

PILLARS OF THE ENTREPRENEURIAL GROWTH: INSIGHTS FROM EXPERTS USING THE AHP METHOD

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Abstract: *This study examines the pillars that influence the business environment. The objective is to identify the most common problems that entrepreneurs face while conducting their business operations. Next, the intricate relationship between entrepreneurial education, entrepreneurial activity and innovation is analyzed. It focuses in particular on the varied economic effects of entrepreneurship. Entrepreneurial ecosystems are considered as tools for economic development. Their analysis emphasizes the importance of a systematic approach both to their construction and to identify possible inefficiencies. The research accentuates that policy makers should prioritize the development of entrepreneurial ecosystems in regional and urban areas, with a special focus on the North-East region of Romania. The findings show the significant impact on entrepreneurship, providing both researchers and policy makers. The literature review is combined with an AHP analysis. The research aims to understand also how policy makers shape entrepreneurial activities and identify best practices for capitalising on emerging opportunities. Our analysis reveals that to support a robust entrepreneurial ecosystem, it is important to invest in education and innovation while improving access to finance and institutional support.*

Keywords: *entrepreneurship, entrepreneurial ecosystem, entrepreneurial pillars*

JEL classification: *L26, M13, M21*

Introduction

Economic growth and entrepreneurial dynamics are influenced by a variety of economic factors. There are entrepreneurial opportunities, entrepreneurial skills and preferences that are affected by economic factors, both directly and indirectly. This creates a strong entrepreneurial environment. These factors are: access to finance, legal and political framework, entrepreneurial culture, access to markets, the support infrastructure, education and training, networking and mentoring, research and innovation (Belitski and all, 2021)

In addition to legislative and political considerations, business assistance policies are critical components of a healthy entrepreneurial ecosystem. Government interventions, such as subsidies, low-interest loans, and economic development programs, provide crucial resources and support mechanisms to firms at all phases of development. These policies might include a variety of activities, including as investment funds for start-ups, training and mentorship programs, and aid in entering overseas markets. These support methods help to create a more dynamic and resilient entrepreneurial ecosystem by lowering entrance barriers and increasing resource availability.

Furthermore, economic stimulus measures, which include monetary and fiscal policy, have a considerable impact on the business environment. These policies influence the cost of financing and general market demand, both of which are important concerns for entrepreneurs. Policies involving

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tax cuts, public infrastructure improvements, or R&D incentives, for example, might open up new market opportunities, boost innovation, and improve the overall business climate. By cutting operational costs and improving market access, such efforts contribute to a fertile climate for entrepreneurial activity to thrive.

In the context of Romania, a thorough analysis of these policy determinants is especially pertinent. Although Romania enjoys many of the same economic assistance programs as other EU members, there are distinct opportunities and challenges for local entrepreneurs due to the differences in the country's political and regulatory environments. For example, Romania may have different political stability and regulatory constraints than other European countries, which will have different effects on the entrepreneurial ecosystem. To create company plans that are both successful and long-lasting, Romanian entrepreneurs need to overcome several obstacles unique to their nation.

Moreover, cultivating an atmosphere supportive of the expansion of entrepreneurship requires a sophisticated grasp of the ways in which these policy variables interact with more general macroeconomic trends. The impact of political stability, regulatory frameworks, and business support systems must be carefully considered by policymakers in order to develop tailored interventions that cater to the unique requirements of Romanian businesses. This entails creating specialized plans to reduce the risks brought on by unstable political environments and unpredictable regulations, in addition to improving access to resources for financing, markets, and training. In light of these assertions, we believe that examining Romania's entrepreneurial ecosystem via the prism of policy variables reveals the complex interplay between economic policies, governance, and successful entrepreneurship.

Literature review

The analysis of pillars of entrepreneurship reveals the intricate and interconnected nature of the factors that drive business development and success. Each of these pillars plays a pivotal role in fostering a conducive entrepreneurial environment, influencing elements such as individual initiative, access to vital resources, and the acquisition of essential business management skills (Acs and all, 2014)

By strengthening these pillars and cultivating an integrated support ecosystem, societies are better positioned to stimulate and sustain entrepreneurial activities, thus promoting innovation and contributing to long-term economic growth and sustainable development (Tufta, 1992).

