A STUDY CASE OF THE STAKEHOLDERS´ INCIDENCE IN TWO PUBLIC HIGHER EDUCATION INSTITUTIONS OF ECUADOR

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Abstract

The stakeholder theory has increased its applicability in the public and private field since Freeman proposed it in1984. Through the years, different authors have suggested methodologies to identify, classify, and prioritize the stakeholders considering dissimilar variables; therefore, the managers have different options to select the most appropriate methodology process. Nevertheless, the public Higher Education Institutions (HEIs) still do not have a specific procedure to evaluate the stakeholders' incidence in these organizations.

Hence, this article proposes a mixed methodology (quantitative and qualitative) to provide a clear level of incidence for each stakeholder. This proposal integrates Savage´s model (2004), and, Mitchell, Agle and Wood´s model (1997), with some required adjustments. The potential stakeholders were included in the variables evaluation, in order to reduce subjectivity in the results. The study cases were selected to explain all the methodology process proposed and applied for the public Higher Education Institutions.

Keywords: Stakeholder, mixed methodology, incidence, higher education institutions.

1 INTRODUCTION

The public organizations have adopted and implemented management tools from private field. The compatibility and applicability of these tools have helped to achieve their goals. It implies modifications inside the organization [1]. In fact, there is a new trend about increasing the participation of internal and external people related with the organization.

The public Higher Education Institutions (HEIs) also adopted these changes. Identifying the correct stakeholders helps the organization to define strategies that are more inclusive. Hence, stakeholder management have been tested in the decision – making. In Europe and North America, there are investigations and applications in the public University. This is not the same in South America; therefore, we propose a mixed methodology for the public university in Ecuador that determinates the preponderance level of each stakeholder and strategies to manage them. For this purpose, this paper contains the following structure:

The first section explains why stakeholders are important in public education. The second section explicates proposal methodologies to identify and determinate the level of incidence for stakeholders in public High Education Institutions. Third section indicates the models that support this mixed methodology proposal. Fourth contains the followed methodology applied in this paper. In the fifth section, it is explained each step of the mixed proposal methodology. In the final section, the results are presented for the two public universities.

2 WHY ARE STAKEHOLDERS IMPORTANT FOR PUBLIC HIGHER EDUCATION INSTITUTIONS?

There are different reasons of this importance. It could be considered a humanistic (democratic) criteria or participatory management [2]. The first defends people participation in any decision, which affects their lives. On the other hand, the second is a tool that helps achieving organization goals (productivity). Other argument is stakeholders influence in the organization because of the dependence on certain resources, and how they can affect its corporate reputation [3]. Also, Corporate Social Responsibility (guidance ISO 26000:2010) [4] indicated the need of engaging stakeholders, in

order to achieve a sustainable development, transparency and respect for society and environment; this guide is compatible with any organization, including the public education field. Finally, into a governance approach, there is a model called stakeholders regime [5], it is concerned at the same time with external and internal participants.

Consequently, there is a continuous interaction among public Higher Education Institutions and its stakeholders. The need of managing them is very clear and this remarks its importance in public management. However, what model is appropriate? The next section explains it.

3 STAKEHOLDERS IDENTIFICATION AND INCIDENCE FOR PUBLIC HIGHER EDUCATION INSTITUTIONS

Researchers have developed typologies and methodologies to identify and classify stakeholders since its theory creation in 1984 [6]. The proposals were created for private field. Despite this, they are compatible with the public field [7] [8] as well.

The public education also needs a stakeholders management, because they demand financial and strategic effort [9]. For instance, some investigators as Emerson Mainardes, Helena Alves and Mario Raposo [10] identified and classified stakeholders of a public Portuguese University applying fifteen extended interviews. Marie Slabá [11] investigated the stakeholders for public and private universities in Czech Republic. She developed a basic descriptive analysis; starting with a literature review to identify possible stakeholders, after applied a survey for the public and private universities, finally she calculated a frequencies analysis (applying her own formula) to prioritize and categorize stakeholders. Ömer Avci, Emily Ring and Lynette Mitchell [12] identified and categorized the stakeholders in U.S. using two theories: Burrows' Multiple Lenses Approach, they considered her list of stakeholders to select the most representative (Keys) ones; and Mitchell, Agle, & Wood´s model allowed them to find the stakeholders types.

