
Latin America's flourishing tech enterprise ecosystem and startups: current situation and challenges

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Theme

In recent years there has been an explosion in the creation and growth of Latin America's tech enterprise ecosystem and startups, a promising mechanism for leveraging innovation and the renewal of regional business activity. Its development has its own characteristics and faces notable challenges if it is to increase its economic impact.

Summary

Latin America has caught the world's startup-led technology and innovation wave, creating numerous successful companies. A convergence of factors enabled its birth and scalability, to the extent of turning the region into one of the most dynamic in terms of the development of the tech enterprise ecosystem. It is a phenomenon being led by such innovation hubs as São Paulo, Mexico City, Bogotá and Buenos Aires, with sectors such as fintech and ecommerce to the fore, but encompasses a large number of cities and economic sectors, and is characterised by its own Latin American hallmarks. But in order to realise startups' full potential for regional economic development, a range of measures and reforms are needed, both generally and specifically applicable to the tech sector.

Analysis

1. Building an entrepreneurial tech sector: awakening the startups and the first unicorns

Latin America faces a fraught short- and medium-term future, characterised by a tendency towards low growth and little fiscal headroom for introducing reforms, set against a backdrop of pronounced social malaise. It seems clear that the innovative and entrepreneurial sector made up of startups (young technological and innovative companies) cannot singlehandedly provide a solution to the profound economic problems that beset the region and undermine its growth. But it can act as a lever, with the ability to provide impetus towards an undeniably desirable economic transition, via the introduction of a host of innovative companies that accelerate the process of creative destruction and ultimately help to create a business environment that is more innovative and productive.

There is now abundant evidence showing a positive relationship between the adoption of digital technologies and economic development. Although the data available for developing countries are relatively scarce, the positive effects of the creation and development of a tech enterprise ecosystem on innovation and the renewal of the business sector seem clear. A recent study by the World Bank –using a sample of 82

developing countries— estimates a productivity gain of 1.3% stemming from the adoption and implementation of business digital solutions.¹ The positive impact of startups on productivity, the Achilles heel of Latin America's economy, therefore seems clear.

The good news is that in recent years Latin America has witnessed strong growth in the number of startups and their economic impact, and they have come to form an essential part of the corporate landscape. This is due to a constellation of factors: (a) government support (in terms of funding, training and remedying market shortcomings); (b) the burgeoning of the digital transition in all economic sectors (which has sped up since the COVID interlude); (c) a pronounced degree of enterprise, implicit in Latin American DNA, with highly creative skill sets, driven in the technological sphere by universities, business schools and accelerators; (d) the 'signalling effect': from the founders of highly successful technology businesses to young entrepreneurs; (e) entrepreneurs identifying numerous needs arising from Latin American under-development (educational, financial and sanitary) as business opportunities; and (f) the wholesale arrival of foreign venture capital to finance the companies and help them grow. According to a study conducted by the Inter-American Development Bank (IDB) in 2021 there were already more than 1,000 startups operating in the region, with a value exceeding US\$100 billion and employing 245,000 people, with a presence in virtually all sectors of the Latin American economy.²

Another gauge of how the entrepreneurial tech ecosystem has developed is the number of unicorns –startups with a value of US\$1 billion or more–. Although this may be an arbitrary and inexact method for measuring ecosystems (the absence of data and a conceptual delimitation of the startup notion justify the adoption of unicorns as a yardstick), the existence of unicorns is testimony to a region's ability to create a large technology company from scratch over a short period of time, a positive indicator of the existence of favourable conditions in the business environment. In this regard, various estimates suggest that Latin America has between 30 and 40 unicorns (many founded by Latin Americans who have studied at prestigious universities on one of the two coasts of the US). To put this number in perspective, the region as a whole has more unicorns than Germany, France or Israel (see Figure 1).

¹ Cusolito, A.P., D. Lederman & J.O. Pena (2020), 'The effects of digital-technology adoption on productivity and factor demand: firm-level evidence from developing countries', Policy research working paper, nr 9333, World Bank, Washington, DC.

