“Transformational leadership and organizational citizenship behavior: Mediating role of affective commitment and work engagement of hotel employees in Indonesia”

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Abstract

Employees who voluntarily conduct work that surpasses the criteria allocated to them to help the company achieve its goals exhibit organizational citizenship behavior. This study aims to examine the mediation role of affective commitment and work engagement on the influence of transformational leadership on organizational citizenship behavior. This study used survey methodology. Two hundred frontline staff working over a year in several star-rated hotels in Medan, Indonesia, are used as samples. Data were collected using a Likert scale questionnaire and analyzed using structural equation modeling-part least squares with SmartPLS 4.0 sofware. The findings show that transformational leadership, affective commitment, and work engagement affect organization citizenship behavior (p < 0.05). Next, transformational leadership affects affective commitment (p < 0.05) and work engagement (p < 0.05), and transformational leadership affects organizational citizenship behavior through affective commitment (p < 0.05) and work engagement (p < 0.05). The findings of this study recommend that hotel management should use a transformational leadership style when filling managerial positions. In addition, the study results have implications for businesses in terms of creating arrangements that encourage employee engagement and affective commitment, enabling workers to volunteer their time, energy, and ideas to serve their coworkers and the company. This paper helps to develop human resources to maintain the sustainability of hotel industry in Medan, Indonesia.

Keywords

organizational behavior, human resources, SmartPLS, hotel, Indonesia

JEL Classification

D23, L84, O15

INTRODUCTION

Human resources must be a top priority in the hospitality industry, where quality service is paramount. The hotel industry places a premium on the satisfaction of overnight visitors. During intense competition, hotels must also provide services that can gratify their guests, requiring their employees to perform well and deliver quality service.

In hotels, employees should not only work diligently and follow directions, but it is essential to work extra-voluntarily and without waiting for directions from superiors, going above and beyond what is asked of them (Pramezewary et al., 2022). Therefore, hotels must pay close attention to human resource management to meet customer expectations. The involvement of all employees is necessary to increase employee performance, which is needed to act in the organization’s best interest.
As a service company, hotels need employees who have high organizational citizenship behavior. To improve employee organizational citizenship behavior, one way to be taken is to increase employee job satisfaction. Employees at work will feel comfortable if their job satisfaction is high as a person’s performance is significantly influenced by job satisfaction. When employees feel satisfied, they will work optimally to complete their work and do actions outside their duties.

1. LITERATURE REVIEW AND HYPOTHESES

Organizational citizenship behavior (OCB) refers to employee conduct unseen by co-workers or the company that exceeds the company’s norms and benefits the company (Humphrey, 2012). An individual’s purposeful acts that do not immediately lead to proper remuneration but demonstrate that the organization is working smoothly and efficiently are an example of what is known as organizational citizenship behavior (Organ, 1988). The importance of organizational citizenship behavior is expanding, particularly in a rapidly changing global and business context (Liu & Cohen, 2010; Bogler & Somech, 2023; Mi et al., 2019). Based on some of the opinions expressed above, it is possible to conclude that organizational citizenship behavior is a voluntary or extra-role behavior performed by individuals in a company organization, and this behavior can support company effectiveness and help the company run more efficiently. Five organizational citizenship behavior features can be demonstrated:

1) act of kindness toward a person going through a tough time at work, also known as altruism,

2) consciousness, which denotes actions that go above what is strictly expected,

3) sportsmanship, the quality characterized by composure in the face of adversity,

4) manners, which are actions that help avoid conflict, and

5) participation in solving systemic issues as an example of civic virtue (Organ, 1988).

