

УДК 330.322

DOI: <https://doi.org/10.32782/2224-6282/190-39>

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CONTEMPORARY TENDENCIES OF THE START-UP ECOSYSTEM DEVELOPMENT

This article looks at some of the unique characteristics of start-ups and how important they are to the economy as a whole. We also look into whether the pandemic's aftermath bucked these trends and look into the causes of the long-term decline in global entrepreneurship. The ecosystem that surrounds IT companies is still in its infancy. The key strengths of the ecosystem are its founders' high levels of education, talent pooling, and links to worldwide knowledge networks, all of which are largely due to foreign institutions and accelerator programs. However, most entrepreneurs have never held a management position before, and their lack of experience and youth sometimes restrict their ability to make sound business decisions. This research seeks to better knowledge of the present situation of the start-up ecosystem and provide recommendations for policy makers and other stakeholders who are interested in supporting the ecosystem's development and sustainability.

Keywords: entrepreneurship, technical and technological development, innovative development, innovative economy, start-up ecosystem, technology clusters, technology start-ups.

JEL classification: C12, C14, O31

СУЧАСНІ ТЕНДЕНЦІЇ РОЗВИТКУ СТАРТАП-ЕКОСИСТЕМИ

У цій статті ми розглядаємо деякі унікальні характеристики стартапів і те, наскільки вони важливі для економіки в цілому. Ми також з'ясуємо, чи вплинули наслідки пандемії на ці тенденції, і розглядаємо причини довгострокового занепаду глобального підприємництва. Екосистема, яка оточує IT-компанії, все ще перебуває на стадії становлення. Ключовими сильними сторонами екосистеми є високий рівень освіти її засновників, об'єднання талантів та зв'язки зі світовими мережами знань, і все це значною мірою завдяки іноземним інституціям та акселераційним програмам. Однак більшість підприємців ніколи раніше не займали управлінських посад, а брак досвіду та молодість іноді обмежують їхню здатність приймати обгрунтовані бізнес-рішення. Це дослідження має на меті краще зрозуміти поточну ситуацію в екосистемі стартапів та надати рекомендації для політиків та інших зацікавлених сторін, які зацікавлені у підтримці розвитку та сталості екосистеми. Необхідно зазначити, що майже завжди підприємцям-початківцям необхідно інвестувати значну кількість часу у вивчення нюансів глобального бізнес-партнерства та динаміки ринку. Для того, щоб краще підготувати співробітників стартапів до труднощів виведення ідей на ринок, можна створити спеціальну дво- або трирічну навчальну програму, яка відповідатиме потребам засновників бізнесу. Ця програма повинна дозволити студентам проводити значну кількість часу на роботі в стартапі, оскільки вони будуть краще підготовлені до входження в професію. Також необхідно зауважити, що сприяння розвитку стартапів у країнах, що розвиваються, не повинно зосереджуватися на спробах підвищити підприємницьку активність загалом. Оскільки ці країни вже мають високу схильність до створення нових підприємств, додаткові політичні стимули можуть не мати значного впливу. На наш погляд, стартап екосистема та її підтримуючі структури повинні постійно розвиватися. Через те, що багато бізнесів, які фінансуються за рахунок зовнішніх програм, не є якісними, програми акселерації не створюють достатньої кількості стартапів. Це свідчить про те, що якість цих програм має бути покращена. Більше того, навіть за наявності значних грантових коштів, акселератори ще не створили для бізнесу надійного шляху до отримання відчутних результатів. Через ранню фазу розвитку підприємницької спільноти однодумцям важко створювати кластери та спілкуватися між собою, що призводить до того, що підприємства з різних мереж працюють ізольовано. Як наслідок, ініціативи, спрямовані на збільшення потенціалу та професіоналізацію акселераторів, мають стати пріоритетними для посилення інноваційного розвитку.

Ключові слова: підприємництво, техніко-технологічний розвиток, інноваційний розвиток, інноваційна економіка, стартап-екосистема, технологічні кластери, технологічні стартапи.

