

The role of innovation in the development of startups

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دور الابتكار في تطوير المؤسسات الريادية

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Received: 11/09/2025

Accepted: 30/10/2025

Published: 31/12/2025

Summary:

This study aimed to highlight the role of innovation in the development of startups in light of the competition these institutions are currently facing, by addressing the theoretical foundations of both innovation and entrepreneurial institutions. In addition, we highlighted the role that innovation plays in the development of startups. To complete this study, we relied on the descriptive analytical approach, as it is appropriate for this type of study. The study reached a number of conclusions, including the pivotal role that innovation plays in supporting and developing startups, in addition to the fact that innovation is not only related to technology but also extends to include the economy, management methods, employee relations, and other areas. As for startups, they are considered the ideal incubator for innovation.

Keywords: Innovation; Startups.

Jel Classification Codes: O31; O32; O33; L26

ملخص:

هدفت هذه الدراسة إلى تسليط الضوء على الدور الذي يلعبه الابتكار في تطوير المؤسسات الريادية في ظل المنافسة التي نشهدها هذه المؤسسات في الوقت الراهن، وذلك من خلال التطرق إلى التأسيس النظري لكل من الابتكار والمؤسسات الريادية، إضافة إلى إبراز الدور الذي يلعبه الابتكار في تطوير المؤسسات الريادية ولإتمام هذه الدراسة اعتمدنا على المنهج الوصفي التحليلي لأنه المناسب لهذا النوع من الدراسات. توصلت الدراسة إلى مجموعة من بينها الدور المحوري الذي يلعبه الابتكار في دعم وتطوير المؤسسات الريادية، إضافة إلى عدم ارتباط الابتكار بالتكنولوجيا فقط بل توسع ليشمل الاقتصاد، طرق التسيير، العلاقات بين الموظفين إلى غير ذلك من المجالات، أما بالنسبة للمؤسسات الريادية فتعتبر البيئة الحاضنة المثالية للابتكار.

الكلمات المفتاحية: الابتكار؛ المؤسسات الريادية.

تصنيف JEL: O33؛ O32؛ O31؛ L26

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I- Introduction:

Today's leading organizations face increasing challenges in a rapidly changing and highly competitive business environment, making their ability to survive and grow dependent on their capacity for innovation. Innovation is not limited to developing new products or services, but also includes finding creative solutions for production mechanisms, marketing patterns, and organizational and management methods. By investing in innovative ideas, entrepreneurial institutions can enhance their competitiveness, attract investment, and open up new markets. Innovation is also seen as a key driver of economic growth, as it contributes to increasing the efficiency of these institutions and enabling them to adapt to technological and economic changes. Hence, it is important to study the role of innovation in the development of startups, given its direct implications for their continuity, expansion, and contribution to sustainable development

From the above, we can pose the following main question:

- What role does innovation play in the development of startups?

Sub-questions:

Based on the main question, the following sub-questions were formulated:

- What is innovation?
- What are startups?
- What is the relationship between innovation in its various dimensions and startups?

Main hypothesis:

To answer the main question, the following hypothesis was formulated

: Innovation plays a pivotal role in the development of startups.

Significance of the study:

The importance of this study is highlighted by its focus on innovation as a fundamental and effective element in the establishment and development of startups. With growing competition and an increasing need for new solutions in local and global markets, innovation has become an urgent necessity to enhance the sustainability of these startups and increase their ability to face challenges. The study is also significant in that it contributes to the scientific literature on innovation and entrepreneurial institutions and provides practical indicators that decision-makers and entrepreneurs can use to guide growth strategies, thereby achieving added economic and social value.

Study objectives:

This study aims to:

- Analyze the role that innovation plays in improving the performance of startups and enhancing their competitiveness;
- Highlight the relationship between the adoption of innovative strategies and the long-term sustainability of startups;
- Identify the most important areas in which innovation can contribute to the development of entrepreneurial business models;

-Provide practical recommendations to support startups through policies and programs that encourage creativity and innovation.

Study methodology

This study adopted a descriptive analytical approach as the most appropriate for addressing the topic of innovation and its role in the development of startups. This approach is based on collecting and analyzing relevant data and information from various sources, such as previous studies, official reports, and peer-reviewed scientific articles, with the aim of forming a comprehensive picture of the dimensions of innovation and its impact on the growth and sustainability of startups.

