

Mediating Effect of Employee Engagement on the Relationship Between Triple Bottom Line Application and Organizational Citizenship Behavior

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Abstract

This study examined the mediating effect of employee engagement on the relationship between Triple Bottom Line (TBL) application and Organizational Citizenship Behavior (OCB) among allied healthcare professionals. A quantitative descriptive–correlational design was employed using a cross-sectional survey of 150 healthcare workers selected through stratified random sampling. Data were collected using validated instruments measuring TBL application, employee engagement (UWES-17), and OCB. Statistical analyses included descriptive statistics, Pearson correlation, regression-based path analysis, and the Sobel test.

Findings revealed high levels of TBL application ($M = 3.93$), employee engagement ($M = 3.68$), and OCB ($M = 3.81$). Significant positive relationships were found between TBL dimensions and employee engagement ($r = 0.381$, $p < 0.05$), and between TBL dimensions and OCB ($r = 0.754$, $p < 0.05$). Mediation analysis indicated that employee engagement partially mediates the relationship between TBL and OCB ($z = 4.02$, $p < 0.001$), accounting for 17.3% of the total effect.

The study concludes that sustainability practices directly and indirectly enhance discretionary employee behaviors through engagement. Integrating TBL strategies with employee engagement initiatives is essential for improving workforce commitment and organizational sustainability in healthcare institutions.

Keywords: Triple Bottom Line, Employee Engagement, Organizational Citizenship Behavior, Healthcare Workforce, Sustainability, Hospital Management

Introduction

The global healthcare sector is currently confronted with an unprecedented workforce crisis, widely described as part of the Great Resignation. Healthcare workers across professions—particularly nurses and allied health professionals—are leaving their organizations at alarming rates due to burnout, workload intensification, inadequate support systems, and misalignment between personal values and organizational practices [1][2]. This phenomenon has intensified following the COVID-19 pandemic, exposing long-standing structural weaknesses in healthcare systems and magnifying dissatisfaction among frontline workers. The World Health Organization projects a global shortage of nearly 10 million healthcare workers

by 2030, disproportionately affecting low- and middle-income countries where retention challenges are most severe [1]. This mass exit threatens continuity of care, organizational performance, and long-term sustainability, prompting healthcare institutions to reassess how organizational practices influence employee commitment and discretionary workplace behavior.

Existing literature suggests that employee turnover and disengagement are not merely outcomes of compensation issues but are deeply rooted in organizational values, leadership practices, and sustainability orientations [12][13]. Employees increasingly expect organizations to demonstrate responsibility not only toward financial performance but also toward social welfare and environmental stewardship [10][11]. In healthcare, where ethical service, social accountability, and human-centered care are central, the absence of such balanced organizational commitments may erode trust and morale. Studies consistently show that disengaged employees are less likely to exhibit positive discretionary behaviors, while engaged employees are more motivated to contribute beyond formal job descriptions, thereby strengthening organizational effectiveness [6][16]. These findings underscore the importance of examining organizational frameworks that simultaneously address sustainability and workforce engagement.

The Triple Bottom Line (TBL) framework, introduced by Elkington (1994), provides a comprehensive lens for understanding sustainable organizational performance by integrating economic, social, and environmental dimensions. In healthcare settings, TBL application emphasizes not only financial viability but also employee well-being, ethical service delivery, and environmental responsibility [3]. Concurrently, employee engagement—characterized by vigor, dedication, and absorption—has been identified as a critical psychological state that enhances employees' willingness to exert discretionary effort [16][38]. Such effort often manifests as Organizational Citizenship Behavior (OCB), defined as voluntary behaviors that support organizational functioning but are not formally rewarded [4][21]. While prior studies establish positive relationships among TBL practices, engagement, and OCB, findings also suggest that engagement may serve as a crucial mechanism through which sustainability initiatives translate into citizenship behaviors [33][34].

In the Philippine healthcare context, workforce challenges mirror global trends but are compounded by systemic issues such as migration of healthcare professionals, resource constraints, and uneven organizational support structures. Filipino healthcare workers frequently seek employment abroad due to better working conditions, compensation, and perceived organizational support, intensifying domestic workforce shortages [1]. From professional observation, healthcare employees in local institutions often demonstrate strong commitment to patient care despite limited resources; however, sustained engagement is challenging when organizational practices prioritize operational efficiency over employee well-being and sustainability. Studies indicate that when healthcare organizations adopt socially responsible and value-driven practices, employees are more likely to reciprocate through loyalty, engagement, and extra-role behaviors [19][43]. These realities underscore the importance of examining sustainability-oriented management approaches within Philippine healthcare institutions.

