

Triple Helix, as an acceleration model of Sustainable Development Goals

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Abstract

This paper analyses the inter-relation between the Triple Helix Model (THM) and the advancement of the Sustainable Development Goals (SDGs) – both focused on positively affecting the socio-economic development through bringing together creators, implementers and enablers in a setting of multi-stakeholders collective actions. In the same line with Triple Helix model, SDGs call on governments, private sector and academia to collaborate in new ways to make our world a better place to live in. By bringing together the three dimensions of sustainable development into one framework, the Triple Helix model enables broad, cross-sector, and long-term analyses of the impacts through innovative policies, research, and implementation joint actions. This paper gives a brief overview of the triple helix model and its potentials of implementation in Albania. It also provides a critical analysis of the Albanian context in terms of this model application when combined with the country ambitions to accelerate the pace towards SDGs. More specifically, the paper analyzes and examines the relations between the academia and the business sector, as well as the role of the government in initiating the whole process of sustainable innovation. The paper concludes that the Triple Helix structures have a significant role in engaging collective actions, also in line with SDG 17, despite the country current weaknesses, adding more value to the leading role of the universities.

Keywords: Triple Helix, Sustainable Development Goals, collective actions

Introduction

Economic growth and the welfare of nations depends on basic innovations states (Etzkowitz, H., Leydesdorff, L., 1998). Based on this concept, this paper engages to analyze the Triple Helix model, as described by both Etzkowitz and Leydesdorff on the dynamism of university – business and government relations in the framework of country sustainable development and in regard to the Agenda 2030 and its Sustainable Development Goals. The Triple Helix model received great attention in the Western world as a means to foster innovation and growth implying “the creation of climate and certain attitudes that enable coordination between the agents directed to achieving innovation”, as argued by Cook, P, GM Uranga and G Etxebarria (1997). In emerging economies, such as Albania, the concept is almost unknown and consequently, an embraced rhetoric about Triple Helix hardly exists.

The purpose of this research is to review a number of recent reports on research and innovation in Albania and further look for new ways of increasing the impacts on RI investment which, according to this model, will be in simultaneously accompanied by an improvement of business innovation performance and directly influencing the country socio-economic sustainable development influencing the acceleration of the 2030 Agenda and the 17 SDGs.

This paper empirically analyses the actions taken in three dimensions: government, private sector and academia, as main contributors to the acceleration the 17 SDGs in Albania.

Theoretical framework of the Triple Helix Model

The concept of the Triple Helix model was initiated in the 1990s by Etzkowitz (1993) and further studied by Etzkowitz and Leydesdorff (1995), encompassing elements of precursor works by Lowe (1982), Sábato and Mackenzi (1982). The conceptualization of this system is provided by a three-dimensional vector space, so called Triple Helix of university–private sector –government inter-action model (Ivanova & Leydesdorff, 2014).

The Triple Helix model assumes that the driving force of economic development is the production and dissemination of socially organized knowledge. In the same line, (Stehr, 1994) states that the source of economic growth and value-added activities increasingly relies on knowledge. Science, technology and innovation are considered to be fundamental factors

for a knowledge-based economy. They are important at all stages of development, notwithstanding of different forms and ways. A knowledge-based economy refers to one that focuses on production and management of knowledge (Cooke & Leydesdorff, 2006). Capacities to develop basic and applied scientific research, to adapt and implement technologies in economic structures, to creatively develop new products and services, using innovative technology and disseminate them to the public, are fundamental for developing a competitive economy.

The OECD (2002) defines innovation as “the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations”

The Oslo Manual (OECD, 2005) identifies four factors that influence the effectiveness of the innovation process (i) framework conditions (ii) science and technology institutions (iii) transfer mechanisms (iv) firm-specific innovative drives. General framework conditions such as the macroeconomic environment, the fiscal system and access to finance shape the activities of the companies and their ability to conduct innovative activities. The efficiency of science and technology institutions drives the accumulation of knowledge. Transfer mechanisms enhance flows of information and skills between the various stakeholders in the innovation system and are crucial to ensuring that innovative ideas are actually brought to the market and contribute to the economic growth. Finally firms themselves need to seek, identify and exploit the potential for innovations to reinforce the innovation process. These four factors correspond to specific areas of policy interventions. The Manual highlights that the governments need to design measures to address potential barriers in each of these four domains and, most importantly, decide on the priorities that need to be set.

