

# Sustainable Leadership and Employee Performance: The Role of Organizational Culture in Malaysia's Information Science Sector

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Received: 3 Aug. 2024, Revised: 27 Sep. 2024, Accepted: 3 Oct. 2024

Published online: 1 Jan. 2025

**Abstract:** This study investigates the impact of various leadership styles—authoritarian, laissez-faire, situational, and transformational—on organizational culture and employee performance within the IT industry in Klang Valley, Malaysia. Utilizing a cross-sectional design and self-reported questionnaires, the research examines these leadership styles' direct and indirect effects on employee outcomes. The findings reveal that authoritarian leadership significantly influences organizational culture but does not directly enhance employee performance. In contrast, laissez-faire leadership positively impacts organizational culture and employee performance, fostering a work environment of autonomy and empowerment. Situational leadership, while significantly shaping organizational culture, does not directly improve performance, suggesting that its benefits may be mediated through cultural enhancements. Transformational leadership substantially positively affects both organizational culture and employee performance, underscoring its role in inspiring and motivating employees toward achieving organizational goals. Additionally, the study highlights the critical mediating role of organizational culture in the relationship between leadership styles and employee performance. The implications for academia include a deeper understanding of leadership dynamics in the IT sector. At the same time, practical recommendations for industry leaders emphasize the need to balance different leadership elements to foster a supportive and high-performing organizational culture. The research also acknowledges limitations related to its geographical focus, cross-sectional design, and reliance on self-reported data, suggesting avenues for future research to explore these dynamics further.

**Keywords:** Sustainable Leadership Style, Organizational Culture, Employee Performance, IT Industry, economic growth

## 1 Introduction

Leadership styles vary significantly across industries, driven by each sector's distinct challenges and operational demands. Transformational leadership is particularly prominent in the information technology (IT) industry. This leadership approach emphasizes fostering a culture of continuous improvement and adaptability, which is

crucial in an environment where innovation and creativity are key to maintaining a competitive edge. Leaders in the IT sector inspire their teams to think creatively and push boundaries, aligning with the industry's need for agility and forward-thinking strategies [1, 2, 3, 4]. The technology sector's dynamic and rapidly evolving nature necessitates leadership that can motivate change and drive organizational success [5, 6].

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Compared to other industries, the finance sector is characterized by a greater prevalence of autocratic leadership. As a result of the high-stakes nature of the industry and the requirement for strict compliance with financial rules, leaders in the finance industry are frequently expected to make difficult decisions that must be made swiftly and without consulting others. To preserve the honesty and reliability of financial institutions, this approach guarantees that choices are taken effectively and that regulatory norms are adhered to [7,8,9,10]. The leadership styles of empowerment and transformation are particularly effective in industries such as information technology, where creativity and collaboration are two of the most critical factors. Whereas, in industries such as manufacturing and banking, where prompt decision-making and tight adherence to standards are of the utmost importance, more authoritarian or transactional approaches may be required [8,11,12]. Transformational leadership has emerged as a particularly significant kind within this setting. It prioritizes establishing trust and keeping communication channels open, both of which are vital for developing an atmosphere conducive to creative problem-solving and long-term success [13,14]. Both are essential for achieving operational goals and guaranteeing the smooth running of IT projects; this type of leadership is very effective [15,16,17,18]. Some research has shown that many IT professionals in Malaysia Prefer leaders who are easy to approach, supportive, and open to feedback [15,19,20]. Such people believe leadership should be more about personal relationships and a feeling of oneness with colleagues. The inclination to adopt transformational and transactional leadership styles suggests a broader movement toward participative and collaborative management approaches in Malaysia's IT industry. It is essential for the new patterns of leadership since it enables the development of innovation, adaptability improvement, and motivation of employees to make valuable contributions towards the objectives of an organization [18,21,22].

To attain Sustainable Development Goal 8, "Decent Work and Economic Growth", effective leadership must drive the creation of thriving workplaces. This study addresses critical research gaps within the information technology industry in the Klang Valley, Malaysia, particularly focusing on the relationship between leadership styles, organizational culture, and employee performance. By addressing these gaps, this study seeks to provide actionable insights for IT firms in Malaysia, enhancing understanding of effective leadership strategies in environments marked by high stress and rapid change, ultimately driving improved employee performance and organizational success.

