



# Challenges of Ecuadorian entrepreneurship, transcending to post-pandemic times

## Retos y desafíos del emprendimiento ecuatoriano, trascendiendo a la pospandemia

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### Abstract

*The systemic and unexpected changes, derived from COVID-19, abruptly pushed Ecuadorian enterprises to disassociate themselves from the traditional on-site business model. In this sense, they were forced to incorporate innovation and communication technologies, with little preparation and knowledge, moving towards a remote business model and inserting themselves into the digital economy, to respond to the new post-COVID-19 reality. This led to analyze the Ecuadorian entrepreneurship in the pandemic as well as the challenges to be faced in the post-pandemic period, through a documentary review on the incidence of the crisis context in its evolution, the findings, and obstacles to be faced in Latin America; as well as the actions used by entrepreneurs and the government to face the pandemic, being essential to also address the rise of digitalization and the challenges to be faced. The results show that Ecuadorian entrepreneurship is in a process of internal adjustments due to its own needs and influenced by the environment by the health crisis, public policies, and the new regulatory framework. It is concluded that the country requires a profound change in entrepreneurship, where the digitalization of processes and digital literacy are the basis for economic resurgence; however, this implies challenges and joint efforts of all economic and governmental agents over time, to demonstrate a prosperous evolution that contributes to the stability of enterprises, and therefore, of the national economy.*

### Resumen

Los cambios sistémicos e inesperados derivados del Covid-19 impulsaron de manera abrupta a los emprendimientos ecuatorianos a deslastrarse del modelo tradicional del negocio in situ. En ese sentido, se vieron forzados a incorporar las tecnologías de innovación y comunicación, con poca preparación y conocimiento, pasando hacia un modelo de negocio a distancia, para responder a la nueva realidad poscovid-19. Esto motivó a analizar el emprendimiento ecuatoriano en pandemia, así como los retos y desafíos a enfrentar en la pospandemia, mediante una revisión documental sobre la incidencia del contexto de crisis en su devenir, los hallazgos y obstáculos a enfrentar en el ámbito latinoamericano; así como las acciones empleadas por los emprendedores y el gobierno para afrontar la pandemia, siendo neurálgico abordar también el auge de la digitalización y los desafíos a enfrentar. Los resultados muestran que el emprendimiento ecuatoriano se encuentra en un proceso de ajustes internos por necesidades propias e influidos desde el entorno por la crisis sanitaria, las políticas públicas y el nuevo marco regulatorio. Se concluye que el país requiere un viraje profundo de los emprendimientos, donde la digitalización de los procesos y la alfabetización digital son las bases para el resurgimiento económico; sin embargo, esto implica desafíos y esfuerzos mancomunados de todos los agentes económicos y gubernamentales, para evidenciar una evolución próspera que coadyuve a la estabilidad de los emprendimientos y de la economía nacional.

### Keywords | palabras clave

*Covid-19, entrepreneurship, information technologies, digital media, internet, public policies, flexibility, market.*  
Covid-19, emprendimiento, tecnologías de la información, medios digitales, internet, políticas públicas, flexibilidad, mercado.

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## 1. Introduction

The rapid spread of Covid-19 generated an unprecedented health crisis that is undoubtedly systemic. According to Das and Wingender (2021, para. 2) “compared to previous international crises, the contraction has been sudden and deep; according to quarterly data, the reduction in world output was approximately three times more than during the global financial crisis, and in half the time”. In this sense, the International Monetary Fund (2020) specifies that, as of October 2020, although there was a reactivation of the economy, the spread of the pandemic to other areas slowed the reopening of countries and their economies. In quantitative terms, the global reduction in working hours, compared to 2019, equates to the loss of 400 million full-time jobs. For this reason, the World Trade Organization (2021, s/p) points out, that “the Covid-19 pandemic represents an unprecedented disturbance of the world economy and trade”.

In Latin America, the impact has been significantly negative, with Ecuador being one of the most affected countries, ranking seventh in June 2020 in confirmed cases of coronavirus in Latin America and the Caribbean (Statista, 2021). Therefore, it is impossible in 2021 to dissociate oneself from the virus in Ecuador, since there are still high levels of infections in the population despite the start of the vaccination process, which affects the future of enterprises in the country. The national economy continues to suffer the paralysis (70 %) of the productive apparatus in 2020 and the separation of 60,000 workers from their jobs (Heredia-Zurita & Dini, 2021). Navarro-Cejas et al. (2021) add that it is an ongoing process that begun in 2019 and the level of impact it produced on the world's economies remains to be seen.

From this perspective, the outlook seems disadvantageous and even not conducive to entrepreneurship. However, the study in 43 economies carried out by the Global Entrepreneurship Monitor (2021), revealed that in nine of them more than half of those who start or run a new business agree that the pandemic created new opportunities that they could take advantage of. In addition, they observed that a higher proportion of entrepreneurs located in Europe, North America, Latin America and the Caribbean, showed motivation to start a business that made a difference.

