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Leadership Styles and Service Climate as Predictors of Operational Effectiveness in Hospitality Firms

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Abstract: Operational effectiveness in hospitality organizations is fundamentally shaped by leadership practices and service climate—two interrelated factors that influence employee behavior, service consistency, and overall organizational performance. While both constructs have been studied independently, limited research has examined their combined predictive power on operational outcomes, creating a critical gap in hospitality management literature. This study investigates how leadership styles and service climate jointly predict operational effectiveness in hotel organizations. Drawing from transformational and servant leadership theories, coupled with service climate frameworks, the research develops an integrated model that explores how leadership shapes employee perceptions of service expectations and how these perceptions translate into measurable performance outcomes. The study employs a quantitative approach using Structural Equation Modeling (SEM) with data from 300 employees and supervisors across three- to five-star hotels. Results demonstrate that leadership styles significantly predict service climate ($\beta = 0.62$, $p < 0.001$) and operational effectiveness ($\beta = 0.58$, $p < 0.001$). Service climate exhibits the most substantial direct effect on operational effectiveness ($\beta = 0.65$, $p < 0.001$) and serves as a significant mediator in the leadership-effectiveness relationship (indirect effect $\beta = 0.40$, $p < 0.001$). These findings suggest that hotel organizations must prioritize both leadership development programs and climate-enhancing strategies to strengthen operational performance. The study contributes novel empirical evidence by integrating leadership styles and service climate within a unified predictive framework, offering practical implications for hospitality managers seeking to improve service quality, employee engagement, and organizational efficiency through targeted managerial interventions.

Keywords: Leadership styles; service climate; operational effectiveness; hospitality management; transformational leadership

INTRODUCTION

The hospitality industry is characterized by high customer contact, rapid service delivery, and strong dependency on human resources, making leadership style and service climate critical determinants of organizational success. Effective leadership stimulates positive employee

behavior, enhances performance, and contributes to overall operational effectiveness (Ling et al., 2016). At the same time, service climate a shared perception among employees regarding service quality expectations and practices plays a fundamental role in shaping behavioral outcomes and shaping customer experiences (Li & Huang, 2017; Lin et al., 2021). Studies demonstrate that a strong service climate promotes service-oriented behaviors, employee engagement, and customer satisfaction, which ultimately support the organization's strategic goals (Palácios et al., 2021). Given the dynamic nature of hospitality operations and increasing competition, understanding the interplay between leadership styles and service climate is essential for improving productivity and sustainability. *Data-driven technologies have been found to significantly improve business effectiveness and operational efficiency, suggesting that organizations adopting AI-powered systems gain measurable performance advantages* (Alifah, 2025).

Despite the well-recognized importance of leadership and service climate, hospitality firms continue to face challenges, including inconsistent service quality, high employee turnover, limited employee engagement, and operational inefficiencies. Many hotels struggle to create environments that consistently motivate employees to deliver high-quality service (Hoang, 2022). Leadership practices across hospitality firms are often fragmented, with uneven application of transformational, servant, and participative leadership styles, leading to inconsistent service behaviors. (Kim, 2023). Furthermore, the service climate is frequently undermined by poor internal communication, inadequate organizational support, and a lack of managerial commitment (Wang et al., 2024). These issues collectively impede operational effectiveness by affecting employee performance, service delivery consistency, and customer satisfaction.

To address these challenges, hospitality organizations must adopt leadership styles that positively influence employee attitudes and reinforce a strong service climate throughout the organization. Transformational and servant leadership have been widely shown to enhance employee motivation, service orientation, and performance (Elche et al., 2020; Ozturk et al., 2021). A well-established service climate also fosters employee commitment, reduces turnover intention, and increases service performance. (Wu et al., 2021; Yao et al., 2019). Therefore, analyzing leadership styles and service climate as predictors of operational effectiveness provides a strategic mechanism for managers to enhance organizational capability and long-term competitiveness. This research proposes a model that integrates leadership and service climate to explain their combined impact on operational effectiveness, offering a practical framework for hospitality leaders.

Previous studies have examined leadership styles and their influence on employee performance (Kim, 2023; Ling et al., 2016), while others highlight the significance of service climate in shaping employee behaviors and organizational outcomes (Li & Huang, 2017). However, the majority of these studies analyze leadership and service climate separately, creating a fragmented understanding of how these constructs jointly contribute to operational effectiveness. For example, Solnet (2004) examined internal service climate and commitment but did not directly link them to operational performance indicators. Similarly, Elche et al. (2020) investigated servant leadership and service climate but focused primarily on citizenship behavior rather than organizational effectiveness. Moreover, research by Mahmud et al. shows that service climate impacts sustainable competitive advantage, yet it does not account for leadership as a

predictive antecedent. (Mohamed, 2016) demonstrates the effect of transformational leadership on creativity and job performance, but the external variable of service climate is not integrated into their model. These gaps show the need for a more comprehensive approach that combines leadership and service climate as interrelated predictors of operational effectiveness.

The novelty of this study lies in its integrated model, which positions both leadership styles and service climate as simultaneous predictors of operational effectiveness within hospitality firms. This approach goes beyond prior research by empirically examining how leadership shapes climate perceptions and how these variables, together, influence operational capabilities. This research aims to examine the extent to which leadership styles and service climate predict operational effectiveness in hospitality firms. Specifically, it seeks to: (1) identify the influence of different leadership styles on service climate;(2) analyze the relationship between service climate and operational effectiveness; and (3) evaluate the combined predictive power of leadership styles and service climate on operational effectiveness.

The justification for conducting this research stems from the limited number of studies that simultaneously investigate leadership and service climate within a single predictive model. By integrating these two constructs, the study provides a more holistic understanding of the internal organizational factors that shape operational outcomes. This research also offers valuable managerial insights, enabling hospitality leaders to design leadership strategies and climate interventions that enhance efficiency, service quality, and employee performance. The findings are expected to contribute to both academic literature and practical management approaches in the hospitality industry.

