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Entrepreneurial Leadership Alone is Not Sufficient: Organizational Innovation as a Hidden Mechanism for Building an Innovation Culture

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ABSTRACT

This study aimed to analyze the relationship between entrepreneurial leadership and innovation culture within organizations, examining organizational innovation as an intermediary organizational mechanism that explains the transmission of leadership effects to the cultural level. The study employed a descriptive-analytical approach using quantitative methods. Data were collected through a questionnaire distributed to a sample of 207 executives and managers from senior management, department heads, and administrative staff at Mobilis in Algeria. The data were analyzed using partial least squares structural equation modeling (PLS-SEM). The results showed a strong and statistically significant positive effect of entrepreneurial leadership on organizational innovation ($\beta = 0.502$, $P < 0.001$), explaining approximately 25.2% of the variance in organizational innovation. The results also revealed a direct positive effect of entrepreneurial leadership on innovation culture ($\beta = 0.242$, $P < 0.001$), although this effect was of limited strength. In contrast, organizational innovation demonstrated a strong impact on fostering a culture of innovation ($\beta = 0.560$, $P < 0.001$), and, along with entrepreneurial leadership, contributed to explaining approximately 50.7% of the variance in innovation culture. The results also confirmed a partial but strong mediating role for organizational innovation, with an indirect effect ($\beta = 0.281$, $P < 0.001$), and the overall effect of entrepreneurial leadership exceeding the direct effect. The study concludes that building a sustainable culture of

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innovation is not achieved through entrepreneurial leadership alone, but requires translating it into innovative organizational practices.

Keywords: Entrepreneurial leadership, organizational innovation, culture of innovation, PLS-SEM, Mobilis.

Introduction

Contemporary organizations operate in environments characterized by rapid technological change, intense competition, and increasing pressures related to innovation and swift response to market needs. This has made innovation a crucial element for achieving continuity and competitive advantage. Innovation is no longer viewed as a purely technical activity or an isolated individual initiative, but rather as an integrated organizational and cultural capability that requires leadership styles capable of guiding behaviors and practices toward creativity and sustainable renewal (Anderson et al., 2021; Malibari & Bajaba., 2022).

In this context, entrepreneurial leadership has received increasing attention in recent literature due to its role in stimulating initiative, exploring opportunities, encouraging experimentation, and taking calculated risks within organizations. Recent studies indicate that entrepreneurial leadership contributes to fostering innovation by empowering employees, building a supportive organizational climate for creativity, and stimulating innovative behaviors at both the individual and collective levels (Newman et al., 2018; Makhloufi et al., 2024; Bagheri et al., 2020). However, these studies also show that the impact of entrepreneurial leadership is not always direct or sufficient to bring about profound organizational and cultural transformations unless it is supported by innovative organizational practices.

This highlights the role of organizational innovation as a fundamental organizational mechanism that enables organizations to translate leadership visions into practical reality by developing organizational structures, administrative processes, work systems, and decision-making methods. Recent research has confirmed that organizational innovation plays a pivotal role in linking leadership to long-term organizational outcomes and is a prerequisite for embedding innovative practices within the organization (Fatima & Masood, 2024; Zhang et al., 2025). The culture of innovation represents the value and behavioral framework that encourages creativity, risk-taking, knowledge sharing, and continuous learning. Recent literature indicates that the culture of innovation is not built solely through leadership discourse, but rather is gradually shaped through the ongoing interaction between leadership, organizational practices, and institutional innovation, which contributes to reshaping prevailing values and behaviors within the organization (Malibari & Bajaba., 2022; AlSaied & Alkhoraif, 2023).

Despite this progress in the literature, a review of recent studies reveals that most research has addressed entrepreneurial leadership, institutional innovation, and the culture of innovation separately, or has focused on the direct relationships between them, with greater emphasis on individual innovative behavior compared to cultural shifts at the organizational level. Furthermore, studies explaining the organizational mechanisms through which the effects of entrepreneurial leadership are transmitted to the culture of innovation remain limited, indicating a research gap regarding the explanatory role of institutional innovation in this relationship.

Based on this gap, the study's central question is:

How does entrepreneurial leadership within organizations translate into a robust culture of innovation, and what role does organizational innovation play in explaining this relationship?

