



Analysis of the Role of Work Environment and Leadership Style in Improving Service Performance at Automotive Industry

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Abstract

Background: The automotive industry in Indonesia contributes 2.1% to the national GDP but was heavily affected by the Covid-19 pandemic, causing declines in demand and service revenue. To recover, companies must improve service quality through better work environments and leadership practices.

Objective: This study analyzes the role of the *work environment* and *leadership style* in improving *service performance at Automotive Industry*.

Method: Using a quantitative approach, data were collected from 138 service advisors and analyzed with PLS-SEM to examine validity, reliability, and relationships among variables.

Result: The *work environment* significantly affects *leadership style* ($\beta = 0.770$, $p = 0.000$), which positively influences *service performance* ($\beta = 0.497$, $p = 0.000$). Although the direct effect of the *work environment* on *service performance* is smaller ($\beta = 0.289$, $p = 0.010$), the total impact is stronger due to *leadership's* mediating role (indirect effect = 0.382).

Conclusion: A supportive *work environment* enhances *leadership effectiveness*, which leads to better *service performance*. Originality/Value (State of the Art): This study is among the first to empirically examine *leadership style* as a mediating variable linking *work environment* to *service performance*, specifically among service advisors in automotive industry. By situating the analysis within Indonesia's automotive service sector during the post-pandemic recovery period, this research extends the DeLone and McLean organizational performance framework to the dealer-level service context, addressing a gap in the literature on human-centered performance drivers in competitive automotive retail settings.

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INTRODUCTION

The automotive industry is important to Indonesia's economy, contributing 2.1% of national GDP in 2024. However, this sector was severely impacted during the Covid-19 pandemic, which resulted in a shortage of vehicles and after-sales service revenue (Purwanto, 2020). While demand has slowly rebounded, automotive service providers are still under pressure to manage an unstable operational environment characterized by inconsistent customer visit volumes and increased competition between dealers (Lawrence, 2025). The recovery for the automotive sector, therefore, is largely a function of companies' ability to strengthen service performance as an imperative for business sustainability (Putranto et al., 2024; Suganda & Puspita, 2026).

In the post-pandemic era, consumers are increasingly judging service providers not only for their technical service output but also for their responsiveness, communication quality, and overall service experience (Verhoef et al., 2015). This has prompted dealers such as automotive industry to improve service quality to maintain customer trust and competitiveness (Suganda & Puspita, 2026). This has significant implications for service advisors, who serve as the primary

interface between customers and service providers, directly influencing perceptions of service quality and customer satisfaction.

Several other studies focus on organizational behavior and human resource management to explicate service performance. Hamed (2023) demonstrated that a positive work environment, in terms of physical comfort, interpersonal support, and safety, leads to greater employee productivity and satisfaction. Prior literature, such as Suyono (2021) indicates that performance is affected by the work environment through employee motivation and organizational commitment. Yet these results also indicate that without management intervention, improvement of physical and social work domains may not result in persistent service performance (Nielsen et al., 2008).

At the same time, leadership style is widely recognized as an enabler of service excellence. Yang (2020) suggest that transformational leadership is related to contextual and service performance but mainly for employees with proactive personalities. Hadiwidjaja (2024) found that improving leadership quality serves as a mechanism for raising service standards in public institutions. Additionally, Setiani (2021) reported a positive effect of transactional leadership on employee performance, with job satisfaction serving as a moderating variable. Although some studies have begun to address this gap in the literature Hoch (2018), less is known about how workplace conditions can be transformed into specific service outcomes through management practices, especially in privately owned service organizations (Ansho, 2024; Suganda & Puspita, 2026).

While these studies have added to our understanding of the separate influences of the work environment and leadership style on performance, there remains a significant gap in understanding how these two antecedents interact to impact service performance. Most previous studies focused on either the work context or leadership style as a predictor, without investigating how leadership may provide a causal process through which situational support is converted into employee performance behavior (Nguyen et al., 2017). In general, there is little empirical evidence in the context of Indonesian automotive services that leadership style can serve as an intervening variable bridging the Work Environment towards Service Outcome. This limitation is relevant, as a supportive work climate alone will not guarantee optimal service results, especially if leadership does not provide direction, feedback, and motivation to subordinates.