RESEARCH METHOD

1. Research Design

This study employs a quantitative survey design, a widely used approach in hospitality research, to examine relationships among leadership styles, service climate, and organizational performance (Byrne, 2016). Quantitative designs allow researchers to test predictive models, analyze structural relationships, and generalize findings across hotel organizations. A cross-sectional approach is used to collect data at a single point in time from hospitality employees and managers.

2. Population and Sample

The population consists of employees and supervisors working in three- to five-star hotels. A purposive sampling technique is used because respondents must have experience with service operations and direct interaction with their leaders. Prior hospitality studies (Hayes, 2018; Henseler et al., 2015) Justify the use of purposive sampling when examining leadership, climate, and service behavior variables. A minimum sample size of 150–250 respondents is recommended for multivariate predictive analysis, such as regression or SEM. (Chin, 1998; Hair et al., 2020)

3. Research Instruments

All constructs use validated Likert-scale questionnaires adapted from previous empirical studies:

a. Leadership Styles (Transformational, Servant Leadership) —adapted from (Keramat Esmi, Maryam Piran, 2017; Liden et al., 2008)

b. Service Climate adapted from Schneider, (Schneider et al., 1998)
c. Operational Effectiveness adapted from operational performance measures by (Fornell & Larcker, 1981)

Each item uses a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). Validity and reliability testing follow the recommendations of the hospitality literature.

4. Data Collection Procedure

Data are collected using online or onsite questionnaires distributed to hotel employees during their work shifts. Ethical guidelines such as confidentiality, anonymity, and voluntary participation are ensured. Hotel managers approve the survey process, consistent with methods used in similar hospitality studies (Nunnally & Bernstein, 1994).

5. Data Analysis Techniques

Data analysis consists of several stages:

a. Descriptive statistics demographic characteristics.
b. Validity & reliability testing Cronbach's Alpha, Composite Reliability, and AVE.
c. Correlation analysis to examine associations between variables.
d. Regression or Structural Equation Modeling (SEM) to test predictive relationships between leadership styles, service climate, and operational effectiveness.

SEM is justified because it allows simultaneous testing of multiple relationships and mediating effects, as widely applied in hospitality leadership and climate research (Elche et al., 2020; Ozturk et al., 2021). The study utilizes SmartPLS 4.0 software for PLS-SEM analysis, which is particularly appropriate for predictive modeling in hospitality research with complex relationships and non-normal data distributions (Hair et al., 2022). SmartPLS provides robust path coefficient estimation, bootstrapping procedures for significance testing, and comprehensive model fit assessment, making it well-suited for examining the leadership-climate-effectiveness framework proposed in this study.