Previous studies

-Study by Sharak Muhammad Hussein and Qurtas Fatiha (Innovation, Digital Technology, and Their Importance in Startups, 2024) This study aimed to present the concepts of digital technology, innovation, and startups and highlight the importance of digital technology in startups by addressing artificial intelligence and cloud computing. The study reached a number of conclusions, the most important of which are:

-The importance of digital technology for startups is highlighted through the use of artificial intelligence and cloud computing in:

-Achieving the success of startups;

-Achieving profitability;

-Ensuring competitiveness in the business environment.

-Study by Jalab Ibrahim and Habal Abdelmalik (The Role of Innovation in the Success of Start-ups: A Case Study of POUEL NET and ISPAQ INDUSTRY, 2025): Through this study, the researchers aimed to highlight the role of innovation in enhancing the competitiveness of startups in a complex and uncertain business environment. To complete the study, two entrepreneurial institutions were taken as a sample. where interviews were used as a data collection tool. The researchers relied on a descriptive analytical approach to analyze the results of direct interviews with the managers of the two institutions under study. The study reached a set of conclusions, the most important of which are:

- Innovation plays a major role in the success of pioneering institutions by introducing new products and increasing their profits, ensuring their continuity.

1--Theoretical foundations of innovation:

1-1-The concept of innovation

Researchers disagree on a unified concept of innovation, due to the different theories explaining this phenomenon with its multiple meanings and dimensions. Below, we will attempt to address some of the definitions:

-Economist Schumpeter is considered the first to use the term innovation in its modern sense, defining it as “the first commercial use of a product or process that has not been used before.” ."
(Arnaud, 2009, p. 13)

- Michael Porter defined it as follows: “An organization with competitive advantages based on innovation is one that incorporates innovation in its broadest sense into its units, activities, and strategies by introducing new technology and carrying out innovative processes at the same time.” (Joe, Bessant, & Pavitt, 2006, p. 66)

Innovation is also defined as “the creation of ideas, whether economic, technical, social, or administrative, for the purpose of developing existing products and transforming ideas into viable projects.” (Qandil, 2010, p. 124)

From the above, we can say that innovation is a structured creative process based on transforming new ideas or reformulating existing ideas into products, services, or work methods that add value to the organization and society. Innovation is not limited to the technological aspect, but also includes finding practical solutions to challenges, developing more efficient production or marketing methods, or creating business models capable of responding to rapid changes in the market.

1-2-Characteristics of innovation

Innovation is characterized by a set of features, including: (Al-Sikarna, 2011, pp. 20-21)

A. Innovation means differentiation: it means coming up with something different from what direct competitors and others offer, creating a market segment by responding uniquely to its needs through innovation.

B. Innovation represents something new: it means coming up with something completely or partially new in contrast to the existing situation. It also represents a source of renewal in order to maintain and develop the market share of the institution.

C. Innovation means a new combination: It is putting known and old things together in a new combination in the same field (combining things), or transferring them to another field where they have not been used before.

D. Innovation means being the first mover in the market: In this case, the innovator is distinguished by being the first to come up with the idea or product before others in the market. Even in the case of improvement, the owner of the improvement is the first to make changes to the product. This is a characteristic of being ahead in innovation, i.e., being the fastest in coming up with something new, unlike other competitors.

e. Innovation is the ability to discover opportunities: This represents a pattern of innovation based on a new reading of needs and expectations and a creative vision to discover the capabilities of the new product in creating effective demand and discovering a new market that does not yet exist, with no indication of its size or characteristics. That is why innovative institutions see opportunities that their competitors do not.

1-3-The importance of innovation:

Its importance is highlighted by the following points: (Al-Qadir, 2021, pp. 280-281)

- Creating new opportunities;
- Creating markets through innovative products;
- Increasing productivity;
- Contributing to the improvement and development of national products;
- Reducing costs and expenses by achieving better quality;
- Innovation is considered a necessity for survival in competitive markets.