In this understanding, Kraus et al. (2018) and Nambisan (2017) point out the opportunities offered by technologies to entrepreneurs. While Coco (2020), focuses on such opportunities in three sectors, within the current crisis: Edtech, Fintech and Ehealth. The first, referring to education, which has become an increasingly broad portion, which according to Williamson (2021, p. 1) includes:

A great variety of actors (human and non-human), organizations (public, private or multi-sectoral), material and technical forms (hardware, software, supporting documents), modes of practice (of teachers, designers, promoters), and framed discourses, besides being a field of research (...).

The second (Fintech) concerns the development of financial sector organizations previously resistant to new business models. According to Goldstein et al. (2019, p. 1647) it is about “(...) the fusion of finance and technology, (...) start-ups with new technology are competing to fill the gaps in the customer experience left by traditional companies”.

In the Ehealth or health sector, technology is observed in automation, telemedicine, mobile applications, artificial intelligence, wearables, gamification, virtual and augmented reality (Campus-Sanofi, 2020), among others. And despite the advances, the World Health Organization (2019, p. V) points out that, “At the end of the day, these technologies are not an end in themselves, but essential tools to promote health, preserve safety global and serve vulnerable populations”.

In these sectors, entrepreneurs leveraged on technology have innovated and managed to take advantage of the advantages they offer to face the consequences of the global crisis generated by Covid-19, giving dynamism to the battered economy. In the case of Ecuadorian entrepreneurship, although the main actions were aimed at financial and tax obligations, minimizing employment, and increasing access to credit, the need for income led to an incipient and poorly prepared use of information and communication technologies, in order to offer goods and services, maintain contact with customers and attract potential consumers, demonstrating their preponderant role in facilitating and maintaining economic activities.

These approaches show a reality that still does not offer concrete data and information. In the words of Acosta (2020, p. 369), “it has gone from using exclusively highly credible information to accepting reasonably credible information (...)”, which motivates conducting an investigation that offers contributions and certain insights to entrepreneurs of the region, but in particular Ecuadorians: it is urgent to show the state of the art of entrepreneurship (Brown & Rocha, 2020; Nassif et al., 2020). Therefore, the study analyzes Ecuadorian entrepreneurship in a pandemic, as well as the challenges to face in the post-pandemic, for this, a documentary review was carried out on the incidence of the crisis context in its evolution, the findings, and obstacles to face, as well as the actions used by entrepreneurs and the government to face the pandemic, it is also essential to address the rise of digitization and other trends that seem irreversible and constitute challenges for the immediate future.

## **2. Corpus selection criteria**

The analysis carried out was based on the consultation and systematic review of both physical and digital texts and documents, found in the electronic platforms of indexed scientific journals and digital repositories of Dialnet, Redalyc, ResearchGate, Google Scholar, Scopus, and Scielo. The systematization of the theoretical and documentary review had two phases:

In the first, a general search was carried out, obtaining 104,566 documents on Latin American entrepreneurship, leading to a second phase, where spatial and temporal criteria were established, as well as descriptors, namely: Latin America, digital entrepreneurship, Covid-19, in a pandemic, challenges, Ecuador; with these specifications the number was reduced to 1,380 documents. Now, when filtering the information again, taking the 2020-2021 period as a time criterion and maintaining the aforementioned descriptors, 68 documents were selected, distributed as follows: 26 scientific articles, 24 documents from national and international institutional entities, and 18 various documents (texts, thesis, internet documents, and digital news) that allowed addressing the subject and complementing the study.

Subsequently, the collected texts and documents were organized, using an analysis matrix, consisting on its horizontal axis by year of publication, author(s), title, language, summary, criteria, contributions, and type (text or document). This decomposition allowed the detection of central elements, as well as similarities and disparities regarding entrepreneurship in Ecuador. Then a document was prepared with the results, extracting the most relevant information, which is presented below. The document allows an understanding of the attainment of events in the category under study as the pandemic progresses, inducing enterprises to take measures and generate digital strategies in accordance with the new reality that requires entrepreneurs to insert themselves into the digital economy in order to compete in the post-pandemic world.

### 3. Debate and contributions to the state of the art

#### 3.1. Overview of entrepreneurship in a pandemic: Latin America and Ecuador

Latin America and the Caribbean have not been immune to Covid-19; the business system has been affected, generating weaknesses (decreased income, little access to public financing, lack of investment capacity) and consolidating the structural heterogeneity of the region. In this regard, the Colombian Confederation of Chambers of Commerce (2020) stated that 96 % of companies had a collapse in their sales and 82 % of formal companies could continue their activities between one and two months with their own resources. Similarly, according to the National Confederation of Industry (2020) in Brazil, 76 % of companies decreased and/or stopped their production and 55 % have had difficulties accessing credit to increase working capital.