Leadership can also intensify the positive effects of a good working environment when leaders guide their followers through coordination, accountability, and service (Judge & Piccolo, 2004). Due to the post-pandemic recovery process and organizational capacity for response and adaptation, exploring this mediating mechanism is both timely and relevant. In addition, since the automotive service industry in Indonesia has evolved as a highly human-driven, interactional, and consistent service business process, empirical studies focusing on Indonesian services remain limited (Antera & Herrera, 2025; Putranto et al., 2024).

To fill this gap, the current study applies a quantitative approach using survey data from 138 service advisors working at automotive industry. Data were processed through Partial Least Squares Structural Equation Modeling (PLS-SEM) to assess the direct and indirect relationships between work environment, leadership style, and service performance. PLS-SEM is particularly useful for investigating mediation effects, as it enables simultaneous assessment of direct and indirect paths among latent constructs without requiring multivariate normality (Hair et al., 2019).

This study aims to examine the direct effects of work environment and leadership style on service performance, as well as the mediating role of leadership style in the relationship between work environment and service performance among service advisors at automotive industry. By specifying this mediating process, the study informs evidence-based management actions to improve service consistency and customer satisfaction in competitive automotive services. The results are expected to enhance the theoretical pool of knowledge by clarifying the mediating mechanism, while also providing managerial implications specifically for improving service quality in the automotive industry.

METHOD

The study employed a quantitative approach using primary data collected directly from respondents through questionnaires. The following data reflections describe automotive industry service advisors related to aspects of their perceived work environment, leadership style and service performance. It is important to survey employees who are directly aligned with service delivery processes that drive after sale performance, as they may have deeply rooted experience in the company. Apart from the primary data, secondary data were made from a combination of company reports, previous research article publications and statistical data from statistics Indonesia (BPS) to describe the macroeconomic context of automotive industry. These data underpin the background and reinforce the context of the research setting.

The data were collected by creating an online survey questionnaire and distributed it to 138 service advisors from automotive industry. The questionnaire utilized a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Measures of Work Environment, Leadership Style and Service Performance (multiple items) were adapted from existing scales in previous studies ([Parasuraman et al., 1988](#); [Yang et al., 2020](#)). A pilot test was conducted before mass distribution of the tool, to ascertain content validity and clarity of questionnaire items. Data were collected in a manner that was anonymous, to facilitate honest responses and minimize common sources of social desirability bias.

Partial Least Squares Structural Equation Modeling (PLS-SEM) The analysis proceeded in two stages. First, the measurement model (outer model) was evaluated (Outer Model) to assess the validity and reliability of indicators with criteria: outer loading, construct reliability (Cronbach's Alpha & Composite Reliability (CR), Average Variance Extracted (AVE). Indirect path coefficients were used to test mediation effects. Statistical significance was set at the 95% confidence level ($p < 0.05$).

From the literature review and theoretical framework, the following hypotheses were developed:

H1: The work environment has a direct and positive influence on service performance.

Justification: A conducive and supportive working environment will increase employee motivation, thus increasing productivity in service delivery ([Gu et al., 2022](#)).

H2: The work environment has a direct and positive influence on leadership style.

Justification: A participative adaptive leadership behaviour is facilitated by a collaborative and open workplace ([Hadiwidjaja et al., 2024](#)).

H3: Leadership style has a direct and positive influence on service performance.

Justification: Transformational and supportive leadership motivates employees to provide high-quality service with customer satisfaction ([Yang et al., 2020](#)).

H4: Leadership style mediates the relationship between the work environment and service performance.

Justification: An appropriate leadership style serves as an intermediary mechanism where the positive work environment translates into excellent service outcomes in order to improve performance ([Setiani & Rizaldy, 2021](#)).

The conceptual framework explains the direct relation and indirect relation that exist between three main variables, namely work environment with service performance and leadership style with performance of service. In this model, leadership style serves as mediator between work environment and service performance, moreover suggesting that; if there are improvements in the environment where the employees are working; it will play a positive role towards uplifting the leadership practices which then stimulates to uplift their service performance. In short, the assumption of this framework implies that the work environment not only shapes how employees do their jobs but also how leaders perform inside an organization. This expectation implies a mutually reinforcing mechanism aimed at enhancing automotive service performance.