However, the original proposals were not designed for one specific organization; they needed to be adaptable for many areas. Other important fact is the subjective process to evaluate the involved variables (most of them are qualitative); it represents a problem, because the incidence level of each stakeholder could be perceived high, medium or low by the evaluators (researchers, managers, shareholders, executive board, etc.).

Although the public University can select a model considering their context and circumstances, it is necessary some adjustments. For these reasons, the next sections present a mixed proposal process.

4 WHAT MODELS ARE CONSIDERED FOR THIS PROPOSAL?

After reviewing different models, two complement each other. The first was developed by Mitchell, Agle and Wood in 1997 [13]. It considers three attributes: power, urgency and legitimacy, a stakeholder can have zero, one, two or three of them. After analysing, which attributes each stakeholder have, they are classified as shown in Figure 1. Finally, managers can decide convenient strategies to include or exclude stakeholders in the decision – making considering their qualitative class.
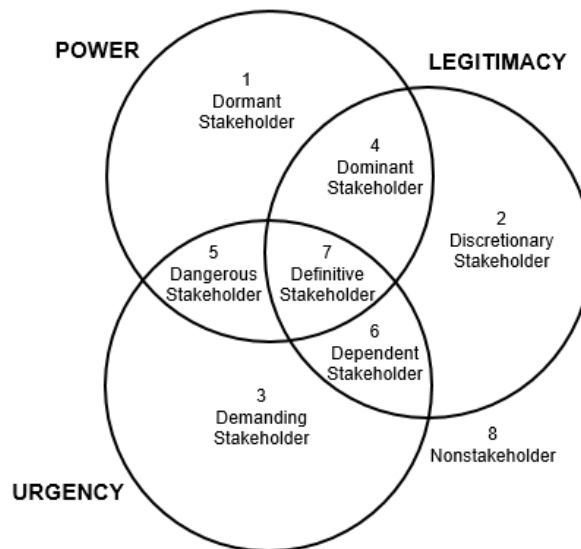
Figure 1. Qualitative Classes of Stakeholders.
Source: Mitchell, Agle and Wood (1997).

The second model was proposed by Savage, Dunkin and Ford in 2004 [14], and is known as Savage model. It contemplates cooperation and threaten for each stakeholder. These two criteria can take a high or low value. As a result, there is a stakeholders´ classification with their own strategies (Figure 2).

		Stakeholder capacity, willingness and opportunity to threaten	
		Low	**High**
Stakeholder capacity, willingness and opportunity to cooperate	**Low**	Marginal (Monitor)	Nonsupportive (Defend)
	High	Supportive (Involve)	Mixed blessing (Collaborate)

Figure 2. Support / Threat matrix.
Source: Savage, Dukin and Ford (2004).

In order to develop a proposal, it was necessary this brief explanation of these models. Both have advantages and disadvantages. Nonetheless, they share the same problem mentioned in the third section: subjectivity. It is necessary to combine them and include the potential stakeholders when variables are evaluated.

5   METHODOLOGY

This study case proposal requested a mixed methodology (qualitative and quantitative). As Yin mentioned, it explores a contemporary phenomenon within its own context [15]. Consequently, this study case was applied for two public Higher Education Institutions (HEIs) of Ecuador in 2018.

5.1   Category of study case

There are numerous categories of case studies [16], however, to explain "why and how" [17] the incidence level of each stakeholder was calculated, an explanatory case study is the most appropriate.

5.2   Data collection

The nature of the explanatory case involves qualitative and quantitative aspects. First, it was necessary a literature review to select the potential stakeholders and second, we applied a survey to the potential stakeholders to collect information and evaluate the different variables.

5.3 Data analysis

Qualitative information (literature review) supported the selection of potential stakeholders for public Higher Education Institutions (HEIs). Moreover, qualitative information (surveys) permitted to present descriptive statistics (frequencies) and proved relations among the variables (Spearman coefficient).

6 MIXED PORPOSAL METHODOLOGY

6.1 Identification of the potential stakeholder for each public Higher Education Institution

The first step consists in identifying who are the potential stakeholders for the public Higher Education Institutions (HEIs). Secondary information is appropriate to find them. For this case, the selected potential stakeholders are Administration and services staff, Teaching and research staff, Students (Clients), Private companies, Local community (Society), Public regulatory administration (Secretaría de Educación Superior, Ciencia, Tecnología e Innovación – SENESCYT, Consejo de Educación Superior – CES and Consejo de Aseguramiento de la Calidad de la Educación Superior – CACES) and Suppliers [18] .

