

DEVELOPING AN ANALYTICAL FRAMEWORK FOR ACCELERATING INNOVATION IN THE BUSINESS ENVIRONMENT

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Abstract

Accelerating innovation is a strategic priority in the context of the economic, digital, and ecological transformations that define the contemporary business environment. This study aims to establish an analytical framework geared toward accelerating innovation in the business environment by integrating existing approaches to the institutional environment, finance, human capital, and market dynamics. Based on an extensive review of the literature and a scientometric analysis covering the period 2016-2025, the research proposes a conceptual model that explains how the business environment influences the pace of innovation through the mechanisms of digital transformation, green innovation, and entrepreneurial ecosystems. The results indicate that accelerating innovation is a multidimensional process, conditioned by the interaction between the external context and the internal capabilities of firms, especially SMEs. The proposed analytical framework offers relevant contributions to strengthening the theoretical foundations in the field and to developing public policies and managerial strategies geared towards competitiveness and sustainability. Finally, the study highlights the need for empirical validation of the model and opens up directions for future research focused on assessing innovation acceleration in different economic and sectoral contexts.

Keywords: innovation; accelerating innovation; business environment; digital transformation; entrepreneurial ecosystems; green innovation; human capital; economic competitiveness

JEL Classification: O32; O31; O33; M13; Q55

INTRODUCTION

Over the past decade, innovation has evolved from a desirable strategic option to an indispensable condition for the survival and competitiveness of entities operating in an increasingly turbulent business environment. Accelerated digitization, environmental pressures, geopolitical transformations, and the intense dynamics of emerging technologies are reshaping how organizations create value, manage resources, and design their business models. In this context, the quality of the business environment, understood as a set of institutional, financial, human capital, and market conditions, becomes an essential determinant of firms' ability to generate and implement innovations.

Recent empirical studies show that a favorable business environment contributes to strengthening the resilience of entities, facilitating the absorption of external shocks and adaptive response through innovation, based on analyses of listed companies and regional business environment indicators in China (Wang & Zhang, 2025). Other research shows that optimizing the business environment stimulates green innovation, and this effect is amplified by digital transformation processes and a predisposition of firms towards environmental management (Wang et al., 2025; Liu et al., 2025). Furthermore, the literature on entrepreneurial ecosystems and business incubators highlights the role of institutional structures: incubators, accelerators, public support programs, in the development of innovative start-ups and in boosting regional and national economies (Empoli, 2021; Empoli et al., 2021; Israeli, 2023; Todorova & Todorov, 2017).

However, the scientific debate remains fragmented. A first strand of literature analyzes innovation at the firm level, emphasizing creativity, organizational capabilities, and leadership, especially in the case of small and

medium-sized enterprises, which are considered agile but limited in resources (Bendic & Barbu, 2020). A second strand examines the business environment, treating innovation as a secondary result of favorable conditions such as access to finance, legislative stability, or market infrastructure (Vasilescu, 2014; Xie & Yang, 2025). A third current addresses isolated topics such as digital transition, green innovation, or entrepreneurial ecosystems, using different conceptual frameworks (Horbach et al., 2012; Isenberg, 2010; Rennings, 2000; Yoo et al., 2010).

Scientometric analysis for the period 2016-2025, limited to the Web of Science Management, Business, Economics, and Business Finance categories, indicates over 4,500 articles on the relationship between innovation and the business environment, with a sharp increase in publications and citations after 2019. This profile suggests, on the one hand, the topicality of the subject and, on the other hand, the lack of a homogeneous theoretical core: there are numerous studies, but the approaches are scattered, each dealing with a particular dimension (digitalization, sustainability, entrepreneurship, resilience), without integrating these elements into a coherent framework capable of explaining the mechanisms for accelerating innovation.

In addition, much research focuses on specific national or sectoral contexts. The literature on innovative ecosystems emphasizes the interaction between universities, firms, financial institutions, and public authorities, but rarely proposes a comparative analytical framework that allows for an integrated assessment of different business environments. Studies focused on digital or green innovation predominantly concentrate on technological or environmental outcomes, without detailing how market, legal, financial, and human capital conditions influence the pace of innovation.

This conceptual and empirical fragmentation highlights a research gap. There is a need to develop a comprehensive analytical framework that: (i) captures the multidimensional nature of the business environment, (ii) explains the mechanisms through which it influences the innovative behavior of firms, and (iii) enables informed public and managerial decisions on accelerating innovation. In particular, such a framework should integrate the role of digital transformation, sustainability pressures (including green innovation), entrepreneurship, and organizational resilience, correlated with the indicators used in empirical studies and international rankings (Coban & Cosmulese, 2023).