In Argentina, 44% of the companies stated that they did not have enough liquidity to meet 50 % of the labor wage commitments in April 2020; 38 % could not pay for public services; 48 % could not pay suppliers, and 57 % did not pay taxes (Unión Industrial Argentina, 2020). The situation was not better in Chile, since the National Chamber of Commerce, Services and Tourism of Chile (2020) indicates that 37.5 % of companies reduced their staff (April and May), and 44 % of them are in a bad or critical financial situation. In this context, the Economic Commission for Latin America and the Caribbean (ECLAC) (2020, p. 6) points out that:

(...) The impact will be much greater in the case of micro-enterprises and SMEs, due to their weight in the business structure of the region, which will translate into business closings and job losses (...) and it is estimated that more than 2.7 million formal companies would close in the region, with a loss of 8.5 million jobs.

It is irrefutable that Covid-19 has generated negative impacts, from which the entrepreneurs did not escape, because according to Kantis and Angelelli, (2020, p. 4) “53 % of those who already sold, stopped doing it, 8 out of 10 are being strongly affected by the crisis. Likewise, 84 % have seen their cash flow very deteriorated and 75% reduced their productive activity”. To be more precise, “Venezuela, Argentina, Brazil, and Mexico registered setbacks in their conditions for entrepreneurship” (Kanti et al., 2020, p. 11). Along with this situation, they have had to face a series of problems that are identified in Figure 1:

**Figure 1. Obstacles for entrepreneurship in Latin America**



Source: Kantis and Angelelli (2020, p. 10).

The shared findings show that the weaknesses of the enterprises have been amplified and accentuate the direct and indirect economic, social and environmental tensions; also generating impacts on the entrepreneur and his/her determinants. Thus, the reduction in the space of opportunities led to a decrease in entrepreneurial intention and this led to “7 of the 15 Latin American countries registering a drop in their values of the Systemic Conditions Index for Dynamic Entrepreneurship, among them: Venezuela, followed by Argentina, Brazil, Mexico and Peru” (Kanti et al., 2020, p. 40).

Despite the adverse situations and conditions present in the region, digital ventures have managed to maintain projects and promote innovations. According to García-Madurga et al. (2021), among the changes that are envisioned, information and communication technologies predominate, which leads to the construction of new operating models of companies, accentuating digital marketing, specifically in operations of promotion, sale, and delivery of goods/services, as well as the incorporation of digital interconnection devices in production processes and in the interaction with suppliers. This shows the effectiveness of digital channels during challenging times, as well as the high commitment and attitude of permanence. Likewise, online education has generated content to be consumed from home, using live broadcasts from Instagram, YouTube, Tik Tok, Twitch, etc. As support, applications such as Instagram, Messenger, WhatsApp, and Telegram are used to channel promotional ads that boost and strengthen communication with customers and help attract new ones. According to Pérez-Calle et al. (2021, p. 8), “a set of resources and innovations of hardware, software, telecommunications or electronic devices linked to each other are grouped together, with the ability to generate between them a universal network or tools that allow accumulating data to synthesize and generate information”.

In sum, entrepreneurship in the region has been greatly affected as a result of the obstacles that have been dragging it down for years, which have been exacerbated by the Covid-19 pandemic. In this outlook, the case of Ecuadorian entrepreneurship stands out, which occupied an important space from 2017 to 2019, due to the boom experienced in aspects such as the proportion of incipient entrepreneurs and new entrepreneurs, but with changes that are still in evolution as a result of the pandemic, for the period 2020-2021 (Global Entrepreneurship Monitor Ecuador, 2020).