A nation's political system or ideology has a significant impact on how its business environment is shaped. The development, growth, and general dynamics of entrepreneurship in a given area or nation are strongly influenced by political systems (Dumitru, 2017) Given how sensitive capital markets, especially stock exchanges, are to political unrest, this influence is still very much in effect today. The financial climate in which entrepreneurs operate can be significantly impacted by political issues, such as changes in leadership, regime changes, or policy reforms. These events can also have an impact on investor confidence (Acs and all, 2017).

Drawing on Magureanu's political systems theory (2006), the relationship between the political system and the broader environment can be conceptualized through the interaction of inputs and outputs. According to this model, the political system continually receives inputs—stimuli and demands originating from individuals, interest groups, political movements, and information channels. These inputs represent societal needs, expectations, and external events that the political system is compelled to address. The system processes these inputs and responds with outputs, which are policy decisions, laws, and regulations that shape the socio-economic environment (Beltitschi and all, 2017)

Thus, creating an atmosphere that encourages entrepreneurship depends heavily on the stability of a political system. The system's credibility may be damaged by political unpredictability

or frequent policy changes, which would make long-term company planning more challenging and discourage both domestic and foreign investment (Shaw, 2023). On the other hand, predictability and strategic planning—both necessary for the growth and expansion of a business—are made possible by a politically stable environment.

Political decisions and the general stability of the political regime are intimately associated with the economic availability of resources and access to financial markets. Particularly stock markets react quickly to political cues, which reflects the general level of economic confidence in the system (Mikulaschek, 2023). Therefore, political systems that uphold accountability, openness, and the rule of law are more likely to promote dynamic capital markets that support entrepreneurial growth. On the other hand, regimes characterized by corruption, unpredictability, or weak governance can stifle entrepreneurial ventures by creating financial and operational uncertainties.

The impact of the political, economic, and educational pillars on entrepreneurship highlights the complex and interconnected structure of the elements that form the ecosystem of entrepreneurship (Fischer et al, 2022). Political systems are essential for fostering an environment that is favorable to entrepreneurship because of its inputs and outputs. Political regimes create economic policies, which in turn impact resource availability and financial market stability. Meanwhile, education imparts the fundamental skills required for successful entrepreneurship. Societies may promote innovation, economic resilience, and sustainable development by fostering synergy among these pillars and attending to the particular demands of entrepreneurs.

Methodology and data

The study investigates the order of importance of the pillars that influence the entrepreneurial system.

The Analytic Hierarchy Process (AHP) method, developed by Thomas Saaty (1984), is a decision-making technique that facilitates the analysis and solution of complex problems by structuring them in a hierarchical form. It involves the evaluation of multiple criteria, allowing them to be compared on the basis of priority scales, leading to a better informed decision. AHP is particularly effective in situations where decisions involve both qualitative and quantitative factors, providing a systematic and rigorous approach. The process involves breaking down the problem into smaller, prioritized elements and then using pairwise evaluations to determine the relative importance of each factor.

In the context of entrepreneurship, the AHP method is a valuable tool for identifying and prioritizing the critical factors that influence the success or failure of a business. By applying this method, various perspectives, including those of experts from different fields, can be taken into account, leading to a multidimensional assessment of the entrepreneurial environment. For example, AHP can help entrepreneurs to prioritize issues such as access to finance, innovation or government policies, thus providing a clear picture of the most influential factors in business growth and development.

In our applied study on entrepreneurship in Romania, 6 key decision factors were analyzed:

1. Entrepreneurship. This factor represents people's level of initiative and willingness to start and develop businesses. It includes the ability to identify opportunities, courage to take risks and creativity in problem solving. It is an essential factor as it directly determines the predisposition of individuals to become entrepreneurs and their success in this field.
2. Sources of finance. Access to sources of finance is vital for any business in its infancy and growth stage. Assessing this factor involves access to various types of finance, such as bank loans, European funds, private investors or grants.