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This main question branches into several sub-questions:

- What is the impact of entrepreneurial leadership on organizational innovation?
- To what extent does entrepreneurial leadership foster a culture of innovation?
- What role does organizational innovation play in establishing a culture of innovation?
- Does organizational innovation play a mediating role in the relationship between entrepreneurial leadership and a culture of innovation?

To answer these questions, the study is based on the following hypotheses:

- H1: Entrepreneurial leadership positively impacts organizational innovation.
- H2: Entrepreneurial leadership fosters a culture of innovation within organizations.
- H3: Organizational innovation contributes to establishing a culture of innovation.
- H4: Organizational innovation plays a mediating role in the relationship between entrepreneurial leadership and a culture of innovation.

This study aims to analyze the role of entrepreneurial leadership in building a culture of innovation within organizations, focusing on organizational innovation as an intermediary organizational mechanism. This objective includes measuring the impact of entrepreneurial leadership on organizational innovation, examining its effect on the culture of innovation, analyzing the role of organizational innovation in establishing a culture of innovation, and presenting an explanatory model that clarifies the mechanisms of transformation from leadership to organizational culture.

The study's significance stems from two complementary aspects. Theoretically, it contributes to enhancing the contemporary understanding of the relationship between entrepreneurial leadership and innovation by highlighting the intermediary organizational mechanisms. Practically, it provides important insights for management leaders regarding the necessity of supporting organizational innovation as a fundamental approach to building a sustainable culture of innovation. Regarding the study population and sample, the study population consisted of employees of Mobilis in Algeria, one of the largest telecommunications companies operating in a sector characterized by rapid technological development. The study sample comprised 207 individuals, including senior management, department heads, administrative staff, and some executives, given the direct relevance of their roles to the study variables.

To achieve the study objectives, a descriptive-analytical approach was adopted using a quantitative methodology. Data were collected through a questionnaire and analyzed using partial least squares structural equation modeling (PLS-SEM), as this method is well-suited for testing explanatory models that include mediating variables.

Theoretical Framework and Previous Studies

I.1 Conceptual Framework of the Study Variables

I.1.1 Entrepreneurial Leadership

Entrepreneurial leadership is a modern leadership style that has emerged in dynamic organizational environments, where organizations require an increasing ability to explore opportunities, manage uncertainty, and stimulate continuous innovation. This leadership style refers to the leader's ability to combine strategic vision with entrepreneurial behavior, empowering individuals to adopt new ideas and transform them into effective organizational practices.

Entrepreneurial leadership is defined as a process through which a leader influences individuals by encouraging initiative, taking calculated risks, and supporting experimentation and learning, thereby fostering innovative behavior within the organization (Renko et al., 2015; Newman et al., 2018). Recent

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studies have shown that this leadership style contributes to creating a supportive climate for innovation by building trust, expanding autonomy, and enhancing employee engagement (Bagheri & Harrison, 2020; Leitch & Volery, 2017). However, contemporary literature indicates that entrepreneurial leadership, despite its motivating role, does not necessarily lead to the establishment of a stable innovation culture unless its orientations are translated into organizational practices and supportive structures. Leadership influence often remains indirect, relying on intermediary organizational mechanisms that enable the transformation of the entrepreneurial vision into tangible institutional reality (Newman et al., 2018).

Accordingly, this study addresses entrepreneurial leadership as a behavioral and strategic starting point that creates an environment conducive to innovation, without being sufficient on its own to bring about a sustainable cultural transformation.

I.1.2 Organizational Innovation

Organizational innovation refers to an organization's ability to develop and adopt new practices, processes, and organizational structures aimed at improving performance and enhancing its ability to adapt to environmental changes. This concept is not limited to innovation in products or services, but extends to innovation in work methods, management systems, and decision-making mechanisms.

Damanpour and Aravind (2012) view organizational innovation as a holistic process reflecting an organization's willingness to rethink its traditional methods, while Crossan and Apaydin (2010) assert that this type of innovation is a fundamental mechanism for linking resources and leadership behaviors to long-term organizational outcomes. More recent studies indicate that organizational innovation contributes to reshaping informal norms within the organization and fosters new patterns of interaction and learning (Makhloufi et al., 2024; Fatima & Masood, 2024).