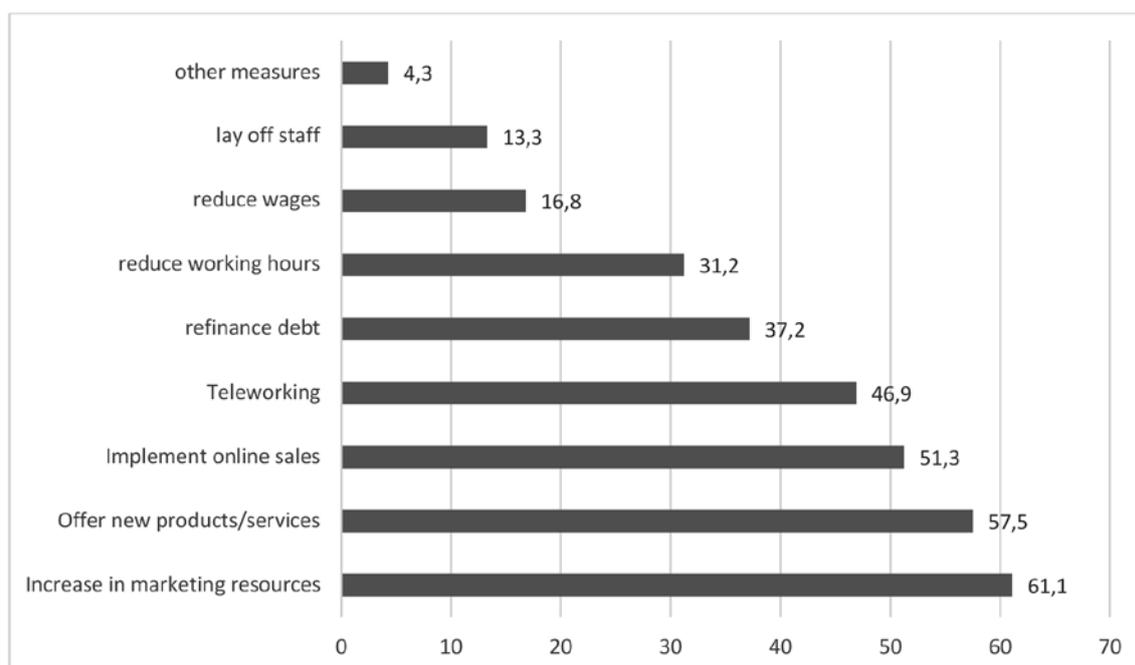
In this way, the Ecuadorian economic system has experienced imbalances in the face of a systemic crisis, from which neither the business sector nor the startups escape, due to “difficulties in accessing inputs, reduction or lack of qualified labor, difficult access to financing and production processes that are unable to adjust to short-term emergencies and be operated remotely or become automated” (Useche et al., 2021, p. 4). In this framework, Lasio et al. (2021, p. 33), argues that “53 % of those who generated sales have stopped their activities. In addition, 84% of entrepreneurs have seen their flow of funds decrease and 75% have decreased their productive activity”. For Morán (2020, p. 15), the startups that have arisen are by necessity, and, therefore, have a low budget, “most of the startups do not exceed the first months of operation and 99% do not generate employment because they are for subsistence”.

On the other hand, a large number of SMEs operate in the informal sector, due to costly bureaucratic procedures (Calá et al., 2015) that hinder the development of entrepreneurship in the country. Given this, in May 2020 “the Superintendency of Companies of Ecuador implemented the simplified stock company (SAS) and since then more than 5,200 simplified stock companies have been created” (De la Medina, 2021, p. 1), inserting themselves in the simplification and modernization of the business registry.

In 2020, the Organic Law of Entrepreneurship and Innovation (National Assembly, 2020a) was also approved, which promotes business activity in all sectors, the most benefiting being the wholesale and retail trade; professional, scientific, and technical activities, as well as the construction sector. This shows that Ecuador is undergoing a progressive transformation, according to Zamora-Boza (2018, p. 10) towards “the inclusion and support of entrepreneurs out of necessity and innovative entrepreneurs who take advantage of market opportunities”.

With the SAS and the new law on entrepreneurship and innovation, entrepreneurship continues to be promoted; however, the pandemic has caused havoc, as “69 % entrepreneurs indicated having suffered a negative effect from the pandemic, and in relation to this, 23 % said they had been strongly affected by the crisis, with the risk of closing their businesses” (Lasio et al., 2020, p. 34). Given this, they implemented a series of measures, which can be seen in Figure 2.

**Figure 2. Actions implemented during the pandemic**



Source: Lasio et al. (2020).

Some of these actions point to solutions based on the use of digital services and the development of new business models (Garzón-Morales, 2020; Gallegos, 2020; Fitzpatrick et al., 2020; Zubillaga & Peletier, 2020; Pérez-Calle et al., 2021), which point to sustainability with digital transformation and the adoption of new public policies, to promote entrepreneurship and network growth, among others. However, e-commerce has been growing at a slow pace, perhaps due to fear of change and ignorance of new business methods; but with Covid-19 and:

The suspension of activities by 70 %, had the need to activate this capacity for adaptation, and even so, the consolidation of electronic commerce indicates a path that is moderately explored in Ecuador and that is expected to increase in the medium term. (Rodríguez et al., 2020, p. 115)

On the other hand, for the United Nations High Commissioner for Refugees (UNHCR) and the United Nations Development Program (UNDP) (2020) it is also

necessary to increase working capital through loans, have the supplies necessary for production, communication campaigns focused on small businesses, training for the use of digital communications media, technological updating, alternative payment instruments to cash, home distribution channels and tax aid.

With a view to the economic recovery phase of Ecuador, public policies aimed at entrepreneurship must consider the obstacles that, together, prevent it from reaching its productive potential and face them. These are: unfair competition, lack of access to financing, little participation of the women in the labor market, little innovation, among others. In this sense, Heredia-Zurita and Dini (2021) indicate that the national government has created a set of initiatives from post-covid-19 public policies, with an orientation aimed at financing, credits, and liquidity.

