider, 2022).
Table 5: Distribution of clusters and their items

<table>
<thead>
<tr>
<th>Clusters</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster 1 (11 items)</td>
<td>Australian public sector workforce, career commitment, change oriented organizational citizenship behavior, effect, employee stress, intention, job behaviors, mindfulness app, randomized controlled trial, relative organizational tenure, servant leadership</td>
</tr>
<tr>
<td>Cluster 2 (10 items)</td>
<td>Analysis, follower, interaction, leadership style, mediating role, organisational citizenship behavior, organizational politic, outcome, south korea, transformational leadership</td>
</tr>
<tr>
<td>Cluster 3 (10 items)</td>
<td>Adaptive performance, mediating effect, mexico, moderator, organizational citizenship, organizational commitment, organizational performance, person organization fit, private sector, relationship</td>
</tr>
<tr>
<td>Cluster 4 (9 items)</td>
<td>Corporate social responsibility, empirical study, employee, guangzhou public sector, job satisfaction, organizational citizenship behavior, public organizational performance, public service motivation, sample</td>
</tr>
<tr>
<td>Cluster 5 (8 items)</td>
<td>Affective commitment, authentic leadership, government ministries, justice, mediating, organizational citizenship behavior, psychological capital, relation</td>
</tr>
<tr>
<td>Cluster 6 (7 items)</td>
<td>Employee perspective, human resource development practice, job satisfaction play, organizational citizenship behaviour, public sector, role, supervisor support</td>
</tr>
<tr>
<td>Cluster 7 (6 items)</td>
<td>Citizen behaviour, employee commitment, employee share ownership, impact, managerial effectiveness, privatization</td>
</tr>
<tr>
<td>Cluster 8 (5 items)</td>
<td>Assessment, basque public sector employee, personality, predicting organizational citizenship behaviors, selection process</td>
</tr>
<tr>
<td>Cluster 9 (5 items)</td>
<td>Mediator, moderating effect, organisational citizenship behaviour, self efficacy, supervisory support</td>
</tr>
</tbody>
</table>

Figure 8 shows keywords with publication years in colored nodes, such as ‘organizational citizenship behavior, employee perspective, adaptive performance, authentic leadership government ministry, justice, career commitment’ are represented by light green to yellow nodes, indicating that the articles were most recently published in 2022–2023. The keywords ‘role, assessment, relationship, self efficacy, and public organizational performance’ are represented by nodes that range in color from light blue to dark green. These keywords indicate that the publications are from the year 2021. Between 2019 and 2020, the research represented the phrases ‘organizational citizenship behavior, public sector, public service motivation, job behaviors, affective commitment’ with purple to dark blue nodes. Hence, the most recent keywords have a strong correlation with the research topic ‘organizational citizenship behavior in public sector’. These keywords cover a greater range of current knowledge, making them useful for modern academics. Node size denotes the keyword document number. Therefore, the keyword ‘organizational citizenship behavior, public sector’ has the largest node size and the most-published documents on the topic of ‘organizational citizenship behavior in public sector’.

![Figure 8 Overlay visualization of items in 25 documents published in 2019–2023](image)

The yellow color in Figure 9 represents the level of saturation of certain labels, such as ‘organizational citizenship behavior, role, public sector, public service motivation, authentic leadership, effect, impact, affective commitment, supervisory support, assessment, self efficacy, employee perspective, organizational commitment, and relationship’. The saturation is determined by the frequency of appearance of these terms. Researchers extensively studied these subjects. The topics surrounded in green, like follower, job behaviors, analysis, mediating role, corporate social responsibility, empirical study, and managerial effectiveness, there is very less research on the final issues. This highlights the current lack of research in this area, indicating numerous prospects for further investigation of this topic.
Conclusions

Based on the research by Chang et al. (2021) and Krajcsák & Kozák (2022), the study has demonstrated that hypothesis is true. Employees in OC with moral, creative, adaptive, and flexible cultures are trusted and thus more willing to help colleagues in need even when not focused on their primary tasks (Abdullah & Marican, 2020; Balluerka et al., 2021). Studies have found that improving TL positively impacts OCB (Khan et al., 2020; Nurjanah et al., 2020; Budur & Demir, 2022). This is because when an employee has confidence in their boss, they are more willing to assist their colleagues in need out of appreciation (Balluerka et al., 2021). According to Suharnomo & Hashim (2019), WM proved to influence the positively significant OCB, since all of that motivation makes workers feel content and more bonded to the company (Arshad et al., 2021).

The numerous advantages of earlier research's findings have demonstrated the continued relevance of OCB. However, there has been limited research on OCB in the public sector (De Geus et al., 2020). By identifying organizational culture, transformational leadership, and work motivation as influential factors, the study contributes to our understanding of employee behavior in governmental organizations. The findings have practical implications for managerial practice and policy formulation, emphasizing the importance of fostering conducive work environments and effective leadership to promote OCB among public sector employees.

The uneven distribution of OCB implementation across various public sector organizational phenomena warrants further research in this area. Although the study offers significant insights, it is crucial to recognize its limits. The exclusive use of document analysis and bibliometric tools may fail to consider the qualitative subtleties and subjective interpretations that exist in the literature. Future studies should explore the integration of mixed-method techniques, which combine quantitative bibliometric analysis with qualitative content analysis or case studies. Furthermore, conducting research on OCB in specific public sector environments or cultural contexts may provide a more profound understanding of contextual differences and unique obstacles.

The study's findings underscore the relevance of promoting a positive organizational culture, cultivating transformational leadership, and boosting work motivation in order to promote OCB among public sector personnel. The practical consequences for managerial practice and policy formulation are suggested, highlighting the importance of actions that target these key aspects.

Acknowledgement

Author Contributions: Conceptualization and methodology, M.I., I.N.Q. and A.S.; validation, I.N.Q. and A.S.; formal analysis, M.I.; investigation, I.N.Q. and A.S.; resources, M.I.; writing—original draft preparation, M.I.; writing—review and editing, M.I., I.N.Q. and A.S.

Funding: This research was funded by self.

Informed Consent Statement: N/A

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to restrictions.

Conflicts of Interest: The authors declare no conflict of interest.


**Publisher’s Note:** SSBFNET stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.