6.2 Estimation of the sample to include the potential stakeholders in the variables evaluation

For all the potential stakeholders of both public Higher Education Institutions the population is finite. Administration and services staff, Teaching and research staff, Students (Clients) and Suppliers used a simple random sample. Considering a 95% of confidence level, their samples were calculated using the next formula:

$$n = NZ^2pq/E^2(N-1) + Z^2pq$$

n = Sample size
N = Total population
Z = Normal distribution (1,96)
p = Proportion of acceptance (0,50)
q = Proportion of rejection (0,50)
E= Desired percentage of error

Private companies, public regulatory administration, and society used an availability sample. Private companies have their activities in both contexts; public regulatory administration controls the activities for all public Higher Education Institutions in Ecuador; and for society, one representative of urban parishes was selected. Table 1 shows the sample for each stakeholder.

Table 1. Potential Stakeholders sample.

Stakeholder	Population		Sample	
	HEI 1	HEI 2	HEI 1	HEI 2
Administration and services staff	618	128	237	96
Teaching and research staff	1.239	215	293	138
Students (Clients)	14.469	1.000	374	278
Private companies	N/A		381	
Local community (Society)	N/A		15	4
Public administration	N/A		3	
Suppliers	229	6	144	6

Source: Own research

6.3 Survey

This survey was applied to the samples of each potential stakeholder in – person interviews. The following sub-section describes the evaluated variables.

6.4 Evaluation of the variables

These variables considered the potential stakeholders´ perception. The variables are based in two methodologies: Savage´s model [14], and, Mitchell, Agle and Wood´s model [13]. Nevertheless, some modifications were required to connect these models and adjust them for the context of public Higher Education Institutions (HEIs). The evaluation was done with a Likert scale [19].

6.4.1 Cooperation evaluation

Cooperation is defined through two criteria. First, Power consists in the ability of a stakeholder to influence the organization in such a way that it would not otherwise have done so. It has three sources: Coercive means (physical strength and legal measures), Utilitarian means (physical materials, economic, logistics, and technological) and Symbolic means (recognition). These sources have influence and availability:

- **Influence – sensibility:** It has a scale between zero and three. Where, zero = there is no level of influence respect with to the resource, and three = there is a high level of influence with respect to the resource.
- **Resource availability:** It considers a scale between zero and three. Where, zero = does not have the resource, and three = owns the resource extremely.

The second criteria is the level of cooperation that each stakeholder could reach:

- **Probability of Cooperation with the High Education Institution (HEI):** It has a scale between zero and three. Where, zero = there is no probability of cooperation with the HEI, and three = there is a very high probability of cooperation with the HEI.
- **Probability of Cooperation with the Society (HEI):** It contemplates a scale between zero and three. Where, zero = there is no probability of cooperation with society, and three = there is a very high probability of cooperation with society.

6.4.2 Threat evaluation

Threat considers how the level of coalition and criticality among stakeholders can affect the public High Education Institution (HEI):

- **Coalition level:** It considers a scale between zero and three. Where, zero = no alliance of the stakeholders with their equal, and three = there is a very high probability of cooperation with the HEI.
- **Criticality:** It has a scale between zero and three. Where, zero = the actions of stakeholders do not generate negative consequences in the HEI, and three = the actions of stakeholders generate high negative consequences in the HEI.

6.5 Estimation of the level of each variable

This step consists in calculating what level of cooperation and threat have the potential stakeholders. It was considered the ***highest frequency in surveys*** response to ***select a value for each variable.***

6.5.1 Cooperation

Table 2 indicates the level of power for each stakeholder of the public High Education Institution 1.

Table 2. Level of power HEI 1.