In this context, organizational innovation is seen as a transformative cycle that shifts the impact of leadership from the level of individual behavior to the level of organizational structure, enabling the establishment of continuous innovative practices. The literature highlights that the absence of organizational innovation limits the ability of leadership, however entrepreneurial, to effect profound cultural change within the organization. Therefore, this study adopts organizational innovation as a mediating variable that explains how entrepreneurial leadership translates into sustainable cultural outcomes.

I.1.3 Innovation Culture

Innovation culture refers to the system of shared values, standards, and beliefs that encourages individuals within an organization to generate new ideas, embrace risk, learn from failure, and support change. It is viewed as an intangible dimension reflecting an organization's maturity in dealing with innovation over the long term.

The literature emphasizes that innovation culture is not built through short-term management decisions, but rather is gradually shaped by the ongoing interaction between leadership, organizational practices, and formal and informal structures (Naranjo-Valencia et al., 2016; Hülsheger et al., 2017). Recent studies indicate that innovation culture is a cumulative result of organizational innovation, where new practices and flexible work methods reshape prevailing values and behaviors within the organization (Büschgens et al., 2013; Malibari & Bajaba., 2022).

From this perspective, the culture of innovation in this study is a strategic dependent variable that reflects the ultimate impact of the interaction of entrepreneurial leadership with organizational innovation, and not merely a direct response to leadership behavior.

I.1.4 Conceptual Integration Among Study Variables

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Based on the preceding theoretical framework, the study's conceptual framework begins with the premise that entrepreneurial leadership is a necessary condition, but not sufficient on its own, for building a sustainable culture of innovation. This transformation requires organizational innovation that acts as an explanatory mechanism, translating leadership orientations into established organizational practices, which in turn contribute to shaping a culture of innovation within the organization.

This framework reflects a contemporary trend in the literature that calls for moving beyond simple linear explanations and focusing on intermediate organizational mechanisms to understand how an innovative culture emerges in modern organizations.

I.2 Previous Studies

- Crossan, M. M., & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: This study aimed to develop a comprehensive theoretical framework that clarifies the nature of organizational innovation and its various dimensions, linking it to organizational inputs such as leadership and strategy, and long-term outputs. The study concluded that organizational innovation represents a multi-level process that acts as a link between leadership and organizational outcomes, such as organizational culture and performance. It also emphasized that organizational innovation is a fundamental element in building a culture that supports innovation within organizations.
- Damanpour, F., & Aravind, D. (2012). Managerial innovation: Conceptions, processes, and antecedents: This study sought to analyze the concept of organizational (managerial) innovation in terms of its definition, types, related processes, and the factors influencing its adoption within organizations. The results showed that organizational innovation is not limited to products or technology, but also includes administrative structures, processes, and work systems. The study also confirmed that leadership plays a pivotal role in stimulating organizational innovation and bringing about cultural change within the organization.
- Büschgens, T., Bausch, A., & Balkin, D. B. (2013). Organizational culture and innovation: A meta-analytic review: This study aimed to provide a quantitative analytical review of the relationship between organizational culture and innovation by analyzing the results of a large number of empirical studies. The results showed a strong relationship between organizational culture and innovation, with flexible and open-to-change cultures being associated with higher levels of innovation. The study also confirmed that a culture of innovation is a cumulative result of long-term organizational practices, and not a direct result of leadership behavior alone.
- Renko, M., El Tarabishy, A., Carsrud, A. L., & Brännback, M. (2015). Understanding and measuring entrepreneurial leadership style: this study aimed to develop a scientific scale for entrepreneurial leadership and verify its psychometric properties, while clarifying the distinctive features of this leadership style. The results showed that entrepreneurial leadership is based on an entrepreneurial vision, fostering innovation, and empowering individuals to explore opportunities. The study also demonstrated a positive relationship between entrepreneurial leadership and innovative behavior within organizations.
- Naranjo-Valencia, J. C., Jiménez-Jiménez, D., & Sanz-Valle, R. (2016). Studying the links between organizational culture, innovation, and performance: This study aimed to analyze the relationship between organizational culture, innovation, and organizational performance. The results showed that flexible and experimental organizational cultures are positively associated with higher levels of organizational innovation and performance. The study also confirmed that a culture of innovation does not form spontaneously but requires innovative organizational practices and flexible structures that support change.
- Newman, A., Tse, H. H. M., Schwarz, G., & Nielsen, I. (2018). The effects of entrepreneurial leadership on employees' innovative behavior: This study aimed to examine the effect of entrepreneurial leadership