² Ignacio Peña, 'Tecnolatinas 2021: the LAC startup ecosystem comes of age', Inter-American Development Bank.

Figure 1. The 20 most valuable unicorns in Latin America

Startup	Valuation (US\$ bn)	Country	Sector	Year founded
KAVAK	8.7	Mexico	Ecommerce	2016
DLOCAL	7.9	Uruguay	Fintech	2016
IFOOD	5.4	Brazil	Logistics/Foodtech	2011
RAPPI	5.2	Colombia	Logistics	2015
CREDITAS	4.8	Brazil	Fintech	2012
QUINTO ANDAR	4	Brazil	Real estate	2012
TIENDANUBE	3.5	Argentina	Ecommerce	2010
WILDLIFE	3	Brazil	Gaming	2011
VERCEL	2.5	Argentina	Development	2015
UALÁ	2.45	Argentina	Fintech	2017
BITSO	2.2	Mexico	Fintech	2014
LOFT	2.2	Brazil	Real estate	2018
GYMPASS	2.2	US	Marketplace	2012
CLOUDWALK	2.15	Brazil	Fintech	2013
JEEVES	2.1	Mexico	Fintech	2019
CLIP	2	Mexico	Fintech	2013
LOGGI	2	Brazil	Logistics	2013
AUTH0	1.9	US	Cybersecurity	2013
ASCENTY	1.82	Brazil	Telecoms	2010
NOTCO	1.5	Chile	Food	2015

Source: Startupeable.

2. Successful Latin startups: a multi-sectoral phenomenon nurtured by international capital

There is a particularly striking concentration of successful companies in the finance sector (fintech) and, to a lesser extent, in ecommerce and logistics. The Brazilian digital payments company Nubank, the well-known Argentine retailing giant MercadoLibre and the Uruguayan freight specialist Newport are examples of success stories in these three economic sectors. But there are other representative cases and unicorns in virtually all sectors. Kavak is a Mexican marketplace for used cars (services), Quintoandar is the largest digital estate agency in Brazil (real estate), Betterfly is a Chilean platform specialising in health and wellbeing services for company employees (healthcare) and Despegar is an Argentine digital company operating in the tourism sector.

These and many other companies are reconfiguring and accelerating the processes of business innovation in their sectors, introducing new business models that improve and lower the cost of products and services, while generating advances in innovation and productivity. They also constitute fresh competition for more traditional companies with an established customer base, and give impetus to innovation among the latter, which have accelerated their digital processes in order to respond to the competitive pressure of the startups. Nubank already has 92 million customers in Brazil, meaning that in terms of customer numbers it is exceeded only by Bradesco and Itaú, two well-established traditional banks.

This rise and development of the innovative entrepreneurial ecosystem needs to be qualified by a major caveat. Despite the great success of hundreds of companies, there is a certain perception that Latin American founders create their businesses on the basis of adaptations of business models that have worked elsewhere, operated successfully in their original markets and neighbouring countries. But there appears to be less capacity for homegrown and genuine innovation, something that by contrast is evident in the US, Israel and some European countries. However, a new wave of companies operating in deep tech sectors (technologies such as generative artificial intelligence, blockchain/web3, advanced 3D printers and messenger RNA vaccines, among many others) is starting to take off, which constitutes a promising new wave of innovation, albeit for the time being with a more modest economic impact.³

Latin American startups set their sights on regional and sometimes global expansion, and by the very nature of how this industry operates are highly internationalised. The private capital that funds the startups –and transforms them from promising SMEs into major technology companies– demands that they achieve the scale and international markets to ensure they become global leaders, attain the expected profitability and return their capital by virtue of selling at a higher price. This accounts for the often-heard remark that such companies are born global. It is worth emphasising that their international scalability follows patterns that differ from companies based more on physical activities, because they can operate in various countries around the world using a SaaS (Software as a Service) solution at greatly reduced cost.