## 2 Literature Review

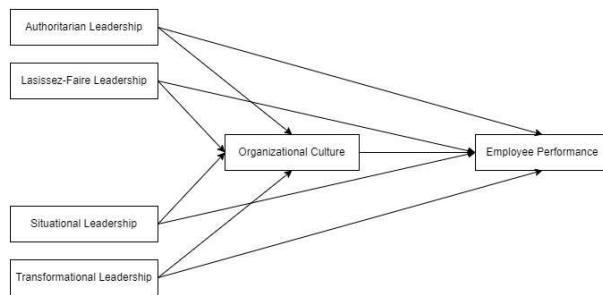
### 2.1 IT Industries

Many IT workers express that they are under much stress at work. 17.7% of IT workers in Bengaluru, India, reported feeling stressed out at work during the COVID-19 pandemic [31,32,33]. Another study conducted in Malaysia discovered that IT professionals' occupational stress levels ranged from moderate to high, with some feeling high levels of stress. Long working hours, never-ending user expectations, unmet deadlines, and skill obsolescence are all occupational stress factors for IT professionals. If these elements are not controlled properly, they might lead to burnout and other health issues [34]. Many issues, such as excessive client expectations, tight project deadlines, a lack of resources, and the constant need for innovation and technological developments, contribute to the high-stress climate in Malaysian IT vendor organizations [34,35,36]. These circumstances impede the firm's general performance and expansion and its employees' well-being. These stresses work together to produce an environment that is not ideal for employees to perform in, which results in high turnover rates, burnout, and disengagement [37,38,39].

Given these constraints, it is critical to investigate whether different leadership styles might alleviate these problems and improve employee performance. Leadership plays an essential role in shaping the workplace and affecting employee morale, engagement, and productivity. By cultivating a supportive, motivating, and empowering workplace culture, effective leadership can reduce stress, increase job satisfaction, and improve performance [40,41,42,43]. There is a particularly strong interaction between organizational culture and leadership methods in high-stress industries like Malaysian IT. Rapid technology advancements, fierce rivalry, and changing customer needs define the IT industry's operating environment. In this setting, organizational resilience and adaptation in accomplishing sustainable development goals are shaped by leadership styles in addition to their effect on employee performance [44,45,46].

### 2.2 Path-Goal Theory of Leadership as a Grand Theory

The Path-Goal Theory of Leadership, formulated by House and Mitchell [47], is prominent in the realm of management. This notion highlights the significance of a leader's conduct in impacting their subordinates' contentment, drive, and effectiveness. The fundamental concept of the Path-Goal Theory is that leaders can modify their leadership styles to meet the specific requirements of their team members and the work environment, thereby improving employee performance and satisfaction [48,49]. The Path-Goal Theory



**Fig. 1:** Research Model

emphasizes the significance of clarifying goals, removing obstacles, and helping team members. Each style is suited to specific situations and team characteristics. For instance, Directive leadership provides clear guidelines and expectations, supportive leadership fosters a friendly environment, Participative leadership involves employees in decision-making, and Achievement-Oriented leadership sets challenging goals. This theory is particularly relevant to the study as it underscores the importance of adapting leadership styles to match the needs of employees and the organizational context, thereby influencing employee performance positively [48, 50, 51].

### 2.3 Hypothesis Development

The hypothesis development for this study is grounded in the theoretical framework that explores the relationship between different leadership styles, organizational culture, and employee performance. Each hypothesis tests specific aspects of how these variables interact, providing a structured approach to examine the proposed relationships within the organizational context.

#### 2.3.1 Leadership Style and Employee Performance

The emphasis on high performance and possible severe consequences can also enhance subordinates' sense of fear, which is detrimental to performance improvement [52]. Furthermore, authoritarian leaders are known for setting high-performance standard expectations for their subordinates, which motivates employees to perform strongly [53, 54]. As a result of this approach, employees are motivated to perform exceptionally well and offer high-quality work. In addition, Huang et al. [55] contend that authoritarian leaders, who place a strong emphasis on compliance, discipline, and unity, tend to achieve operational performance by fostering a highly centralized decision-making structure. It is an excellent choice for creative businesses, for managing personnel who are both experienced and self-motivated, and for working in

circumstances with minimal stakes. However, it will not be effective in circumstances in which members of the team demand direction and assistance, or in which there are significant stakes involved [56, 57]. Due to the nature of IT projects, which frequently call for a high degree of autonomy and inventiveness, the laissez-faire leadership style can be particularly effective in the information technology business. This kind of leadership can also be advantageous in fast-moving industries, where information technology experts need to be able to make judgments and pivot swiftly without having to raise their concerns to upper management [58, 59, 60, 61].

