

**ARTICULATING  
A POST-COVID-19  
INNOVATION  
SYSTEM  
IN BOLIVIA**

Fostering Innovation,  
Entrepreneurship, and  
Triple-impact Investment in  
Times of Crisis

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# **ARTICULATING A POST-COVID-19 INNOVATION SYSTEM IN BOLIVIA:**

**Fostering Innovation, Entrepreneurship, and Triple-  
impact Investment in Times of Crisis**

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Bolivia as a country has an enormous potential in several sectors to diversify its economy, however much of the entrepreneurship is informal. Almost 70% of the economy in Bolivia belongs to an informal sector without legally constituted enterprises (Cardenas, 2020). Legislation for startups and financing mechanisms with seed capital coming from the public sector are both lacking. Likewise, communication between the actors of the entrepreneurial ecosystem, private companies, and universities to generate enterprises is very poor.

It is imperative that we promote triple impact ventures, addressing social issues mainly due to the stagnation of the economy and the growing unemployment rate from 5.5% to 8.5%, a problem that is has accelerated due to the COVID-19 pandemic (INE, 2020). The Bolivian economy, like many in the region, has received a hard blow from the pandemic. More than one hundred thousand businesses went bankrupt. In addition, the demand for gas and other raw materials in international markets plummeted.

### **The reality of social entrepreneurs in Bolivia**

The main problems facing Bolivian entrepreneurs are the lack of tax incentives in the first years of operation, lack of structures in an innovation system that facilitates enterprise management, promotion, and awards for social enterprises to generate visibility, laboratories, and innovation incubators. In general, the country is lacking alliances between public entities and universities to promote social innovation and the triple impact.

### **Innovation in network theory and the triple helix**

At the theoretical level, we can identify several factors affecting new venture development. The network model and the triple helix model have been common references for the management of innovation policies in many countries. The triple helix model is based on the idea that universities have the role of sharing the knowledge generated in research with companies in order to articulate innovation projects where the State contributes in creating active collaboration networks to articulate an innovation system. The objective is the transformation of the economy to increase the competitiveness of companies and therefore boost a country's economy. Under the triple helix model, good coordination among the ecosystem's actors is necessary to foster successful ventures by encouraging effective policies and investment in enterprises (Etzkowitz & Leydesdorff, 2013).

### **The fourth helix and fifth helix, new actors in innovation systems**

Additionally, there is a fourth helix or dimension in the innovation system, which is civil society as users and beneficiaries (Peris-Ortiz et al., 2016). The informal segment of society cultivates many social enterprises. The fifth helix consists of actors who promote ecological innovation, the circular economy, and the bioeconomy, among other paradigms. This final helix is concerned with climate change prevention and preserving nature.

In this article, I analyze entrepreneurship in Bolivia from the quadruple and quintuple helix models. I will also discuss the current problems with the Bolivian entrepreneurial ecosystem and the barriers it faces, including

legislation, investment, and taxation of entrepreneurial operations in Bolivia.

Job creation and economic movement are very urgent issues since Bolivia is at the verge of an economic tipping point that can only be avoided by reactivating the economy. The question is how to use alliances, networks, financial instruments, and taxes to direct the economy and achieve economic diversification via social and ecological enterprises achieving the triple impact.

### **Informal sectors of the economy**

In Bolivia, informal businesses do not guarantee jobs and are not under any tax regime. This is a major problem as it diminishes ideas with social potential that can generate more legal jobs if they are guided by an innovation system that supports civil society. The recycling market would be an example of such a system. It is made up of poor people who collect plastic and paper to sell to recycling companies. Recyclers are part of an informal economy, but they can receive support to scale up their businesses. They may even be able to hire or increase payments to garbage collectors. Social and triple-impact entrepreneurs could be supported to industrialize the recycling sector and promote a circular economy. A successful example of this type of triple-impact enterprise is Mamut, which manufactures recycled rubber flooring from discarded tires (B Labs, 2020).

### **Fund a triple-impact startup**

An entrepreneur's own capital and loans from family members are the most common forms of international venture capital in Latin America. This form of capital predominates in the informal sector as many entrepreneurs do not have a credit history to approve loans from banks. The most common way for social entrepreneurs to access capital is to work part-

time in another company, while building their own.