Those companies with disruptive technologies, something that is particularly applicable to deep-tech startups, aspire to offering global solutions capable of resolving problems in advanced markets such as in the US and Europe. It is currently estimated that 51% of Latin American startups by market value have international strategies. The majority internationalise first to neighbouring countries and then to the US and to a lesser extent Europe, with Spain forming the main bridgehead. Brazil, with companies focused more on its domestic market, and having generated numerous unicorns catering to customers within its national borders, is the exception to this pattern.

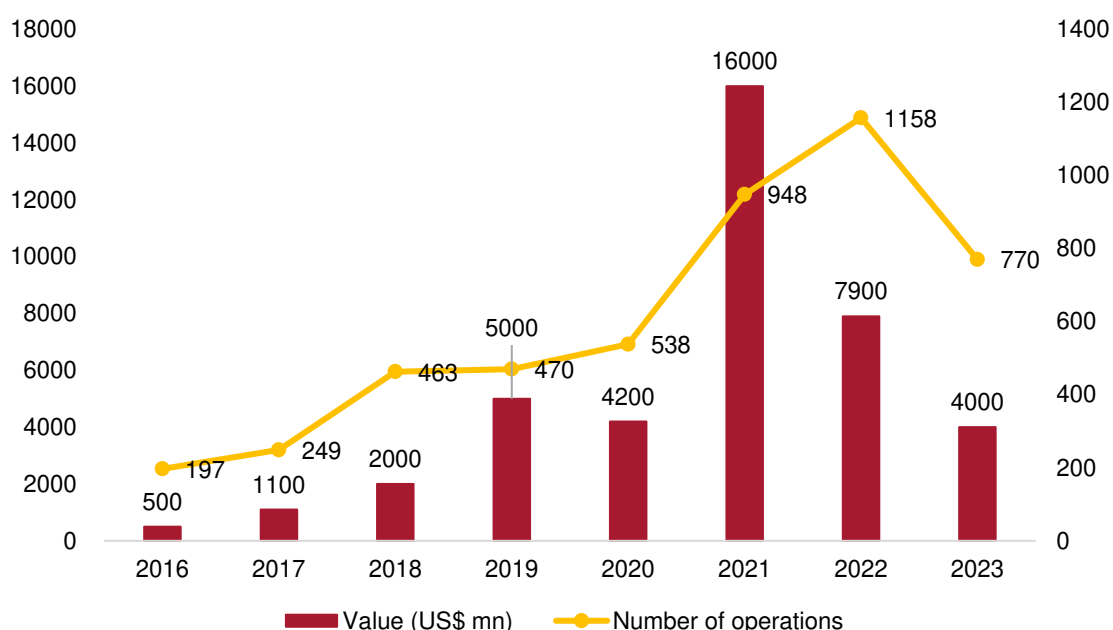
International venture capital plays a critical role in the development of Latin America's entrepreneurial ecosystem. In 2021 its startups received venture capital to the value of US\$16 billion, a threefold increase on the previous record set in 2019, and close to US\$8

³ See Ignacio Peña & Micaela Jenik, 'Deep Tech. La nueva ola', Inter-American Development Bank (IDB).

billion in 2022 (Figure 2). After 2022, rising interest rates throughout the world caused venture capital to migrate towards more conservative assets, with a smaller risk component, and Latin America, like the rest of the world, has witnessed a marked downturn in the capitalisation of young tech companies, which has nonetheless remained at considerable levels. It is noteworthy that, given the low rate of savings and relatively undeveloped capital markets, most of this capital, which is critical to enable companies to develop and scale up, comes from US funds, such as General Atlantic and Tiger Global, among others.