At every level of the company, this level of precision results in more effective decision-making capabilities [62, 63, 64]. Situational leadership greatly impacts employee performance since it not only enhances communication and engagement but also cultivates a culture of growth inside the organization. This brings about a significant impact on employee performance [65, 66]. In a similar vein, a study conducted on the retail industry discovered that situational leadership had a favorable direct effect on employee performance that was not substantial. However, the interaction between compensation and situational leadership was found to have a significant impact on employee performance [66, 67]. Some studies have found that the effect of transformational leadership on employee performance is situational and dependent on factors such as the organizational setting and employee readiness to respond to the leader's vision [68, 69]. Additionally, there is a conflicting paradox regarding transformational leadership and employee performance, with some studies suggesting that transformational leadership may not always improve employee performance [70, 71, 72].

**Hypothesis 1:** Authoritarian leadership improves employee performance.

**Hypothesis 3:** Laissez-faire leadership improves employee performance.

**Hypothesis 5:** Situational leadership improves employee performance.

**Hypothesis 7:** Transformational leadership improves employee performance.

#### 2.3.2 Organizational Culture as Mediating Variable

The essential part that leadership plays in determining the dynamics of an organization is emphasized in the literature on organizational culture [73]. In spite of the fact that Schein [74] claimed that leadership has a considerable influence on culture, there has been a lack of empirical support for this theoretical proposition. According to Tsui et al. [75], there is a gap between the strength of leadership and the strength of organizational culture. According to research conducted by De Hoogh et al. [7] there are specific circumstances in which authoritarian leaders have the power to boost the morale and performance of their teams due to the provision of psychological safety in situations that are defined by

predictability and security. These guardrails can be utilized by businesses to prevent negative performance outcomes. When it comes to navigating complicated contexts and striving for successful performance in the face of cultural diversity and challenges, these insights are essential for international firms, particularly those operating in emerging countries [53]. The laissez-faire leadership style can be particularly effective in the context of organisational culture in fields that place a high emphasis on innovation and autonomy, such as the fields of advertising, marketing, and information technology. Starting a business, where employees are frequently given a great deal of autonomy and responsibility, is another context in which this type of leadership can be advantageous [76]. Leaders can customize their approach to the specific talents, weaknesses, and motivations of each individual member of the team. This creates an environment in which every member of the team feels valued and is empowered to contribute to the success of the team together [66,77]. This is because leaders who are able to modify their leadership styles in accordance with the requirements of their team members are more likely to be successful in enhancing employee performance [63]. Transformational leaders actively question and challenge the existing situation, motivating their people to be bold and welcome new opportunities and alterations. Furthermore, the impact of transformational leadership on performance is partially moderated by organizational culture, suggesting that the influence of this leadership style on performance is in part achieved by establishing a productive organizational culture ).

**Hypothesis 2:** Organizational culture will mediate the relationship between authoritarian leadership and employee performance.

**Hypothesis 4:** Organizational culture will mediate the relationship between laissez-faire leadership and employee performance.

**Hypothesis 6:** Organizational culture will mediate the relationship between situational leadership and employee performance.

**Hypothesis 8:** Organizational culture will mediate the relationship between Transformational leadership and employee performance.

### 2.3.3 Organizational Culture and Employee Performance

Organizational culture could strengthen behaviors that are linked to specific kinds of leadership. A congruence between leadership style and organizational culture can optimize employee engagement and performance by establishing a supportive and exciting work environment [78]. The organization's culture could impact how employees perceive the effectiveness of leadership. Employees are more inclined to react favorably to leadership styles that align with the dominant culture, resulting in increased acceptance and compliance with leadership instructions. Aligning leadership with

employee performance can strengthen the influence of leaders by promoting unity and a common goal among members of the business [78,79].