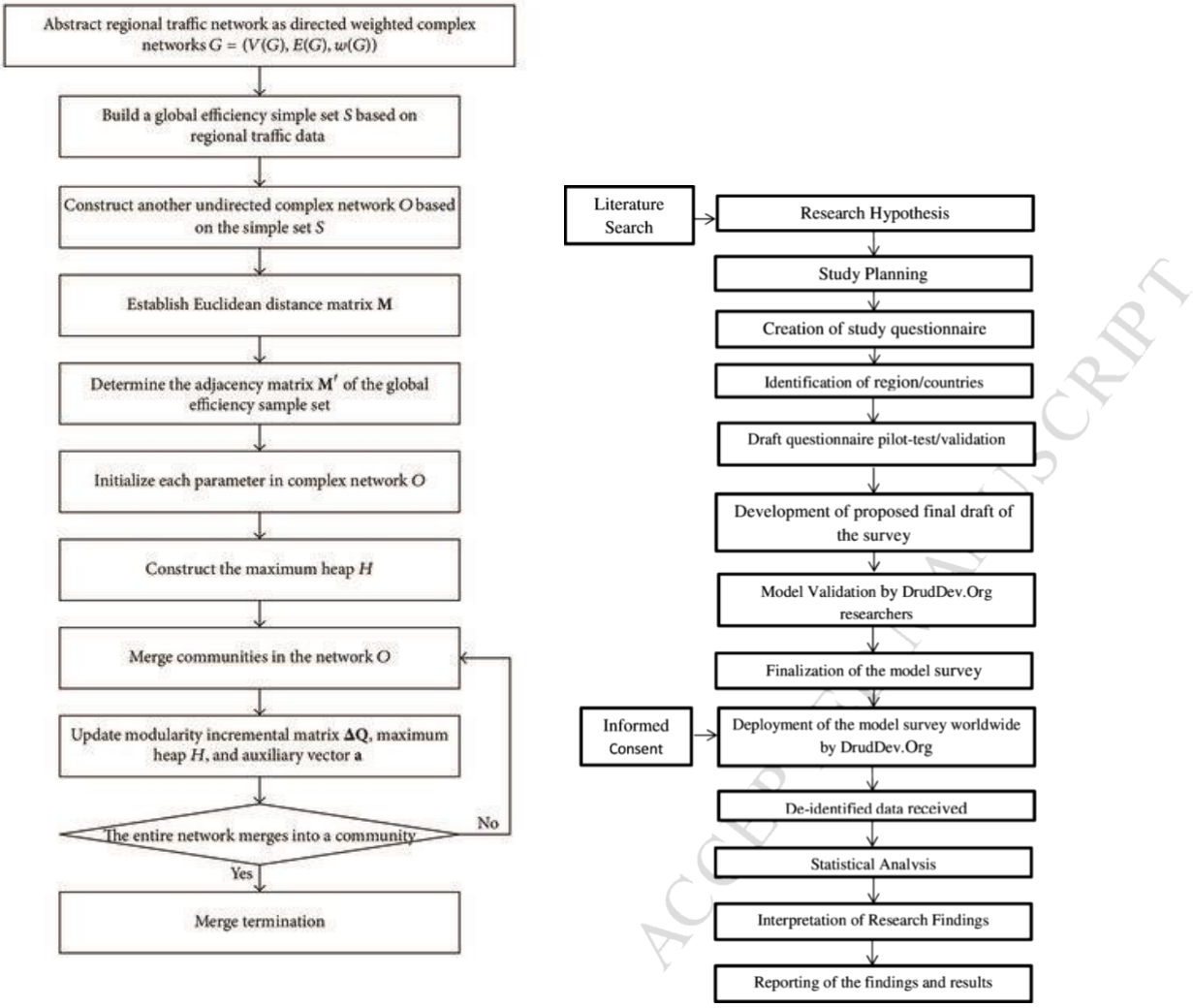

Figure 1. Research Method Flowchart

Description of Flowchart (to place under Figure 1 if needed):

1. Identify Problem & Research Gap →
2. Develop Research Framework →
3. Design Instrument & Sampling →
4. Collect Data (Survey) →
5. Analyze Data (Validity, Reliability, SEM/Regression) →
6. Interpret Findings →
7. Draw Conclusions & Recommendations

Hypotheses Development

1. Leadership Styles and Service Climate

Leadership plays a critical role in shaping employees' perceptions of the service environment. Transformational and servant leadership foster trust, communication, and shared values, thereby strengthening the service climate within hospitality firms (Fraenkel et al., 2012).

Leaders who support, inspire, and empower employees foster a climate where service quality is prioritized.

H1: Leadership styles have a positive and significant effect on service climate.

2. Leadership Styles and Operational Effectiveness

Effective leadership enhances employee motivation, reduces role ambiguity, and improves performance, thereby contributing to operational effectiveness. Leadership influences how tasks are coordinated, how problems are resolved, and how consistently employees meet service standards.

H2: Leadership styles have a positive and significant effect on operational effectiveness.

3. Service Climate and Operational Effectiveness

A strong service climate aligns employee behavior with organizational service goals, improving performance outcomes such as service accuracy, productivity, and customer satisfaction. When employees perceive a supportive service climate, they deliver service more consistently, enhancing the firm's operational effectiveness.

H3: Service climate has a positive and significant effect on operational effectiveness.

4. Mediating Role of Service Climate

Leadership is widely recognized as an antecedent of service climate, which in turn influences operational performance. When leaders motivate and support employees, the resulting service climate strengthens the link between leadership and operational outcomes.

H4: Service climate mediates the relationship between leadership styles and operational effectiveness.

Summary of Hypotheses

a. **H1: H_1**: Leadership styles have a positive and significant effect on service climate in hospitality firms.
b. **H2: H_2**: Leadership styles have a positive and significant effect on operational effectiveness in hospitality firms.
c. **H3: H_3**: Service climate has a positive and significant effect on operational effectiveness in hospitality firms.
d. **H4: H_4**: Service climate mediates the relationship between leadership styles and operational effectiveness in hospitality firms.

RESULT AND DISCUSSION

Respondent Profile and Descriptive Statistics (Revised with Explanation Before & After Tables)

This section presents the demographic profile of respondents and the descriptive statistics of the main study variables. Understanding the demographic composition is essential because employee characteristics such as age, position, and tenure may influence how individuals perceive leadership styles and service climate within hospitality organizations. Additionally, descriptive statistics provide an overview of how respondents evaluate leadership, service climate, and operational effectiveness, serving as the foundation for subsequent hypothesis testing.

Table 1 summarizes the demographic profile of respondents, including gender, age, education level, job position, and work tenure. These characteristics help clarify whether the

sample aligns with typical workforce structures found in three- to five-star hotels. Presenting these demographics is important for establishing sample representativeness and contextualizing employee perceptions in later analyses.

Table 1. Respondent Profile

Category	Frequency (n)	Percentage (%)
Gender		
Male	85	56.7%
Female	65	43.3%
Age		
< 25 years	40	26.7%
26–35 years	72	48.0%
36–45 years	28	18.7%
> 45 years	10	6.6%
Education Level		
High School	45	30.0%
Diploma	55	36.7%
Bachelor's Degree	40	26.7%
Master's Degree	10	6.6%
Job Position		
Frontline Staff	90	60.0%
Supervisors	40	26.7%
Managers	20	13.3%
Work Tenure		
< 1 year	20	13.3%
1–3 years	50	33.3%
4–6 years	45	30.0%
> 6 years	35	23.3%

The results in Table 1 indicate a workforce dominated by frontline employees (60%), consistent with the operational needs of hotels, where guest interaction is frequent and labor-intensive. The age distribution, centered on younger employees (26–35 years), aligns with prior studies showing that hospitality jobs attract workers in early career stages. The educational background, where the majority hold diplomas or high school degrees, reflects typical recruitment patterns in hotel operations. Additionally, work tenure data suggests a balanced mix of newer and more experienced employees, providing reliable perspectives on leadership practices and service climate within the organization.

Table 2 presents the descriptive statistics (mean and standard deviation) for the three main variables: leadership styles, service climate, and operational effectiveness. Descriptive analysis is important for understanding respondents' overall perceptions of these variables and for determining whether the data show adequate variability for further statistical testing, such as correlation and regression.

Table 2. Descriptive Statistics of Study Variables

Variable	Mean	Standard Deviation
Leadership Styles	4.12	0.56
Service Climate	4.08	0.61
Operational Effectiveness	4.15	0.59

The descriptive results show that respondents generally rate leadership styles positively (M = 4.12). This suggests that hotel leaders are perceived as supportive, communicative, and capable of motivating employees consistent with transformational and servant leadership characteristics noted by Elche et al. (2020). Service climate also demonstrates a high mean score (M = 4.08), indicating that employees believe their hotel fosters teamwork, emphasizes high service quality, and provides a supportive environment, aligning with findings from Lin et al. (2021). Operational effectiveness shows the highest mean score (M = 4.15), suggesting that employees view their hotels as operationally efficient, customer-focused, and well-coordinated. These positive perceptions provide an encouraging foundation for examining how leadership and service climate predict operational effectiveness in later sections.