3. Entrepreneurship education. Entrepreneurial education and training provides the theoretical and practical basis for the development of essential entrepreneurial skills. It also includes training at pre-university, university and postgraduate level and is a key factor in building a strong entrepreneurial culture.

4. Innovation, digitalization and advanced technologies (Industry 4.0). In the era of digitalization, the level of adoption of new technologies and innovations plays a significant role in increasing competitiveness and business performance. This factor measures the extent to which entrepreneurs adopt modern technological solutions.

5. European Union. The European Union plays a major role in supporting entrepreneurship in Romania by facilitating access to European funds and implementing policies to support innovation. This factor also refers to the reduction of bureaucracy and other forms of political and financial support.

6. Romanian State/Local Authority. The support provided by the state and local authorities is essential for the development of entrepreneurship. This includes government policies, regulations, reduction of taxes and red tape, but also access to infrastructure and other facilities needed by entrepreneurs.

In order to ensure the objectivity of the assessments, five experts from key domains were consulted, each providing a valuable perspective on the importance of each factor. This process allowed a deep understanding of how these factors interact and influence the development of entrepreneurship in Romania, thus providing a solid basis for future strategic decisions.

The profile of the 5 experts selected for the assessment and prioritization of the factors relevant for entrepreneurship development reflects a diversity of perspectives from key areas of the sector. These experts come from different backgrounds with specific expertise that contributed to a comprehensive analysis:

- Expert 1: University academic with experience in entrepreneurship and coming from academia. This expert provides a valuable perspective on the role of entrepreneurship education (P3) and the training of future entrepreneurs.
- Expert 2: Banking executive, specialized in financial analysis, made a significant contribution through his perspective on the source of finance (P2), analyzing the accessibility of capital and financial market conditions.
- Expert 3: Senior Advisor in the Ministry of European Investment and Projects, expert in public administration and European funds. This expert assessed the impact of European funds (P5) on entrepreneurship, providing a clear picture of the opportunities offered by the European Union.
- Expert 4: HoReCa company director with practical experience in entrepreneurship, provided a detailed analysis of the innovation, digitalization and advanced technologies factor (P4) and the challenges faced by private sector entrepreneurs.
- Expert 5: Lawyer and legal liquidator with extensive legal and entrepreneurial experience. Assessed the importance of state regulation and local government involvement (P6), emphasizing the impact of legislation and administrative procedures on the business environment.

Evaluation methodology

The principal aim of this study is to examine the relationship between economic growth and entrepreneurial dynamism, with a particular emphasis on the impact of different economic conditions. Our specific goals are to pinpoint business possibilities, evaluate the abilities and inclinations of entrepreneurs, and comprehend the ways in which the state of the economy influences these factors in both direct and indirect ways.

The interaction between an individual's ability to act and their ability to see opportunities, as well as the unique contextual conditions that entrepreneurs face, gives rise to entrepreneurial activity. The dynamics of entrepreneurship are inextricably tied to the elements that facilitate or obstruct the establishment of new companies. The foundations of the entrepreneurial ecosystem—regulatory frameworks, resource accessibility, and support systems—are essential elements that have a direct impact on the availability of possibilities for entrepreneurship, the skills of entrepreneurs, and their preferences.

This analysis will contribute to a deeper knowledge of how to establish a more favorable environment for entrepreneurship in the nation by offering insightful information about the factors that either encourage or impede entrepreneurial development.

In order to obtain as objective an assessment as possible, each expert was asked to compare the factors in pairs, using the specific AHP scale, ranging from 1 (equal importance) to 9 (absolute importance). In this process, the experts gave relative scores to each factor, based on their professional knowledge and direct experience. This rating system allows the identification of the most relevant factors, facilitating their prioritization in a rigorous and systematic way.

After each expert performed pairwise comparisons, the scores were aggregated and processed using the AHP algorithm. This algorithm calculates the relative weights of each factor, resulting in a final ranking of the importance of each element analyzed. This hierarchical and comparative approach allowed for a detailed assessment of the critical factors in entrepreneurship development, providing a solid basis for policy recommendations in this area.