The importance of innovation is also highlighted by:: (Mubarki & Qureshi, 2016, p. 410)

- Developing and focusing personal skills in thinking and group interaction through brainstorming teams;
- Improving the quality of decisions made to address problems at the institutional or management level and in various technical, financial, and marketing areas;
- Improving product quality;
- Helping to reduce the time between the introduction of one new product and another, which contributes to the institution's competitiveness in terms of time;
- Helping to find ways to activate and increase sales;
- Helping to enhance the competitiveness of the institution.

1-4-Levels of innovation

We can distinguish between three levels of innovation (Bournan & Miraj, 2017, p. 285):

A-At the product level:

At this level of innovation, new products are developed and brought to market after securing legal protection. These innovations often come in response to changes in the market and demand, whether as a result of the obsolescence of existing products, changes in consumer tastes and preferences, or increased competition.

B. At the operational level:

Innovation at the operational level involves the creation and development of new technologies and methods that contribute to the development of equipment and machinery used in production, as well

as modernizing transportation and storage methods, with the aim of enhancing efficiency, reducing costs, and increasing production capacity. This innovation is considered a strategic tool for improving production systems through the adoption of more advanced technology.

C. At the organizational level:

Innovation at this level refers to an organization's ability to restructure its administrative and organizational structure in a way that gives it greater flexibility to adapt to changes in its environment. This type of innovation includes developing administrative and behavioral performance, introducing modern management methods, training, and motivation to improve performance and find innovative and effective solutions to organizational problems.

2--Theoretical principles of startups

2-1-The concept of startups

It should be noted that the word “start-up” consists of two parts: “start,” which means to begin, and “up,” which implies strong growth. Returning to the historical roots of startups, we find that these enterprises first appeared in the United States in the middle of the last century, immediately after the end of World War II, in parallel with the emergence of venture capital financing, after which the term became widely used.

Economists have given a number of definitions for startups, including:

-Eric RIES believes that a start-up is “a human entity designed to create a new product or service in a situation of extreme uncertainty in the surrounding business environment (Ries, 2011, p. 37)”

-The French Ministry of Economy has defined start-ups as the “young shoots” of the new economy, i.e., enterprises that bet on innovation and its reception by the potential market, where they begin their work on the principle of adventure, which is fraught with risk. (Merty.O, 2002, p. 4)

--They are also defined as: "enterprises that seek to market and launch a new product or innovative service targeting a large market, regardless of their size, sector, or field of activity, and are characterized by high uncertainty and risk in exchange for strong and rapid growth with the possibility of huge profits if they succeed. Therefore startups are institutions that bet on the value of innovation." (Marty, 2015, pp. 4-15)

From the above definitions, we can say that startups are newly established institutions built on innovative ideas, working towards growth and development, seeking to achieve huge profits in a short time, characterized by high risk, and not relying on traditional methods of financing.

2-2-Characteristics of startups

Entrepreneurial institutions are characterized by a set of features, including the following (Ramadan & Morad, 2024, pp. 136-137)

A. Newly established institutions: These are in the experimental (initial) market, and it is well known that such institutions begin with the mindset of the project owner, meaning from the initial idea that leads to the launch of the business (before it is legally registered).

B. Creativity and innovation: This type of enterprise is characterized by creativity, innovation, and continuous development, which leads to the creation of a new product or the updating and modification of an old product with new innovations, whether in terms of service or method.

C. Ability to develop and grow: The most important feature shared by startups is their ability to develop and grow to conquer markets and achieve high and rapid revenues compared to the costs of establishment and operation, which encourages investors to finance them, as they are rapidly developing establishments with the ability to generate large profits.

D. Risk in conditions of extreme uncertainty: Since the market lacks innovation, and what little innovation there is does not encourage or saturate the market, it is difficult to conduct market research due to the lack of information and data. We find that the start up itself operates in an atmosphere of uncertainty.

E. Search for an innovative business model: In order to penetrate the market, we must come up with a new idea or create a new market that meets needs that did not exist before. The business model is unique in that it has never existed before, and it is replicable in order to achieve continuous profit flows and scalability, which ensures its expansion and growth.

Freedom of choice: These institutions have complete freedom to choose between growth and maturity or failure and bankruptcy.