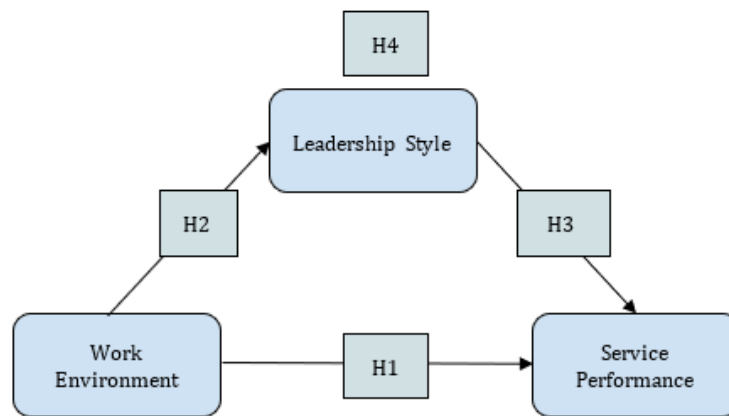


Figure 1. Conceptual Model

RESULTS AND DISCUSSION

Results

The outer loading values as an illustration of the indicator validity test results are shown in Figure 2, where all items are above 0.700, indicating that each indicator meets the convergent validity criterion. This confirms that the measurement instrument is valid and that all items contribute meaningfully to their respective constructs, making them suitable for further analysis.

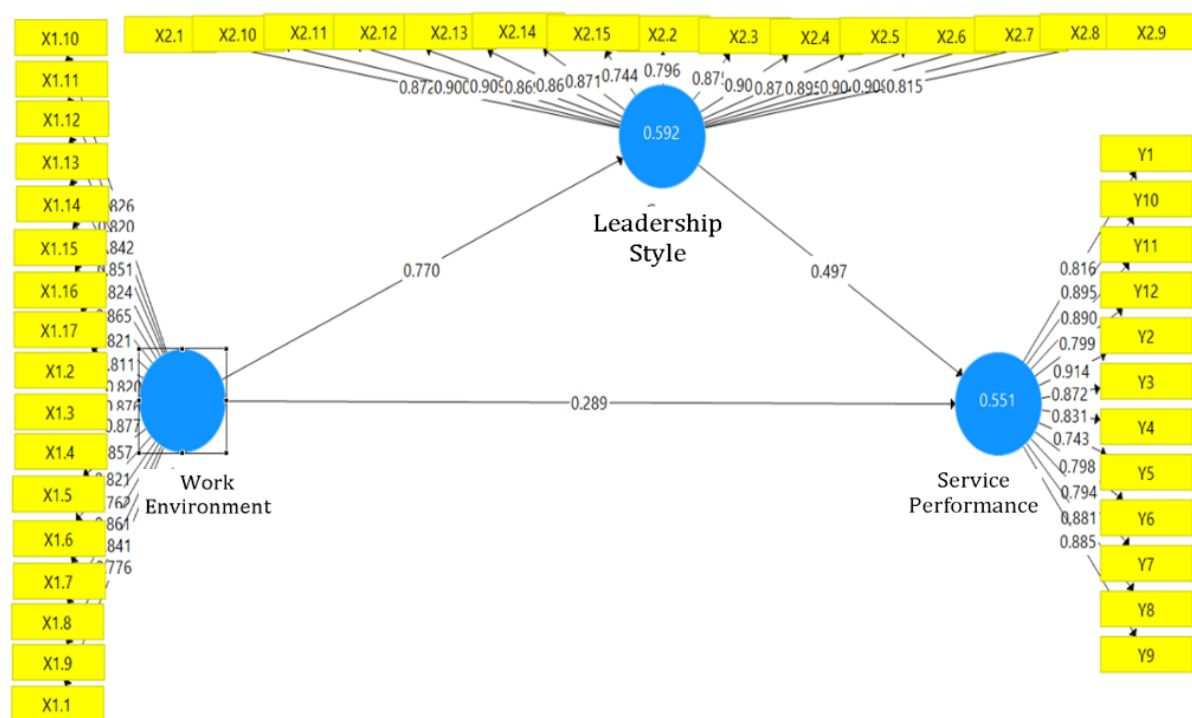


Figure 2. Measurement model (PLS algorithm)

Before testing the structural relationships, validity and reliability analyses were performed to ascertain that each measurement item effectively represented its construct. The outer loading values of these indicators were all higher than 0.700, indicating a good degree of convergence validity. Moreover, all the Cronbach's Alpha values of Work Environment (0.972), Leadership Style (0.976), and Service Performance (0.963) are greater than 0.700 which indicates respective excellent internal consistency. The measurement model fulfilled the requirements for reliability and validity since they presented Composite Reliability (0.968 to 0.979) and Average Variances Extracted ($AVE > 0.694$).