on employees' innovative behavior, focusing on the role of mediating psychological variables. The results showed that entrepreneurial leadership positively affects innovative behavior, but this effect is largely mediated by variables such as intrinsic creative competence. These results indicate that entrepreneurial leadership alone is insufficient to achieve sustainable innovation without supporting mechanisms.

- Bagheri, A., & Harrison, C. (2020). Entrepreneurial leadership measurement: A multi-dimensional construct: This study aimed to analyze entrepreneurial leadership as a multi-dimensional construct and examine its role in fostering innovation within organizations. The results showed that entrepreneurial leadership contributes to stimulating innovation; however, its effectiveness depends on the organization's ability to translate leadership orientations into actual organizational practices. The study also confirmed that organizational innovation is one of the key pathways through which the effects of entrepreneurial leadership are transferred to organizational and cultural outcomes.
- Saunila, M., Ukko, J., & Rantala, T. (2022). Innovation capability and innovation culture in organizational performance: This study aimed to analyze the relationship between innovation capabilities, innovation culture, and organizational performance. The results showed that innovation culture develops as a result of continuous organizational innovation and management practices that support experimentation and learning. The study also confirmed that organizations that successfully cultivate a culture of innovation are better equipped to improve their performance and achieve sustainable results: This timeline shows that the literature has shifted from focusing on framing organizational innovation to highlighting the role of organizational culture, and then to entrepreneurial leadership, with increasing emphasis on organizational innovation as the explanatory mechanism that translates the impact of leadership into a culture of innovation which forms the theoretical basis of the current study.

I.3 Research Gap

Previous literature shows interest in studying entrepreneurial leadership, innovation, and innovation culture. However, these studies have often addressed the variables separately. Some studies have focused on the impact of entrepreneurial leadership on innovative behavior, while others have addressed organizational innovation or innovation culture separately. Furthermore, the literature has not adequately clarified the organizational mechanisms that explain how the impact of entrepreneurial leadership is transferred to the organizational culture level. Therefore, a research gap exists, characterized by the absence of comprehensive explanatory models that examine the role of organizational innovation as an intermediary mechanism in building an innovation culture within organizations.

I.4 Company under the study: Mobilis Telecommunications

Mobilis Telecommunications (ATM Mobilis) is a leading mobile telecommunications company in Algeria. Founded in 2003 as a subsidiary of the Algérie Télécom Group, it later became an independent entity with its own legal personality and financial autonomy. Mobilis is the first mobile operator in Algeria, having contributed significantly to the development of telecommunications services and the expansion of network coverage across the country.

Mobilis operates in a highly competitive and rapidly changing technological environment. It strives to strengthen its position in the telecommunications market by adopting digital transformation strategies and improving service quality. The company employs a multi-tiered organizational structure and prioritizes the development of its human resources and the encouragement of initiative, reflecting a focus on entrepreneurial leadership practices.

Given its size and the nature of its operations, Mobilis provides a suitable context for studying the mechanisms for building a culture of innovation within large service organizations and for examining

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the role of organizational innovation in explaining the relationship between entrepreneurial leadership and a culture of innovation.

Measurement Model Analysis

The aim of these tests is to verify the quality and validity of the measurement instruments used in the study before proceeding to test the causal relationships between the variables. Structural equation modeling using partial least squares (PLS-SEM) methodology was adopted due to its flexibility in analyzing predictive models and testing models that include mediating variables.

II.1 Reliability and Convergent Validity

This section aims to assess the internal reliability and convergent validity of the study measures to verify the consistency of the measurement statements and their ability to accurately represent the underlying variables. Cronbach's alpha, composite reliability, and extracted mean variance (AVE) were used, according to the criteria of partial least squares structural equation modeling (PLS-SEM).