Regarding financing, the *Emprende Ecuador Productivo* Fund was created to promote productive innovation, through two financial instruments: a) “growth” Capital (seed capital), based on a co-financed fund to support innovative ideas, and b) “progress” Capital (venture capital), leading to the consolidation and/or expansion of ventures that have innovative products/processes.

With a loan from the World Bank (USD 120 million), the national government made room for productive financing *Mipymes-BM*, to finance fixed assets of infrastructure, equipment/machinery, and working capital (USD 25,000) that include payment to suppliers and for microcredit. Likewise, the Bank of the Ecuadorian Social Security Institute (BIESS) invested (USD 50 million) in the *Pyme Express* program for quick loans to SMEs. Within this framework, the *Reactiva Ecuador* program requested a loan for USD 93.8 million from the Inter-American Development Bank, aimed at financing productive credit lines for the popular and solidarity economy sector.

By July 2020, 2,056 approved credits were registered for an amount of USD 89.9 million, of which 54.1% corresponded to small companies, 38 % to medium-sized companies, and 7.9% to micro-companies. (Heredia-Zurita & Dini, 2021, p. 82)

In reference to liquidity, the Organic Law of Humanitarian Support (National Assembly, 2020b) contemplates payment agreements for businesses and individuals with their debtors, either client and/or suppliers for three years. Likewise, agreements were signed in reference to terms, reduction, capitalization, or restructuring of obligations; the payment of the 2019 Income Tax and the Value Added Tax (April, May, and June 2020) for micro-enterprises was deferred; temporary suspension of cuts due to non-payment of basic services of drinking water, electricity, telecommunications, and internet up to 60 days after the end of the state of exception decreed by the national government. Extraordinary deferral of credit obligations for up to 60 days without surcharges, among others.

Similarly, the aforementioned law encourages decentralized autonomous governments to open new ventures without requirements and to register them in the National Entrepreneurship Registry (RNE), in order to formalize and categorize them. On these aspects, Rodríguez, et al. (2020, p. 116) points out that “the policies implemented to help improve their financial situation and stay in the market are not working, many businesses complain that resources do not arrive and time is running out”.

Now, to stimulate entrepreneurship with the participation of women “who seek to improve themselves and obtain better opportunities for the benefit of the families involved and of society, in general, that is committed to higher levels of development and the sustainability of their startups” (Delgado et al., 2020, p. 1231), the Organic Law project has been prepared to promote the work of women, equal opportunities and the violet economy, with emphasis “on those in greater difficulty, producers, micro-entre-

preneurs, entrepreneurs, artisans, and others, who have seen their resources reduced due to the health emergency caused by Covid-19” (Ministry of Economic and Social Inclusion, 2020, p. 1).

With this law, it is expected to minimize the precariousness, informality, and unemployment that affect Ecuadorian women, given that “the latest survey by the National Institute of Statistics and Censuses shows that, of the total unemployed, 56.4 % were women as of December, while last year the figure reached 50.5 %” (Enríquez, 2021, p. 1). As can be seen, entrepreneurship in the region is going through adverse times, in which there is also space for opportunities. In the case of Ecuador, steps have been taken to support entrepreneurship, with public policies and legal instruments; it is a process in action that has not yet shown results, in a historical moment of great challenges and technological changes.

## 4. Contributions to the state of the art

### 4.1. *Digital entrepreneurship in Ecuador*

The country has been experiencing deficiencies in telecommunications infrastructure and “currently, Ecuador is ranked 7th out of a group of 11 South American countries (which includes Mexico) in terms of internet account penetration” (Rivera et al., 2020, p. 3). But despite this, there was a significant impact on the collaborative economy. Although Lasio et al. (2020, p.19) point out that in the Global Entrepreneurship Monitor Ecuador 2019/2020:

(...) there is still no concrete data, it is known that during the COVID19 pandemic, the use of collaborative logistics platforms has had a great presence, enabling the continuity of businesses that had neither a digital payment system nor home deliveries, nor the resources to implement these functions.

According to the Ecuadorian Chamber of Electronic Commerce (2020, p. 15), since the appearance of Covid-19, investments have been made in advertising and product promotion, mainly aimed at social media “(61 %), messaging (36 %), Email (25%), Web page (29 %) “to boost sales through Streaming, Facebook, Shopify, Mercadolibre, Woocommerce, among others; however, “sales are decreasing by 56 %, they have completely stopped 32 % and have only grown by 12 %” (Ecuadorian Chamber of Electronic Commerce, 2020, p. 9). These changes in sales are due, especially, to increased unemployment and decreased purchasing power, lack of correspondence between the demand and supply of products.