Table 1. Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Leadership Style	0.976	0.978	0.979	0.753
Service Performance	0.963	0.965	0.968	0.714
Work Environment	0.972	0.974	0.975	0.694

The results of the path coefficient analysis show that the value of the coefficients (paths) between leadership style variables and service performance is 0.497. This value indicates that the two variables are positively correlated with each other. Additionally, it also contributes positively to the leadership style with coefficient of 0.770 which shows that there have strong link between work environment and leadership style. On the other hand, the coefficient between work environment and service performance is 0.289, indicating a positive but relatively weak relationship than in the three previous cases All coefficient values are positive, suggesting a unidirectional relationship between the analyzed variables. Finally, the direct effect of work environment on service performance is only 0.382 when work environment significantly indirectly affects service performance through leadership style. The work environment's total effect on service performance is 0.671.

PLS-SEM bootstrapping analysis of the structural model demonstrated a significant relationship for all constructs. The path coefficients and their statistics are displayed in the following table:

Table 2. Structural Model (PLS bootstrapping)

	Path Coefficient	T Statistics	P Values	Significance
Leadership Style > Service Performance	0.497	4.215	0.000	Significant
Work Environment > Leadership Style	0.770	15.044	0.000	Significant
Work Environment > Service Performance	0.289	2.575	0.010	Significant
Work Environment > Leadership Style > Service Performance	0.382	4.138	0.000	Significant

All p-values are smaller than 0.05, so they confirmed H1, H2, H3 and H4 is supported. Results among both datasets The work environment was positively related with service performance directly in a smaller degree than through the mediator of leadership style. This finding indicates that leadership style serves as a significant mediating factor between environmental circumstances and employee service outcomes.

The data in Table 3 indicates that the Leadership Style variable where R Square test produces an R square of 0.592, suggesting that Work Environment can explain variations or changes as much as 59.2 % of Leadership styles. On the other hand, using Service Performance as a dependent variable, R Square was obtained (0.551), so it could be concluded that Leadership Style and Work Environment had jointly explained 55.1% of the variation in Service Performance. The presence of both variables have relatively high R Square values, indicating that the model has a strong explanatory power in describing the relationship between variables in this study.

Table 3. R Square Result

	R Square
Leadership Style	0.592
Service Performance	0.551

Based on the test results for effect size (f Square) as depicted in Table 4, it is found that in relation to Service Performance characteristics noted that f^2 value of Leadership Style reads 0.224 which implies medium effect category. On the other hand, Work Environment has an f^2 value of 1.453 towards Leadership Style that is considered a very strong effect or give significant portions to that variable. Meanwhile, the effect of this f^2 value from the Work Environment on Service Performance is 0.076 small.

It implies a direct result of the Work Environment on its Service Performance is quite low, but rather high risk in regards to Leadership Style. Its indirect impact to Service Performance through Leadership Style is moderately high, underlining the important mediating position of Leadership Style in our model.

Table 4. f Square Result

	Leadership Style	Service Performance
Leadership Style		0.224
Work Environment	1.453	0.076

Discussion

The results of the structural model testing confirmed that there is an interdependent relationship between Work Environment, Leadership Style, and Service Performance which reflects the significance of each path between variables. Our second strongest effect was from Work Environment to Leadership Style, further indicating that inter-personal dynamics, physical environment and supportive atmosphere is really significant when it comes down to how leaders behave and lead their people. Openness, teamwork and communication are just some of the elements in a collaborative climate that foster adaptive, participative and inspirational leadership behaviours (Boopathi, 2024).

Similarly, this also shows that the relationship of leadership style and service performance reflects that a good leadership is effective in learning the service performance. Proven testimony to leaders, who provide systemic guidance will lead employees' growth and helping motivate them consecutively can automatically instantly increase the capacity of its members to serve the customer better. Hadiwidjaja (2024), emphasising the significant impact transformational leadership has on both service- and contextual performance. Leaders do not just manage but set the example and are capable of instilling a sense of ownership, excellence in subordinate.