Leadership is essential for all efforts to improve work outcomes. Leadership considerations are critical in encouraging and improving employee behavior (Mettally et al., 2019; Qalati et al., 2022; Khalili, 2017). Leadership is the capacity to inspire followers or subordinates to complete assignments and realize objectives (Bakker et al., 2022; Sloof & von Siemens, 2021). This kind of leadership has improved employees’ efficiency and output (Asrar-ul-Haq & Kuchinke, 2016; Piwowar-Sulej & Iqbal, 2023; Abdelwahed et al., 2023). It can also inspire people to go above and beyond by changing their attitudes, beliefs, and values (Islam et al., 2021; Yücel, 2021; Hetland et al., 2018). Significant improvements in employee behavior, ethical advancement, and firm direction are all part of this leadership approach. Leaders and employees help each other achieve their goals (Steinmann et al., 2018).

Bass and Riggio (2005) introduced transformational leadership, known as transforming leadership at the time, to distinguish it from the transactional leadership style. Individuals, teams, and businesses are all involved in transformational leadership. In contrast to transactional leadership, which entails sharing resources and frequently engaging in economic exchange connections, transformational leadership gives goals that focus on high internal needs and go beyond short-term rewards (Gemeda & Lee, 2020). This transformational leadership personality is particularly relevant to long-term corporate citizenship behavior. Transformational leaders always attempt to influence how their subordinates perceive their work so that they regard it as something valuable, challenging, and significant and so that they are thrilled to be a part of an organization (Lai et al., 2020; López-Domínguez et al., 2013). Thus, transformational leadership can inspire, direct, and encourage followers to change in a better and more creative direction to achieve common goals.

Commitment is critical for an organization since it will not achieve its goals if there is no sense of commitment among its members. Commitment to one’s organization is multifaceted, including emotional attachment, long-term dedication, and
adherence to established values and principles (Meyer & Allen, 1991). Employees’ affective commitment is their emotional investment in their work and the company. People who care deeply about the firm remain there voluntarily. Affective commitment is tied to workers’ emotional sentiments and innate drive, similar to but distinct from feelings of pressure and duties (Wang et al., 2022). Employees with a solid emotional bond with their company have a more significant stake in its prosperity. As a result of the extra effort and dedication they put in, the company benefits from improved performance (van Gelderen & Bik, 2016). Accordingly, affective commitment is a subset of organizational commitment concerned with emotional attachment, assistance, and feelings of involvement in all organizational operations, goals, and aspirations. Affective commitment has also been associated with various workplace behaviors (Lee et al., 2018; Tang & Vandenbarghe, 2020). Employee commitment helps to shape organizational citizenship behavior among employees in public enterprises (Hanaysha et al., 2022).

Work engagement is an employee’s attitude and behavior at work that enables them to express themselves emotionally, physically, cognitively, and effectively. When a person is enthusiastic, thrilled, and absorbed in his work, this is called work engagement (Joo et al., 2016). Work engagement is a psychological condition characterized by devotion, proprietorship, and enthusiasm for one’s task. This is critical for organizational effectiveness (Bedarkar & Pandita, 2014) for ascertaining why some employees “push harder” at their jobs than others. An engaged worker is enthusiastic about his job and is committed to it with gratitude and pride. Mindsets of perseverance, dedication, and acceptance are hallmarks of productive work engagement (Afsar et al., 2021). A wide variety of things may affect participation in one’s employment. The first focuses on the workers and their relationships with their jobs, teams, and organizations; the second considers a company’s business strategy and operational or management aspects of creating an engaged workforce (Turner, 2020). Thus, work engagement is a positive feeling that makes individuals enthusiastic. Work engagement is also defined by satisfaction, a solid dedication to one’s work, and the capacity to manage work expectations (Gemeda & Lee, 2020). This variable is significant because it has a favorable impact on the organization, including performance (Khan et al., 2020; Bhatti et al., 2018; Eliyana et al., 2019), minimizing negative actions like absenteeism and resignation intent (Karatepe & Avci, 2017).

Hotels often deal with difficult circumstances. Previous research has demonstrated that good organizational citizenship can boost customer satisfaction, decrease attrition, and even enhance performance (Podsakoff et al., 2009). The development of organizational citizenship behavior is intended to assist businesses in surviving the significant difficulties they confront today and in the future (Dedic et al., 2022).