**Hypothesis 9:** Organizational culture improves employee performance.

## 3 Research Method

This study employs a quantitative research approach to examine the relationship between leadership styles, organizational culture, and employee performance within the IT industry in Malaysia. A cross-sectional survey design is utilized, capturing data at a single point in time to reflect the current state of the variables. This approach is chosen for its ability to provide structured, objective analysis through statistical methods. The target demographic includes IT professionals from four organizations in the Klang Valley, Malaysia—IT Company A, IT Company B, IT Company C, and IT Company D—totaling 1,680 employees. These companies, each employing between 340 and 599 individuals, were selected due to existing contacts that facilitated access for data collection. Using G\*Power software, the minimum sample size was calculated to be 98 employees, based on a medium effect size, a significance level of 0.05, and a power of 0.80. To enhance generalizability, a stratified random sampling technique will be employed, targeting a final sample size between 100 and 300 employees. Data analysis will be conducted using Structural Equation Modeling with Partial Least Squares (SEM-PLS) to assess the relationships among the variables. The analysis will begin with the measurement model, ensuring reliability and validity through various criteria, including indicator reliability, composite reliability, convergent validity, and discriminant validity.

## 4 Result and Discussion

In this study, a total of three hundred fifty (355) survey questionnaires were distributed electronically via WhatsApp, Facebook, email and social media to the target respondents which are the executives and the managers working in IT Company. There is a total of three hundred (304) respondents had responded to this survey and the response rate of this data collection is 85.63%. The remaining 14.37% of the target respondents did not respond due to various reasons, such as email invitations being ignored or overlooked, respondents being too busy to participate, or messages sent via social media and email not being seen or getting filtered into spam folders. The demographic profile presented in Table 1 provides a comprehensive overview of the respondents' characteristics in the study.

Regarding gender distribution, males constitute the majority at 64.14% (195 individuals), while females

**Table 1:** Demographic profile

		Frequency	Percent
Gender	Male	195	64.14
	Female	109	35.86
	Total	304	100
Age	18-19 Years Old	201	66.12
	30-39 Years Old	78	25.66
	40 – 49 Years Old	21	6.91
	50 – 59 years old	4	1.32
	Total	304	100
Marital Status	Single	152	50
	Married	136	44.74
	Others	16	5.26
	Total	304	100
Educational	SPM/STPM	7	2.3
	Diploma	23	7.57
	Bachelor's Degree	254	83.55
	Master's degree	20	6.58
	Total	304	100
Income	RM2500 – RM4999	63	20.72
	RM5000 – RM7499	80	26.32
	RM7500 – RM9999	87	28.62
	RM10,000 and above	74	24.34
	Total	304	100
Working Experience	Less than 1 year	52	17.11
	1 – 5 years	61	20.07
	6 – 10 years	73	24.01
	11 – 15 years	58	19.08
	16 – 20 years	60	19.74
	Total	304	100

that approximately 84.1% of the variance in organizational culture can be explained by the independent variables in the model.

For organizational culture, on employee Performance the Effect Size  $f^2$  value is notably high at 2.045, indicating a strong effect of organizational culture on itself. Regarding the leadership styles' effects on organizational culture, the Effect Size  $f^2$  values are as follows: Authoritarian Leadership (0.031), Laissez-Faire Leadership (0.1), Situational Leadership (0.314), and Transformational Leadership (0.157).

Based on the data provided in Table 5, for organizational culture, the Construct Validated Redundancy metrics show a sum of squares explained (SSO) of 3648 and a sum of squares error (SSE) of 1795.052. The  $Q^2$ -value, which indicates the predictive relevance, is calculated as 0.508. Similarly, for employee performance, the Construct Validated Redundancy metrics indicate an SSO of 912 and SSE of 460.681, with a  $Q^2$  value of 0.495. This indicates that the model explains approximately 49.5% of the variance in employee performance.

account for 35.86% (109 individuals) of the total sample of 304 respondents.

### 4.1 Data Analysis

The data analysis in this study utilizes Partial Least Squares Structural Equation Modeling (PLS-SEM) SmartPLS software. This technique comprises two main stages: the measurement model and the structural model analysis.

#### 4.1.1 Measurement Model

The internal consistency reliability table evaluates the reliability and validity of the constructs through Cronbach's Alpha, rho.A, Composite Reliability, and Average Variance Extracted (AVE). Overall, the internal consistency reliability analysis indicates that all constructs have acceptable to excellent reliability, with Authoritarian Leadership, Situational Leadership, and Organizational Culture being particularly robust.