Given these conditions, this study makes a significant contribution by empirically examining employee engagement as a mediating mechanism in the relationship between the application of the Triple Bottom Line and Organizational Citizenship Behavior in healthcare settings. While prior research has explored these variables independently or in non-healthcare sectors, limited empirical evidence exists on how sustainability practices influence discretionary employee behavior through engagement, particularly within developing-country healthcare systems [10][19]. By addressing this gap, the study provides evidence-based insights for healthcare administrators seeking to mitigate workforce disengagement and

turnover by integrating sustainability and human resource strategies. Ultimately, the findings aim to support the development of resilient healthcare organizations where sustainability initiatives foster an engaged workforce capable of sustaining high-quality care and organizational performance.

Literature Review

The Triple Bottom Line (TBL) framework, introduced by Elkington, emphasizes organizational performance across three dimensions: social, environmental, and economic [9]. In healthcare, the social dimension focuses on patient outcomes, employee well-being, and community impact, while the environmental dimension addresses sustainability practices such as waste management and resource efficiency. The economic dimension ensures financial viability and long-term operational sustainability [3][10].

Organizational Citizenship Behavior (OCB) refers to discretionary employee actions that extend beyond formal job requirements but significantly contribute to organizational effectiveness [20][21]. These behaviors include altruism, courtesy, and civic virtue, which enhance teamwork, productivity, and overall organizational performance [28]. Studies indicate that OCB is closely associated with reduced turnover and improved workplace relationships [25][26].

Employee engagement is defined as a positive psychological state characterized by vigor, dedication, and absorption [16]. Engaged employees are more likely to demonstrate commitment, motivation, and discretionary effort, leading to improved performance outcomes [12][13]. Organizational factors such as leadership, recognition, and career development opportunities significantly influence engagement levels [14][15].

Several studies have established a positive relationship between TBL practices and employee engagement. Organizations that adopt sustainability-oriented leadership and corporate social responsibility initiatives tend to foster higher levels of engagement by aligning organizational values with employee expectations [29][30]. Employees who perceive organizational support through sustainability practices are more likely to exhibit increased motivation and commitment [26].

Similarly, research consistently demonstrates a strong relationship between employee engagement and OCB. Engaged employees are more likely to perform extra-role behaviors that support organizational goals and enhance team dynamics [33][34][35]. This relationship highlights engagement as a critical driver of positive workplace behavior.

The relationship between TBL and OCB has also been explored, with findings suggesting that sustainability practices can promote a culture of commitment and discretionary effort [9][42]. However, studies caution that if such initiatives are perceived as superficial, they may lead to employee cynicism and reduced engagement [43][44]. Alignment between organizational values and employee beliefs has been shown to strengthen this relationship and enhance OCB [45].

Despite these findings, limited research has examined the mediating role of employee engagement in linking TBL practices to OCB, particularly in healthcare settings [42]. This gap highlights the need for further investigation into how sustainability initiatives translate into positive employee behaviors through psychological mechanisms such as engagement.

Methods

A quantitative descriptive–correlational design with a cross-sectional approach was utilized. The study was conducted in a private tertiary hospital, with 150 allied healthcare professionals selected through

stratified random sampling.

Data were collected using a structured questionnaire consisting of four parts: demographic profile, TBL application, employee engagement (UWES-17), and OCB scale. All instruments were validated and demonstrated acceptable reliability.

Descriptive statistics (mean and standard deviation) were used to assess levels of TBL, engagement, and OCB. Pearson correlation analysis examined relationships among variables. Mediation analysis was conducted using regression-based path analysis, and the Sobel test was applied to determine the significance of the indirect effect.

Ethical considerations included informed consent, confidentiality, voluntary participation, and compliance with the Data Privacy Act of 2012.

Results and Discussion

The respondents were predominantly female (74%) and within the 26–30 age group (53%), reflecting the demographic profile commonly observed in the healthcare workforce [1]. This early- to mid-career composition may influence responsiveness to organizational practices, as younger professionals tend to be more adaptive to evolving workplace expectations and sustainability initiatives [2]. However, this demographic concentration may limit the generalizability of the findings to older or more diverse populations.

