"Comparative Analysis Between the Higher Education Systems of Ecuador and Bolivia"

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Resumen: Este es un análisis comparativo de los sistemas de educación superior en Ecuador y Bolivia, países que se caracterizan por la diversidad cultural y la proximidad geográfica; su evolución en el sistema de educación superior ha progresado en los últimos años con diferente ritmo. Motivo dado, el objetivo de este trabajo es hacer una comparación, para entender las similitudes y diferencias entre los sistemas de educación superior en Ecuador y Bolivia, y así, podemos tener un diagnóstico en relación con la estructura del sistema de educación superior de Ambos países. En este contexto, proporcionamos una visión general sobre la situación o realidad en la que se desarrollan ambas instituciones de Educación Superior (IES). Además, se mencionan los aspectos que distinguen a la educación superior en estos países, tales como sus regulaciones, sus contextos políticos internos, recursos, segmentos, gestión, evolución tecnológica; y el cambio del modelo político, económico y social. De esta forma, se realiza una descripción de las principales características de los sistemas de educación superior ecuatoriana y boliviana, que se resume en un cuadro comparativo que muestra las similitudes y diferencias que los caracterizan. Palabras clave: sistema de educación superior, comparación, sistema público y privado, autonomía.

Summary: This is a comparative analysis of higher education systems in Ecuador and Bolivia, countries that are characterized by cultural diversity and geographic proximity; its evolution in the higher education system has progressed in recent years with different rate. Reason given, the aim of this work is to make a comparison, to understand the similarities and differences between the systems of higher education in Ecuador and Bolivia, and thus, we can have a diagnosis in relation to the structure of the higher education system of both countries. In this context, we provide an overview about the situation or reality in which both institutions of Higher Education (IES) are developed. Also, the aspects that distinguish the higher education in these countries such as their regulations are mentioned, their internal political contexts, resources, segments, management, technological evolution; and the change of the political, economic and social model. In this way, a description of the main features of the Ecuadorian and Bolivian higher education systems is made, which is summarized in a comparative chart showing the similarities and differences that characterizes them.

Keywords: Higher Education System, Comparison, public and private system, autonomy.

Introduction

In the present situation, the complexities of contemporary Latin American regional, ebullient of nuances and imbued with a variety of dynamic transformations, the contention of two radically opposing positions is evidenced: a genuine, emancipatory, closely linked to national interests and responding to the most genuine of their communities and cultures; the other one is static, conservative, traditional and committed to economic and political hegemonic, suitors of homogenization and flattening of identities, cultures and communities.

In this context, it urges to education, its scientists, and institutions that form part of it, to understand the essence of our realities and analyze the role they play that must taken, both in the debate as in the socio-political, ideological, cultural and economic practices of our region. Therefore, it is essential to understand the essence of our education systems with basis on respect for diversity, assuming integration positions that support a real continental development, always under the precept that for Latin America there is no possible dilemma between integration and neutrality, the reality is clear: either we integrated or disintegrated.

This incident forces us to understand our realities, to recognize our similarities and differences, and higher education should not or cannot escape from that reflection. On this basis and as a modest contribution to the knowledge of our plural realities, this paper assumes, as a main goal, the projection of a comparative study between the systems of higher education, Ecuador and Bolivia, as a prerequisite to consolidate a line of research that strengthens the development of comparative studies among different university contexts of the region.

The Latin American university is characterized by being immersed in political, economic and social contexts which are not the product of initiatives of solid scientific communities with strong academic established traditions (Weise, 2005). For this reason, they have asymmetrical and sometimes dramatically different advances.

In this situation, the continent is an expression of global trends that requires to come closer to its content and social interweaving; among these, the increase of privatization of education in general and the university in particular, the reduction of state funding to the network of public institutions; the assumption of education as a service that demands profitability and not as a right that requires legitimacy.

However, the strengthening of public universities as detriment of private one, from substantial funding from the State in times of economic boom, as in the cases of Bolivia and Ecuador has caused the saturation of enrollment in the public Education sector, as an alternative access to higher education, motivated by the funded gratuity university.

Take into consideration that this phenomenon, regardless of whether in some way increases confidence and encourages state investments in public universities, it also requires to take a look of rationality to this issue, and through it visualizes the challenges that over enrollment imposes on the system in the sense of quality, social and economic sustainability in adverse economic circumstances.