Application of the AHP method to prioritize factors

The application of the AHP method to prioritize the factors influencing entrepreneurship development followed a rigorous process, structuring the analysis in several essential steps:

1. Creation of a hierarchy: In the first step, a clear hierarchy was built, based on the overall objective - entrepreneurship development in Romania. The decision factors analyzed, P1 - Entrepreneurship, P2 - Sources of Financing, P3 - Entrepreneurship Education, P4 - Innovation, Digitalization and Advanced Technologies, P5 - European Union and P6 - Romanian State/Local Authority, were organized in a hierarchical structure, where the final objective is supported by these relevant factors. In essence, the hierarchy served to clarify the relationship between each factor and its contribution to the achievement of the main objective.
2. Comparison of pairs of factors: The second stage involved a pair-wise comparison of the decision factors. Experts were asked to rate the relative importance of each factor by comparing them in pairs using the AHP scale. For example, experts were asked how much more important they consider funding sources (P2) to be than entrepreneurship education (P3) or how much more impact innovation and advanced technology (P4) has (P4) compared to government regulations (P6). Each of these comparisons was recorded in a judgment matrix, which reflects experts' perceptions of the importance of each factor.
3. Calculation of relative weights: Once the pairwise comparisons were finalized, the data were processed to determine the relative weights of each factor. Using the judgment matrix and mathematical analysis techniques such as eigenvectors, weights indicating the relative importance of each factor in the context of entrepreneurship development were obtained. These weights were essential in determining which factors have the greatest influence on the overall objective. For example, if sources of finance (P2) received a relatively higher weight than innovation (P4), it means that access to finance is considered by the experts as a more critical factor for entrepreneurs.
4. Aggregation of expert opinions: In order to ensure that the results are representative and balanced, it was necessary to aggregate expert opinions. Instead of considering only individual evaluations, an aggregation method such as geometric averaging, which is often used in AHP to combine multiple judgments in a balanced way, was used. This aggregation method allowed for a

diversity of perspectives to be taken into account without one extreme opinion dominating the final results. Finally, the calculated weights were adjusted to reflect the consensus of the experts, providing a collective assessment of the prioritized factors.

Through the application of these steps, the AHP method provided a structured and rigorous approach to prioritize the critical factors influencing the development of entrepreneurship in Romania, allowing decision-makers to adopt informed strategies to support this sector.

Results and interpretation

In order to provide a complete and detailed picture of the analysis carried out, we have included in the study both the decision matrix and the criteria comparison matrix for each expert (Table 1). These matrices reflect the individual evaluations made by the experts in the process of comparing the factors using the AHP method. Each expert evaluated pairs of factors according to their own professional knowledge and perspective, and the results were integrated into an overall view. Thus, the aggregate analysis provides a clear prioritization of the factors according to their relative importance, highlighting which elements are perceived as the most critical for the development of entrepreneurship in Romania. This approach combines individual expertise into a collective score and presents a balanced assessment, reflecting the consensus of the 5 experts consulted.

Table 1: Consolidated matrix of decision factors of entrepreneurship entrepreneurship using the AHP method

	P1	P2	P3	P4	P5	P6	Normalized vector	Rang
P1	1	1	1/5	1/2	1	1/8/9	10.29%	4
P2	1	1	1/2	5/9	5/7	6/7	10.60%	3
P3	4/2/3	1/5/6	1	2/4/7	3/1/2	4/1/3	36.61%	1
P4	1/7/8	1/4/5	2/5	1	5	6	26.23%	2
P5	1	1/2/5	2/7	1/5	1	1/5/7	9.56%	5
P6	1/2	1/1/6	2/9	1/6	4/7	1	6.71%	6

Source: Author’s elaboration

The analysis of the consolidated matrix of entrepreneurship decision factors obtained by the AHP method provides a clear picture of the perceived priorities in this area. In the following, I will detail each criterion, the normalized vector and the associated rank, before proposing measures and novel elements based on these results.