Statement of the problem. Despite making up a very small portion of all businesses, start-ups exhibit a high degree of variety. A small number of entrepreneurs are lucky enough to profit from their inventions, and their success influences overall outcomes like economic growth, productivity, and employment. Most start-ups, on the other hand, fail in the process, and few survive for longer than five years [5]. For instance, over the previous forty years, the number of start-ups in the US economy has decreased. Specifically, there has been a significant decrease in the start-up rate. It should be noted however that the number of Employer Identification Number

applications increased throughout the pandemic, in spite of the financial unrest brought on by the COVID-19 crisis [16]. This has been followed by a significant number of firm openings and employment growth, signaling a distinct divergence from the long-term downward trend in business activity. However, a number of significant queries come up. This may be an indication of a spurt in invention that will fuel economic expansion. Or alternatively this may be just a short-term measure, a simple reorganization of the economy to make room for the new remote work culture [11]. To address these issues, researchers are anxiously awaiting more data in the future.

Analysis of recent research and publications. Early research on the phenomena of new venture development reported on the fundamental premise that entrepreneurs and their new ventures were interchangeable. The research aimed to demonstrate the ways in which entrepreneurs or their firms were different from those without entrepreneurs or without entrepreneurial firms. In this sense, a one-dimensional analysis of the phenomenon was done inadequately. For instance [7] revealed that there were far more distinctions between entrepreneurs and their businesses than one may anticipate.

The majority of research on the formation of new ventures has omitted to discuss or even mention specific organizational traits [8]. Manufacturing enterprises have been the subject of some research on company types; the majority of these studies have been on high technology companies [6]. Unfortunately, these studies don't make a comparison between the firm under study and other types, which would have allowed researchers to assess the firm's influence on the start-up process.

The focus of entrepreneurial scientific literature has started to expand beyond the actions of the entrepreneur. In particular, the actions made during the start-up phase or even earlier in the process are increasingly thought to have a significant impact on the final success of new businesses [4]. This line of reasoning proposed that some preliminary information, such as how detailed the early planning was, why the firm started, whether or not it was a single effort, and what the financial structure of the organization was, may be crucial to understanding venture success.

Productivity and economic growth are mostly driven by technology [3]. Historically, developing nations have faced challenges in both producing and assimilating foreign technology [2]. It is believed that the delayed adoption of innovations by developing nations accounts for seventy to eighty percent of the productivity gap between them and rich countries.

Since the beginning of economic history, the role of the entrepreneur in economic development has served as a major source of inspiration and inquiry for scientists. Important characteristics of entrepreneurship were a company's level of risk-taking, inventive spirit, and long-term commercial activity spinoffs. In this sense, entrepreneurship is a complex phenomenon that may be examined from various perspectives. One may contend that the literature primarily addresses the following four primary concerns related to entrepreneurship: the entrepreneur's place in the local and global markets as perceived by the entrepreneur, the determination of the entrepreneur's economic tasks, the entrepreneur's financial compensation for taking risks based on his or her economic motives, and the entrepreneur's perspective on the dynamics of the markets [1]. It should be also noted that the emergence, expansion, downsizing, and eventual demise of businesses has emerged as a significant area of study [12].

Contemporary tendencies of the start-up ecosystem development have been researched by the likes of J. Tan [11], C. Syverson [15], V. Mulas [5], V. Sterk [16], and D. Comin [1]. It has to be noted though that insufficient attention has been dedicated to an environment that is conducive to entrepreneurship and encouraging young people to launch their own ventures. Therefore decision-makers require more studies that can shed light on the

ways to create an environment that is business-friendly and fosters the start-up economy.

Objectives of the article. This article examines some of the distinctive traits of start-ups and their significance to the overall economy. We also examine whether the aftermath of the pandemics defied these tendencies and investigate the reasons underlying the long-term fall in global entrepreneurship. In order to help policy makers and other stakeholders who are interested in promoting the expansion and sustainability of the ecosystem, this research aims to improve understanding of the start-up ecosystem's current state and offer policy suggestions.

Summary of the main results of the study. The act of putting together continuous actions into logical sequences to create new organizations is known as new venture creation [13]. Therefore a new joint venture often meets the following requirements: its founders must gain expertise in products, processes, markets, and/or technology; results are expected to last beyond the year of investment; competitors view it as a new entrant into the market; and potential customers view it as a new source of supply [14]. This description was appropriate since it recognized the multifaceted nature of starting a new business and emphasized the importance of having knowledgeable people as a core component. It further emphasized that the new enterprise is not created instantly and acknowledged the new venture as an organizational entity [9].