Based on the recommendations of Hair et al. (2017) and Nonnally & Bernstein (1994), reliability is considered acceptable if the values of α and CR exceed the threshold of 0.70, while convergent validity is achieved when the AVE value is at least 0.50. The factorial loads of all statements were also examined, and statements with weak loads were removed during the initial analysis stages, with the aim of improving the quality of the measurement model and ensuring that they do not negatively affect the overall model results.

Table (1): Reliability and Convergent Validity of the Study Variables

Variable	Item	Factor Loading	α	CR	AVE	Evaluation
Entrepreneurial Leadership (EL)	EL1	0.737	0.730	0.831	0.552	Acceptable
	EL2	0.710				
	EL3	0.758				
	EL4	0.766				
Innovation Culture (IC)	IC1	0.644	0.826	0.879	0.593	Acceptable
	IC2	0.755				
	IC3	0.777				
	IC4	0.812				
	IC5	0.847				
Organizational Innovation (OI)	OI1	0.812	0.833	0.889	0.666	Acceptable
	OI2	0.872				
	OI3	0.757				
	OI4	0.820				

Source: Prepared by researchers based on SMARTPLS outputs

The results demonstrate the reliability and convergent validity of the study measures, with Cronbach's alpha and composite reliability values exceeding 0.70. Furthermore, the extracted mean variance (AVE) values exceeded the minimum acceptable threshold (0.50). After removing the underloaded items, the

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factor loadings remained within acceptable limits, confirming the suitability of the measurement model for subsequent analysis.

II.2 Discriminant Validity

Discriminant validity aims to verify the degree to which each latent variable is distinct from the other variables in the model, ensuring that there is no conceptual overlap between them. Discriminant validity was verified in this study using three criteria adopted in the literature on structural equation modeling using PLS-SEM: the Fornell–Larcker criterion, the HTMT ratio, and cross-loading.

II.2.1 Fornell–Larcker Criterion

The Fornell–Larcker criterion states that the root-mean-variance (AVE) of each latent variable must be greater than the correlation coefficients between it and the other variables (Fornell & Larcker, 1981).

Table (2): Discriminant Validity Test According to the Fornell–Larcker Criterion

Variable	Entrepreneurial Leadership	Innovation Culture	Organizational Innovation
Entrepreneurial Leadership	0.743		
Innovation Culture	0.522	0.770	
Organizational Innovation	0.502	0.681	0.816

Source: Prepared by researchers based on SMARTPLS outputs

The values on the main diagonal (in bold) represent the square root of the AVE values. The results show that the values on the main diagonal were higher than the inter-group correlation coefficients, confirming discriminant validity according to the Furnell–Larker criterion.

II.2.2 HTMT Criterion (Heterotrait–Monotrait Ratio)

The HTMT ratio is one of the most modern and accurate measures for assessing discriminant validity. Henseler et al. (2015) recommended that its values be less than 0.90.

Table (3): HTMT Values for the Study Variables

	Entrepreneurial Leadership	Innovation Culture	Organizational Innovation
Entrepreneurial Leadership			
Innovation Culture	0.668		
Organizational Innovation	0.639	0.809	

Source: Prepared by researchers based on SMARTPLS outputs

The results indicate that all HTMT values were below the acceptable maximum (0.90), thus supporting the discriminant validity and the absence of conceptual overlap between the study variables.

II.2.3 Cross-Loadings

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For discriminant validity to be established using cross-loading, each indicator must have a higher load on its own variable compared to the loads on the other variables (Hair et al., 2017).

Table (4): Cross-Loadings of the Study Indicators

Indicator	Entrepreneurial Leadership	Innovation Culture	Organizational Innovation
EL1	**0.737**	0.367	0.349
EL2	**0.710**	0.359	0.357
EL3	**0.758**	0.428	0.377
EL4	**0.766**	0.394	0.405
IC1	0.352	**0.644**	0.495
IC2	0.428	**0.755**	0.504
IC3	0.330	**0.777**	0.502
IC4	0.419	**0.812**	0.500
IC5	0.466	**0.847**	0.607
OI1	0.375	0.521	**0.812**
OI2	0.426	0.584	**0.872**
OI3	0.377	0.445	**0.757**
OI4	0.451	0.645	**0.820**

Source: Prepared by researchers based on SMARTPLS outputs

The results show that all indicators recorded the highest loading on their respective variable compared to the other variables, confirming the accuracy of the indicators in representing their theoretical concepts and supporting the results of the Furnell-Larker and HTMT criteria.