Stakeholder	Resources of power							Level of power
	Coercive media		Utilitarian media				Symbolic media	
	Physical strength	Legal measures	Physical materials	Economic	Logistics	Technologic	Recognition	

Resources´ sensitivity degree	1	2	2	3	2	3	3	
Administration and services staff								
Resource availability	1	2	2	2	2	2	2	
Level of power	1	4	4	6	4	6	6	13.824
Teaching and research staff								
Resource availability	1	2	2	2	2	2	2	
Level of power	1	4	4	6	4	6	6	13.824
Students (Clients)								
Resource availability	2	2	2	2	2	2	2	
Level of power	2	4	4	6	4	6	6	27.648
Private companies								
Resource availability	1	3	3	3	2	3	2	
Level of power	1	6	6	9	4	9	6	69.984
Local community (Society)								
Resource availability	2	2	2	2	2	2	2	
Level of power	2	4	4	6	4	6	6	27.648
Public regulatory administration								
Resource availability	1	3	3	3	2	3	2	
Level of power	1	6	6	9	4	9	6	69.984
Suppliers								
Resource availability	2	2	2	2	2	2	2	
Level of power	2	4	4	6	4	6	6	27.648

Source: Own research

Table 3 indicates the level of power for each stakeholder of the public High Education Institution 2.

Table 3. Level of power HEI 2.

Stakeholder	Resources of power							Level of power
	Coercive media		Utilitarian media				Symbolic media	
	Physical strength	Legal measures	Physical materials	Economic	Logistics	Technological	Recognition	
Resources´ sensitivity degree	1	3	2	3	2	3	2	
Administration and services staff								
Resource availability	2	3	3	3	2	3	1	
Level of power	2	9	6	9	4	9	2	69.984
Teaching and research staff								
Resource availability	2	2	2	3	2	3	3	
Level of power	2	6	4	9	4	9	6	93.312
Students (Clients)								
Resource availability	2	2	2	3	2	3	3	
Level of power	2	6	4	9	4	9	6	93.312
Private companies								
Resource availability	2	3	3	3	2	3	2	
Level of power	2	9	6	9	4	9	4	139.968
Local community (Society)								
Resource availability	2	2	2	2	2	2	2	
Level of power	2	6	4	6	4	6	4	27.648

Public regulatory administration								
Resource availability	2	3	3	3	2	3	2	
Level of power	2	9	6	9	4	9	4	139.968
Suppliers								
Resource availability	2	2	2	3	2	3	2	
Level of power	2	6	4	9	4	9	4	62.208

Source: Own research

Table 4 shows cooperation probability for each stakeholder of both public High Education Institutions.

Table 4. Level of cooperation probability.

Stakeholders	Cooperation probability HEI 1		Level of cooperation HEI 1	Cooperation probability HEI 2		Level of cooperation HEI 2
	HEI 1	Society 1		HEI 2	Society 2	
Administration and services staff	2	2	4	2	2	4
Teaching and research staff	3	2	6	3	2	6
Students (Clients)	3	2	6	3	2	6
Private companies	2	2	4	2	2	4
Local community (Society)	2	2	4	2	2	4
Public regulatory administration	3	2	6	2	2	4
Suppliers	2	2	4	2	2	4

Source: Own research

6.5.2 Threat matrix

Table 5 indicates the level of threat for each stakeholder of both public High Education Institutions.

Table 5. Level of threat.

Stakeholders	Threat criteria HEI 1		Threat level HEI 1	Threat criteria HEI 2		Threat level HEI 2
	Coalition	Criticality		Coalition	Criticality	
Administration and services staff	2	3	6	2	3	6
Teaching and research staff	2	3	6	2	3	6
Students (Clients)	2	3	6	2	3	6
Private companies	2	2	4	2	2	4
Local community (Society)	2	2	4	2	2	4
Public regulatory administration	2	3	6	2	3	6
Suppliers	2	3	6	2	3	6

Source: Own research

6.5.3 Standardization matrix

The level of power, cooperation and threat need a standardization, in order to compare them. Table 6 shows the indexes for each stakeholder of both public High Education Institutions.

Table 6. Standardization matrix.

Stakeholders	HEI 1		HEI 2	
	COOPERATION (C)	THREAT (T)	COOPERATION (C)	THREAT (T)

	Standardized C	Standardized T	Standardized C	Standardized T
Administration and services staff	0,60	1,11	0,83	1,11
Teaching and research staff	0,81	1,11	1,18	1,11
Students (Clients)	1,00	1,11	1,18	1,11
Private companies	1,39	0,74	1,22	0,74
Local community (Society)	0,80	0,74	0,59	0,74
Public regulatory administration	1,60	1,11	1,22	1,11
Suppliers	0,80	1,11	0,79	1,11

Source: Own research

6.6 Choose a strategy for each stakeholder

After evaluating cooperation and threat using standardized indexes, it is necessary to define rules to interpret them, Table 7 explains them. After, it is selected a concrete strategy (Figure 2): monitor, defend, involve or collaborate. The next section explains what level of each variable reached the stakeholders.