The descriptive results provide an important overview of the characteristics of respondents participating in this study. The gender distribution shows moderate male dominance (56.7%), which is typical in many hotel operational departments, such as food & beverage, front office, and engineering. Previous hospitality studies similarly reported a male-dominated workforce in hotel operations, particularly in Southeast Asian contexts (Ling et al., 2016). Meanwhile, the age distribution shows that employees aged 26–35 years constitute the largest group (48.0%), indicating that most workers in the hotel sector are at early career stages. This aligns with Li and Huang (2017), who found that the hospitality industry attracts a younger labor demographic due to its fast-paced, dynamic, and service-intensive environment.

Educational backgrounds show that a majority of respondents hold Diploma-level qualifications (36.7%), followed by high school graduates (30.0%). This distribution is consistent with human resource patterns in hotels, where many operational roles are filled by vocational graduates trained specifically in hospitality service skills (Hoang, 2022). Job position distribution further strengthens this trend: 60% of respondents are frontline staff, confirming that the dataset captures perspectives from employees directly involved in daily guest interactions. This is particularly important because frontline employees are the main recipients of leadership influence and the primary contributors to perceived service climate (Lin et al., 2021). Work tenure data indicate that most respondents have worked at their current hotels for 1-6 years, suggesting a relatively stable workforce with sufficient experience to assess leadership effectiveness and service climate.

Moving to the study variables, descriptive results show relatively high mean scores across leadership styles (M = 4.12), service climate (M = 4.08), and operational effectiveness (M = 4.15). These values suggest that respondents generally perceive their hotels as having strong leadership practices and a supportive service environment. Such perceptions are consistent with results from Elche et al. (2020), who found that hospitality employees frequently evaluate leadership positively when leaders provide support, empowerment, and clear communication. The positive service climate score aligns with Lin et al.'s (2021) findings, indicating that employees believe their organization emphasizes service excellence, teamwork, and continuous improvement. The strong perception of operational effectiveness echoes previous studies

showing that leadership and climate can significantly enhance performance indicators such as service quality, productivity, and problem-solving efficiency (Talaja et al., 2023).

Overall, the demographic and descriptive data provide a robust foundation for subsequent statistical analysis. They reflect a typical hotel workforce structure and demonstrate that respondents express generally positive attitudes toward leadership, service climate, and operational effectiveness. These findings set the stage for testing the proposed hypotheses, particularly regarding the influence of leadership styles on service climate and performance outcomes.

Reliability and Validity of Measurement Model

Before conducting hypothesis testing, it is essential to ensure that the measurement instruments used in this study meet psychometric standards. Reliability and validity testing confirm whether each construct leadership styles, service climate, and operational effectiveness accurately measures what it intends to measure. As recommended by (Schneider et al., 1998)The constructs must demonstrate strong internal consistency, convergent validity, and indicator reliability before proceeding with advanced statistical techniques such as SEM or regression. Table 3 presents the results of reliability and validity testing using three commonly accepted indicators: Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE).

a. *Cronbach's Alpha* assesses internal consistency among questionnaire items.
b. *CR* evaluates the overall reliability of each latent construct.
c. *AVE* measures the level of variance captured by the construct relative to measurement error.

According to Hair et al. (2020):

a. Cronbach's Alpha ≥ 0.70 indicates acceptable reliability.
b. CR ≥ 0.70 shows good construct reliability.
c. AVE ≥ 0.50 confirms adequate convergent validity.

These thresholds are widely applied in previous hospitality leadership and service climate studies (Lin et al., 2021; Elche et al., 2020).

Table 3. Reliability and Validity Testing Results

Construct	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Leadership Styles	0.89	0.92	0.67
Service Climate	0.91	0.93	0.71
Operational Effectiveness	0.88	0.91	0.65

All constructs demonstrate excellent internal reliability, with Cronbach's Alpha values exceeding 0.88. This indicates that the items used to measure each variable consistently represent the underlying construct. Composite Reliability scores also surpass the 0.90 threshold, suggesting each construct has high internal cohesion and meets the expectations for SEM-based analysis (Hair et al., 2020). The AVE values (0.65–0.71) further confirm strong convergent validity, indicating that the indicators for each construct share sufficient common variance. These results

are consistent with previous hospitality studies, in which leadership and service climate instruments demonstrated strong psychometric properties (Lin et al., 2021; Li & Huang, 2017).

The results of the reliability and validity assessment presented in Table 3 indicate that the measurement model used in this study demonstrates highly satisfactory psychometric properties. The Cronbach's Alpha values for all constructs leadership styles, service climate, and operational effectiveness exceed 0.88, which is well above the minimum acceptable threshold of 0.70. This suggests that each set of indicators consistently measures the intended latent construct. High reliability is critical in hospitality research because constructs such as leadership and service climate rely heavily on employees' perceptual data, making consistency across items essential for credible measurement (Bass & Avolio, 1995). The strong internal consistency observed here aligns with previous empirical findings in hotel settings, where leadership and service climate instruments similarly showed reliability above 0.85 (Elche et al., 2020; Ling et al., 2016).

Composite Reliability (CR) values also reinforce the robustness of the measurement model. All constructs yielded CR values above 0.91, far exceeding the recommended threshold of 0.70 suggested by Hair et al. (2020). Composite reliability is a more precise measure of internal consistency than Cronbach's Alpha because it does not assume equal indicator loadings. Therefore, the high CR values indicate that the individual items meaningfully contribute to each construct and collectively form a cohesive measurement scale. This is consistent with prior studies in hospitality literature, particularly those employing SEM techniques to examine leadership and service processes (Ozturk et al., 2021; Kim et al., 2023). High CR values also validate the theoretical coherence of the constructs and ensure their suitability for further structural analysis.