In this context, this research aims to establish an analytical framework geared towards accelerating innovation in the business environment by coherently integrating the results from the literature, recent scientometric evidence, and theoretical elements on innovative ecosystems. The study has three main objectives:

- clarifying the conceptual relationships between innovation and the business environment;;
- synthesizing empirical conclusions regarding the influence of environmental factors on innovation; and
- formulating an analytical model that can be used both for future empirical research and to support public policies and managerial strategies.

Through this approach, the paper contributes to the specialized literature by offering an integrative perspective on innovation in the business environment and, at the same time, analytical tools for accelerating it in the current conditions characterized by uncertainty, digitization, and transition to sustainability.

I. LITERATURE REVIEW

The literature analyzing the relationship between the business environment and innovation highlights a significant evolution over the last two decades, but remains fragmented conceptually and methodologically. A first theoretical current focuses on innovation at the entity level, explaining innovative performance in terms of internal resources, creativity, organizational capabilities, and leadership. In this regard, Schumpeter (1983) outlines the role of the entrepreneur as an agent of change, and subsequent models developed by Freeman (1994) and Lundvall (2010) treat innovation as an interactive process, dependent on organizational knowledge and learning. Recent studies on SMEs highlight the role of flexibility and creativity as competitive advantages, but also emphasize their vulnerability to capital and resource constraints (Bendic & Barbu, 2020). Consequently, internal capabilities are not sufficient to fully explain the acceleration of innovation, and it is necessary to analyze the external conditions that influence it.

Table 1. Summary of the literature and correspondence with the research hypotheses

No.	Author, year	Main contribution	Relevance to research	Connection with assumptions
1.	Schumpeter (1983)	<ul style="list-style-type: none"> ▪ Innovation as a driver of economic development; ▪ The entrepreneur as an agent of change. 	Innovation is a central process for economic dynamics, generated by entrepreneurs and "creative destruction."	Theoretical basis for the importance of innovation (H1)
2.	Freeman (1994); Soete & Freeman (2012)	<ul style="list-style-type: none"> ▪ National innovation systems; ▪ Innovation as an interactive process. 	Innovation depends on relationships between companies, institutions, research, and policy; it is not just an	Supports the idea that the business environment, as a system, influences innovation (H1)

No.	Author, year	Main contribution	Relevance to research	Connection with assumptions
	Lundvall (2010)		internal phenomenon within companies.	
3.	Bendic & Barbu (2020)	Creativity and innovation in SMEs	SMEs are innovative and agile, but limited in resources, making them particularly sensitive to external conditions.	Strengthens the role of the business environment in facilitating innovation (H1)
4.	Porter (2001)	Competitive advantage and competitive framework conditions	Market structure, competition intensity, and local context stimulate business innovation.	The business environment as a determinant of innovation (H1)
5.	North (1991)	Institutions and economic development	Institutions (rules, laws, property rights) reduce uncertainty and influence economic behavior.	The institutional dimension of the business environment that supports innovation (H1)
6.	Vasilescu (2014)	Access to finance for innovative SMEs	Financing conditions are critical for SMEs to be able to implement innovations.	The financial environment as part of the business environment (H1)
7.	Xie & Yang (2025)	Business environment and urban innovation	A better business environment stimulates innovation at the urban/regional level.	Empirical confirmation of the relationship between the business environment and innovation (H1)
8.	Wang & Zhang (2025)	Business environment, resilience, and digital innovation	An improved business environment strengthens the resilience of companies and promotes innovation through digitalization.	Favorable business environment, resilience, and innovation, respectively digitization as a mechanism (H1 and H2)
9.	Yoo et al. (2010)	Organizational logic of digital innovation	Digitalization profoundly changes the way innovation is organized and introduces a layered modular architecture.	Theoretical basis for digital transformation as a mechanism for accelerating innovation (H2)
10.	Liu et al. (2025)	Digital transformation and innovation capacity	Digital transformation increases innovation capacity, and organizational culture mediates this relationship.	Empirical confirmation: digitization mediates the context–innovation relationship (H2)
11.	Rennings (2000)	Eco-innovation and environmental policies	Green innovations are stimulated by regulations, environmental pressures, and demand for "green" products.	Basis for the role of green innovation as a result of sustainability pressures (H3)
12.	Horbach et al. (2012)	Determinants of eco-innovations	Eco-innovations are influenced by regulations, technology, and market demand.	Empirical confirmation for the environment–sustainability–innovation relationship (H3)
13.	Isenberg (2010)	Entrepreneurial ecosystems	Developing an entrepreneurial ecosystem involves coordinating several elements of the business environment.	Ecosystems as part of the innovative business environment, general support for H1 and context for H2/H3.
14.	Empoli et al. (2021)	The role of incubators in strengthening entrepreneurship	Business incubators strengthen entrepreneurship and support the development of innovative startups.	Institutional structures that operationalize the innovative business environment (H1 and H3)
15.	Israeli (2023)	Management of innovation ecosystems in higher education	Analyze how innovation ecosystems can be evaluated and managed in academic institutions.	Highlights the dimensioning and governance of ecosystems, framework for H3 and for the policy part.