Particularly remarkable are the investments made by the Japanese Softbank fund, the largest technology fund in the world, which has an investment vehicle focused exclusively on the region (with US\$5 billion earmarked for the Latin American Fund). Despite the difficulties in various countries' business climates, international capital exhibits an undeniable interest in Latin American companies, attracted by two main advantages. The first is that of an emerging market with significant growth prospects; consider, for instance, the trajectory and growth rate of a fintech startup capable of offering financial inclusion solutions to the population of Mexico, where only 39% of people currently have access to banking services. Secondly, the valuations of companies are more attractive than elsewhere (due largely to lower labour costs), which lifts the potential profitability of a future sale for the international venture capital funds.

Figure 2. Venture capital investment in Latin America in terms of value and number of operations



Source: Latin American Venture Capital Association.

3. An increasingly widespread phenomenon, with São Paulo at the forefront

Countries with the most well-developed business environment and capital markets lead the creation and development of the region's startups. In any event, competition and the measurement of entrepreneurial ecosystems is based on the analysis of cities rather

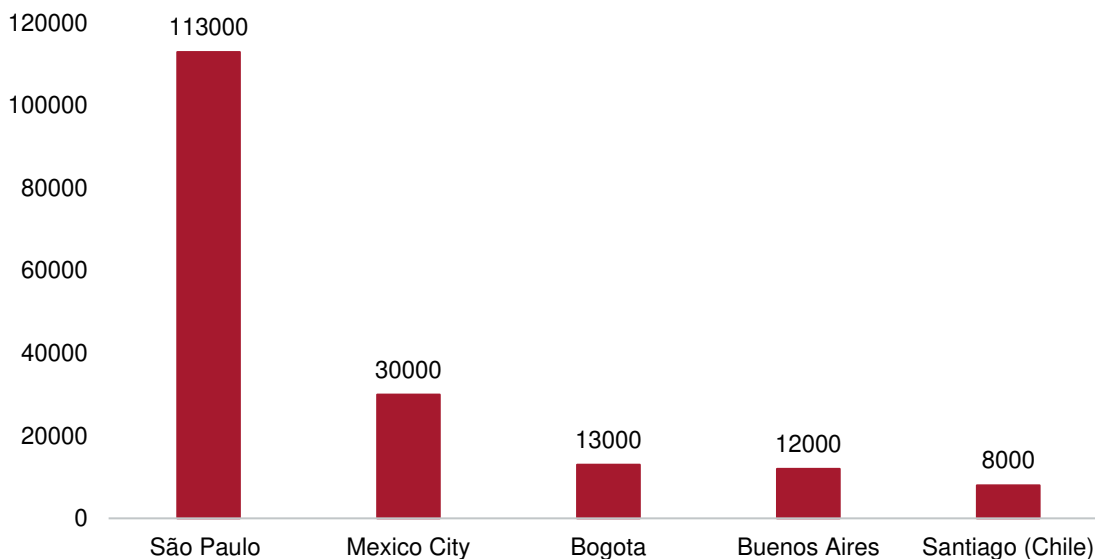
than countries. São Paulo is the only Latin American ecosystem among the 30 largest in the world (in 27th place) with a value of US\$113 billion and 11 unicorns. It is a market unlike others in the region, not only because of the sophistication of its business environment but also because it has startups focused on the enormous Brazilian market (215 million potential consumers). The fintech company Nubank, a major recent success story of Latin American innovation, was set up in São Paulo and had a stock exchange listing in the US valuing it at US\$41.5 billion. It is also the location of innovation units and data centres run by companies such as Google, Microsoft, Netflix, Airbnb and Amazon.

In second place, by a considerable margin, is Mexico City, with US\$30 billion and eight unicorns. It is a magnet for digital talent, in particular US and Canadian, and the main US organisations and accelerators, such as 500 Startups, have a presence. A notable company to have emerged from Mexico City is Kavak, one of the region's most valuable unicorns.