Tech start-ups are a useful tool for both importing and developing domestic technology. Globally, the number of tech start-ups has increased recently. Global technology-driven cost reductions and easier access to resources are driving the rise of digital entrepreneurs in both developed and developing nations. Early-stage investors find these tech-enabled enterprises appealing since they can test, develop, and validate a business considerably more quickly and affordably than they can with traditional endeavors [17]. However, a deeper understanding of how these tech entrepreneurs form ecosystems, what their internal dynamics are, how they function, what drives their growth and sustainability, how they interact with the local economy to create jobs and productivity, and why some ecosystems are more successful than others is required [15]. A typical ecosystem of an innovation hub which is comprised of various elements of the start-up ecosystem is depicted on Figure 1.

There are no defined hierarchies or career pathways with start-ups. Additionally, there are a lot of personal and professional benefits associated with working for these companies. Start-ups are like massive experiments. Every project is unique which implies that roles and duties are frequently ambiguous. Without a playbook, the team works as a unit, coming up with ideas and building projects. Anyone working for a start-up needs to be able to handle a lot of uncertainty because of the organizational dynamism that persists even in the latter stages. It's also expedient to deliberate about the competencies that start-up founders should give priority to. Harvard Business School alums who launched businesses, mostly digital start-ups supported by venture capital, were polled by the researchers. According to this research, prospective founders should strive to become all-round managers with a focus on managing a team as well as recognizing to client demands. Specialized skills like engineering and finance have been ranked as lesser priority [10].

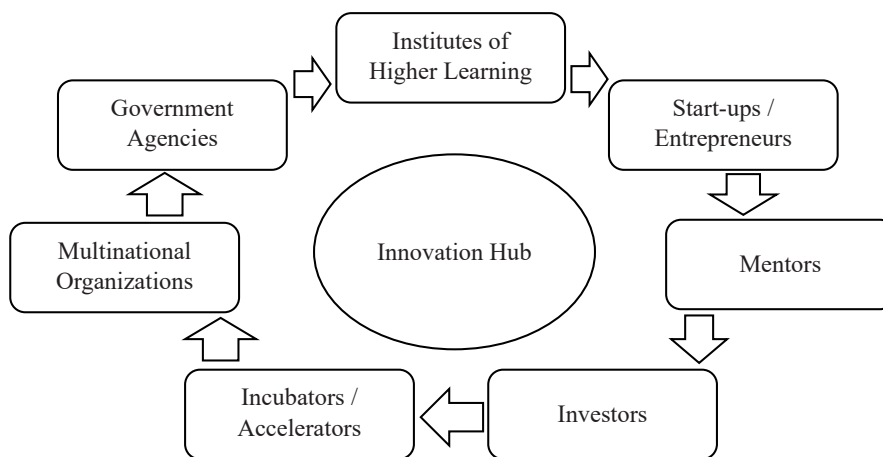


Figure 1. Ecosystem of an innovation hub

Source: PwC

Establishing new businesses demands imaginative management with room for expansion. Managers of start-ups must be able to bring their team together. The founders of start-ups should possess the following specialized skills: engineering, finance, marketing, sales, management, and leadership. At the same time there are significant challenges faced by the start-up founders as depicted on Figure 2.

It should be noted that entrepreneurs often have trouble landing deals and forming alliances with bigger businesses and government organizations. With the social limitations in place during the epidemic, this has proven especially difficult. Many entrepreneurs and venture investors have verified that access and connections play a major role in the startup industry [11]. In order to promote cooperation, there is a broad consensus that networking tools might be further padded and more support levers may be made available.

A domestic start-up’s capacity to enter a foreign market is frequently based more on its ability to get over

cultural obstacles than on its technology or financial resources. There are several obstacles to overcome when expanding internationally, such as unfamiliar tax laws, new regulations, distinct social and corporate dynamics, and of course language barriers [4]. While some workers might educate themselves before leaving, reality frequently deviates significantly from textbook assumptions. Start-up owners almost always have to spend a lot of time delving into the subtleties of international business relationships and market dynamics.