This study investigates the mediation role of affective commitment and work engagement concerning transformational leadership’s effect on organizational citizenship behavior. By gaining a deeper understanding of the interrelationships between the variables, this study will identify instances in which more substantial variables contribute to the promotion of organizational citizenship behavior. The hypotheses follow the model depicted in Figure 1:

H1: Transformational leadership has an impact on organizational citizenship behavior.

H2: Transformational leadership has an impact on affective commitment.

H3: Transformational leadership has an impact on work engagement.

H4: Affective commitment has an impact on organizational citizenship behavior.

H5: Work engagement has an impact on organizational citizenship behavior.

H6: Affective commitment has a mediation effect on the relationship between transformational leadership and organizational citizenship behavior.

H7: Work engagement has a mediation effect on the relationship between transformational leadership and organizational citizenship behavior.
2. METHODOLOGY

This study was conducted in Medan, North Sumatra, Indonesia, targeting hotel workers. The focus of the study was also chosen because of the hotel’s rapid development, which boosts the sector’s competitiveness. This is because, during the COVID-19 pandemic, hotels were forced to provide more services to their customers to satisfy their needs. The survey occurred online between September and December 2022, dispersed around ten hotels in Medan, Indonesia. With the assistance of the human resource departments, a questionnaire was given to workers to gather respondent data. The responses to the surveys were gathered from 200 individuals. There were 57 incomplete surveys, and no outliers were discovered that were not used in the test results.

Transformational leadership is assessed using seven criteria (Carless et al., 2000). Work engagement was measured using the nine elements from the Utrecht Work Engagement Scale established by Schaufeli et al. (2006). Affective commitment is assessed using eight instruments developed by Meyer and Allen (1991). Meanwhile, organizational citizenship behavior is measured using items from Huang and You (2011). This study utilized a Likert scale questionnaire to collect data. Each statement on the four factors is rated from strongly disagree to strongly agree.

The SmartPLS 4.0 program evaluated the data using structural equation modeling in conjunction with SmartPLS 4.0. Before verifying the hypothesis, its validity and reliability were assessed to confirm that it was an excellent notion. The validity test is a measurement that determines whether a test is appropriately executing its measuring function about what needs to be assessed. The confirmatory factor analysis test was used with the SmartPLS 4.0 software to conduct the validity test (Benitez et al., 2020).

3. RESULTS

The composite or construct reliability statistics are Cronbach’s alpha and DG-rho (PCA). The composite reliability measure is used to ascertain a construct’s actual dependability, as opposed to Cronbach’s alpha, which is utilized to ascertain the construct’s minimal reliability. Cronbach’s alpha is more extensive than 0.60, and individual and composite reliability scores are more significant than 0.60. If the outcome of these tests is more than 0.60, the construct is highly dependable.

Table 1. Composite reliability

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<th>Cronbach’s Alpha</th>
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<tr>
<td>Transformational Leadership</td>
<td>0.927</td>
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<tr>
<td>Affective Commitment</td>
<td>0.928</td>
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<tr>
<td>Organizational Citizenship Behavior</td>
<td>0.906</td>
</tr>
<tr>
<td>Work Engagement</td>
<td>0.919</td>
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</table>

Table 1 shows that the overall dependability for transformational leadership is relatively high at 0.927, as are the individual values for affective commitment (0.928), organizational citizenship behavior (0.906), and work engagement (0.919).
How much of the total variation may be attributed to items as opposed to measurement error is described by the average variance extracted (AVE). In other words, latent variables may account for more than 50 percent of the variance seen in observables.