Source: own processing

The literature review presented in *Table 1* highlights three major directions. First, classical and evolutionary literature on innovation (Schumpeter, Freeman, Lundvall, Porter, North) confirms that the business environment, through institutions, market structure, resources, and competitive conditions, is a fundamental determinant of innovative activity, especially in the case of SMEs. Second, recent research on digitalization (Yoo et al., 2010; Wang et al., 2025) shows that digital transformation acts as a mediating mechanism through which a favorable business environment translates into enhanced innovative performance. Thirdly, literature focused on sustainability and ecosystems (Rennings, Horbach, Empoli, Isenberg, Israeli) shows that environmental pressures and institutional structures contribute to stimulating green innovation, strengthening the sustainability dimension in the context of a favorable economic framework (Socoliu et al., 2020).

Although the literature provides influential frameworks for understanding innovation processes, such as National Innovation Systems and the Triple/Quadruple Helix models, these approaches do not explicitly address the mechanisms through which the business environment contributes to the acceleration of innovation.

The National Innovation Systems approach focuses primarily on the institutional architecture and interactions among actors at the national level, offering a macro-level and largely descriptive perspective on innovation. In contrast, the present research does not aim to characterize national systems as a whole, but rather to analyze the business environment as an operational context influencing firms' innovative behavior. Moreover, the concept of innovation acceleration, understood in terms of pace, intensity, and scalability, is not explicitly conceptualized within the NIS framework.

Similarly, Triple Helix and Quadruple Helix models emphasize actor-based interactions between universities, industry, government, and society. The analytical framework proposed in this study departs from this logic by adopting a mechanism-based perspective, focusing on how digital transformation and green innovation mediate the relationship between the business environment and innovation outcomes. Entrepreneurial ecosystems and entrepreneurial spirit are treated as contextual and moderating factors, rather than institutional helices. This conceptual positioning clarifies that the proposed framework complements, rather than replicates, existing innovation models, by explicitly addressing the dynamic process of innovation acceleration within firms.

Therefore, empirical and theoretical literature converges on the idea that accelerating innovation does not depend exclusively on the firm's internal resources, but results from the interaction between the business environment, digital transformation, and sustainability pressures. This convergence justifies the formulation of the following three research hypotheses: (H1) a favorable business environment stimulates innovation, (H2) digital transformation mediates this relationship, and (H3) green innovation contributes to accelerating innovation under favorable institutional conditions.

Therefore, in line with these perspectives, this research formulates the following hypotheses:

H1. A favorable business environment has a positive effect on innovation;

H2. Digital transformation mediates the relationship between the business environment and innovation;

H3. Sustainability pressures and green innovation contribute to accelerating innovation in a favorable business environment.

II. RESEARCH METHODOLOGY

The methodology used in this study is based on a conceptual-analytical approach, with the aim of developing an integrative framework for accelerating innovation in the business environment, through the synthesis of existing literature, scientometric analysis, and logical deduction. Unlike empirical studies focused on data specific to certain countries or sectors, our approach aims to provide a generalizable theoretical perspective that can be applied in a variety of economic and institutional contexts.

This exploratory-conceptual study is grounded in three complementary methodological pillars. It begins with a comprehensive analysis and synthesis of the literature on innovation, the business environment, and entrepreneurial ecosystems. This is enhanced by a scientometric analysis of publications from the Web of Science database (2016–2025), specifically within the categories of Management, Business, Economics, and Business Finance. The proposed framework is subsequently developed through logical deduction, based on relationships evidenced in the international empirical literature. This methodological approach allows for the identification of theoretical gaps, the formulation of hypotheses, and the development of the analytical framework.