Growth and development: Like other institutions, these institutions have the ability to increase their capital, which helps them grow and develop rapidly. To achieve this, this type of institution always needs to innovate new products targeting the market, to test its growth and development by opening up the possibility of purchasing and manufacturing the minimum amount of product that can be offered in the market to attract the largest number of potential customers and follow up with new customers and clients who aspire to obtain the product. Their need to launch additional products is proof of their success in achieving the required growth rates. The growth of an institution goes through three stages:

-Slow growth (nonexistent): This is the first stage of growth, in which entrepreneurial projects try to figure out what they will do and what they are striving for.

-Rapid growth: This occurs when entrepreneurial projects discover how to create the product that many customers dream of and how to obtain it.

-Slow growth: This relates to internal limitations, as projects begin to rise and grow within the boundaries of the markets they serve, due to their transformation from entrepreneurial projects to large institutions.

2-3-The importance of startups

Startups are considered one of the most important drivers of economic growth within any economic system. This is evident in the following (Barkati, 2022/2023, pp. 27-28):

- Startups are among the pillars of sustainable economic development.
- They are a modern means of achieving economic diversification, given their ability to stimulate other economic sectors.
- startups have the ability to free the economic system from dependence on a single source of income. For this reason, we have recently seen that most third world countries, which are characterized by dependence on a single source of income, have turned to this value-creating sector, as it helps to eliminate or reduce imports and increase exports.
- startups play a major role in creating jobs for young people. and this role can be viewed from two perspectives. First, young people, especially university graduates, are turning to start-ups instead of looking for jobs with others, especially in the public sector, which leads to an increase in job seekers compared to jobs in the public sector, which are relatively stable. Second, once these young people have created their own businesses, over time and as their projects expand, they will work to provide permanent jobs for various segments of society. Here, the extent to which this sector can absorb unemployment, which, according to the literature and hypotheses, is considered one of the most significant obstacles to development in third world countries, becomes clear.
- startups have the ability to increase the efficiency of creators and innovators, as they can push individuals to develop technological innovations that benefit society as a whole. Here, too, the importance of startups in retaining highly skilled human resources becomes apparent, thereby preventing brain drain and harnessing their intellectual capabilities to find solutions to problems faced by various individuals and segments of society, especially in developing countries, which often suffer from technological dependency.

startups also play a major role in bringing about digital transformation, or what is known as the digital economy.

2-4-The life cycle of entrepreneurial institutions

startups often stumble and experience severe fluctuations before finding their way to the top. This can be explained by the following (Aisha & Zarwat, 2020, pp. 329-330)

Figure 01



From the figure above, we can say that startups go through five stages:

Stage 1: This phase begins before the launch of the entrepreneurial venture, during which a preliminary model of a new idea is presented and studied, along with the market and the behavior, tastes, and preferences of the target consumer.

Stage 2: This is the launch stage, where the first generation of the product or service is released. Here, the entrepreneur looks for financial backers and resorts to what is known as FFF, or fools, family, and friends, because the degree of risk is high. At this stage, the product needs to be promoted, the price is high, and the media begins to advertise the product.

Stage 3: Early takeoff and growth stage: The product reaches its peak and there is high enthusiasm, then the supply spreads and the product reaches its peak. At this stage, the activity can expand beyond its early innovators, and negative pressure begins as the number of suppliers of the product increases and failure begins, or other obstacles appear that can push the curve towards decline.

Stage 4: This is called the trough of disillusionment. Here, despite continued funding, the project declines and exits the market.

Stage 5: The climb stage, where the entrepreneur continues to make adjustments to their product and release improved versions, leading to the rise of startups. The second generation of the product is launched, its price is adjusted, and it is marketed on a wider scale.

Stage 6: High growth stage: The product is finally developed, exits the trial stage, is launched in the appropriate market, and the company begins to grow steadily, with the curve rising and huge profits being made.

3-The role of innovation in the development of startups

3-1-Stages of innovation in startups

Although there are many specific models for the stages of innovation in startups, we will suffice with Zaltman's model, which divides them into five stages (Abdi, 2016, p. 89)

- A. The first stage:** Focusing on the existence of innovations and opportunities to use them.
- B. The second stage:** Forming and revealing employees' attitudes toward innovation.
- C. The third stage:** Evaluating the innovation and deciding whether to continue or abandon the idea completely.
- D. The fourth stage:** Taking the initiative to implement and attempt to use the innovation.
- E. The fifth stage:** Continuing and pursuing implementation.