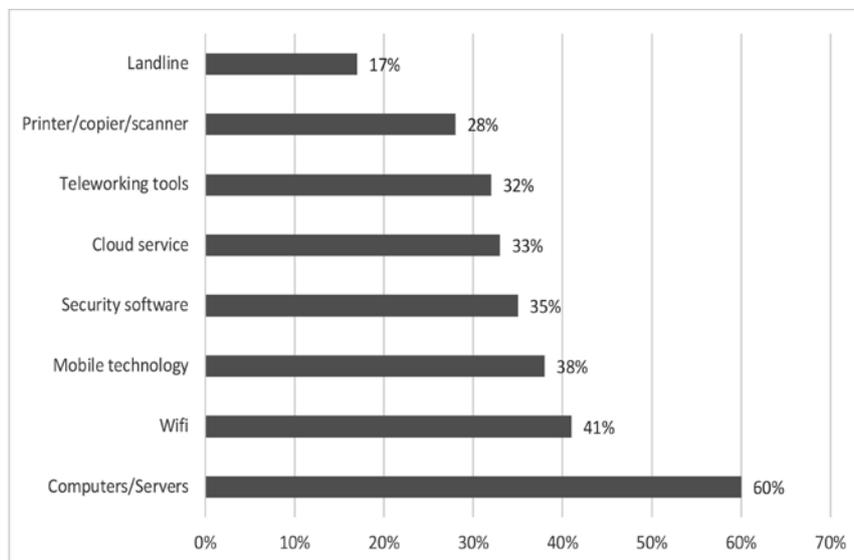
According to an investigation by OAS-Kolau, “digitized microenterprises in Ecuador do not exceed 10 %, with which it is determined that microenterprises are not using technologies to adapt to consumer habits” (ecuadortv, 2020, p. 1). This motivated the national government to reach an agreement with the Organization of American States on a digitalization plan for MSMEs, which “seeks to guide micro-entrepreneurs in the strategic use of technologies to close the existing consumption gap.” (Ministry of Tourism, 2020, p.1). The plan provides for the training of MSMEs in the creation of a dynamic website that is positioned on Google maps, so that customers looking for a product or service online can find the store closest to their home and communicate with the provider. In this way, it is expected to benefit 10,000 businesses and introduce them to electronic commerce to reactivate the national economy (Ministry of Tourism, 2020).

Given these results, the proposal for the Law of Connectivity and Digital Transformation was drawn up, which aims to:

Promote digital transformation, (...) the effective use of digital platforms, the use of data and digital technologies, networks, and digital services, in order to boost the digital economy, efficiency, and social well-being. (Ministry of Telecommunications and the Information Society, 2021).

In this sense, Pino (2020) affirms that if something is clear, it is the need to overcome “the inertia of defensive digitization, more concerned with protecting reputation than promoting it. We are living in a post-digital era that involves new communication challenges, and for which we need to decisively change focus” (pp. 155-156). Toranzos (2020, p. 1) highlights, in this sense, that “many businesses seek to move to digital environments”, which is evidenced in Figure 3, which shows that investments are focused on the technology area.

**Figure 3. Investments in 2021**



Source: Digital Criteria (2021).