Triple Helix Model prospects in Albania

[16] According to the Global Innovation Index 2019, Albania ranks 83rd out of 129 countries where innovation has been measured. Based on this report, Albania is the least innovative country on a European level for the year 2019. (GII 2019). The Western Balkans countries are also low positioned in the Global Innovation Index (2019) and while analyzing this performance in a comparative approach, the historical background cannot be neglected. The relationship between the state, industry and higher education in the former communist countries including Albania is in line with Etzkowitz and Leydesdorff's (2000) Triple Helix I model. In this model, the state encompasses both industry and academia. It is however noticed that the two exist separately and experience no independent interaction. During the communist regime, universities became major tools of state domination over society. The ruling national communist parties did greatly subdue academic freedom, asserting their monopoly of power over universities by assigning campus party organisations leading roles in both administrative and academic issues (Smirnov, 2008).

The emergence of transition economies in the early 1990s coincided with the beginning of the transition of scientific systems. As such, the transition countries have not had time to adapt their science and higher education systems to the new concepts in science and innovation that yielded such models as new knowledge production (Gibbons, 1998), the triple helix (Leydesdorff and Etzkowitz, 2000), the entrepreneurial university (Clark, 1998), innovation systems (Nelson and Winter, 1982; Freeman, 1987).

According to the latest UNESCO estimates (2018), Albania has only 245 researchers per million of population, representing less than 10 percent of the EU average of 3,166 researchers per million of population. The country does not have yet a business incubator, or any science or technology parks. There are few institutional support services promoting innovation or linking universities and research centers with innovative SMEs, including an OECD-supported Triple Helix Competition in 2015-16 and the Swiss Entrepreneurship Programme for Western Balkans.

The low level of innovation in economy limits the potentials of the country to increase the productivity and engage in medium to high value added products.

A report on Evaluation on EU Support to SME Competitiveness in Enlargement and Neighbourhood Countries (2017), highlighted that despite the necessary strategic documents exist or are in preparation, Albania faces key challenges as a limited institutional support infrastructure to promote innovation within SMEs, while funding remains a bottleneck, becoming a vacuum in case of seed funding for start-ups and early-stage businesses.

In addition, if on one hand on the demand side there appears to be a shortage of potential new entrepreneurs and start-ups (the pipeline is weak, particularly among women), on the other hand physical space, where to transform ideas into tangible prototypes and products using state-of-the-art smart tools, still remains a big challenge.

In order to support the Innovative ecosystem - incubator/start-ups, two are the key institutions assigned for scientific research and innovation in Albania: the National Agency for Funding in Higher Education (NAFHE) and the National Agency for Scientific Research and Innovation (NASRI). NAFHE is responsible for the distribution of public funds which support activities performed by institutions of high education, including scientific research activities. NASRI evaluate, monitor and manage programs and projects in the fields of science, technology and innovation in Albania; it aims to fund projects in the field of small and medium business as well as transfer, modernization and renewal of their technologies. The Business Relay and Innovation Centre, which operates under AIDA, owns limited resources.

Some private-led initiatives are starting to appear in Tirana, providing institutional support to SMEs and innovation, but their scale is fairly small. Among them, Oficina is an Open Society Foundation for Albania initiative to support sustainable growth to innovative start-ups through decent pre-acceleration and acceleration programmes; CEBE (Center for Economic and Business Education) is an NGO that managed a UNDP programme for entrepreneurship, a pre-accelerator action that showed some good results, including in rural areas. The existing technology transfer offices (TTOs) operate under the auspices of the Ministry of Agriculture and act as consulting centers to the agricultural sector rather than as typical TTOs.

Sustainable Development challenges in Albania – where does it stand with SDGs and Agenda 2030?

Sustainable Development Goals are a collection of seventeen global goals set by the United Nations General Assembly in 2015. The SDGs are part of Resolution 70/1 of the United Nations General Assembly: "Transforming our World: the 2030 Agenda for Sustainable Development." That has been shortened to "2030 Agenda." Unlike the UN's previous global development goals, the SDGs have been signed up to by almost all countries around the world, including the so-called developed countries in Europe and elsewhere, by the emerging different kind of economies world-wide. The SDGs were also developed through intense and widespread consultation, involving a large number of organisations drawn from all sectors, including governments at all levels, civil society, businesses and academia.

Following the adoption of the 17 Sustainable Development Goals as a part of 2030 Agenda for Sustainable Development by world leaders in September 2015, it came officially into force on 1 January 2016. The Government of Albania has endorsed this Agenda 2030 on 25 September 2015 and it is actually aiming to embark upon a comprehensive implementation in line with the National Strategy for Development and Integration 2015-2020 (NSDI II) and the EU integration agenda. In accordance with such commitment, the Government of Albania has explicitly aligned its main strategic document, NSDI II to the SDGs. A set of 21 governance indicators along with targets, baselines and sources of data are integrated into the NSDI II pillars. Since the country's main ambition is EU integration agenda, UN and the Albanian government have sought to insert the SDGs into the development discourse in the country and interweave it with the EU agenda in several ways.