Literature was selected based on the following criteria:

- thematic relevance (innovation, business environment, digitization, resilience, entrepreneurial ecosystems);
- Science articles published in journals indexed in Web of Science;
- the recent period 2016–2025, to capture current trends, supplemented with classic contributions from the 1990s and early 2000s, used for conceptual grounding;
- inclusion of renowned authors in the fields of innovation and economic institutions (Porter, Schumpeter, North, Isenberg, etc.), whose works, although older, remain relevant and are frequently cited in recent research.

Unindexed articles, speculative works without empirical basis, and non-scientific documents (reports, blogs, etc.) were excluded. This selection ensures the consistency and validity of the sources analyzed. To assess interest and developments in research on innovation in the business environment, the Web of Science database was used, yielding the following results:

- 2025 4,554 articles between 2016 and 2025
- over 90,000 citations
- H-Index = 118

These results confirm the current relevance of the field, its sharp growth after 2019, and the existence of a sufficient basis for establishing an analytical framework. Scientometrics was used not as an end in itself, but as a tool for justification and contextualization.

The conceptual synthesis method consisted of identifying recurring themes in literature (digitization, green innovation, ecosystems); determining the factors that drive innovation (institutions, infrastructure, human capital, market); analysis of mediation mechanisms (e.g., digital transformation); formulation of research hypotheses (H1–H3); structuring a coherent analytical framework. This method allows the integration of scattered results into a comprehensive model. The approach adopted has *two main limitations*: lack of direct empirical testing of the proposed analytical framework and dependence on international literature, which may not be uniformly applicable in all regions. These limitations open up avenues for future research, through empirical validation of hypotheses and by applying the framework in sectoral or regional case studies.

The conceptual-analytical approach is appropriate because of the topic is complex and multidimensional, literature is fragmented and requires synthesis and for the fact that accelerating innovation is difficult to capture empirically without a prior theoretical model. Therefore, the methodology allows clarification of concepts, defining causal relationships and substantiation of the analytical framework which is a necessary step before future empirical studies.

III. RESEARCH RESULTS

a. Dimensions of the analytical framework

The proposed analytical framework integrates four major dimensions of the business environment::

- *institutional dimension* – legislative stability, intellectual property protection, supportive public policies, reduced bureaucracy;
- *financial dimension* – access to capital, developed financial markets, instruments for financing innovation
- *human capital dimension* – digital skills, education, vocational training, attracting talent;
- *market size* – competition, supply-demand dynamics, market infrastructure, entrepreneurial ecosystems..

These dimensions form the basic structure of the business environment and influence the ability of firms to innovate.

b. Mediation and moderation mechanisms

The model proposes two central mechanisms through which the business environment accelerates innovation:

- i. *Digital transformation* – a mechanism for mediation. Recent literature confirms that a favorable digital environment stimulates the adoption of advanced technologies, automation, and innovative business models.
- ii. *Green innovation and sustainability* – acceleration mechanism. Environmental pressures and sustainable policies are driving companies to adopt innovative eco-efficient solutions.
- iii. In addition to these:
- iv. *Entrepreneurship* – a moderating mechanism. Entrepreneurship amplifies the effects of the business environment by focusing on risk, opportunities, and experimentation.

c. Causal relationships and conceptual framework

The proposed analytical framework integrates the causal relationships and conceptual model into a unified structure, in order to avoid conceptual overlap and ensure analytical coherence. The framework starts from the premise that a favorable business environment has a direct positive effect on companies' ability to generate and implement innovations, strengthening their competitiveness (H1). The business environment is defined through its institutional, financial, human capital, and market dimensions, which jointly shape firms' access to resources, stability of expectations, and incentives for change. Beyond this direct relationship, the influence of the business environment on innovation is transmitted through specific mediation mechanisms. Digital transformation acts as a central mediating factor, reflecting the extent to which firms adopt digital technologies, processes, and IT-related skills in response to external conditions (H2). Through digital transformation, favorable institutional and economic frameworks are translated into enhanced internal innovative capabilities. At the same time, sustainability pressures and the orientation toward green innovation represent a complementary and specific innovation pathway. Regulatory requirements, social expectations, and market demand for environmentally responsible products stimulate eco-innovation, which, within a supportive business environment, contributes to accelerating innovation processes and reconfiguring business models (H3).