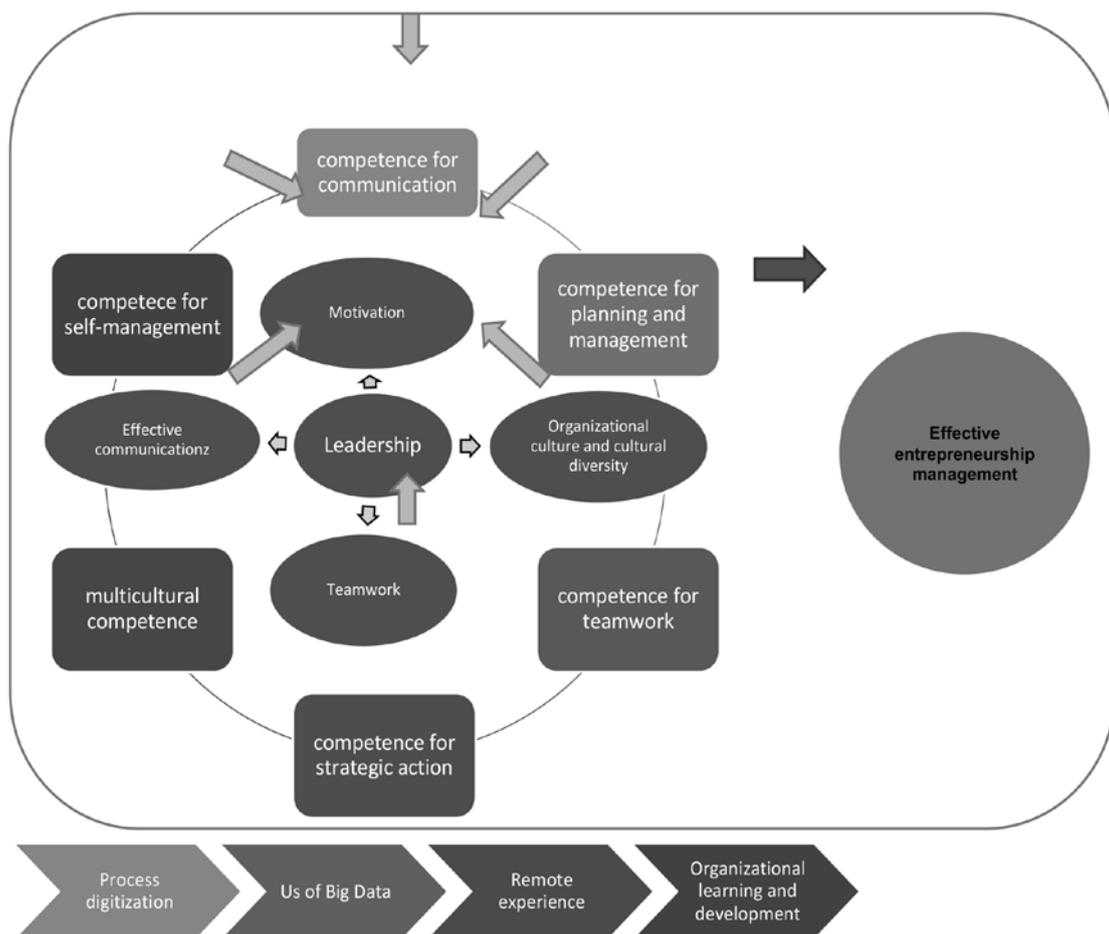
Within this framework of technological updating, in 2020 the Digital Pyme platform (<http://www.pymedigital.ec/>) was launched with the support of the Escuela Superior Politécnica del Litoral (2020), to promote digital transformation processes, promote digital skills to reduce operating costs, among others. This free tool allows SMEs to know their level of digital maturity, while issuing individualized results and recommendations for each SME. It can be argued that digitization is the opportunity to improve processes and prosper in a faster and more efficient way. With all these national advances, positive results and growth trends are expected. Therefore, it is necessary to plan the investment into new technologies to select the ideal one in accordance with the capacities and resources; which in turn will require digital literacy from entrepreneurs.

#### **4.2. Changing to face change: Ecuadorian entrepreneurship with a view to the post-pandemic**

In a historical moment like the present, change and uncertainty are permanent. For entrepreneurs, hesitation and even insecurity are present and questions arise about

the challenges they will face once certain stability is achieved or what has been called the 'new normal' (Terán-Yépez & Guerrero-Mora, 2020). In this sense, the Ecuadorian entrepreneur, in general, needs a systemic view of the organization and its environment that addresses the challenges (opportunities) that have been brewing before the pandemic and that have been driven by it: digitization of processes, use of Big data, remote experience, emphasis on organizational development and learning (Merizal & Ballagán, 2018; Ernst & Young 2020). The foregoing, within the framework of effective leadership and the implementation of a business model based on the development of labor competencies (Hellriegel et al., 2009), as can be seen in Figure 4, to achieve management effectiveness of entrepreneurship in the face of change; the latter expressed, currently, in the Covid-19 pandemic.

**Figure 4. Business model based on labor competencies for the effective management of entrepreneurship in the face of change**



Source: Own elaboration, based on Hellriegel et al. (2009).

However, achieving effective management in entrepreneurship, which allows facing the challenges and taking advantage of the opportunities of the turbulent environment, requires changes in the way of conceiving the business and its management. In this sense, it is necessary to have effective leadership, and in many cases, at a distance, which is capable of motivating, generating effective communication, and promoting diversity and teamwork (Hellriegel et al., 2009). In this regard, entrepreneurs at “the managerial level will have new traits, since their abilities require oxygenation

to respond to structural rearrangements, new ways of relating and managing”, being essential the ability to adapt at each moment, process and phase that the Ecuadorian entrepreneurial activity experiences (Useche et al., 2020, p. 80).

However, for the International Labor Organization (2021) leadership is not enough, it also requires a team of people with competencies, abilities, and skills in tune with the present moment, which implies the adoption of labor competencies as a way of regular work. In this regard, Hellriegel et al. (2009) propose six core competencies to be developed: communication, planning and management, teamwork, strategic action, multiculturalism, and self-administration. With these resources developed (leadership and labor competencies), the startups have in their favor a solid platform to respond to the challenges and opportunities of the environment:

In the first place, the digitization of processes, which went from being an alternative to a necessity. In the midst of the pandemic crisis, suppliers and customers proved the tasted of technology applied to electronic commerce. The results of the study of the Kantar Covid-19 Barometer, showed the trend in the coming years towards the growth of electronic commerce compared to the traditional one, as a consequence of the increase in the non-face-to-face shopping pattern, which poses relevant challenges for commercialization through digital channels (Ecuadorian Chamber of Electronic Commerce, 2020).