This situation has made it necessary to set certain admission parameters to stop this onslaught and to serve as an analysis platform for the comparative study of the cases of Ecuador (15,900,000 inhabitants) and Bolivia (10'671.200 inhabitants), which are at different times regarding changes in the higher education system, and thus with diverse levels of development in the parameters to be described later, taking into account the similarity and scope of their political systems.

Higher education system in Bolivia

General characteristics:

The higher education system in Bolivia, (LRE, 1994), consists of three levels: a) University b) Technology c) Normal. (It is composed of 12 public universities and 41 private entities accepted by the Regents of Education). It belongs to the first ones, the professional training in the field of bachelor's degree and post graduate studies; to the second, the middle and senior technicians, and the third, teachers in primary and secondary education; but this structure is not very clear within the system as it has not been legally established the way to grant titles, and it becomes more confusing in the project of Bill Avelino Sinani and Elizardo Pérez. The system turns into complex from the 90's, when new types of universities emerged with different government systems and different financing, this system has created rivalries that even prevents the transference of students from private to public sector or recognition of titles of its graduates.

In its beginnings, private universities ascended from religious or business associations sectors, then became attractive educational investments in private hands in search of profitability, and currently have an enrollment of approximately 95,000 students, with an average of 2,320 students per private university, while the public university has an average of 12,900 students, with a total of 250,000 students approximately, which corresponds to a medium level. Guadilla Garcia (2010).

Regulatory structure: Academic Coordination Bodies

Public universities are governed by the "Constitution of the Bolivian University", while private universities are in the "General Regulation of Private Universities" (RGUP), approved by Supreme Decree in 2001, the provisions that regulate its opening, operation and evaluation. There are two regulatory structures, and they are different for each sector and have not been compatible or incorporated.

The Vice Minister of Higher Education, Science and Technology (VESC and T) has little ability to interact with the public university, due to the principle of autonomy reveled by the last one, overall the private university has a weak regulatory function where prevail rather relations of power by groups of private power. Weise (2005).

Private universities are grouped in the National Association of Private Universities (ANUP), Civil Association nonprofit and voluntary membership. There are 22 of 41 private universities affiliated to ANUP of the existing ones.

Characterization of universities

By their nature, these can be classified as public and private. In response to the mode of coordination with the central government, there are two types of universities: a) The Autonomous b) Non-autonomous. The first ones are those who choose freely their academic policies and resource management. The latter ones, meanwhile, are under government inspection, by constitutional mandate.

Public Autonomous Universities are 12 ("equal in hierarchy," according to the "Constitution of the Bolivian University". Of these, 2 are of "special regime". They differ from the previous ones because they do not receive state funding and because they belong to defined corporations, one to the Army and the other to the Catholic Church). Others receive an annual subsidy "necessary and sufficient" and are in the General Budget of the Nation. The Army and the Catholic Universities, however, cannot receive state funding, by constitutional provision.

The demands of democratization made by the student body led to the adoption of a system of co government, in which each sector has a representation and power equivalent to 50%. This form of government does not correspond, however, to autonomous private institutions or special regime, where student participation is weaker and more pyramidal and bureaucratic decisions. In such cases the principals are not elected but they are named by corporate institutions.

Access Practices to Higher Education

The Bolivian Higher Education system is a little selective; the only admission requirement is to have approved the fourth grade of High School (tenth grade of General Education) in any of the modalities of the Education System. Accomplishing with this requirement, the Bachelor in Humanities degree is given. This is the minimal school degree that allows anyone to be accepted in any University.

The CEUB is the organic statutes of the Bolivian University and of institutional and facultative regulations that regulates the admission in a public university. Regarding the private universities, they are normed by the RGUP, the organic statutes of each institution and their internal regulations. In the Private Universities, the free admission is predominant.

The public system, in 2010, embraced approximately 250,000 university students (78.35%), and 95,000 (21.65%) the private; making a total of 345,000 students. The Bolivian system is considered of medium size. García Guadilla (2010).

Financing

The Government has set aside an average of 1.25% of PIB to Higher Education in Public Universities. On average, the 94% of the total resources assigned to the different universities is destined for the functioning, and only a scarce 6% is for inversion. This fact, due to the high number of students belonging to public universities, limits the possibility to allocate important funds to the scientific activity.