The innovative capabilities developed through these mechanisms: cognitive, technical, and organizational, ultimately determine the acceleration of innovation, understood as an increase in the rhythm, intensity, and scalability of innovative changes within firms. Entrepreneurial ecosystems and entrepreneurial spirit play a contextual and moderating role, as they can amplify or weaken the effects of the business environment and mediation mechanisms through collaboration networks, partnership culture, and support infrastructure.

Next, Figure 1 synthesizes these relationships in a comprehensive conceptual model, in which the business environment represents the initial causal factor, digital transformation and green innovation operate as mediating

mechanisms, entrepreneurial ecosystems function as contextual factors, and the acceleration of innovation constitutes the observable outcome.

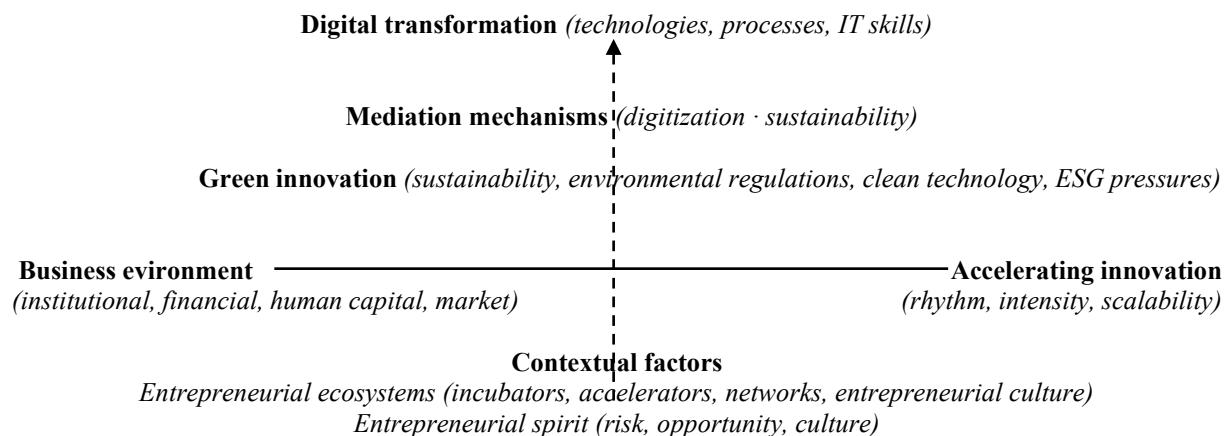


Figure 1. The detailed conceptual framework for accelerating innovation in the business environment
Source: Author's elaboration

Figure 1 illustrates the systemic logic of the proposed framework, highlighting the decisive role of institutional, financial, human capital, and market conditions. Digital transformation and green innovation are positioned as mediating mechanisms that connect the business environment with innovation acceleration, while entrepreneurial ecosystems and entrepreneurial spirit contextualize these relationships. This integrated representation underpins the hypotheses formulated and provides a coherent basis for subsequent empirical testing.

d. Operationalization of the analytical framework

In order to facilitate empirical testing and enhance the applicability of the conceptual framework, each analytical dimension is associated with a set of quantitative and qualitative indicators that enable measurement and comparison.

Table 2. Dimensions of the analytical framework and suggested indicators for measuring them

Dimension	Indicators
Institutional	legislative stability, quality of regulations, IP protection, Ease of Doing Business score
Financial	access to credit, venture capital funds, public R&D funding
Human capital	digital skills, educational attainment, training
Market	competition, digital infrastructure, entrepreneurial ecosystems
Digital transformation	ICT adoption, e-business, IT investment
Green innovation	Eco R&D, certifications, green policies
Innovation acceleration	pace, intensity, scalability

Source: own processing

The proposed indicators are indicative and flexible, allowing adaptation to national contexts, sectoral characteristics, and data availability. Nevertheless, they provide a structured and coherent basis for constructing empirical models aimed at assessing the business environment and its role in accelerating innovation.

e. Contribution and research synthesis

The main contribution of this research lies in the development of an integrated analytical framework that consolidates previously fragmented perspectives on the business environment, digital transformation, sustainability, and entrepreneurship into a single systemic model. By explicitly incorporating mediation and contextual mechanisms, the framework moves beyond a linear interpretation of innovation and emphasizes the dynamic interaction between external conditions and internal firm capabilities.