#### 4.1.2 Analysis Structural Model

The R Square value for employee performance is 0.672, with an R Square Adjusted value of 0.671. This indicates that approximately 67.2% of the variance in employee performance can be explained by the independent variables included in the model. For organizational culture, the R Square value is notably higher at 0.841, with an R Square Adjusted value of 0.839. This indicates

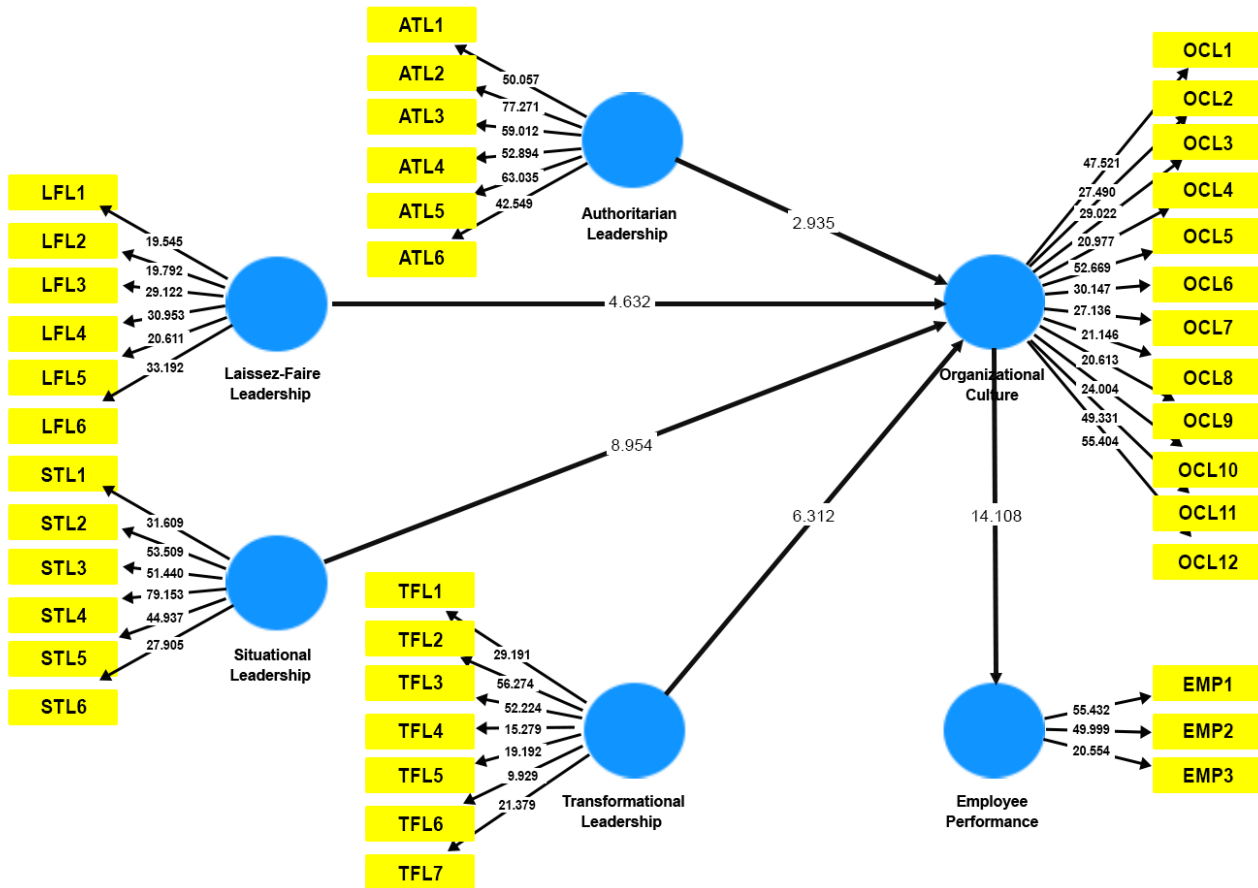
#### 4.1.3 Hypothesis Testing

The direct hypothesis testing results provide insights into the relationships between various leadership styles, organizational culture, and employee performance. Authoritarian Leadership was found to significantly influence Organizational Culture with a T-statistic of 2.682 and a P-value of 0.007. However, its impact on Employee Performance was not supported (T-statistic of 1.737 and P-value of 0.082). Laissez-Faire Leadership showed a significant positive effect on both Organizational Culture (T-statistic of 4.664 and P-value of 0.000) and Employee Performance (T-statistic of 3.022 and P-value of 0.003). Situational Leadership had the most substantial impact on Organizational Culture, with a T-statistic of 9.19 and a P-value of 0.000. However, its effect on Employee Performance was not significant (T-statistic of 0.23 and P-value of 0.818). Transformational Leadership significantly influenced both Organizational Culture (T-statistic of 6.334 and P-value of 0.000) and Employee Performance (T-statistic of 2.298 and P-value of 0.022). Organizational Culture itself was a significant predictor of Employee Performance, with a T-statistic of 4.845 and a P-value of 0.000, confirming that a positive organizational culture strongly enhances employee outcomes.