The formal sector finances national capital funds for companies, but not exclusively for entrepreneurs. Even so, it is common for entrepreneurs to use secured loans, such as mortgages on their assets, to access start-up capital. This is very risky. International venture capital funds also exist, however, many of these funds are not dedicated to triple bottom line and seed capital provision. They have high requirements in terms of profitability. There is greater interest from venture capital funds in promoting digital projects since they are giving high returns on short-term investments. More needs to be done to encourage investment in triple impact projects.

The current investment law in the country facilitates triple-impact investment, which is a great achievement in terms of legislation. However, there are also high costs and many bureaucratic processes for the investor to repatriate their profits if they come from abroad. Investments from national and state sectors are clearly prioritized in this law (Law No. 516, 2014).

There are many barriers in the current financial system, which is dominated by a banking oligopoly. In addition, the current legislation on financing issues for startups with international triple bottom line funds is very complex and bureaucratic.

### **Corporate venturing a hidden tool**

According to studies by the IADB Inter-American Development Bank on Bolivian manufacturing companies, there is a great need for state policies to articulate and strengthen the capacity for innovation in industrial and productive companies in the country (IADB, 2018).

The advantage of Corporate Venturing is that a company, with its own know-how, economic, and human resources, can sponsor programs to adopt startups into their innovation programs. These are great opportunities to mentor and foster relationships that go beyond just providing entrepreneurs with seed capital for their projects (Siota, Josemaria, Prats, & Julia, 2020).

In addition, large companies have much to gain in terms of environmental, social, and corporate governance (ESG) by presenting concrete actions and investing in social and triple-impact projects that can lead the company to find business models that have a sustainable social and environmental impact in the long term. In addition to contributing as an actor in the innovation system from abroad or from within the country. The State can be a third wheel of support to guarantee financing in these projects.

### **Reconsider priorities in investment sectors**

Corporate Venturing traditionally focuses on the financial and service sectors. Energy is among the sectors that predominate in sustainable investments, but key sectors have to be taken into account in order to make an impact on the company's environmental, social, and corporate governance (ESG) policies. Agile innovation processes are needed to change the paradigm and extractive industries in which Bolivia lives today. These processes must involve investing in the transformation of traditional sectors with agriculture, mining, forestry, and livestock as well as diversifying the country's sources of income.

As policies regulating foreign investment are fully under the State's authority, which stipulates that all disputes will be settled under

Bolivian law, many sectors in Bolivia do not receive much foreign investment due to fear of how to solve business disputes. Due to major problems that the country experienced following a campaign privatizing State-owned companies, Bolivia ceased to be a member of the International Centre for Settlement of Investment Disputes (ICSID), which was the largest organization for conciliation and arbitration of international dispute resolution in foreign investment matters. Bolivia qualified ICSID as an organization where there are conflicts of interest among members and double jurisprudence (Bas Villizzio, 2015).

Under the COVID-19 pandemic, the international scenario faces new and unique challenges. However, the need still remains for impartial investment dispute resolution that is fair and does not exceed the nation's sovereign interests. At the same time, we must not forget that the interests of multinational corporations and the World Bank, which hold tyrannical doctrines toward the Global South, predominate the international system for dispute resolution in Foreign Direct Investment issues. It is a post-colonial mechanism that has nothing to contribute to companies and organizations that have a genuine interest in making investments that generate triple impact and social welfare.

### **Alignment of the legal framework for startups and investments**

The Bolivian government is currently developing a bill for startups, which actors in the entrepreneurship ecosystem and the Agency of Electronic Government and Information and Communication Technologies (AGETIC) in Bolivia are

working to promote. This law is mainly based on six thematic axes<sup>1</sup>:

1. Guarantee access to public and private financing for new ventures.
2. Grant tax facilities that promote entrepreneurship and the channeling of resources to entrepreneurs.
3. Promote education and training for entrepreneurs.
4. Simplify procedures and reduce the bureaucratic process in the creation of business units adjusted to the reality of Bolivian entrepreneurs.
5. Grant regulatory, labor, and commercial flexibility for new enterprises.
6. Provide greater infrastructure and connectivity to entrepreneurial spaces.