Table 7. Criteria for standardized indexes

Cooperation level	High	Standardized Cooperation index equal or greater than 1
	Low	Standardized Cooperation index less than 1
Threat level	High	Standardized Threat index equal or greater than 1
	Low	Standardized Threat index less than 1

Source: Own research

7 RESULTS

The final step is described in Table 8 and Table 9. Every level of cooperation and threat have been calculated including all the potential stakeholders, which reduces subjectivity. Consequently, the following results have a solid support.

Table 8. Type of stakeholder and strategies for HEI 1.

Stakeholders	Cooperation	Threat	Type of Stakeholder	Strategy
Administration and services staff	Low	High	Nonsupportive	Defend
Teaching and research staff	Low	High	Nonsupportive	Defend
Students (Clients)	High	High	Mixed blessing	Collaborate
Private companies	High	Low	Supportive	Involve
Local community (Society)	Low	Low	Marginal	Monitor
Public regulatory administration	High	High	Mixed blessing	Collaborate
Suppliers	Low	High	Marginal	Monitor

Source: Own research

Table 9. Type of stakeholder and strategy HEI 2.

Stakeholders	Cooperation	Threat	Type of Stakeholder	Strategy
Administration and services staff	Low	High	Nonsupportive	Defend
Teaching and research staff	High	High	Mixed blessing	Collaborate
Students (Clients)	High	High	Mixed blessing	Collaborate
Private companies	High	Low	Supportive	Involve
Local community (Society)	Low	Low	Marginal	Monitor
Public regulatory administration	High	High	Mixed blessing	Collaborate
Suppliers	Low	Low	Marginal	Monitor

As final step, we calculate a preponderance index, which results from the multiplication of the Cooperation standardized index and Threat standardized index (Table 6). Finally, these results are standardized one last time (Figure 3). A level higher or equal than one indicates more importance and a level lower than one, less importance.
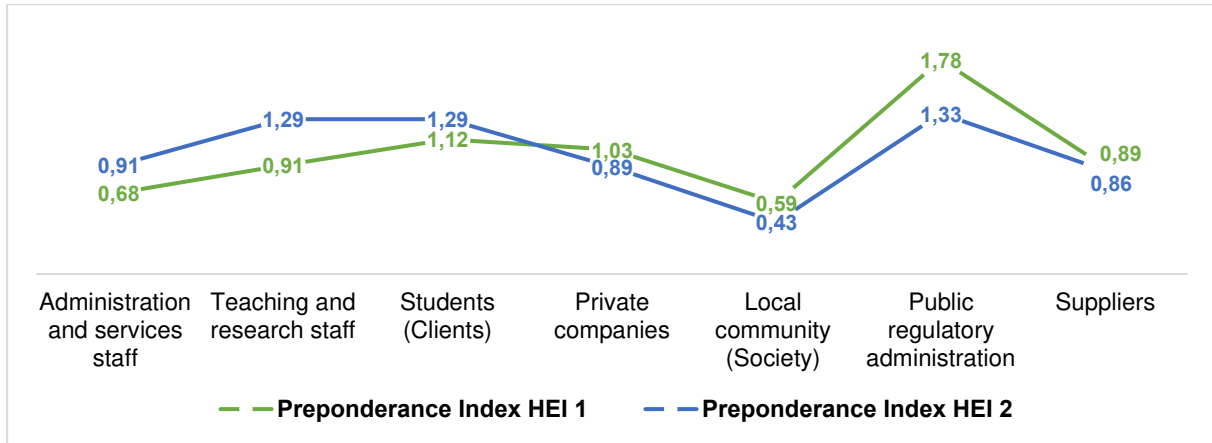

Figure 3. Preponderance Indexes.
Source: Own research

The most relevant stakeholders for the public High Education Institution 1 are: Public regulatory administration (1,78), Students (1,12) and Private companies (1,03). On the other hand, the most relevant stakeholders for the public High Education Institution 2 are: Public regulatory administration (1,33), Students (1,29) and Teaching a research staff (1,29). There is only a difference in the third stakeholder, this is due to the age of universities, HEI 1 is older than HEI 2.