From a methodological perspective, the framework enables the operationalization of innovation acceleration through clearly defined indicators, facilitating empirical validation, comparative analysis, and policy-oriented research. Its flexibility allows application across different national, sectoral, and organizational settings, enhancing its analytical relevance.

In summary, this research provides a comprehensive contribution to the understanding of innovation dynamics by systematically mapping the interplay between the business environment and accelerated innovation. Specifically, it identifies and defines the key dimensions of the business environment that are most critical for fostering innovation. Building on this foundation, the study then conceptualizes the underlying mediation and moderation mechanisms through which these environmental factors influence innovation processes. This allows for the formulation of clear causal relationships explaining how specific aspects of the business environment directly contribute to the acceleration of innovation. Ultimately, these insights are synthesized into a coherent and actionable conceptual model designed to guide the strategic acceleration of innovation. Through this contribution, the paper advances the theoretical understanding of how the business environment not only stimulates innovation, but also influences its pace and intensity.

IV. DISCUSSIONS AND IMPLICATIONS

The research results highlight that the business environment plays a decisive role in accelerating innovation, and that the interaction between institutional, financial, technological, and human capital conditions is essential in explaining the pace at which firms adopt and implement innovations. The analysis highlights three major directions: (i) the contribution of the business environment to the development of innovative capabilities, (ii) the importance of mediation and moderation mechanisms, such as digital transformation and entrepreneurship, and (iii) the specific influence on SMEs and sectors oriented towards technology or sustainability.

Theoretical implications. From a theoretical perspective, the proposed analytical framework makes a multifaceted contribution to the existing literature. It achieves this by integrating previously fragmented conceptual approaches, weaving together research on the business environment, entrepreneurial ecosystems, digitalization, and green innovation into a single, coherent model. By doing so, the framework establishes a set of testable causal relationships between specific dimensions of the business environment and the acceleration of innovation, thereby enabling a deeper, more mechanistic understanding of what stimulates innovative activity. Moreover, it introduces a dynamic component to traditional, static models by explicating the critical mediating roles of digital transformation and sustainability pressures. Perhaps most notably, the framework advances conceptual discourse by directly correlating the pace of innovation, a relatively under-theorized concept, with the surrounding market, institutional, and technological context, thereby formalizing a novel perspective on innovation acceleration itself. Therefore, the central theoretical contribution consists in conceptualizing innovation acceleration as the result of the interaction between the business environment and the capabilities of firms, with clearly identified intermediary mechanisms.

Managerial implications. The findings of this study carry significant implications for management, particularly within small and medium-sized enterprises (SMEs). Firstly, they demonstrate that strategic access to digital infrastructures and institutional support can be a powerful lever for accelerating innovation, even in contexts of constrained resources. This underscores the necessity for leadership to prioritize digital transformation, reconceptualizing it not merely as a technological upgrade but as a fundamental strategic tool for enhancing organizational flexibility and adaptive capacity. Concurrently, the research positions green innovation as a dual-value imperative, an ethical commitment that also serves as a practical gateway to new markets and operational cost savings through improved energy efficiency. Ultimately, these external enablers can be substantially amplified by fostering internal entrepreneurship, cultivated through innovative leadership, participatory management practices, and a supportive organizational culture.

Specifically, managers can use the proposed framework to:

- diagnose barriers to innovation;
- identify available acceleration mechanisms;
- prioritize investments in digitization and human capital;
- develop strategies for collaboration in innovative ecosystems.

Implications for public policy. The study underscores key implications for policymakers, highlighting that strategic investments in the business environment, such as robust intellectual property rights, streamlined bureaucracy, and fiscal stability, can act as multipliers for innovation. Concurrently, developing digital infrastructure and ensuring access to finance, including venture capital and R&D grants, should be treated as strategic priorities. Furthermore, policies promoting green innovation not only enhance sustainability but also strengthen competitiveness, while targeted support for entrepreneurial ecosystems, such as clusters and science parks, can amplify innovation at a regional level. Thus, the proposed framework can serve as a reference for public policies geared toward innovation and competitiveness.

Methodological implications for future research. The proposed conceptual model establishes a clear methodological pathway for future empirical research. It invites validation through hypothesis testing across diverse national contexts and enables the quantitative assessment of business environments using its integrated indicators. This framework also facilitates the incorporation of green and digital innovation metrics into a unified

analytical model. Further empirical work could productively focus on comparative analyses, examining variations between high-tech and traditional sectors or between the innovation dynamics of SMEs and multinational corporations.