Table 2. Average variance extracted

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<th>Average Variance Extracted</th>
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<tr>
<td>Transformational Leadership</td>
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<tr>
<td>Affective Commitment</td>
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<tr>
<td>Organizational Citizenship Behavior</td>
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<td>Work Engagement</td>
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Table 2 demonstrates that transformational leadership’s average extracted variance value is as significant as 0.663; affective commitment shows 0.668; organizational citizenship behavior shows 0.554; work engagement shows 0.664. Constructs have high convergent validity since the latent variable accounts for over half of the average variation in the indicators (AVE > 0.5). A square of the relationship between constructs can be used to assess the prejudiced inspection, the validity of the reflective measuring technique, cross-loading, and analysis of the average variance extracted value. To determine cross-loading, the study compared indicators with their and other constructs. Discriminant validity for each indicator is shown in Table 3.

Table 3 shows that each variable’s discriminant validity value or loading factor has a more significant relationship to that variable than other variables. Indicators of each variable get the same treatment. This means that the pointer addresses the correct variables.
Hypotheses testing in this study is divided into direct and indirect effects. The route coefficient is used to determine the relative strength of the impact of the two items. The signs of all the route coefficients should be consistent with the proposed theory, and the t-test (critical ratio) from the bootstrapping procedure is used to determine the significance of the coefficients (resampling method). Tables 4 and 5 show the t-test results for internal and external models. The t-test was executed when the bootstrap sample size was determined.

### 4. DISCUSSION

The results show that transformational leadership substantially and positively impacts organizational citizenship behavior. This means that hotel staff in Medan, Indonesia, are significantly influenced by transformational leadership. Leaders are more responsible for outcomes in attitudes and conduct. The impact of transformational leadership can be observed in the individual attention given to employees to maximize work performance and build emotional relationships with superiors and the business. This enables employees to care more about their co-workers and their firm. Ghavifekr and Adewale (2019) demonstrated that transformational leadership can increase organizational citizenship behavior. This is corroborated by Qalati et al. (2022), demonstrating that transformational leadership favors organizational citizenship behavior.

Second, the study investigates the impact of transformational leadership on affective commitment; the results show that transformational leadership increases affective commitment. For Medan’s hotel workers, transformational leadership significantly and positively impacts employees’ affective commitment. Transformational leadership has unique characteristics in creating psychological attachment to members’ work for long-term organizational development (Lai et al., 2020). Transformational leadership involves aspects beyond the transactional process and impacts employee effect (Khan et al., 2020). Jiatong et al. (2022) explain that transformational leadership can impact affective commitment. Transformational leadership, in which a figure that transmits inspiration, values, and individual attention is given to employees and sets an example, plays a role in building practical commitment (Lai et al., 2020). Shao et al. (2022) showed that transformational leadership influences employees’ affective commitment.

The third hypothesis determines the relationship between transformational leadership and employee engagement. According to the findings, the use of transformational leadership in several hotels in Medan, Indonesia, has increased the number of employees actively interested in their jobs. A leader’s approach to managing his organization will impact the morale and dedication of his staff. One thing that influences how workers behave is the leader’s approach to the job. Gemeda and Lee (2020) contend that transformational leadership

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**Table 4. Direct effects**

| Hypothesis                                      | Original Sample (O) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P-Values | Decision |
|------------------------------------------------|---------------------|-----------------------------|------------------|----------|----------|
| Transformational leadership → Affective Commitment | 0.876               | 0.026                       | 34.116           | 0.000    | Accepted |
| Transformational Leadership → OCB               | 0.258               | 0.098                       | 2.640            | 0.009    | Accepted |
| Transformational Leadership → Work Engagement   | 0.819               | 0.034                       | 23.768           | 0.000    | Accepted |
| Affective Commitment → OCB                     | 0.341               | 0.125                       | 2.727            | 0.007    | Accepted |
| Work Engagement → OCB                          | 0.338               | 0.109                       | 3.116            | 0.002    | Accepted |