Agenda 2030 is a transformative agenda based on the "Leave No One Behind" concept. Such goals can not be achieved without the significant contribution of the private sector. UN advocacy (2017) aimed to convey the message that the SDGs represent a historic opportunity for business, as it can use the goals as an overarching framework to shape and communicate their strategies, goals and activities.

At the same "collective-actions" approach, university research in strategic areas of development can help inform good policies and find sustainable social, economic, environmental and technical solutions to existing problems. Universities are best placed to pioneer innovation and set an example to other sectors and businesses. (UN, 2016)

How can Triple Helix cooperation influence SDGs acceleration in Albania?

Various recent reports pay much attention to the relationship between the economy and human development in the regions, by applying knowledge as a necessary condition for a sustainable future and accelerated realization of Sustainable Development Goals (Knowledge for Development Partnership, 2017). At the empirical context, Albania is in the process of taking the THM approach in its actions from government, private sector and academia, as main contributors to the acceleration the 17 SDGs.

At the government level an inter-ministerial committee on SDGs chaired by the Deputy Prime Minister and featuring membership of development partners, civil society, academia and the private sector is launched. Furthermore, an inter-institutional working group for achievement of SDGs is established by the Prime Minister in May 2017. Both structures are mandated to provide an inclusive long-term approach to sustainable development, including policy direction, planning, implementation, financing and reporting. Additionally, the Albanian Parliament unanimously passed a resolution on commitment to Agenda 2030 and the SDGs, outlining their commitment to promoting, financing and monitoring achievement

of the SDGs and its positive relationship to EU integration. This is planned to be achieved through a network of focal points positioned in each and every parliamentary commission, and through Parliament's power to convene inclusive discussions with the Albanian public, civil society and academia. Albania attended the High Level Political Forum in New York in July 2018 and presented Albania's Voluntary National Review on Sustainable Development Goals- a report which outlines Albania's Path towards achieving Agenda 2030 and SDGs, progress achieved with factual data on the achievement of targets and indicators, as well as and reflections on what steps should be taken to achieve the Global Goals by the set deadline.

To catalyze the overall attainment of the Sustainable Development Goals, ground-breaking partnerships with the private sector were established. Practical examples vary from aired spots featuring well-known world personalities from science, technology, philanthropist, innovators, who talk about the Goals and call on people to play their part and be the first generation to end extreme poverty, fix climate change and reduce inequalities – to using ICT and telecommunication companies for campaigns advocating among the public on the importance of Agenda 2030.

As part of the efforts to engage academia, partnerships with 25 Albanian universities have been signed through the Declaration of Commitment, as a contribution to play an active role in advancing the Agenda 2030. This commitment is a collective response to further the critical role that knowledge institutions can play in delivering the Sustainable Development Goals Agenda. The universities from their sides provide scientifically-sound advice to the National Committee on SDGs. They also commit to use the potential of data, through cooperation with National Institute of Statistics and other data generation sources to develop new analytical frameworks and tools to harness the complexity of the sustainable development agenda.

This empirical use of the Triple Helix model is borne out of a need to join efforts of researchers, policy makers, and private sector to discuss how to affect positive change on a social, economic, and environmental level through bringing the creators, implementers, and enablers of innovation together in research collaborations, policy initiatives, and political actions in society.

Conclusions

One of the main lessons learned from previous similar UN programs such as Millennium Development Goals, was that collective global actions should include, besides governments, a more active involvement of private sector and academia. In line with the concept of Triple Helix, a model to achieve innovation outcomes for the socio-economic good through collaboration with multi stakeholders within academia, industry and government, different organizations under different helices must join efforts to accelerate the attainment of SDGs and Vision 2030 and provide solutions to different SDG Goals.

Albania has progressed in this national commitment and mapped out different stakeholders, by establishing partnerships and a coordination framework by using the multi-sectoral approach. Still, there is a need to sensitize and advocate for the implementation of the SDGs, to mobilize resources from development partners and other players for the SDGs acceleration roadmap as well as to conduct capacity building for SDGs for key delivery institutions.

An integrated further analysis is required to balance social, economic, and environmental development in Albania. By bringing together the three dimensions of sustainable development into one framework, the Triple Helix model enables broad, cross-sector, and long-term analyses of the impacts of innovative policies, research, and implementations.

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