The proposed conceptual model opens up broad avenues for empirical research:

- testing hypotheses in different national contexts;
- using the proposed indicators to assess the business environment and innovation in quantitative studies;
- integration of data on green and digital innovation into a multidimensional model;
- comparative analysis between sectors: high-tech vs. traditional;
- analysis of SMEs vs. multinational corporations.

Future researchers can also test the validity of the proposed framework through regressions, SEM models, or panel data; extend the model by adding cultural or geopolitical factors; and assess the impact of AI, automation, and blockchain on accelerating innovation.

Limitations and opportunities. As a conceptual framework, this model carries inherent limitations that present clear opportunities for advancement. It requires empirical validation, may apply differently across developed and emerging economies, and faces the methodological challenge of quantifying innovation "acceleration." These limitations, however, serve as invitations: for further research to test and refine the model, for policymakers to adapt it to specific contexts, and for scholars to develop more precise assessment tools.

The results show that accelerating innovation is a process determined simultaneously by the external context (business environment), internal mechanisms (innovative capabilities), and dynamic factors (digitalization and sustainability). The proposed framework holds significant value for both advancing academic theory and informing practical application. It provides researchers with a structured model for empirical investigation, equips managers with a coherent basis for formulating innovation strategies, and offers policymakers actionable insights for designing economic policies that systematically foster innovation.

V. CONCLUSIONS

The aim of this study was to establish an analytical framework geared towards accelerating innovation in the business environment, based on the need to integrate the fragmented perspectives existing in the literature. A systematic review of research dedicated to the business environment, digital transformation, green innovation, entrepreneurial ecosystems, and organizational resilience has highlighted the existence of causal relationships and common mechanisms which, although analyzed separately in previous studies, can be brought together in a coherent conceptual model.

The proposed framework demonstrates that accelerating innovation is not only the result of firms' internal capabilities, but also a process strongly influenced by the quality of the business environment, defined by its institutional, financial, human capital, and market dimensions. Digital transformation and sustainability pressures function as mediating and accelerating mechanisms, while entrepreneurial ecosystems and entrepreneurial spirit act as contextual factors that can amplify or limit the pace of innovation. This suggests that the business environment should be approached not only as a passive context, but as an active determinant of innovation.

The main contribution of the study is the structuring of an integrative model that can be used both for conceptual clarification and for formulating hypotheses and directions for empirical research. Thus, the paper provides a solid theoretical basis for developing tools for assessing and diagnosing the business environment and for identifying interventions capable of accelerating the pace of innovation. At the same time, the results can support policymakers in developing measures aimed at strengthening digital infrastructure, access to finance, stimulating green innovation, and developing human capital.

However, the conceptual nature of the research is also its main limitation. The proposed analytical framework requires empirical validation in different economic contexts, as well as sectoral or regional adaptations, particularly in emerging economies and traditional sectors. In addition, the dynamics of accelerating innovation in the context of digital transformation and ecological transition raise new challenges related to measurement and evaluation.

Future research directions include empirical testing of the hypotheses formulated, the development of indicators to measure innovation acceleration, and analysis of the role of emerging factors such as artificial intelligence, blockchain, and the circular economy. At the same time, comparative investigations between SMEs and large companies, and between high-tech sectors and traditional industries, can provide additional insights into the applicability of the proposed framework.

Overall, the study demonstrates that innovation acceleration is a multidimensional process, dependent on the interaction between the external context and the internal capabilities of firms. Strengthening the business environment through coherent public policies, institutional support, and digital development can make a decisive contribution to stimulating innovation and increasing economic competitiveness. The paper thus provides a necessary theoretical basis for the development of analytical tools and practical strategies aimed at accelerating innovation in the contemporary business environment.