The extent of Triple Bottom Line (TBL) application was high across all dimensions ($M = 3.93$), with the social dimension scoring highest ($M = 4.01$), followed by environmental ($M = 3.99$) and economic ($M = 3.83$). This suggests that the institution demonstrates a strong commitment to integrating sustainability into its operations, consistent with studies highlighting the growing adoption of TBL in healthcare settings [3][10]. The higher rating of the social dimension may reflect the service-oriented nature of healthcare. However, the slightly lower economic score may indicate persistent financial constraints, a common challenge in healthcare systems. It is also important to consider that self-reported measures may introduce social desirability bias, potentially inflating perceived levels of TBL implementation.

Employee engagement ($M = 3.68$) and Organizational Citizenship Behavior (OCB) ($M = 3.81$) were both rated high, indicating a workforce that is generally committed and inclined toward discretionary performance. These findings support prior research linking engagement with positive extra-role behaviors [12][16][21]. However, some studies suggest that high engagement does not always translate into OCB, particularly in high-stress environments where burnout may offset positive behaviors. This highlights the need to interpret the results within the specific organizational context.

Significant positive relationships were observed between TBL and employee engagement ($r = 0.381$, $p < 0.05$), and between TBL and OCB ($r = 0.754$, $p < 0.05$), supporting previous findings that sustainability practices enhance employee attitudes and behaviors [9][42]. Notably, the economic dimension showed the strongest association with both engagement ($r = 0.508$) and OCB ($r = 0.834$), suggesting that financial stability and resource management are particularly influential. While this aligns with literature emphasizing the importance of economic factors [3][10], it contrasts with studies that identify social or environmental practices as stronger drivers of engagement, especially in values-driven professions. This discrepancy may be attributed to contextual factors such as resource limitations or workforce priorities in the studied institution.

Mediation analysis revealed that employee engagement partially mediates the relationship between TBL and OCB. TBL significantly predicted engagement ($a = 0.381$, $p < 0.001$), and engagement significantly

predicted OCB ($b = 0.343$, $p < 0.001$). Although the total effect of TBL on OCB was strong ($c = 0.754$), the direct effect remained substantial after controlling for engagement ($c' = 0.624$), indicating partial mediation. The Sobel test confirmed this effect ($z = 4.02$, $p < 0.001$), with the indirect pathway accounting for 17.3% of the total effect. This finding supports studies identifying engagement as a mechanism linking organizational practices to employee behavior [33][34], but also suggests that TBL exerts a strong direct influence on OCB independent of engagement.

These results imply that sustainability practices influence employee behavior through both structural and psychological pathways. However, the relatively modest mediation effect indicates that other factors—such as leadership, organizational culture, or job demands—may also play significant roles. Furthermore, the cross-sectional design limits causal inference, and reliance on self-reported data may introduce common method bias. Future research may incorporate longitudinal designs and additional mediating variables to better capture the complexity of these relationships.

Overall, the findings highlight the importance of integrating sustainability practices with employee-focused strategies. While employee engagement enhances the impact of TBL, the strong direct effect underscores the need for authentic and visible implementation of sustainability initiatives to foster organizational citizenship behavior and long-term effectiveness.

Recommendations

Based on the findings, it is recommended that healthcare institutions further strengthen the integration of Triple Bottom Line principles into organizational policies and operational systems. Particular attention should be given to the economic dimension by promoting equitable compensation, transparent financial practices, and efficient resource allocation, as this dimension demonstrated the strongest relationship with both employee engagement and Organizational Citizenship Behavior. Strengthening economic sustainability may improve employee perceptions of organizational stability and support, thereby reinforcing positive workplace behaviors.

It is also recommended that employee engagement initiatives be institutionalized through leadership development programs, employee recognition systems, and continuous professional development opportunities. Since employee engagement was found to partially mediate the relationship between TBL and OCB, interventions that improve engagement may amplify the positive effects of sustainability practices on discretionary employee behavior. Organizational leaders should therefore cultivate supportive work environments that encourage participation, recognition, and shared accountability.

Healthcare institutions may also improve the visibility and authenticity of sustainability initiatives by actively involving employees in planning and implementation. Participatory sustainability practices may strengthen employees' sense of ownership and alignment with organizational values, thereby increasing engagement and organizational citizenship behavior. Sustainability programs should not only be implemented at the policy level but also communicated clearly and practiced consistently across all organizational units.

For future research, it is recommended that additional mediating and moderating variables, such as leadership style, organizational trust, burnout, and job satisfaction, be examined to provide a more comprehensive explanation of the mechanisms linking TBL and employee behavior. The use of longitudinal and mixed-method designs is likewise recommended to strengthen causal interpretation and provide deeper contextual insight into the observed relationships.

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