Each hypothesis tests the indirect effect of different leadership styles on employee performance through the mediation of organizational culture. All hypotheses are supported with statistically significant results, indicating robust indirect relationships between leadership styles, organizational culture, and employee performance.

**Table 2: Internal Consistency Reliability**

	Cronbach's Alpha	rho_A	Composite Reliability	(AVE)
Authoritarian Leadership	0.949	0.949	0.959	0.797
Employee Performance	0.826	0.833	0.896	0.743
Laissez-Faire Leadership	0.859	0.861	0.895	0.587
Organizational Culture	0.943	0.947	0.95	0.616
Situational Leadership	0.934	0.935	0.948	0.753
Transformational Leadership	0.86	0.873	0.894	0.553



**Fig. 2: Result from Bootstrapping Analysis Graphic Model**

**Table 3: R Square**

	R Square	R Square Adjusted
Employee Performance	0.672	0.671
Organizational Culture	0.841	0.839

**Table 4: Effect Size  $f^2$**

	Organizational Culture	Employee Performance
Authoritarian Leadership	0.031	
Laissez-Faire Leadership	0.1	
Situational Leadership	0.314	
Transformational Leadership	0.157	
Organizational Culture		2.045

**Table 5: Construct Validated Redundancy**

	SSO	SSE	$Q^2 (=1-SSE/SSO)$
Authoritarian Leadership	1824	1824	
Laissez-Faire Leadership	1824	1824	
Situational Leadership	1824	1824	
Transformational Leadership	2128	2128	
Organizational Culture	3648	1795.052	0.508
Employee Performance	912	460.681	0.495

### 4.2 Discussion

The significant influence of authoritarian leadership on organizational culture implies that this leadership style helps establish a structured and controlled environment.

**Table 6:** Direct Hypothesis Testing

Hypothesis	T Statistics	P Values	
Authoritarian Leadership → Organizational Culture	2.682	0.007	Supported
Laissez-Faire Leadership → Organizational Culture	4.664	0	Supported
Situational Leadership → Organizational Culture	9.19	0	Supported
Transformational Leadership → Organizational Culture	6.334	0	Supported
Organizational Culture → Employee Performance	4.845	0	Supported
Authoritarian Leadership → Employee Performance	1.737	0.082	Not Supported
Laissez-Faire Leadership → Employee Performance	3.022	0.003	Supported
Situational Leadership → Employee Performance	0.23	0.818	Not Supported
Transformational Leadership → Employee Performance	2.298	0.022	Supported

**Table 7:** Indirect Hypothesis Testing

Hypothesis	T Statistics	P Values	
Authoritarian Leadership → Organizational Culture → Employee Performance	2.242	0.025	Supported
Laissez-Faire Leadership → Organizational Culture → Employee Performance	3.358	0.001	Supported
Situational Leadership → Organizational Culture → Employee Performance	4.614	0	Supported
Transformational Leadership → Organizational Culture → Employee Performance	3.633	0	Supported

In the IT industry of Klang Valley, Malaysia, such an environment may ensure that policies and procedures are strictly followed, which can be crucial in maintaining consistency and quality of work. However, the lack of a significant impact on employee performance suggests that while authoritarian leadership can create a stable organizational culture, it may not foster the creativity, motivation, and engagement necessary for high employee performance [80]. This finding aligns with previous research that indicates overly controlling leadership styles can hinder employee initiative and satisfaction [53]. This supports the broader understanding that job characteristics significantly impact work-related attitudes and behaviors [81]. This empowerment can lead to a more innovative and dynamic organizational culture, as employees feel trusted and valued, fostering a sense of ownership and responsibility over their work [82]. Such an environment can stimulate creativity and initiative, crucial attributes in the fast-paced IT industry where rapid technological advancements require constant innovation. This is consistent with the findings of [76,83], who highlight the importance of intrinsic motivation driven by engaging work for positive career outcomes.