The average cost per capita of the Bolivian University per student is 850 dollars approximately. The public resources come from imposing revenues (taxes). These resources have specific destinations: infrastructure, quality improvement, university evaluation, scientific

research, and social interaction; and it is probable that these facts have an incidence in the numbers that show the growth of the general budget that is assigned to the universities. The financing system is negotiated bilaterally between each university and the Government. The public universities are free, meanwhile the average cost of annual enrollment in public universities is \$700. (VESCyT, 2002).

University Reforms and Tendencies

There is a project guided to the improvement of quality in Higher Education, mainly established for evaluation and accreditation mechanisms as quality assurance (CONAES). The general purpose of the initial Reform Project was to establish prior mechanisms to energize sustained quality improvement processes of Higher Education, but the advances are slow and less institutions have proposed to change their structures and have bet to change and innovation.

In – course reforms: to today, the National System of Accreditation – Mediation of Education quality is in consultation process. The modification of the Law 1565 regarding CONAES, to be replaced by the SINAMED declares that the universities are free of willingly accept or not the accreditation of the SINAMED. But it is also mentioned that the willing acceptance is convenient to be able to accede to additional resources. The same universities have decided to set a maximum time to obtain the license hat is of about 8 years and to create other mechanisms of getting a title or degree, such as graduation exams.

The Higher Education System in Ecuador.

General Characteristics¹

The National Higher Education System is integrated by technical institutions, universities, polytechnic schools where the formation of higher education and post grade is developed.

The universities and polytechnic schools are the responsible ones for the formation in professional areas and in scientific and technological subjects.

The higher technic and technological institutions are the ones orienting the educational function to the formation in technological knowledge or to the systematic reinforcement of skills and abilities. Their main concern is the technical careers, technological, humanities, religious, pedagogical and other post bachelor majors. These entities give titles in the higher technical areas in the corresponding careers or majors, authorized by the National Higher Education System (CES).

Ecuador shares some similar characteristics and problems to the ones in Bolivia; amongst them; massive public universities, insufficient scientific research, low salaries for the professors.

In Ecuador, one the most notable risks is the concentration of students enrolled in the state universities such as Quito and Guayaquil. This situation reflects the polarized character of economic and urban development. Another of the most outstanding phenomena in Ecuador is the high increase in the cost of enrolment due to the important economic expansion of the country; as a result of the oil exploitation started in 1973 which produced in the central ax of the country, Quito, Guayaquil, and Cuenca, a notable modernization and urbanization process that incremented the demand of state service, including Higher Education.

During this period, the Higher Education had a growth of 22.7% in relation with 1976, due to new freelance policies in public education and the growing offer of the private area. (1976: 44 universities, 2010: 72 universities, 2014: 55 universities from which, 29 are public, 8 co – financed and 18 private).²

Normative structure: Organisms of University Coordination

The Ecuadorian Higher Education regulates it institutional actions by the Coordination of State and the LOES (Higher Education Organic Law) that was issued by the National Congress in October, 2010. The universities, public and private, are subjected to the state regulation due to that law. The Ecuadorian national universities and the private ones are autonomous.

The main organism of supervision of higher education is the SENECYT (National Secretary of Higher Education Science and Technology) regarding administrative, finance, and academic aspects. It is structured in such a way that it possesses an organism that rules the norms which is the Higher Education Council (CES), and another that evaluates, accredits and ensures the quality that is the Evaluation, Accreditation, and assurance of the Higher Education quality Council (CEAACES) formally established from August, 2011.

Characteristics of the universities

The Universities and Polytechnic Schools are classified as public and private. The public are the ones that are totally financed by the state, meanwhile the private are the ones that can be classified into co – financed and auto – financed. The co – financed receive a percentage from the state that is a 60% of the budget of each university. The auto – financed do not receive any percentage from the state. All the universities of the Ecuadorian System are autonomous, for this reason, they rule their own internal functioning. With regards to the academic organization regulations, there are no norms concerning this matter and each university is free to implant the system that they consider adequate.