Based on the results of the three adopted criteria, it can be confirmed that discriminant validity was adequately achieved for all study variables, and that the measurement model possesses a high degree of conceptual and statistical discriminantness, allowing for a confident transition to the structural model analysis

Study Model

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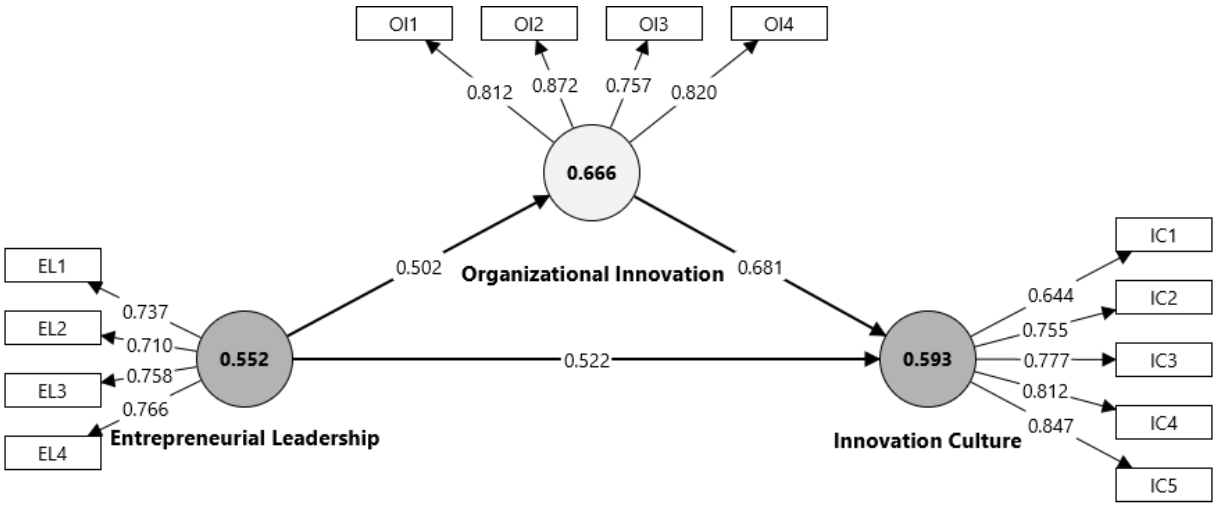

Source: Prepared by researchers based on SMARTPLS outputs

Structural Model Analysis

The quality of the structural model was assessed by examining both the multicollinearity problem (VIF) and the explanatory power (R^2), while its predictive power was assessed using the Q^2 index. Before proceeding to hypothesis testing, according to the recommendations of Hair et al. (2017).

III.1 Structural Model Assessment (VIF, R^2 and Q^2)

Table (5): Evaluation of Structural Model Quality (VIF, R^2 and Q^2)

Dependent Variable	Independent Variable	VIF	R^2	Level of Explanation	Q^2	Predictive Relevance
Organizational Innovation	Entrepreneurial Leadership	1.000	0.252	Moderate	O.244	Good
Innovation Culture	Organizational Innovation	1.336	0.507	Strong	0.263	Good
Innovation Culture	Entrepreneurial Leadership	1.336				

Source: Prepared by researchers based on SMARTPLS outputs

The results show that all values of the Variance Amplification Factor (VIF) were below the acceptable upper limit (5), indicating the absence of multicollinearity among the independent variables and confirming the statistical validity of the structural model.

Furthermore, the coefficient of determination (R^2) values indicate that entrepreneurial leadership explains approximately 25.2% of the variance in organizational innovation, while both entrepreneurial leadership and organizational innovation together explain approximately 50.7% of the variance in innovation culture. These explanatory levels are considered acceptable to high in organizational research. Positive Q^2 values also confirm the model's acceptable predictive power.

Therefore, it can be confirmed that the structural model possesses a good degree of statistical validity and explanatory power, allowing for the examination of direct and indirect effects among the study variables.