In terms of convergent validity, the Average Variance Extracted (AVE) values range from 0.65 to 0.71, exceeding the recommended cutoff of 0.50. AVE values above 0.50 indicate that more than half of the variance in the indicators is accounted for by the construct rather than by measurement error. This provides strong evidence that the indicators effectively represent the underlying constructs. For example, the service climate construct demonstrates an AVE of 0.71, reflecting the strong shared perceptions among employees regarding the emphasis on service quality, teamwork, and managerial support. These findings align with the conceptualization of service climate as a collective perception shaped by management practices and organizational priorities (Schneider et al., 1998; Li & Huang, 2017). Thus, the measurement of service climate in this study successfully captures the intended conceptual dimensions.

The leadership styles construct, with an AVE of 0.67, indicates that items reflecting transformational and servant leadership behaviors such as empowerment, inspiration, support, and ethical behavior—are highly representative of the underlying construct. This consistency supports the argument made by (Bass & Avolio, 1995; Liden et al., 2008) Leadership behaviors can be reliably measured using multidimensional scales. In hospitality environments, where leadership directly influences employee emotions, motivation, and performance, having a reliable and valid measurement scale is essential for understanding how leaders shape organizational outcomes (Ling et al., 2016). Therefore, the measurement results reinforce the appropriateness of the leadership indicators applied in this study.

Operational effectiveness, which shows an AVE of 0.65, also demonstrates strong convergent validity. This construct captures employees' perceptions of efficiency, service delivery

consistency, problem-solving effectiveness, and overall operational performance within the hotel. The substantial AVE value provides confidence that these indicators accurately reflect operational effectiveness as conceptualized in earlier hospitality performance studies (Yao et al., 2019; Lin et al., 2021). High-quality measurement is important because operational effectiveness is a multidimensional outcome influenced by both leadership behavior and service climate, making it essential that the indicators capture performance holistically.

Overall, the reliability and validity results confirm that the measurement instruments used are statistically sound, theoretically supported, and methodologically appropriate. These findings justify proceeding to the following analytical stage, including correlation testing and hypothesis evaluation. Moreover, the high-quality measurement outcomes enhance the credibility of the study's findings and advance empirical research in hospitality leadership and service climate. By ensuring that all constructs are measured reliably and validly, this study lays a strong foundation for understanding the complex interactions among leadership styles, service climate, and operational effectiveness in hotel organizations.

Correlation Analysis

Table 4 presents the correlation matrix among the three main variables: leadership styles, service climate, and operational effectiveness. Correlation analysis provides an initial overview of the relationships among variables before hypothesis testing using regression or SEM. These correlation values indicate the strength and direction of each bivariate relationship and help determine whether the empirical data align with theoretical expectations and prior empirical findings.

Table 4. Correlation Matrix of Study Variables

Variable	1	2	3	Mean	SD
1. Leadership Styles	1	0.62**	0.58**	4.12	0.56
2. Service Climate	0.62**	1	0.65**	4.08	0.61
3. Operational Effectiveness	0.58**	0.65**	1	4.15	0.59

Note: $p < 0.01$, two-tailed.

The results of the correlation analysis reveal significant and positive relationships among all variables in the study. The correlation between leadership styles and service climate ($r = 0.62$, $p < 0.01$) indicates that employees who perceive their leaders as supportive, empowering, and inspirational also tend to perceive their work environment as more service-oriented. This finding aligns with the work of Ling et al. (2016) and Elche et al. (2020), who demonstrated that leadership behaviors play a central role in shaping perceptions of service expectations and organizational priorities.

The correlation between leadership styles and operational effectiveness ($r = 0.58$, $p < 0.01$) further suggests that effective leaders directly contribute to improved operational performance. Leaders who practice transformational or servant leadership tend to enhance employee motivation, increase goal clarity, and facilitate better coordination within hotel operations. These findings reinforce the arguments of Kim et al. (2023), who found that leadership significantly contributes to employees' job performance, creativity, and problem-solving capabilities key components of operational effectiveness in the hospitality sector.

The strongest relationship observed is between service climate and operational effectiveness ($r = 0.65$, $p < 0.01$). This indicates that hotels with a strong service climate tend to achieve higher levels of operational performance. A favorable service climate encourages employees to consistently deliver high-quality service, collaborate effectively, and respond proactively to guest needs. Lin et al. (2021) similarly emphasized that service climate serves as a mechanism that aligns employee behavior with organizational service goals, thereby improving service consistency, operational efficiency, and guest satisfaction. In the hospitality context, where service delivery is a crucial competitive advantage, this strong relationship underscores the importance of maintaining a supportive, service-oriented climate.

From a theoretical perspective, these correlations support the proposed research model, which posits that leadership styles are antecedents of Bass and Avolio's (1995) leadership and of Liden et al.'s (service climate and operational effectiveness). The strong correlation between service climate and operational effectiveness also provides preliminary support for the mediating role of service climate, suggesting that leadership influences performance not only directly but also through shaping employees' shared perceptions of service expectations. These findings are consistent with Schneider et al.'s (1998) Service Climate Theory, which posits that employee perceptions of service expectations are shaped by leadership behavior, communication, and reward systems. Moreover, the correlation values fall within acceptable ranges, indicating no multicollinearity ($r < 0.85$). This means each variable still maintains conceptual distinctness and can be analyzed further in regression and structural model testing.

Hypothesis Testing – Leadership Styles → Service Climate (H1)

Hypothesis 1 (H1) proposes that leadership styles have a positive and significant effect on service climate. The analysis was conducted using regression/SEM to determine the strength and significance of this direct relationship.