In that sense, the percentage of online penetration of mass consumption in Ecuador was 44 %, and specifically, WhatsApp accounted for 15.2 % of that total during 2020. The foregoing is expressed in that “4 out of 10 Ecuadorians bought something of mass consumption in e-commerce during a mobile year until February 2021” (Kantar, 2021, p. 5). The results shown in the post-COVID shopping behavior are relevant, according to which 32 % will continue to buy online, 11 % increase online purchases, 17% will return to buying in physical stores, while 40 % will continue to go to the physical store, but less regularly. These data show the trend towards greater digitization of the Ecuadorian, which must be used by the entrepreneur to assume the technological challenge in their processes.

Second, the use of big data, consistent with the adoption of digitalization of processes, and better management of data and the massive information available, forces entrepreneurs to incorporate skills in managing big data, and establish criteria regarding changes in demand, updating of supply chains, among others. Thus:

Intensifying the training in digital tools offered by information and communication technologies can pose a challenge for workers and leaders to ensure productivity and the achievement of set business objectives. (Madrid Chamber, 2020, p. 1)

Third, remote experience constitutes a form of work in which the collaborator executes their activities from a place other than traditional workspaces, using information and communication technologies (Hu-Chan et al., 2020; Molina, 2020; Ramírez-Velásquez et al., 2021). Although it is not a novelty, the confinement managed to catapult it as a trend, which looks irreversible; being a mechanism in the process of adaptation and change that has proven efficiency and with benefits for the organization and the collaborator. In Ecuador, Vargas (2020) points out, an important advance in this area begins in 2016, with the regularization of telework through Agreement No. MTD-2016-0190 (Ministry of Labor, 2016). Although it is not a novelty, the confinement managed to catapult it as a trend, which looks irreversible; being a mechanism in the process of adaptation and change that has proven efficiency and with benefits for the organization and the collaborator. In Ecuador, Vargas (2020) points out, an important advance in

this area begins in 2016, with the regularization of telework through Agreement No. MTD-2016-0190 (Ministry of Labor, 2016).

Fourth, organizational learning and development will become more important. Having and maintaining competitive differentiators is key at a time when competition is fierce and it is required to retain key personnel. Supporting the growth and development of employees is a source of differentiation that in turn promotes innovation and creativity. Training in key areas such as finance and technology is essential. It should be noted according to Maldonado-Román et al. (2019) that:

In Ecuador, the implementation of public policies that regulate the development of these businesses (...) has led to public and private institutions promoting a culture of financial management, which constitutes support for entrepreneurs who have the need to get ahead and take advantage of market opportunities. (p. 121)

Ultimately, Ecuadorian ventures face great challenges, but also various opportunities, which involve generating changes in people, structures, and processes. The new scenarios require new forms of organization and leadership; renewed management models and adaptability. It is about acting strategically to take advantage of opportunities (Leite Gustmann de Castro et al., 2020), stimulating creativity and innovation in organizational methods and in ways of relating to the environment.

## 5. Discussion and conclusions

The challenges identified in the research entail changes and paradigm shifts in Ecuadorian entrepreneurs. Current scenarios require organizations with the capacity to adapt, focusing on people as driving forces of creativity and innovation, with renewed management models based on competencies, transformational leadership, among some aspects. It is about acting strategically to take advantage of the opportunities that arose in the crisis, stimulating the local economy, with a global effect.

In this context, Ecuador faces the challenge of stimulating the training of entrepreneurs in the digital field, expanding the infrastructure to facilitate and promote the digitization of ventures, because, in addition to being an immediate response to the country's economic crisis, it is an opportunity for reinvention and strengthening of post-pandemic digital capabilities, which in turn is expected to reduce the digital divide. For entrepreneurs, digitization has two aspects: digitization of processes and digitization of work, which will require changes in business models, structure, organizational culture, and labor relations from the startups themselves. This implies renewing the business vision and attending to change as an unquestionable premise.

From the governmental apparatus, and despite the progress made in the digitization of startups in the country, it is still necessary to improve and promote initiatives, assign responsible parties and goals, being favorable the creation of a government council dedicated to the efficiency of the digitalization, with measurable metrics and with a time schedule to achieve it, given that the sooner the adaptation of startups to the digital economy is achieved, the faster will be their insertion and connection with customers, and therefore, there will be visible progress in minimizing the crisis in Ecuadorian society. Based on this, the need arises for subsequent studies to monitor the achievements, limitations, and progress of digital entrepreneurship in post-COVID-19 Ecuador, where the changes or transformations are also evidenced, as well as innovation opportunities that have been identified in the face of the insertion of digital platforms in the operation and communication with the local, regional and national market.

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