III.2 Hypotheses Testing and Effect Size

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The research hypotheses were tested using Bootstrapping to estimate the significance of the path coefficients, and the effect size (f^2) was calculated to determine the extent to which each independent variable contributes to explaining the dependent variable, according to Cohen's classification (1988).

Table (6): Hypothesis Testing Results and Effect Size (β, T, P, f^2)

Hypothesis	Relationship	B	T	P	f^2	Effect Size	Result
H1	Entrepreneurial Leadership → Innovation Culture	0.242	4.624	0.000	0.089	Weak	Supported
H2	Entrepreneurial Leadership → Organizational Innovation	0.502	10.869	0.000	0.336	Medium	Supported
H3	Organizational Innovation → Innovation Culture	0.560	11.091	0.000	0.476	Large	Supported

Source: Prepared by researchers based on SMARTPLS outputs

The results show that all path coefficients were positive and statistically significant at the 0.05 level, confirming support for all three hypotheses. The effect size (f^2) values indicate that organizational innovation is the most influential variable in explaining the culture of innovation, while the direct effect of entrepreneurial leadership on the culture of innovation is relatively weak compared to the other relationships. These results reflect the pivotal role of entrepreneurial leadership in fostering organizational innovation, which is the primary mechanism for establishing a culture of innovation within an organization.

III.3 Mediation Analysis

This test aims to determine the mediating role of organizational innovation in the relationship between entrepreneurial leadership and the culture of innovation, using Bootstrapping to estimate the significance of indirect effects, as recommended by Preacher & Hayes (2008).

Table (7): Results of the Indirect Effect Test (Mediation Analysis)

Indirect Relationship	Indirect β	T	P	Type of Mediation
Entrepreneurial Leadership → Organizational Innovation → Innovation Culture	0.281	8.321	0.000	Partial Mediation

Source: Prepared by researchers based on SMARTPLS outputs

Discussion of Results

IV.1 Entrepreneurial Leadership and Organizational Innovation (H1)

The results of the current study showed a positive and significant effect of entrepreneurial leadership on organizational innovation (β = 0.502), with acceptable explanatory power (R^2 = 0.252) and a moderate to strong effect size (f^2 = 0.336).

This finding is consistent with several recent studies that have confirmed entrepreneurial leadership as a key driver of organizational innovation. Entrepreneurial leaders contribute to redesigning structures

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and processes, encouraging the adoption of new working methods, and enhancing organizational flexibility (Makhloufi et al., 2024; Fatima & Masood, 2024).

In the context of Mobilis, this result indicates that entrepreneurial leadership practices within the company—such as supporting new initiatives, encouraging unconventional solutions, and granting a degree of autonomy to managers—are directly reflected in the adoption of innovative organizational practices. This is logical in the telecommunications sector, which requires a rapid regulatory response to technological and market changes.

IV.2 Entrepreneurial Leadership and Innovation Culture (H2)

The results showed a significant positive effect of entrepreneurial leadership on innovation culture ($\beta = 0.242$), although the effect size was relatively small ($f^2 = 0.089$).

This finding partially aligns with previous studies indicating that entrepreneurial leadership contributes to fostering values that support innovation, but it is not the decisive factor in shaping organizational culture (Newman et al., 2018; Bagheri et al., 2020).

This result clearly highlights that Mobilis' organizational culture is not solely influenced by leadership rhetoric or entrepreneurial orientations, but is primarily shaped by daily practices and organizational structures. Even when leadership embraces innovation values, the absence of supportive organizational practices can limit the cultural entrenchment of these values, which explains the relatively small direct effect size compared to other pathways.

IV.3 Organizational Innovation and the Culture of Innovation (H3)

The results showed that organizational innovation strongly influences the culture of innovation ($\beta = 0.560$), with a very strong effect size ($f^2 = 0.476$). It also contributed, along with entrepreneurial leadership, to explaining more than 50% of the variance in the culture of innovation ($R^2 = 0.507$).

This finding is highly consistent with the literature, which emphasizes that the culture of innovation is formed as a cumulative result of innovative organizational practices, not solely as a direct result of leadership (Büschgens et al., 2013; Malibari & Bajaba., 2022).

In the context of Mobilis, this result reflects how the company's adoption of innovative organizational approaches such as process improvement, work system development, and modernization of decision-making mechanisms directly contributes to fostering a culture that encourages innovation. In other words, employees perceive the culture of innovation more through what is actually practiced within the organization than through what is proclaimed by leadership.