Access Practices to Higher Education

In the LOES approved in 2010, it is established as entry requirement to the university, aside from the bachelor degree, a student must have accomplished with the National Admission and Evaluation System requirements, whose objective is to select and improve the education level on the students getting enrolled in the different public universities.

There are some universities and private institutes that only ask for the bachelor title degree, while others apply different types of tests and exams, such as vocational, psychotechnical, knowledge, preparation courses, pre – university courses, entry exams and others.

Around the year 2013, the university population reached a peak of 540,718 students (Evaluation of quality made to the IES in 2013), with this, it is considered as a system of medium size García Guadilla (2010). The enrollment would be then distributed in 62% (334,726) for the public area, a 26.75% for the co – financed area, and 11.25% to the private one.

Financing of the Higher Education

The public universities are sustained in a 95% with public funds, (5% is self – management), while, amongst the private, there are co – financed universities and auto – financed universities.

The co – financed ones receive allowances of a 60% of their budget from the government, and the auto – financed ones depend only on their own resources as mentioned before.

The procedure of assignment of the resources depend on the categorization gotten by each public university after the evaluation made in 2013, where they got a category of A, B, C, D; being A and B the ones recognized to have the best quality. Reason given, they receive a larger percentage of the budget. The financing comes from the collected taxes by the Government, assigning the 1.8% of PIB, to that effect.

University reforms and tendencies

For the evaluation and accreditation processes, as mentioned before, the responsible organism is the CEAACES which is an autonomous entity of evaluation and accreditation that functions in independent way in cooperation and coordination with the SENECYT, and based on the LOES regulations, expedited by the CES. In the year 2013 the Ecuadorian Education System was formally evaluated for the first time, and by 2014 the evaluation to each career started, beginning with Medicine; and it will last for 4 years to complete it with the rest of the formative education.

Other comparisons between the two systems

Bolivia maintains 53 universities, Ecuador, on the other hand, supports 55 universities, 238 technical institutes that conform the higher education system.

The structure of each career and the planned study time is similar. The duration of the Bachelor in Arts and Engineering last between 10 and 12 semesters.

In the following chart, table 1, the comparison between the two Higher Education Systems in Ecuador and Bolivia, are related in the present study:

TABLE 1: Comparison between higher education systems in Ecuador and Bolivia

ECUADOR	BOLIVIA
1 General Characteristics:	1 General Characteristics:
a. This system is conformed by university,	a. This system is conformed by technical schools,
technological and current levels.	universities and technological institutes.
b. Conformed by 55 HEIs (Higher Education Institutions) and 238 Technical Institutes.	b. Conformed by 53 HEIs.
c. 55 universities that include 29 public, 8 cofinanced and 18 private.	c. 53 universities: 12 are public and 41 are private.
d. 540.718 students are part of the system where the	d. 345.000 students are part of the system, where
62% belong to the public system, 26,75% cofinanced,	the 78,35% belong to public system and the
and 11,25% belong to the private system.	21,65% belong to the private.
	e. Term structure includes between 10 to 12
e. Term structure includes between 10 to 12 semesters.	semesters.
2. Regulatory Frameworks	2. Regulatory Frameworks

a. All the system, which includes public and private a. The public system is regulated by the Organic institutions, is regulated by the LOES (HEOL-Higher Statute of the Bolivian University, whereas the private is regulated by the 'General Regulations Education Organic Law) of Private Universities.' b. SENESCYT is the major body that rules the higher b. The Vice Minister of Higher Education, education system. Its structure includes two main Science and Technology (VESCyT) shares institutions: CES, which is in charge of the regulatory limited interaction with the public education guidelines and CEEACES, which is in charge of the system, and none with the private. evaluation, accreditation, and quality assurance. The level of interaction they share is really high. c. There exists a standardized system for degree c. They lack a system to recognize and register registration and recognition. degrees. 3. Characterization of universities 3. Characterization of universities a. All universities are given autonomy. a. There are autonomous and non-autonomous universities. 4. Access to study higher education 4. Access to study higher education a. The system is highly selective; applicants are a. Access is not demandingly selective, required to have concluded high school studies, pass applicants are just required to have concluded entrance exams and take psychological tests, etc. 10th grade. (first year of baccalaureate) 5. Funding 5. Funding a. 1,8% of the PIB (GDP: Gross Domestic Product) is a. 1,25% of the GDP is assigned to higher assigned to higher education. education. b. 6% assigned to research. b. 6% assigned to research. c. Budget comes from taxation. c. Budget comes from taxation. d. Public universities receive 95% of their budget from d. Public universities receive the 100% of their the government, while cofinanced universities receive a budget from the government, while private ones 60%. Private ones work under self-financed conditions. work under self-financed conditions. e. All public universities receive funds from the e. All public universities receive funds from the government. government. f. The per capita cost in public and private higher f. The per capita cost in public and private higher education is in average \$2,700 per student. education is in average \$856 per student. 6. Assessment system 6. Assessment system a. It is mandatory to evaluate all public and private a. Universities are not evaluated while universities, after that, they go through a process of accreditation processes are optional. accreditation.