Bogotá is the third largest ecosystem, with a value of US\$13 billion, supported by numerous public policies and measures to lend impetus to the entrepreneurial ecosystem. This is the birthplace of the Rappi delivery company, the first Colombian unicorn, widely replicated in other countries. Buenos Aires is fourth, with a valuation of US\$12 billion, supported by a diverse economy and considerable technological and creative talent. Not coincidentally, this was the birthplace –before there was any talk of startups in the region– of two large Latin American tech companies, the marketplace firm MercadoLibre (founded in 1999 and now one of the most valuable in the world) and the software engineering firm Globant (founded in 2003 and operating in over 30 countries).

The ranking of the top five Latin American ecosystems is completed by Santiago, Chile, with a value of US\$8 billion, supported by a very open economy and a favourable business environment. There are other cities with a less mature entrepreneurial ecosystem or of smaller size but that have been growing fast in recent years, such as Florianópolis in Brazil, Monterrey in Mexico and Montevideo in Uruguay, among others. While not a Latin American city, Miami is home to numerous Latin American entrepreneurs who have founded tech businesses (see Figure 3).

Figure 3. Main tech enterprise ecosystems in Latin America



Source: [Startup Genome](#).

Numerous successful Latin American tech companies have a holding company in jurisdictions outside the region, fundamentally to ensure better access to foreign capital, to nurture their growth, and to enjoy a more stable and benign judicial and institutional framework. This is a widespread practice in the tech sector throughout the world and applies also to many developed countries. In the Latin American case, for instance, MercadoLibre has its headquarters in Delaware, Nubank in the Cayman Islands, Globant in Luxembourg and Establishment Labs in the British Virgin Islands.

4. Helping to renew productive infrastructure and close development gaps

Despite the fact that this business phenomenon and its impact on economic development has been little studied, startups are increasingly important actors on the Latin American economic stage. The advantages of incorporating them into the productive landscape are manifold, and they constitute the boost to innovation and productivity needed to advance towards the regional economies' greater potential for growth. Moreover, in a region where a considerable degree of economic informality is widespread, it is worth noting some companies' ability to introduce formality. This is the case of Kavak, the first large Mexican startup in the used vehicle segment, a traditionally informal sector.

It is important to point out that the founding and expansion of these companies, when they operate in certain sectors, contributes to narrowing development gaps. One example is financial inclusion. In a region where 54% of the population lack access to banking, the explosion of fintech represents an opportunity to provide financial services in payments, sending remittances and access to credit. It is estimated that there are currently more than 10,000 fintech businesses in Latin America. Brazil's Nubank has issued credit cards and bank accounts for the first time to 5 million Brazilians of limited means. Education provides another promising sector ('edtech'). If the technological infrastructure is appropriate, a low-income student in Cochabamba can receive online training from the finest educational organisations in the world. Columbia's Platzi offers

online training to more than a million students throughout Latin America, the majority in digital skill subjects that are highly sought after in the labour market. Another important sector is healthcare ('eHealth'), where various studies have shown the ability of these companies to improve the quality and efficacy of primary care services and the monitoring of chronic illnesses.⁴ A differentiating feature of Latin American entrepreneurs is the inclusion in their business models of problem-solving in a context of economic development. In this regard they are more likely to create tech companies with a pronounced social impact than their counterparts in other regions.

5. How can the economic impact of the innovative entrepreneurial sector be increased? Structural reforms (also) for startups

In general terms, whatever improves the operability of the region's SMEs also improves the operability of its startups: currency stability and controlled inflation, institutions that ensure competition and the smooth operation of markets, light-touch regulation and bureaucratic simplification, taxation that is not too burdensome on emerging companies, and flexibility in the labour market, among others. Separate mention needs to be made of funding, where startups have a distinct profile. First, more public funds (often acting through second-tier banks, something that is widespread in advanced countries) need to be channelled towards such financial instruments as venture capital (taking out a capital, or equity, stake), venture debt (loans with a capital stake) and participatory loans (loans with a fixed repayment and part dependent on results). Secondly, the deployment of public funding needs to be adjusted to startups' ability to absorb such capital, to avoid bubbles and distortions in the valuation of the companies concerned.