**Table 5. Indirect effects**

| Hypothesis                                      | Original Sample (O) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values | Decision |
|------------------------------------------------|---------------------|-----------------------------|------------------|----------|----------|
| Transformational leadership → Affective Commitment → OCB | 0.299               | 0.110                       | 2.708            | 0.007    | Accepted |
| Transformational leadership → Work Engagement → OCB | 0.277               | 0.092                       | 3.026            | 0.003    | Accepted |
influences the actions and routines of the people under it. Moreover, transformational leadership is proven to increase employee engagement. However, transformational leadership contributes significantly more to employee engagement than transactional leadership due to its more significant influence on employee attitudes and work behavior. In addition, Monje Amor et al. (2020) showed that, statistically, work engagement in the workplace is influenced by transformational leadership.

Testing the fourth hypothesis reveals that affective commitment affects organizational citizenship behavior. The findings of this study support the concept that affective commitment is closely related to pro-social behavior at work. This study found that affective commitment substantially impacted hotel employees’ work engagement in Medan, Indonesia. Employee affective commitment tends to encourage employees to work in totality. They are no longer too sensitive to transactional aspects (Grego-Planer, 2022). They may go above and beyond what is required of them in their job description. Affective commitment is a bond based on emotional values and affection. This means that individuals with high affective commitment have an emotional bond that is so close to the organization that they try to provide the best for the interests of their organization (Prayitno et al., 2022). The affective commitment significantly impacted elements of organizational citizenship behavior, including benevolence, civic virtue, and conscientiousness. Grego-Planer (2019) also demonstrated that affective commitment influences organizational citizenship behavior.

Fifth, this study investigates how work engagement affects organizational citizenship behavior. The results indicate that job satisfaction positively and significantly impacts organizational citizenship behavior. Work engagement in good performance will give rise to corporate citizenship activity. This implies that high worker engagement can encourage high levels of organizational citizenship in the workplace and vice versa. Low work engagement can create low employee organizational citizenship behavior. Employee engagement can increase organizational citizenship behavior because the focus on employee engagement and commitment are outside any organizational parameters, so employee engagement can also improve organizational citizenship behavior (Na-Nan et al., 2021). This proves that employees with a high emotional attachment will be highly aware of their role in the company and will always be willing to carry out their different roles. Rahman and Karim (2022) and Sridadi et al. (2022) discovered a link between work engagement and organizational citizenship behavior.

Sixth, an examination of the role of affective commitment in mediating the impact of transformational leadership on organizational citizenship behavior reveals that affective commitment mediates the effects of transformational leadership on organizational citizenship behavior. In the context of hotel workers in Medan, it is possible to deduce that transformational leadership influences corporate citizenship behavior through affective commitment. As a regulating element, affective commitment connects change-oriented leadership and good citizenship at work. This study’s findings contribute to a greater comprehension of the relationship between transformational leadership and organizational citizenship behavior among hotel employees in Medan, Indonesia. Transformational leadership has been shown to mediate and indirectly influence organizational citizenship behavior via intermediary traits like affective commitment and work engagement. This finding aligns with previous research on the role of affective commitment in developing organizational citizenship behavior (Lee et al., 2018; Khaola & Rambe, 2021). These results suggest that a transformational leader would increase his subordinates’ affective commitment by cultivating emotional bonds with them via a motivating process (Lee et al., 2018). Transformational leadership will encourage people in various ways, including offering direction, raising standards, and placing faith in employees, boosting employee engagement with the firm.

Furthermore, transformational leaders who receive mental stimulation give and support adopting new and inventive problem-solving strategies and individual employee support based on needs and development, resulting in organizational citizenship behavior. According to Social Exchange Theory, affective commitment mediates the link between transformational leadership and organizational citizenship behavior. This is support-
ed by employees’ perceptions of the organization as reflected in their affective commitment (Stinglhamber et al., 2015).