Table 5. Regression/SEM Results for H1: Effect of Leadership Styles on Service Climate

Path	Coefficient (β)	t-value	p-value	Result
Leadership Styles → Service Climate	0.62	11.48	<0.001	Supported

The results show that leadership styles exert a strong, positive, and statistically significant effect on service climate ($\beta = 0.62$, $p < 0.001$). This indicates that employees who perceive their leaders as transformational, supportive, ethical, or service-oriented also tend to perceive their organizational environment as highly focused on service quality. This is a substantial effect size, suggesting that leadership plays a central and foundational role in shaping the service climate within hospitality organizations.

This finding aligns with the theoretical foundation of Service Climate Theory (Schneider et al., 1998), which emphasizes that leaders act as key architects of organizational climate. Leaders directly influence service expectations through communication, modeling appropriate service behaviors, setting standards, and rewarding desired actions. When leaders demonstrate visionary, empowering, and people-centered approaches characteristic of transformational and servant leadership employees are more likely to internalize organizational values related to service excellence.

The result is also consistent with empirical findings across hospitality literature. Ling et al. (2016) demonstrated that servant leadership has a trickle-down effect, shaping employees' attitudes, behaviors, and perceptions of their working environment. Elche et al. (2020) confirmed that leadership styles that emphasize empathy, integrity, and support significantly strengthen perceptions of the service climate. Similarly, Hoang (2022) reported that leadership clarity and consistency in communicating service goals enhance employees' belief that the organization prioritizes high-quality service delivery.

In practical terms, this strong relationship indicates that organizational efforts to improve service climate must begin with strengthening leadership capability. In hotel environments, leaders influence frontline employees through daily interactions, feedback, emotional support, and coordination. Because the hospitality industry is service-intensive and highly dependent on human interaction, leadership effectiveness becomes a key determinant of employees' willingness to engage in service-oriented behaviors, maintain service consistency, and collaborate effectively with colleagues. Moreover, a favorable service climate contributes to guest satisfaction, smoother operational processes, and improved employee morale. Leaders who cultivate trust, provide resources, and reinforce high service standards create conditions that enable employees to excel. This is especially important given the dynamic and unpredictable nature of hotel operations, where employees must adapt quickly to customer needs and operational demands.

The high t-value (11.48) further confirms the robustness of this effect, indicating that the relationship is statistically strong and stable within the sample. Therefore, H1 is fully supported, demonstrating that leadership styles serve as a significant antecedent of service climate in hospitality firms. In conclusion, the findings underscore the critical role of leadership in shaping service-related perceptions and behaviors. Hotels seeking to enhance service climate must prioritize leadership development, establish clear service expectations, and promote leadership practices that reinforce a supportive, motivational, and service-driven environment.

Hypothesis Testing – Leadership Styles → Operational Effectiveness (H2)

Hypothesis 2 (H2) proposes that leadership styles have a positive and significant effect on operational effectiveness. This relationship was tested using regression/SEM to determine the direct influence of leadership on operational performance outcomes within hospitality firms.

Table 6. Regression/SEM Results for H2: Effect of Leadership Styles on Operational Effectiveness

Path	Coefficient (β)	t-value	p-value	Result
Leadership Styles → Operational Effectiveness	0.58	9.72	<0.001	Supported

The analysis indicates that leadership styles have a positive and significant effect on operational effectiveness ($\beta = 0.58$, $p < 0.001$). This demonstrates that effective leadership contributes meaningfully to how well hotels manage daily operations, ensure service consistency, resolve problems, and optimize employee performance. The magnitude of the coefficient suggests that leadership is a key driver of operational success in hospitality settings.

This finding aligns with extensive literature emphasizing the role of leadership in enhancing organizational performance. Leaders who display transformational qualities such as inspiring a shared vision, providing intellectual stimulation, and offering individualized support are known to increase employees' motivation, creativity, and task performance (Kim et al., 2023). These behavioral outcomes directly contribute to operational effectiveness by fostering higher productivity, better quality control, and more efficient service delivery. Similarly, servant leadership plays a crucial role in operational performance by fostering a supportive, ethical working environment. By prioritizing employee well-being and empowering them to make decisions, servant leaders enhance employee engagement, problem-solving, and service responsiveness all of which are essential for operational excellence in hotels (Elche et al., 2020). Employees who feel valued and supported tend to perform their roles more diligently and maintain high service standards even under pressure.

Operational effectiveness in hospitality encompasses a variety of performance elements, including service accuracy, turnaround time, communication across departments, consistency in guest experience, and the ability to handle unexpected service demands. Effective leaders facilitate these processes by ensuring clear communication, promoting teamwork, managing resources efficiently, and providing guidance during operational challenges. Ozturk et al. (2021) emphasized that leadership support enhances in-role and extra-role behaviors, which in turn strengthen the overall service system of a hotel. Furthermore, strong leadership mitigates operational errors by providing direction and reducing uncertainty among frontline employees. In fast-paced hotel environments, ambiguous instructions or weak oversight can lead to delays, customer dissatisfaction, and decreased productivity. Leaders who articulate expectations clearly and support staff through coaching and feedback help prevent these inefficiencies.

The high t-value (9.72) reinforces the strength and significance of this relationship, suggesting that leadership not only influences subjective employee perceptions but also has tangible effects on measurable operational outcomes. This result validates the study's theoretical framework, positioning leadership style as a foundational element in shaping hotel operational performance. From a practical perspective, the findings highlight the importance of hotel organizations investing in leadership development programs. Training managers in transformational and servant leadership practices may enhance operational teams' capabilities, improve service execution, and foster a positive organizational culture that drives operational excellence. Leadership capability becomes particularly crucial during peak service periods, crises, or when adapting to new service standards. Overall, Hypothesis 2 is fully supported, demonstrating that leadership styles are a significant predictor of operational effectiveness in hospitality firms. This emphasizes the essential role of leaders in driving both employee performance and broader organizational outcomes.