The attraction of private or venture capital requires separate treatment. With the exception of advanced countries' financial sectors and capital markets, there is a need to recruit foreign venture capital, particularly in a company's growth phase. In the initial or seed-corn phase it is usually covered locally, either through the public sector or private investments ('angel investment'). Startups need foreign capital to progress from being an SME to a large business or a unicorn. Put another way, foreign capital is decisive in ensuring that the innovative entrepreneurial ecosystem is able to consolidate, grow and reach the size needed to have a significant impact on the business landscape. From this perspective, it is necessary to dismantle regulatory and normative barriers that interfere in large international funds' decisions about whether to invest in a particular country. Macroeconomic and judicial stability and the quality of institutions are also important for attracting foreign investment in startups.

Meanwhile a case could be made for a set of more specific measures applying to the innovation sector if the sector is to continue making progress in Latin America. This first involves improving the digital infrastructure, to ensure fast, secure and accessible connections. In many remote or low-income communities, inadequate infrastructure prevents large groups of people from benefiting from the digital revolution (74% of urban households have fixed Internet access, compared with 42% of their rural counterparts).

⁴ Lima-Toivanen, M., & R.M. Pereira (2018), 'The contribution of eHealth in closing gaps in primary health care in selected countries of Latin America and the Caribbean', *Rev Panam Salud Pública*, vol. 42, nr 188, <https://doi.org/10.26633/RPSP.2018.188>.

Secondly, reducing ignorance or indifference towards the use of digital tools could significantly contribute to the narrowing of gaps. The absence of infrastructure in some districts coexists with an under-utilisation of networks in others. From another perspective, the most important point for this analysis is that both factors limit the potential market for the region's startups, making the businesses less profitable, and therefore acting as a major limitation on the size of the companies and preventing them from turning into large digital corporations.

Conclusions

The flourishing of the tech enterprise ecosystem and startups in Latin America has been one of the best economic news stories to have emerged from the region in recent years. In aggregated terms, and in comparison with other economic transformation indicators, their economic impact is still modest, albeit growing, but they represent a promising step in the right direction in order to reconfigure the business landscape along the lines of greater innovation, greater productivity and greater potential growth. The phenomenon has erupted with remarkable strength, and although the entrepreneurial frenzy reached the region later than in developed and some Asian economies, there is a general consensus regarding its rapid growth and consolidation. Innovation hubs such as São Paulo and Mexico City have given rise to large technology companies operating in a range of sectors, which not only create fiscal growth and highly-skilled employment and reconfigure the productive landscape, but also contribute to narrowing development gaps in sectors such as finance and education, and to reducing informality.

However, this rapid growth in the tech enterprise ecosystem must overcome various obstacles if it is to fulfil its transformative potential, or even contribute to greater convergence with other regions in terms of the creation and growth of tech companies. Here, public policies and institutions, and particularly those responsible for microeconomic reforms and the business environment, will play an essential role. Against this background it is necessary to engage various levers to enable startups to find the appropriate funding and taxation regimes (requiring differentiated instruments for this type of company), to grow with a tolerable bureaucracy and a favourable and predictable regulatory regime, all of which have proved to be aspects of great importance in the flourishing of advanced ecosystems. It is also fundamental for countries to exhibit the macroeconomic and institutional stability that ensures the influx of foreign venture capital continues apace, reducing the perceived risk for foreign capital, which has the potential to furnish startups with the capital they need to become large companies. Lastly, it is necessary to support the development of technological infrastructure, both in terms of reaching new pockets of population and in terms of speed and cost, such that local markets are of a size and attractiveness for business investment to be sufficiently profitable.

In short, what has been achieved in recent years in the context of startups has been remarkable and undoubtedly encouraging, but it is important to understand that the world of startups is ever-changing and extremely competitive, that the competition for entrepreneurial talent and venture capital is global, and it is this that makes it necessary to activate a range of measures that enable greater development of startups to be supported over the years ahead.