Testing the mediating role of work engagement in shaping the influence of transformational leadership on organizational citizenship behavior shows that work engagement plays a role in mediating the influence of transformational leadership on organizational citizenship behavior. Employees in the hospitality industry in Medan, Indonesia, can infer that transformational leadership influences their organizational citizenship behavior via their level of engagement at work. This indicates how the mediating variable that measures work engagement is the variable that connects individual transformational leadership and organizational citizenship behavior. In addition, this study found that work engagement is a mechanism that can explain the transformational leadership process, which can affect organizational citizenship behavior (Buil et al., 2019). These findings support the notion that transformational leaders are essential in enhancing employee engagement, which boosts willingness to aid co-workers and struggling businesses through service and assistance. Khaola and Rambe (2021) concluded that transformational leadership more effectively increases the organizational citizenship behavior of hospitality workers by encouraging followers to identify with the leader and the organization to increase organizational commitment, which elicits positive emotions (for example, enthusiasm, excitement, and happiness) that reflect organizational citizenship behavior. Buil et al. (2019) establish a link between work engagement, transformational leadership, and organizational citizenship behavior. In addition, recent research demonstrates that role-work engagement mediates the relationship between transformational leadership and organizational citizenship behavior among hotel employees (Sugianingrat et al., 2019).

This study supports the idea that affective commitment and work engagement mediate the relationship between transformational leadership and employees’ organizational citizenship behavior. This is consistent with established academic theory and broader findings from related research. Given the importance of transformational leadership in the hospitality sector, the human resources department and all existing managers in the company must implement it because it positively impacts performance, job satisfaction, organizational commitment, and employee engagement, which ultimately leads to increased organizational citizenship behavior.

**CONCLUSION**

This study aims to identify transformational leadership’s effects on organizational citizenship behavior in terms of employees’ affective commitment and work engagement in the hospitality industry in Medan, Indonesia. It has gathered the views and clarified the theoretical background of increasing employee organizational citizenship behavior. The study shows that transformational leadership significantly impacts organizational citizenship behavior. Affective commitment and work engagement also significantly impact organizational citizenship behavior. Transformational leadership significantly impacts affective commitment and work engagement. Furthermore, affective commitment mediates the effect of transformational leadership on organizational citizenship behavior. Likewise, work engagement mediates the influence of transformational leadership on the organizational citizenship behavior of hotel employees in Medan, Indonesia. Based on the results of this study, organizations in the Indonesian hospitality sector should use HRM strategies to increase active commitment and employee work engagement. These are essential ways to get employees to act more like organizational citizens.

This study demonstrates that affective commitment and work engagement mediate the relationship between transformational leadership and organizational citizenship behavior. In addition, the benefits of affective commitment and work engagement are exaggerated to encourage employees to behave more like reasonable organization members. So, it can also make employees more loyal, creative, productive,
loyal, and innovative at work. This influences the importance of hotel human resource managers and hospitality leaders who focus on employee affective commitment and work engagement, which are related to organizational citizenship behavior.

These findings can help human resources departments in the hospitality industry in Indonesia. In addition, they can serve as a valuable resource for future research in the field. This study highlights the increase in employee organizational citizenship behavior, which is not solely caused by affective commitment, work engagement, and transformational leadership but by various factors. Nonetheless, research must be continued to investigate this problem to reveal the underlying causes and assist human resource managers in improving employee organizational citizenship behavior.

**AUTHOR CONTRIBUTIONS**

Conceptualization: Jufrizen.
Data curation: Salman Farisi.
Formal analysis: Jufrizen.
Investigation: Jufrizen, Salman Farisi, Muslih, Maya Sari.
Methodology: Jufrizen, Maya Sari.
Project administration: Muslih.
Resources: Salman Farisi.
Software: Maya Sari.
Supervision: Jufrizen, Maya Sari.
Validation: Jufrizen.
Visualization: Salman Farisi, Muslih.
Writing – original draft: Jufrizen.
Writing – review & editing: Jufrizen, Salman Farisi, Muslih, Maya Sari.

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**REFERENCES**