REFERENCES

1. Bendic, M., & Barbu, I. (2020). Creativity and Innovation in SMEs, Particularities and Influences. *Management Intercultural, Romanian Foundation for Business Intelligence, Editorial Department*, (44), 17-24.
2. Coban, M., & Cosmulese, C. G. (2023). The impact of SMEs on Romanian industry development. *European Journal of Accounting, Finance and Business*, 11(2), 20-28. <https://doi.org/10.4316/EJAFB.2023.1123>
3. Empoli, G. (2021). Rolul incubatoarelor și acceleratoarelor de afaceri în dezvoltarea eco-sistemului de startup-uri inovative (analiză comparativă România–Italia) (Doctoral dissertation, Universitatea "Dunărea de Jos" din Galați). Retrieved from <http://arthra.ugal.ro/handle/123456789/8623>
4. Empoli, G., Capatina, A., C., & Codignola, F. (2021). Empirical Evidence on Business Incubators' Role in Strengthening Entrepreneurship–A Comparative Study Italy vs. Romania. *Risk in Contemporary Economy*, 33-41. <https://doi.org/10.35219/rce20670532102>
5. Freeman, C. (1994). *Technology Policy and Economic Performance: Lessons from Japan*, UNKNO.
6. Horbach, J., Rammer, C., & Rennings, K. (2012). Determinants of eco-innovations by type of environmental impact - The role of regulatory push/pull, technology push and market pull. *Ecological economics*, 78, 112-122. <https://doi.org/10.1016/j.ecolecon.2012.04.005>
7. Isenberg, D. J. (2010). How to start an entrepreneurial revolution? *Harvard Business Review*, 88(6), 40-50.
8. Israeli, M. (2023). Evaluation and management of innovation ecosystem in higher education institutions in Israel (Doctoral thesis). Free International University of Moldova. Retrieved from https://www.anacec.md/files/Israeli-teza_0.pdf
9. Liu, T., Leng, J., Zhu, S., & Fu, R. (2025). Digital Transformation and Enterprise Innovation Capability: From the Perspectives of Enterprise Cooperative Culture and Innovative Culture. *Journal of Theoretical and Applied Electronic Commerce Research*, 20(2), 136. <https://doi.org/10.3390/jtaer20020136>
10. Lundvall, B. A. (2010). *National systems of innovation: towards a theory of innovation and interactive learning*. Anthem Press. 404 p. ISBN-13: 978 1 84331 890 3 (eBook).
11. North, D. C. (1991). Institutions. *Journal of Economic Perspectives*, 5(1), 97–112.
12. Porter, M. E. (2001). The competitive advantage of nations. *Harvard business review*, 68(2), 73-93.
13. Rennings, K. (2000). Redefining innovation—eco-innovation research and the contribution from ecological economics. *Ecological economics*, 32(2), 319-332. [https://doi.org/10.1016/S0921-8009\(99\)00112-3](https://doi.org/10.1016/S0921-8009(99)00112-3)
14. Schumpeter, J. A. (1983). The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle (Vol. 55). Transaction publishers.
15. Socoliuc, M., Cosmulese, C. G., Ciubotariu, M. S., Mihaila, S., Arion, I. D., & Grosu, V. (2020). Sustainability reporting as a mixture of CSR and sustainable development. A model for micro-enterprises within the romanian forestry sector. *Sustainability*, 12(2), 603.
16. Soete, L., & Freeman, C. (2012). The economics of industrial innovation. Routledge. eBook ISBN9780203357637. 484 p. <https://doi.org/10.4324/9780203357637>
17. Todorova, L., & Todorov, S. (2017). Perfecționarea sistemului de accelerare a activității inovaționale în țară: abordare metodologică. *Administrarea Publică*, 4(96), 92–101.
18. Vasilescu, L. (2014). Accessing finance for innovative EU SMEs key drivers and challenges. *Economic Review: Journal of Economics and Business*, 12(2), 35-47. Retrieved from <https://www.econstor.eu/handle/10419/193838>
19. Wang, R., & Zhang, G. (2025). Does optimising the business environment enhance enterprise resilience? The role of digital innovation and entrepreneurial spirit. *Humanities and Social Sciences Communications*, 12(1), 1-15. <https://doi.org/10.1057/s41599-025-04704-3>
20. Wang, S., Zhang, R., & Wan, L. (2025). Business environment optimization and regional green innovation: evidence from Chinese provinces. *Journal of Environmental Planning and Management*, 68(6), 1337–1362. <https://doi.org/10.1080/09640568.2023.2286924>
21. Xie, Z., & Yang, X. (2025). How Can the Business Environment Promote Urban Innovation and High-Quality Development? A Qualitative Comparative Analysis Based on the Perspective of Configuration. *Sustainability*, 17(2), 463. <https://doi.org/10.3390/su17020463>
22. Yoo, Y., Henfridsson, O., & Lyytinen, K. (2010). Research commentary - the new organizing logic of digital innovation: an agenda for information systems research. *Information systems research*, 21(4), 724-735. <https://doi.org/10.1287/isre.1100.0322>