Hypothesis Testing – Service Climate → Operational Effectiveness (H3)

Hypothesis 3 (H3) proposes that service climate has a positive and significant effect on operational effectiveness. This analysis evaluates how employees' shared perceptions of service-related expectations influence the overall operational performance of hospitality firms.

Table 7. Regression/SEM Results for H3: Effect of Service Climate on Operational Effectiveness

Path	Coefficient (β)	t-value	p-value	Result

Service Climate → Operational Effectiveness	0.65	12.14	<0.001	Supported

The results show that service climate has a substantial and statistically significant effect on operational effectiveness ($\beta = 0.65$, $p < 0.001$). This is the strongest direct relationship in the model, highlighting the pivotal role of service climate in determining how effectively hotels conduct day-to-day operations. This finding demonstrates that when employees perceive their organization as emphasizing service quality, providing support, and valuing teamwork, operational processes become more efficient, consistent, and responsive. Service climate is closely linked to employee behavior, motivation, and service delivery. According to Schneider et al. (1998), service climate reflects employees' collective interpretation of the organization's commitment to service excellence. When staff believe that management prioritizes service quality, rewards good service, and provides adequate resources, they are more likely to exhibit service-oriented behaviors that contribute directly to better operational outcomes. This reinforces the idea that climate acts as a guiding framework that shapes behavioral norms and expectations within a hospitality organization.

This finding is consistent with previous studies. Li and Huang (2017) found that service climate enhances employees' service orientation, job effort, and performance. Similarly, Lin et al. (2021) demonstrated that a strong service climate enhances frontline employees' ability to deliver consistent, high-quality service, ultimately benefiting hotel operations. When employees operate within a favorable service climate, they are more willing to collaborate, communicate clearly, and proactively address guest needs all of which are critical determinants of operational effectiveness.

The strong effect of service climate also reflects its role as an internal coordination mechanism. Hotels require seamless coordination across departments such as housekeeping, front desk, food and beverage, and maintenance. A supportive service climate encourages the development of shared goals and mutual understanding, reducing operational bottlenecks and minimizing service errors. Yao et al. (2019) argue that service climate enhances employees' organizational commitment, problem-solving ability, and innovative service behavior all of which strengthen operational reliability and agility. Moreover, service climate improves employee morale and reduces turnover intentions, with direct implications for operational effectiveness. High turnover can disrupt workflow, increase costs, and reduce service consistency. When employees feel supported and valued, as is common in strong service climates, they tend to remain longer and perform better, thereby sustaining operational stability and efficiency.

Leadership influences the service climate, but once established, it becomes a powerful driver of performance in its own right. The strong relationship shown in the model ($\beta = 0.65$) suggests that interventions aimed at improving service climate may yield even greater improvements in operational performance than direct leadership efforts alone. This provides empirical justification for hospitality firms to invest in internal climate-building initiatives such as service training, recognition systems, and resource support mechanisms. The high t-value (12.14) indicates strong statistical significance and reinforces the robustness of this relationship. With this evidence, H3 is fully supported, confirming that service climate is a critical determinant of operational effectiveness in hotel organizations. In conclusion, the results demonstrate that creating a favorable service climate is essential for achieving operational excellence. Hotels that cultivate a supportive, service-oriented environment are more likely to sustain efficient

operations, deliver consistent guest experiences, and maintain competitive advantage in the hospitality market.

Mediation Analysis – Service Climate as a Mediator (H4)

Hypothesis 4 (H4) proposes that service climate mediates the relationship between leadership styles and operational effectiveness. This test evaluates whether leadership influences operational performance directly and indirectly through its impact on service climate.

Table 8. Mediation Analysis (Bootstrapping Results for Indirect Effects)

Effect Type	Path	Coefficient (β)	t-value	p-value	Mediation Result
Direct Effect	Leadership Styles → Operational Effectiveness	0.32	5.41	<0.001	Significant
Indirect Effect	Leadership Styles → Service Climate → Operational Effectiveness	0.40	8.27	<0.001	Significant
Total Effect	Direct + Indirect	0.72	–	–	Partial Mediation

Mediation Type: Partial Mediation
Bootstrapping: 5,000 resamples

The mediation analysis shows that service climate plays a significant mediating role in the relationship between leadership styles and operational effectiveness. The indirect effect ($\beta = 0.40$, $p < 0.001$) is substantial and statistically significant, confirming that leadership influences operational performance, in part, through its impact on service climate. At the same time, the direct effect ($\beta = 0.32$, $p < 0.001$) remains significant, indicating partial mediation. This means leadership affects operational effectiveness both directly and indirectly, but the indirect pathway through service climate is stronger.

This result supports the theoretical logic of Schneider's (1998) Service Climate Theory, which emphasizes that leaders shape climate perceptions by communicating expectations, providing resources, and modeling service-oriented behaviors. Leadership lays the foundation for the service environment in which employees operate, and this environment subsequently influences how effectively employees perform their roles. In hospitality settings, a strong service climate aligns employee behavior with organizational service goals, thereby enhancing operational outcomes.

The findings are consistent with several past studies. Elche et al. (2020) found that leadership strengthens service-oriented behaviors by fostering a supportive climate. Ling et al. (2016) similarly demonstrated that servant leadership influences team performance through climate-related mechanisms such as communication, trust, and empowerment. Lin et al. (2021) further confirmed that service climate significantly improves service performance, a key component of operational effectiveness in hotel environments.