1. Entrepreneurship :Although entrepreneurship is essential, with a relatively low weight, it indicates that individual initiative and creativity are perceived as less important compared to other criteria. This may reflect a perception that entrepreneurial success depends more on external factors and structural support than on individual vision.

2.Sources of funding:Accessibility to sources of finance is recognized as important, but not as critical as entrepreneurial education and innovation. This suggests that while capital is necessary, there is a greater need for training and innovation to effectively utilize these financial resources.

3. Entrepreneurship: Entrepreneurship education is considered the most important component in entrepreneurship development. This suggests a growing awareness of the need for thorough preparation to equip entrepreneurs with the knowledge and skills essential for success.

4. Innovation, digitalization, advanced technologies: Innovation and the use of modern technologies are recognized as vital for competitiveness. This emphasizes that entrepreneurs need to adapt quickly to technological change to stay relevant.

5. European Union: The role of the European Union in supporting entrepreneurship is perceived as important, but less so than the education and innovation aspects. This suggests that there is an opportunity to better leverage European funds and support.

6. Romanian State/Local Authority: Support from the state and local authorities is seen as of least importance. This may indicate a mistrust in the effectiveness of government policies or a perception that support is insufficient.

Proposals for results-based development

The analysis of the consolidated entrepreneurship decision-making matrix, obtained by the AHP method, provides a clear picture of the perceived priorities in this field:

1. Strengthen entrepreneurship education:

- Develop educational programs dedicated to entrepreneurship at all levels of education, including internships and mentorship to encourage young people to develop their business ideas.

2. Promote innovation and digitization:

- Create innovation hubs in collaboration with universities and research centers to support entrepreneurs in integrating advanced technologies into their businesses.

3. Improving access to finance:

- Making it easier for entrepreneurs to access sources of funding by creating online platforms connecting investors with startups and simplifying the application process for European funds.

4. More effective support from authorities:

- Review government policies to provide clearer and more effective support to entrepreneurs, including cutting red tape and creating tax incentives.

5. Working with the European Union:

- Identify and better promote the funding and support opportunities offered by the European Union, including organizing seminars and workshops to educate entrepreneurs on how to access these funds.

These measures, derived from the analysis of priorities, could contribute to the development of a more robust and efficient entrepreneurial ecosystem in Romania.

Conclusion

In conclusion, a comprehensive understanding of the variables influencing the growth of entrepreneurship in Romania is revealed by the study of the matrix data. With a noteworthy proportion of 36.61%, entrepreneurial education (P3) is regarded as the most crucial component, indicating a growing recognition among entrepreneurs of the need of excellent training. On the other hand, support from local and state officials (P6) is negligible, suggesting that people may not trust the efficacy of government initiatives. Competitiveness is also recognized to be reliant on innovation and digitalization (P4), highlighting the necessity of quick adaptation to new technology. In summary, this analysis indicates that in order to foster a strong entrepreneurial environment, it is critical to allocate resources towards education and innovation, as well as enhance accessibility to funding and institutional support.

Thus the characteristics of the North-East Region's entrepreneur point to a flexible individual who, despite an uncertain political and economic landscape, views opportunities primarily stemming from European Union support. Despite major challenges from bureaucracy and high taxes, entrepreneurs remain optimistic about economic reforms and the next generation of workers. Although they look for creative funding options and take significant risks when managing their firms, financial fragility still causes a lot of worry. Inadequate entrepreneurial education combined with political and economic upheavals creates a potentially explosive atmosphere for those who can successfully negotiate regional obstacles.

Ultimately, in order for legislators to comprehend the real-world challenges encountered by business owners, they must improve communication with the entrepreneurial sector. The Romanian State and municipal authorities may foster an atmosphere that is more favorable to entrepreneurship by making sure that government policies are not only well-intentioned but are implemented properly, especially with regard to financial aid and bureaucratic procedures. This strategic approach will not only stimulate economic growth but also foster a more resilient and dynamic entrepreneurial ecosystem across Romania.

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