Elaborated: Authors

Conclusions

After carrying out this research, while comparing higher education systems in Ecuador and Bolivia, conclusions to be stated are several. In terms of performance, in spite of their cultural and geographical similarities, Bolivia's process of implementation of CONAES is quite slow. Therefore, attempts to have proper regulation by the state have not been possible.

In Ecuador, reforms are established by state and academic bodies, which regulate the system of higher education. They have given it legitimacy in the Ecuadorian society at public and private systems through SENESCYT, CES and CEAACES as the managing entities.

In general, reforms made in Bolivia, have not been effective enough to reach a meaningful quality improvement. Meanwhile in Ecuador, due to the closing of 14 universities whose performance was far from the requirements, quality of higher education has been improved. Hence, remaining universities have taken their role quite seriously aiming to raise standards. Some of those evident changes include a broader degree of coverage, internal assessment as well as the innovation efforts at institutional levels focused on quality enhancement.

Among meaningful advances, it is important to mention the efforts aiming to integrate new technologies, and the processes of academic and institutional transformation that are being developed which, as a guideline, based on universities own initiative.

Financially, it is possible to conclude that in Ecuador, controlling the resources given to public universities deserves special attention by means of regulations regarding administrative and proceeding areas. Conversely, in Bolivia, autonomy allows universities to negotiate independently with the state on a bilateral basis.

In order to achieve the expected changes in the higher education systems, there is still a lot to do towards a more inclusive society at national and international boundaries. It becomes a necessity to strengthen educational options, improve curricula as well as content. It is required to work on regulatory matters, especially on promoting a habit in which constant improvement processes are integrated onto higher education systems.

Bolivian educational structure ends up onto university processes that take place too early; this means pedagogical and structural basis received throughout starting stages are low. On the other hand, Ecuador owns a different structure characterized by higher levels of professional and technological training as the result of the higher education system, hardly found in the Bolivian system.

Similarly, in agreement to Garcia Guadilla's conception, (2002), both countries belong to an intermediate level of education according to enrollment statistics. In both systems, enrollment processes are evidently massive at public universities.

Both countries remain far from meeting demands that are possible through convenient offers as they still focus on promoting content instead of developing capacities and competences according to social needs.

It is hoped that changes implemented in the Ecuadorian higher education system get consolidated as they are seen as a reference aimed to promote positive transformation in other countries that have not yet managed to take steps in the right direction towards quality in higher education. This does not mean that the Ecuadorian university system is a miracle drug for there is still a lot to do towards excellence but it is worth saying that important changes towards improvement have been made with evident results in terms of quality, effect and congruity with regard to the system.

It is recommended to follow steps taken by developed countries in order to become a regional reference in education as described in 'Higher Education Compared' (Educación Superior Comparada) by Altbach (2009).

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APPENDIX A

Structure of Bolivian Universities

Public Universities(12)

- Universidad Mayor Real y Pontificia San Francisco Xavier de Chuquisaca, Universidad Mayor de San Andrés,
- Universidad Pública de El Alto
- Universidad Mayor de San Simón
- Universidad Autónoma Gabriel Rene Moreno.
- Universidad Técnica de Oruro
- Universidad Tomás Frías
- Univesidad Juan Misael Saracho
- Univesidad Técnica del Beni
- Universidad Nacional de Siglo XX
- Universidad Amazónica de Pando
- Escuela Militar de Ingeniería

Private Universities (41)