As a complementary analysis, we calculate the relation among the variables using Spearman´s rank correlation. First, Table 10 shows that exists evidence of a statistically significant bivariate association between Power availability (strong association – all stakeholders) and Probability of Cooperation (moderate association – all stakeholders) with the level of Cooperation. These are positive correlations.

Table 10. Spearman´s rank correlation 1.

Spearman´s Rho			Power availability	Probability of cooperation
Level of Cooperation	**Administration and services staff**	Correlation coefficient	0,855[**]	0,550[**]
		Sig. (bilateral)	0,000	0,000
	Teaching and research staff	Correlation coefficient	0,886[**]	0,455[**]
		Sig. (bilateral)	0,000	0,000
	Students	Correlation coefficient	0,894[**]	0,515[**]
		Sig. (bilateral)	0,000	0,000
	Private companies	Correlation coefficient	0,843[**]	0,440[**]
		Sig. (bilateral)	0,000	0,000
	Local community (Society)	Correlation coefficient	0,888[**]	0,485[**]
		Sig. (bilateral)	0,000	0,000
	Public regulatory Administration	Correlation coefficient	0,850[**]	0,554[**]
		Sig. (bilateral)	0,000	0,000
	Suppliers	Correlation coefficient	0,887[**]	0,580[**]
		Sig. (bilateral)	0,000	0,000

Second, Table 11 shows that exists evidence of a statistically significant bivariate association between Alliance level (strong association – all stakeholders) and Criticality (strong association – most of stakeholders except students – they achieved a moderate association) with the level of Threat. These are positive correlations.

Table 11. Spearman´s rank correlation 2.

Spearman´s Rho			Alliance level	Criticality
Level of Threat	**Administration and services staff**	Correlation coefficient	0,652**	0,760**
		Sig. (bilateral)	0,000	0,000
	Teaching and research staff	Correlation coefficient	0,652**	0,671**
		Sig. (bilateral)	0,000	0,000
	Students	Correlation coefficient	0,683**	0,555**
		Sig. (bilateral)	0,000	0,000
	Private companies	Correlation coefficient	0,676**	0,737**
		Sig. (bilateral)	0,000	0,000
	Local community (Society)	Correlation coefficient	0,623**	0,748**
		Sig. (bilateral)	0,000	0,000
	Public regulatory Administration	Correlation coefficient	0,685**	0,686**
		Sig. (bilateral)	0,000	0,000
	Suppliers	Correlation coefficient	0,690**	0,795**
		Sig. (bilateral)	0,000	0,000

Source: Own research

8   CONLUSION

This proposed mixed methodology has enough statistics evidence (proved with Spearman´s rank) to validate its process, considered variables and applicability for these public Universities. It also reduces the subjectivity at including the potential stakeholders in the evaluation process.

Therefore, it was demonstrated that both Universities have three relevant stakeholders and two of them are common: Public regulatory administration and Students. They are important because, the first one controls and evaluates these public Universities, while the second ones are why Universities exist. To finish, it is possible to replicate all the proposal mixed methodology process in other public universities.

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Annex – Survey

SURVEY OF STAKEHOLDERS´ INCIDENCE IN THE PUBLIC HIGHER EDUCATION INSTITUTIONS OF THE ZONE 6 - ECUADOR	
The purpose of the following questionnaire is to identify and measure the degree of stakeholders´ incidence in the management of public Higher Education Institutions of the Zone 6 in Ecuador. You are asked in the most attentive way to answer the questions based on your criteria and as honestly as possible. We appreciate your participation.	**Date**

SECTION 1. GENERAL DATA

Age _____   **Gender**   **Profession** _____

Masculine ☐

Feminine ☐

SECTION 2. EVALUATION OF POWER. Please read the note is very important.

Note: The previously identified stakeholders are: Administration and services staff, Teaching and research staff, Students, Private companies, Local community (Society), Public administration (SENESCYT, CES, CACES), and Suppliers.