This bill could increase the ecosystem's transparency and clarity about the processes of establishing new companies with clearer game rules for entrepreneurs. However, actors in the digital technologies field are responsible for creating this bill, who are unlikely taking factors that affect social and triple-impact ventures into account.

### **Innovation Agency or Ministry**

Today in Bolivia, through the Vice-Ministry of Science and Technology and the Ministry of Education, several public and private institutions are working to generate an innovation ecosystem in Bolivia. However, most efforts to coordinate this articulation have not been successful. Ministry structure and extremely bureaucratic processes are a major barrier.

Deeper dialogue between the State, companies, universities, and civil society are needed to form the dynamics of an innovative ecosystem that also includes sectors of the fourth and fifth helix. The State has advanced some initiatives to articulate the Bolivian innovation system. However, the polarization between the political left and right in Bolivia, makes the relationship between the State and business interests a dangerous minefield. It is difficult to navigate and reach a consensus on programs for the development of the innovation system without decoupling the ideological burden on these sectors. Civil society as users and beneficiaries are divided into very heterogeneous social groups with very different social demands that need to be addressed.

It is necessary to create more entrepreneurship programs that can go hand in hand with the demands of different social groups.

We can achieve the objective of strengthening existing industrial production companies by using Corporate Venturing instruments in which the State can participate by giving investment guarantees to companies and complementing innovation project financing, entrepreneurship, or spin offs with consultancy or professional service tickets.

The State, universities, and companies should, whenever possible, participate as reference customers in services and products that come from national enterprises, thus promoting the demand for their Bolivian-made products and services.

Large international companies can contribute with Corporate Venturing programs, hosting

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<sup>1</sup> Source: Agencia de Gobierno Electrónico y Tecnologías de Información y Comunicación (AGETIC) en Bolivia (2020).

ventures in incubators and providing seed capital for their private development.

Universities should expand their role by creating applied research programs and promoting new programs and areas of scientific research on applied technology in triple impact businesses. They should also promote the use of laboratories and invest in testbeds for innovation.

The State and universities should prioritize highly scalable and fast-growing ventures that generate sources of employment and social well-being.

The State should reduce the tax burden during the first 3 years of operation or give longer tax extensions to entrepreneurs.

A special regime for entrepreneurs should be implemented with advantages in order to transfer businesses from the informal economy to the formal economy.

Supporting digital transformation is crucial for facilitating business between innovation system actors using virtual incubators and accelerators.

The contribution of the business sector using Corporate Venturing models can be substantial to generate new triple impact ventures. The State should promote projects and guarantee part of the financing to promote these projects.

Generating a subsidized ticketing system to obtain professional consulting services from specialists in entrepreneurship and innovation project management is important for entrepreneurs.

## **Recommendations**

The State must take the entrepreneur's perspective to see that economic destruction

and uncertainty create new opportunities for development and economic diversification.

Regional innovation and development promotion agencies should not be organizations based on partisan politics. On the contrary, a meritocracy system should be implemented for an agile performance. Regional agencies can be channels to guarantee the provision of seed capital to triple impact entrepreneurship.

Actors should make better use of potential synergies between digital businesses and companies that drive social and environmental initiatives.

It is better to have a national development agency structure instead of keeping a Ministry in charge of the Bolivian innovation system. It is key to streamlining the processes without bureaucratic protocols and lengthy investigations by the State.

The State must align startup laws with investment laws and resolve conflicts and disputes with international investors in an agile and impartial manner.

There should be aggressive objectives to invest more in articulating an efficient innovation system that contributes to the development of the economy. Bolivia invests only 0.6% today. The goal should be to reach a minimum of 1% of GDP in investments in the next 2 years.

Actors should implement appropriate metrics to measure the innovation system's effectiveness and its relationship with GDP growth.

These measures can help diversify the Bolivian economy and get us out of the crisis as well as contribute to long-term GDP growth. The productive sector currently depends heavily on raw materials such as gas

and minerals. The demand for these raw materials is falling sharply in the global environment, forcing Bolivia as a nation to look for contributions from other markets. Social enterprises, more than anything, can help create new jobs, which in turn will help Bolivians generate income for their families.

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