- Universidad de la Amazonía Boliviana
- Universidad de los Andes (UNANDES)
- Universidad de Aquino Bolivia
- Universidad de Ciencias Administrativas y Tecnológicas
- Universidad Abierta Latinoamericana (UPAL),
- Universidad Boliviana de Informática
- Universidad Católica Boliviana San Pablo
- Universidad Central (UNICEN)
- Universidad CEFI Saint Paul

- Universidad Cordillera
- Universidad Cristiana de Bolivia
- Universidad Doxa Bolivia
- Universidad Evangélica Boliviana
- Universidad Investigación Estratégica en Bolivia
- Universidad la Salle,
- Universidad Latinoamericana
- Universidad Loyola,
- Universidad Nuestra Señora de La Paz
- Universidad Nacional Ecológica Santa Cruz
- Universidad Nacional del Oriente
- Universidad Privada Franz Tamayo
- Universidad Privada de Santa Cruz (UPSA)
- Universidad Privada del Valle
- UP Boliviana
- Universidad Privada del Desarrollo y la Innovación
- Universidad Privada Domingo Savio
- Universidad Privada NUR
- Universidad Real
- Universidad San Francisco de Asís
- Universidad Simón I. Patiño
- Universidad Salesiana de Bolivia.
- Universidad Unidad
- Universidad Tecnológica Privada de Santa Cruz de la Sierra
- Universidad Tecnológica Boliviana (UTB).
- Universidad Técnica Privada Cosmos
- Universidad Unión Bolivariana
- UNIOR
- UAB
- UNIBETH
- UNICHACO
- UTA

APPENDIX B

Structure of Ecuadorian Universities

Public Universities(29)

- Escuela Politécnica del Ejército ESPE
- Escuela Politécnica Nacional
- Escuela Superior Politécnica del Litoral (ESPOL)
- Escuela Superior Politécnica Agropecuaria de Manabí
- Escuela Superior Politécnica de Chimborazo (ESPOCH)
- Facultad Latinoamericana de Ciencias Sociales (FLACSO)
- Instituto de Altos Estudios Nacionales (IAEN)
- Universidad Agraria del Ecuador
- Universidad Andina Simón Bolívar

- Universidad Central del Ecuador
- Universidad de Cuenca
- Universidad de Guayaquil
- Universidad Estatal Amazónica
- Universidad Estatal de Bolívar
- Universidad Estatal de Milagro
- Universidad Estatal del Sur de Manabí
- Universidad Estatal Península de Santa Elena
- Universidad Laica Eloy Alfaro de Manabí
- Universidad Nacional de Chimborazo
- Universidad Nacional de Loja
- Universidad Politécnica Estatal del Carchi
- Universidad Técnica de Ambato
- Universidad Técnica de Babahoyo
- Universidad Técnica de Cotopaxi
- Universidad Técnica de Machala
- Universidad Técnica de Manabí
- Universidad Técnica del Norte
- Universidad Técnica Estatal de Quevedo
- Universidad Técnica Luis Vargas Torres de Esmeraldas

<u>Cofinanced Universities(8)</u>

- Pontificia Universidad Católica del Ecuador (PUCE)
- Universidad Católica Santiago de Guayaquil
- Universidad Católica de Cuenca
- Universidad del Azuay
- Universidad Laica Vicente Rocafuerte
- Universidad Politécnica Salesiana
- Universidad Técnica Particular de Loja
- Universidad Tecnológica Equinoccial (UTE)

Private Universities(18)

- Universidad Casa Grande
- Universidad de Especialidades Turísticas
- Universidad de las Américas (UDLA)
- Universidad de los Hemisferios
- Universidad de Otavalo
- Universidad del Pacífico Escuela de Negocios
- Universidad Iberoamericana del Ecuador (UNIBE)
- Universidad Internacional del Ecuador
- Universidad Metropolitana
- Universidad Particular de Especialidades Espíritu Santo
- Universidad Particular Internacional SEK
- Universidad Regional Autónoma de los Andes
- Universidad San Francisco de Ouito

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- Universidad Tecnológica ECOTEC
- Universidad Tecnológica Empresarial de Guayaquil
- Universidad Tecnológica Indoamérica
- Universidad Tecnológica Israel
- Universidad Particular San Gregorio de Portoviejo