1. What level of influence do the different interest groups identified in the HEIs have on the following resources?

(Where 0 = there is no level of influence respect with to the resource, 1 = there is some level of influence with respect to the resource, 2 = there is influence with respect to the resource and 3 = there is a high level of influence with respect to the resource)

Resources	Level of resource influence			
	0	1	2	3
Physical strength				
Legal measures				
Physical Materials				
Economic				
Logistics				
Technological				
Recognition				

2. Please mark with a cross. In your opinion, what is the level of availability that the identified stakeholders have of the following resources: Physical capacity (Strength), Legal measures, Physical materials, Economic, Logistics, Technological and recognition?

(Where 0 = does not have the resource, 1 = owns something of the resource, 2 = owns the resource and 3 = owns the resource extremely)

Identified stakeholders	Level of resource availability							
	Physical strength				Legal measures			
	0	1	2	3	0	1	2	3
Administration and services staff								
Teaching and research staff								
Students (Clients)								
Private companies								
Local community (Society)								
Public administration (SENESCYT, CES, CACES)								
Suppliers								

Identified stakeholders	Level of resource availability											
	Physical Materials				Economic				Logistics			
	0	1	2	3	0	1	2	3	0	1	2	3
Administration and services staff												
Teaching and research staff												
Students (Clients)												
Private companies												

Local community (Society)												
Public administration (SENESCYT, CES, CACES)												
Suppliers												

	Level of resource availability							
	Technological				Recognition			
Identified stakeholders	**0**	**1**	**2**	**3**	**0**	**1**	**2**	**3**
Administration and services staff								
Teaching and research staff								
Students (Clients)								
Private companies								
Local community (Society)								
Public administration (SENESCYT, CES, CACES)								
Suppliers								

SECTION 3. EVALUATION OF COOPERATION

3. Please mark with a cross. In your opinion what is the level of probability that each stakeholder cooperates with the Higher Education Institutions of zone 6?

(Where 0 = there is no probability of cooperation with the HEI, 1 = there is little likelihood of cooperation with the HEI, 2 = there is some probability of cooperation with the HEI, and 3 = there is a very high probability of cooperation with the HEI)

	Level of cooperation with the IES			
Identified stakeholders	**0**	**1**	**2**	**3**
Administration and services staff				
Teaching and research staff				
Students (Clients)				
Private companies				
Local community (Society)				
Public administration (SENESCYT, CES, CACES)				
Suppliers				

4. Please mark with a cross, in your opinion, what is the level of probability that each stakeholder interact constantly with the society of zone 6?

(Where 0 = there is no probability of cooperation with society, 1 = there is a probability of cooperation with society, 2 = there is a probability of cooperation with society and 3 = there is a very high probability of cooperation with society)

	Level of cooperation with Society			
Identified stakeholders	**0**	**1**	**2**	**3**
Administration and services staff				

Teaching and research staff			
Students (Clients)			
Private companies			
Local community (Society)			
Public administration (SENESCYT, CES, CACES)			
Suppliers			

SECTION 4. EVALUATION OF THE THREAT

5. Please mark with a cross. In your opinion what is the level of alliance that the identified stakeholders have with their equal (among them)?

(Where 0 = no alliance of the stakeholders with their equal, 1 = Some alliance of the stakeholders with their equal, 2 = Little alliance of the stakeholders with their equal and 3 = High alliance of the stakeholders with their equal)

Identified stakeholders	Alliance level			
	0	**1**	**2**	**3**
Administration and services staff				
Teaching and research staff				
Students (Clients)				
Private companies				
Local community (Society)				
Public administration (SENESCYT, CES, CACES)				
Suppliers				

6. Please mark with a cross, in your opinion what is the level at which the actions carried out by the stakeholders can affect the performance of Higher Education Institutions, either individually or jointly?

(Where 0 = the actions of stakeholders do not generate negative consequences in the HEI, 1 = the actions of stakeholders generate something of negative consequences in the HEI, 2 = the actions of stakeholders generate negative consequences in the HEI and 3 = the actions of stakeholders generate high negative consequences in the HEI)

Identified stakeholders	Level of negative consequences			
	0	**1**	**2**	**3**
Administration and services staff				
Teaching and research staff				
Students (Clients)				
Private companies				
Local community (Society)				
Public administration (SENESCYT, CES, CACES)				
Suppliers				

THANK YOU FOR YOUR COOPERATION!