IV.4 The Mediating Role of Organizational Innovation (H4)

The study results showed a strong indirect effect of entrepreneurial leadership on innovation culture through organizational innovation ($\beta = 0.281$), with the overall effect ($\beta = 0.522$) being higher than the direct effect, indicating strong partial mediation.

This finding is consistent with a recent trend in the literature emphasizing that the impact of entrepreneurial leadership on organizational outcomes is often indirect, passing through organizational mechanisms such as organizational innovation or organizational climate (Fatima & Masood, 2024; Newman et al., 2018).

In the case of Mobilis, this result means that entrepreneurial leadership becomes more effective when it translates into concrete organizational decisions, such as modernizing structures, streamlining procedures, and supporting continuous improvement projects. The absence of this organizational translation may limit the impact of leadership at the culture level, even if the leadership discourse is supportive of innovation.

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The study's findings, when applied to the Mobilis context, demonstrate that entrepreneurial leadership is the starting point for stimulating innovation within the organization. However, its impact is only fully realized through organizational innovation, which acts as a transformation mechanism, translating leadership orientations and behaviors into tangible organizational practices. A culture of innovation represents the ultimate outcome of this process. Thus, the study confirms that building a culture of innovation within a large telecommunications company like Mobilis cannot be achieved solely through entrepreneurial leadership. It requires continuous investment in innovative organizational practices that integrate innovation into the daily operations of the company, rather than simply a declared strategic direction.

Conclusion

This study aimed to deepen the theoretical and applied understanding of the relationship between entrepreneurial leadership and a culture of innovation within organizations. It did so by examining the mediating role of organizational innovation as an organizational mechanism that explains how leadership influences are transmitted to the cultural level. Based on an explanatory model tested using partial least squares structural equation modeling (PLS-SEM), and on a sample of 207 managers and executives at Mobilis in Algeria, the study presented findings that contribute to clarifying the mechanisms for building a culture of innovation within a complex and dynamic organizational context.

The results showed that entrepreneurial leadership is a significant catalyst for innovation within organizations, positively influencing organizational innovation and contributing to the strengthening of an innovation culture. However, these results also revealed that the direct impact of entrepreneurial leadership on the culture of innovation remains limited compared to the powerful impact of organizational innovation itself. This indicates that organizational culture is not shaped by leadership discourse alone, but rather requires translating entrepreneurial orientations into actual organizational practices that integrate innovation into structures, processes, and work systems. The study also confirmed the strong partial mediation of organizational innovation in the relationship between entrepreneurial leadership and a culture of innovation. This reinforces the argument that organizational innovation is the essential link that transforms leadership vision into a tangible cultural reality. This finding highlights the importance of adopting organizational approaches that move beyond focusing on individual leadership traits and instead prioritize organizational capabilities that enable the sustainability and cultural embodiment of innovation.

In light of these results, the study contributes to the contemporary literature by offering a comprehensive explanatory model that demonstrates that building a culture of innovation is the product of a dynamic interaction between entrepreneurial leadership and innovative organizational practices. The findings also confirm that organizations operating in dynamic sectors, such as the telecommunications sector, need to invest in organizational innovation as an organizational lever that enables them to cope with rapid changes and achieve long-term excellence.

Therefore, this study provides an analytical framework that can benefit researchers in developing more comprehensive models for studying innovation. It also offers managers practical insights indicating that achieving a sustainable culture of innovation requires effective alignment between leadership vision and daily organizational practices.

Study Recommendations

- Develop organizational structures and processes that support flexibility and innovation.
- Translate entrepreneurial leadership approaches into clear and sustainable organizational practices.
- Integrate innovation into daily work practices, rather than limiting it to ad hoc initiatives.
- Empower management teams and grant them greater autonomy in decision-making.
- Invest in developing organizational capabilities that support innovation.

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Future Study Prospects

- Expand the scope of the study to include different sectors and institutions.
- Test additional mediating or moderating variables related to the organizational context.
- Adopt longitudinal research designs to study the evolution of the culture of innovation over time.
- Combine quantitative and qualitative methodologies to deepen the understanding of the phenomenon under study.

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