The Work Environment has a rather low direct effect on Service Performance ($\beta = 0.289$), but it is significant nonetheless. That is, a good work environment does enhance performance, but is mediated by Leadership Style to have even greater effect. In addition, the indirect pathway of Work Environment $\rightarrow$ Leadership Style $\rightarrow$ Service Performance confirms and validates this association that has a total-effect value of 0.671. Which means Leadership Style is found to be significant mediator of environmental conditions heading towards the positive service results. These results strengthen the argument made by Gu (2022) Indirectly through psychological and behavioral mechanisms, a positive work environment contributes to performance (Soerjoprano et al., 2025). Relevant to this, study consistent with the findings of Setiani (2021) which stated that effective leadership fortifies work environment-employee outcomes relationships.

Specifically, from the Honda dealer perspective, these achievements are proof that optimized systems generating better service performance is not a function of either infrastructure or technical standards — or both. Rather, it relies heavily upon how leaders manage people, create workplace culture and align organizational values with service excellence. Thus, the enabling environment readily connects with supportive leadership to enable continuity of competence and competitiveness within the after sales service domain over a controlled extended time horizon.

From a managerial perspective, there are several strategic implications from these findings. The first step is to optimize the work environment. While its direct impact on service performance is low, the work environment has a great influence on leadership style. Management should therefore prioritize building comfortable workplaces, along with an environment of collaboration and psychological safety that encourages open dialogue. Not only does this type of environment promote employee wellbeing, it prepares leaders to behave more inclusively and effectively.

Second, leadership development and training is critical. The methodology behind these are comparable to structured leadership courses (managerial coaching, team-building and competency-based training) that provide organizations strategies of investing in leadership to positively influence service performance. Such endeavors can enhance leaders' ability to motivate, inspire and empower employees to provide better service results. And a regular feedback mechanism and performance appraisal system aligned with leadership values can also significantly strengthen accountability at the managerial level.

Third, an integrative managerial perspective is suggested. The model showcases that maximum improvements in service quality tends to be achieved when environmental and leadership components tend to work synergistically. Consequently, management strategies must address these dimensions not as distinct but rather as complementary aspects of organizational development. By creating a reinforcing system of environmental improvements and leadership initiatives, your employees will be engaged in both their workplace surroundings and the quality of service they provide, including being attuned to innovation for service delivery as well as excellence.

Based on our findings, we confirm that the work environment does have a direct effect on service performance, but this effect is amplified by the mediating conduit of leadership style. Meanwhile, leadership has become the main mediator between organizational condition and service quality in Indonesian automotive service industry. Honda automotive industry and other companies. Therefore, these findings confirm that achieving sustainable performance excellence and customer satisfaction requires a dual commitment: investing in human-centered leadership development and ensuring continuous improvements in workplace conditions.

CONCLUSION

This study investigated the role of work environment and leadership style in improving service performance among service advisors at Honda dealerships in the automotive industry. The findings confirm significant and positive relationships among the three constructs, supporting all four hypotheses. The findings indicate that the setting in which work occurs plays a significant role in how leaders behave and supports participative and adaptive forms of leadership. And because leadership is another significant predictor of service delivery, those leaders who are motivated to engage, inspire and empower employees can transform organizational objectives into a continuous stream of service delivery that delivers customer satisfaction. This is further verified by the concept of working environment to performance model indicating when effective leadership is in place it strengthens this relationship so therefore leadership style act as mediating pillar between an environment and services performances

The study concludes that "high service performance depends on a combination of positive conditions and powerful leadership." A few recommendations emerge from these conclusions: organizations need to develop policies that promote physical as well as psychological wellness focusing on the spirit of teamwork through reward systems and experienced conversations; leadership development programs may adopt a transformational; participative approach incorporating mentoring methods, alongside simulation technique for contextualization purposes; HR management & customer service functions can embrace collaborative projects like knowledge networks would increase cooperatives so benefitting from such linkages it generates competitive advantage; periodic quality analysis could enhance understanding of workplace atmosphere in addition to how do effective leaders motivate subordinates etc.; While measuring aspects such job contentment or employee recognition has become ubiquitous, future research attention will be more behavior-ally oriented.

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AUTHOR CONTRIBUTION STATEMENT

D.M. Harsono contributed to the conceptualization of the study, data collection, and drafting of the manuscript. M. Hardi was responsible for methodology, formal analysis, and data visualization. A. Amanda contributed to reviewing, editing, and supervising the overall research process.

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