3-2- Product innovation strategies in startups

Product innovation strategies vary depending on the capabilities and operating conditions of startups. Among these strategies are the following (Ibrahim & Habal, 2025, p. 199)

1-Improvement and excellence-oriented innovation: This strategy is adopted by mature organizations that have significant capabilities to modify their current products, adapting them to serve a specific market segment.

2-Efficient production: This strategy is adopted by organizations that control costs, such as leading organizations, and have manufacturing efficiency.

3-Radical innovation: By adopting this strategy, the organization aims to be a pioneer in its field by providing new products that have never been offered before.

4- Improvement innovation: Through this strategy, the institution aims to offer improved products to avoid risk and use it as an alternative to the radical innovation strategy when radical innovation is unprofitable.

3-3-The role of innovation in the development of leading institutions

Innovation is one of the fundamental pillars of startups in the modern era, as the success of these institutions is no longer linked solely to their ability to provide traditional products or services, but has become dependent on their ability to develop new solutions in line with rapid economic and technological changes. Hence, the role of innovation in the development of startups is highlighted through the following points:

A. Facing the challenges of global competition: Innovation opens up vast spaces where there is no resistance to pioneering institutions. Nonaka and Kenney have determined that success in facing the challenges of global competition comes through management's interactive approach to effective innovation, processing new and emerging information, and presenting it in the form of products that satisfy the needs of society.

B. Creating opportunities and markets: Innovative institutions work to create opportunities and markets rather than seek them out. This is essential for them to break out of the competition trap and create an uncontested market space (others, 2007, p. 47).

Thus, they avoid the high costs of searching for markets because they are able to create a new market for themselves in which they are free to move and operate, and which will be unknown territory for their competitors, making it more difficult for them to imitate or obtain the basic elements for success (Taleb & Makki Mahmoud Al-Banna, 2012, p. 212)

C. Achieving competitive advantage: Porter believes that startups achieve competitive advantage through innovation. Furthermore, Chermernhorn emphasizes in his book Events that innovation = competitive advantage (Bouba, 2012, p. 28). The most innovative

startups are the most capable of facing the intense competition that prevails in our time.

D. Keeping up with changing customer tastes and requirements: One of the reasons that drives leading organizations to innovate is to keep up with changes in customer tastes and requirements and to seek solutions to their problems. This solution may satisfy a need that the customer was not aware of, i.e., a latent or hidden need, or it may satisfy a need that is already being met by some existing products but to an insufficient degree, in which case startups offer a product that satisfies these needs in a better way.

Conclusion

This study highlights the pivotal role that innovation plays in the development of pioneering institutions, as innovation is no longer a secondary option but has become a fundamental pillar for ensuring the continuity of these institutions and their ability to face fierce competition and rapid changes in the business environment. Innovation, in its various organizational, technical, and marketing forms, is a key tool for driving growth and achieving sustainable competitive advantage. Experience has also shown that the most innovative startups are the most capable of expanding, attracting investment, and adapting their strategies to economic and technological shifts.

Results

At the conclusion of this study, we arrived at a set of findings, including:

-Innovation contributes to enhancing the resilience of startups in the face of challenges and market fluctuations.

-Adopting innovative practices contributes to raising the level of production efficiency and improving the quality of products and services.

-Entrepreneurial institutions that invest in research and development achieve higher levels of growth and sustainability.

- The existence of an organizational culture that encourages creativity within the institution is a key factor for the continuity of innovation.
- Innovation enhances the ability of startups to penetrate new markets and achieve geographical expansion.

Recommendations

The most important recommendations include the following:

- The need to integrate innovation into the core of institutional strategies, rather than considering it a mere side activity;
- Encouraging startups to invest in research and development, while diversifying sources of funding that support innovation;
- Providing a flexible and stimulating work environment for creativity, based on trust and the exchange of ideas among team members;
- Enhancing cooperation between startups, universities, and scientific research centers to develop practical and effective solutions;
- Developing supportive government policies that encourage startups to adopt innovation through tax incentives and financing programs.

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How to cite this article by the APA method:

Ghezal Nabila, Harnane Nedjoua, (2025). The role of innovation in the development of startups, Roa Iktissadia Review, Algeria: University of El-Oued.15 (02), 73-85.

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