In order to better prepare start-up workers for the challenges of bringing ideas to market, a customized two- to three-year curriculum that caters to the demands of company founders may be developed. Students should be able to spend a significant amount of time in a start-up workplace as part of this curriculum, in addition to reflection and discussion in the classroom. Additionally, the students will be more prepared to join the workforce and will probably be more enthusiastic and productive

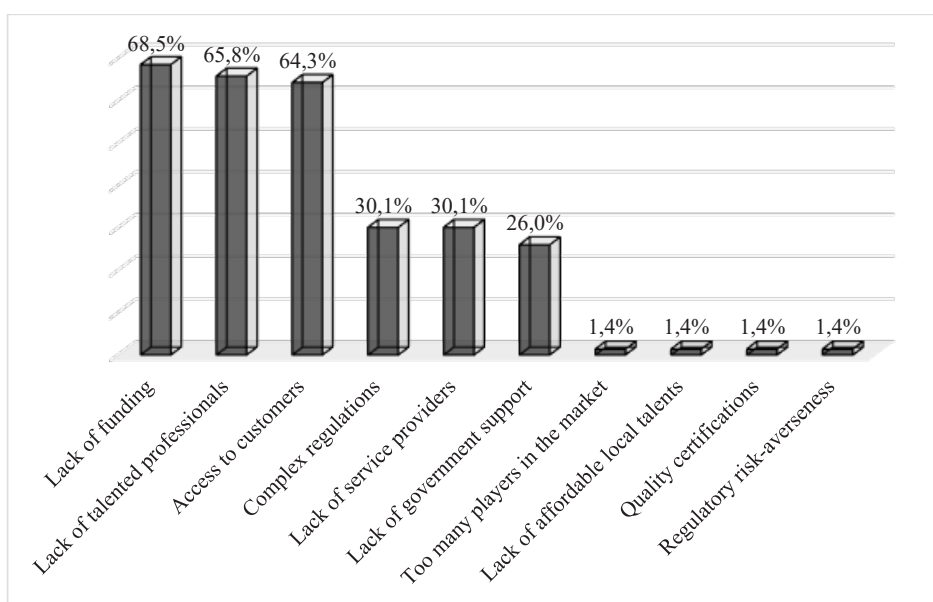


Figure 2. The challenges faced by the start-up owners

Source: PwC

when they start working. Consequently, it is anticipated that these staff members will remain with the organization for an extended amount of time. This will help companies find workers who can fully commit to the goals of the firm and stick with it for at least two or three years [11]. Such a program would allow students to enter their organization at a higher level and eliminate the need for many expensive hours of training. The government may also ask entrepreneurs of new businesses to create initiatives for middle-aged people who want to change careers or enter new fields. The entrepreneurs of the start-ups may be eager to contribute to program choices since they are acutely aware of the skills gaps that currently exist, such as intangible asset management [5]. Access to additional mid-career professionals would be beneficial for these digital firms, especially for those with expertise in software engineering, data science, product specialization, and intangible asset management.

Conceptually speaking, start-up promotion in developing nations shouldn't focus on attempting to boost entrepreneurial activity generally because these nations already have a high propensity to engage in new business ventures and additional policy incentives may not have much of an impact [16]. Instead, new companies that contribute to fundamental change and create opportunities for development should be the emphasis of start-up promotion. In order to do this, it is helpful to connect policies that support innovation with start-up promotion. With this tactical approach, the majority of developed-country policies might be implemented fairly directly in developing-country settings, provided that some general requirements are satisfied to guarantee the policies' correct execution. Policies aimed at reducing the number of necessity-driven new firms should be subordinated in low-income nations in favor of programs that teach and fund a

small number of more creative, opportunity-driven start-ups. Prominent policy measures might encompass activities that foster innovation and the production of fresh corporate concepts. Policies that foster innovation and technology should be closely tied to, or perhaps integrated with, start-up promotion in middle-income nations. Universities and governmental research institutes' start-ups could be a top priority target market.

Conclusions. The ecosystem around IT startups is still in its early stages of development. The ecosystem's main assets are its highly educated founders, their abundance of talent, and their connections to global knowledge networks, which are mostly made possible by international universities and accelerator programs. Nevertheless, the majority of entrepreneurs lack prior managerial expertise, and they frequently have little experience and are young, which limits their commercial acumen. Therefore the community and its supporting structures should be continually developing. Because many of the businesses funded by external financing programs are not of high quality, accelerator programs do not produce a sufficient number of start-ups. This suggests that the quality of these programs has to be improved. Moreover, even if there are significant grant funds available, the accelerators have not yet created a reliable pathway for businesses to produce tangible outcomes. Although mentors are available, their influence on company success is limited, indicating that their quality is restricted. Due to the early phases of the entrepreneurial community, like-minded individuals find it difficult to create clusters and communicate with one another, which suggests that enterprises from diverse networks operate in silos. The dispersion of clusters makes this worse. As a result, initiatives to increase capacity and professionalize accelerators should be prioritized in order to enhance the ecosystem.

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