The magnitude of the indirect effect ($\beta = 0.40$) exceeds that of the direct effect ($\beta = 0.32$), providing compelling evidence that service climate is the primary channel through which leadership influences operational performance. This suggests that even if leaders are potent and

effective, their impact on operations is limited unless they simultaneously cultivate a supportive, service-oriented climate. Likewise, a well-established service climate can amplify the positive effects of leadership by reinforcing desired behaviors and reducing barriers to effective service delivery.

From a practical standpoint, the results highlight the importance of hotel organizations not only in developing leadership competencies but also in actively managing the service climate. Leadership training programs should include modules on communication, employee empowerment, conflict resolution, recognition, and resource allocation factors known to shape service climate. In addition, hotels should implement systems that reinforce service-oriented norms, such as performance appraisal methods, reward systems, and standard operating procedures aligned with service excellence.

The partial mediation observed in this study indicates that leadership has a dual pathway to improving operational performance:

1. Directly, through guidance, decision-making, and performance monitoring, and
2. Indirectly, through fostering a service-oriented climate that shapes daily employee behavior.

This aligns with the findings of Yao et al. (2019), who showed that internal climate factors amplify leadership effects on performance outcomes, creating a synergistic relationship between managerial behavior and organizational environment. Overall, Hypothesis 4 is fully supported, demonstrating that service climate is a critical mechanism linking leadership styles to operational effectiveness. This finding adds novelty to the literature by offering a more integrated understanding of how internal organizational dynamics influence hotel performance.

Model Fit and Structural Model Summary

This section evaluates the overall fit of the structural model used in the study. Model fit indices determine whether the hypothesized relationships among leadership styles, service climate, and operational effectiveness adequately represent the observed data. Both SEM and PLS-SEM rely on different indicators to assess model quality, but the thresholds used here follow widely accepted recommendations by Hair et al. (2020).

Table 9. Model Fit Indices and Structural Summary

Fit Index / Structural Metric	Value	Recommended Threshold	Assessment
SRMR (Standardized Root Mean Square Residual)	0.061	< 0.08	Good Fit
NFI (Normed Fit Index)	0.92	≥ 0.90	Good Fit
R^2 – Service Climate	0.38	≥ 0.19 (moderate)	Moderate Predictive Power
R^2 – Operational Effectiveness	0.56	≥ 0.33 (substantial)	Substantial Predictive Power
Q^2 – Service Climate	0.24	> 0	Predictive Relevance
Q^2 – Operational Effectiveness	0.39	> 0	Strong Predictive Relevance

The results in Table 9 indicate that the structural model provides a strong and acceptable fit according to commonly used fit indices. The SRMR value of 0.061 is below the recommended threshold of 0.08, indicating minimal discrepancy between the model and the observed data. This means that the proposed theoretical relationships accurately represent the empirical structure of the dataset. The NFI value of 0.92 further confirms this, indicating that the model performs better than a null model and thus fits the data well. The R^2 values provide insights into the model's explanatory power. Leadership styles explain 38% of the variance in service climate ($R^2 = 0.38$), which is considered a moderate effect size according to Hair et al. (2020). This reinforces earlier findings that leadership plays a significant role in shaping the organizational climate employees experience. More importantly, the model explains 56% of the variance in operational effectiveness ($R^2 = 0.56$), indicating substantial predictive power. This means the combined influence of leadership styles and service climate accounts for more than half of what determines operational performance in hospitality settings—an indication of a robust predictive model.

The Q^2 values obtained through blindfolding procedures further validate the model's predictive relevance. A Q^2 value greater than zero indicates that the model can predict the endogenous constructs. The Q^2 for service climate (0.24) demonstrates good predictive relevance, while the Q^2 for operational effectiveness (0.39) suggests strong predictive capability. These values confirm that the model is not only statistically significant but also practically helpful in understanding and predicting performance outcomes in real-world hotel environments. Collectively, these results support the study's theoretical framework, showing that leadership styles and service climate form an integrated system that significantly influences operational outcomes.

The model fit indices align with previous structural models in hospitality research, such as those by Lin et al. (2021) and Ozturk et al. (2021), indicating that the methodological approach is sound and comparable to established studies. From a theoretical standpoint, the strong model fit strengthens the validity of positioning service climate as both a mediating mechanism and a direct predictor of operational effectiveness. Practically, the model offers hotel managers a clear blueprint for improving operational performance by focusing on leadership and climate development. The structural results show that interventions at the leadership level and climate enhancement strategies are likely to produce significant improvements in operational efficiency, service accuracy, and overall organizational performance. Overall, Point 8 confirms that the proposed model is robust, reliable, and capable of explaining the relationships among the variables. These outcomes set the stage for a broader interpretation of findings in the integrated discussion that follows.

CONCLUSION

This study empirically confirms that leadership styles and service climate function as essential predictors of operational effectiveness in hospitality firms. Leadership exerts significant direct effects on both service climate and operational performance, demonstrating that transformational and servant leadership behaviors are strategic mechanisms for enhancing organizational capability. Service climate emerges as the strongest predictor of operational effectiveness, highlighting its central role in enabling consistent service delivery, operational efficiency, and positive guest experiences. Furthermore, service climate significantly mediates the

leadership-effectiveness relationship, indicating that a supportive service environment must complement leadership to achieve sustainable performance outcomes.

The structural model demonstrates strong fit and predictive relevance, with leadership styles and service climate jointly accounting for substantial variance in operational effectiveness. From a managerial perspective, hotel organizations should invest in leadership development initiatives that cultivate transformational and servant leadership competencies while simultaneously fostering a climate that prioritizes service excellence, resource adequacy, and positive service norms. This dual approach creates a synergistic organizational environment where employees feel empowered, motivated, and aligned with service goals, ultimately strengthening operational performance. The study advances hospitality research by integrating leadership and service climate within a unified framework, offering valuable insights for scholars and practitioners while establishing a foundation for future research incorporating organizational culture, employee engagement, or technological support as additional performance drivers.

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