Employees might feel more satisfied and engaged within a positive culture, but other factors such as individual motivation, skill levels, and external influences could play a significant role in determining actual performance. This finding aligns with research indicating that leadership styles often have complex and multifaceted impacts on performance [77,84,85]. The significant impact of transformational leadership on organizational culture underscores its role in inspiring and motivating employees towards a shared vision and goals. This aligns with the research by [86,87,88], which emphasize the importance of leadership in fostering job satisfaction and commitment. The positive effect on

employee performance highlights that transformational leadership not only enhances the organizational culture but also translates into tangible performance outcomes. Employees under transformational leaders are likely to exhibit higher levels of motivation, job satisfaction [89], and productivity due to the inspirational and supportive nature of this leadership style. The ability of transformational leaders to align individual goals with the organizational mission and to provide intellectual stimulation and individualized consideration can lead to significant improvements in performance [87,90].

Although it does not directly enhance employee performance [53], it significantly influences it indirectly through organizational culture. This aligns with previous research indicating that leadership styles influence organizational culture, which then impacts employee outcomes [91]. The indirect effect suggests that while laissez-faire leadership might not directly influence performance metrics, the positive organizational culture it creates acts as a conduit for improved performance. This supports the findings of [83,92]. This finding underscores the importance of adaptive leadership in dynamic and rapidly changing industries like IT [66,77,84,85]. Transformational Leadership also exhibits a significant indirect effect, reinforcing its role in shaping an inspirational and motivating organizational culture. Transformational leaders, by aligning individual and organizational goals, create a culture of trust, innovation, and commitment, which in turn enhances employee performance. This indirect effect underscores the transformational leader’s ability to foster an environment where employees feel valued and motivated, leading to higher performance outcomes. This supports the broader understanding that job characteristics significantly impact work-related attitudes and behaviors [86,87,88,89,90].

## 5 Conclusion

The analysis of leadership styles and their impact on organizational culture and employee performance within the IT industry of Klang Valley, Malaysia, highlights the nuanced influence each style exerts. Authoritarian leadership, while fostering a structured and disciplined culture, does not directly enhance employee performance, suggesting the need for a balance between control and motivation. In contrast, laissez-faire leadership significantly boosts both organizational culture and employee performance by promoting autonomy, though it requires careful management to avoid potential drawbacks. Situational leadership, characterized by its adaptability, strongly influences organizational culture but does not directly impact performance, indicating that additional factors may be at play. Transformational leadership, with its focus on inspiring and empowering employees, positively affects both culture and performance, aligning with its recognized role in driving innovation and commitment. The study underscores the critical mediating role of organizational culture, which acts as a conduit through which various leadership styles influence employee outcomes, emphasizing the need for a supportive and adaptive cultural environment to achieve optimal performance.

### 5.1 Recommendations and Limitation

Integrating supportive and empowering practices can help maintain organizational standards while motivating employees, with a focus on autonomy balanced by clear goals and periodic feedback, can create a positive work environment and enhance performance. Adapts to the varying needs of teams and projects, should be complemented with targeted training, performance incentives, and clear metrics to boost employee performance, fosters innovation, and supports continuous improvement, can also be highly beneficial in the dynamic IT industry. The study's focus on the IT industry in Klang Valley, Malaysia, may limit the generalizability of the findings to other regions or industries. Different cultural, economic, and industry-specific factors might influence the applicability of the results.

### Acknowledgement

The authors express special thanks to INTI for the opportunity to conduct research and provide funding to publish research papers.

### Funding

The authors offer special gratitude to INTI International University for the opportunity to conduct research and

publish the research work. In particular, the authors would like to thank INTI International University for funding the publication of this research work. Also, we extend our heartfelt gratitude to all research participants for their valuable contributions, which have been integral to the success of this study

### Conflict of interest

The writers have disclosed no conflict of interest. Nobody has anything to hide regarding their financial interests; all of the co-authors have read and approved the final manuscript. This work is not currently being considered for publication elsewhere, and the authors hereby attest that it is entirely original. Disclosure of all funding sources for the project is required.

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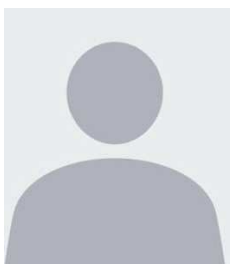
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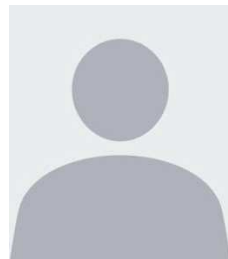
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