

# Statistical Inference To The Internal Control Variables Of The Autonomous Decentralized Municipal Governments: As An Optimization Tool In The Improvement Of Processes

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## ABSTRACT

The efficiency of internal control optimizes continuous improvement in all municipal management, so the objective of this research is to evaluate the internal control system applied by the GADMS (Municipal Decentralized Autonomous Governments) to know if the internal audit departments correctly apply the policies and procedures established in the Rules of the Comptroller General of the State until 2018, and if they are strictly complied with, the 12 Municipalities of Ecuador will be taken into consideration. The methodology of this research is of mixed approach with descriptive exploratory scope, to obtain information on the management of the GADMS, multivariate statistics was used, where the effect that the selected components resulting from the research have on the control variables, resulting from the interviews to the area directors: administrative and financial, in addition a computer system was used. As a result, the weight of each component analyzed and its impact on the variables covering units identified by experts in the area of government auditing can be seen.

**Keywords:** GADM; internal control; objectives; processes.

## INTRODUCTION

The Municipal Governments of Ecuador have as their main objective the improvement of the standard of living of the citizens of each canton, and the adequate application of internal control, applied by the directorates and the personnel of each Gad, provides security in the use of resources. from the General State Budget, in addition efficient management and control contributes to the achievement of institutional objectives, both the internal

administrative part and the external part, promoting improvements in the quality of life of citizens, supported by the Central Government.

In the Structural and Functional Organics of the GAD of Ecuador, there are Internal Audit Units, which have functions inherent to the evaluation of the internal processes of the aforementioned institutions, however in the 21 municipalities that evaluated only 1 has an internal auditor in functions in the rest, since November 2018, there is no

evidence of activities or personnel in the Units.

Internal control and the application of regulations is in charge of each GAD, and based on the internal control standard 200 of the State Comptroller General's Office, each GAD implements its own control system.

To evaluate internal control in the 221 municipalities in Ecuador, it must first be understood that the budget allocations that the central government approves to each Municipality are based on the Territorial Equity Model, which seeks to consolidate a process for the allocation of public resources in a more transparent and fair manner, in accordance with article 193 of the (Organic Code of Territorial Organization, Autonomy and Decentralization, 2010), for the allocation and distribution of resources to each decentralized autonomous government, a territorial equity model must be applied in the provision of public goods and services. (Instituto Nacional de Estadísticas y Censo, 2018).

Therefore, Fabián Carrillo Vice Minister of Finance mentions that: "What has gone through this year opens up an interesting space for reflection and dialogue to reach a consensus, in the different actors of society, on a potential reform of the way in which allocations are distributed of the Territorial Equity Model who recognized that the system of distribution and transfers of resources to local governments is not fair, progressive or viable to manage" (Carrillo, 2020).

Likewise, (Mendoza Zamora, Garcia Ponce, Delgado Chavez, & Barreiro Cedeño, 2021), point out that as principles we must understand that planning and control are two-way, you could not control something that has not been planned and vice versa. According to the internal control standards of the public sector, internal control is

considered as a tool that encompasses the integral process carried out by the head, officials and servants of an entity, designed to face risks and to ensure that its management objectives are achieved.

Our constitution in its art. 227 of the Constitution of the Republic of Ecuador establishes that "Public administration constitutes a service to the community that is governed by the principles of effectiveness, efficiency, hierarchy, deconcentration, decentralization, coordination, participation, planning, transparency and evaluation." (Constitucion de la Republica del Ecuador, 2008).

According to the Organic Law of the Comptroller General of the State, 2015. Internal control is the administrative responsibility of each State institution and of the legal entities of private law that have public resources in accordance with article 9 of the (Ley Orgánica de la Contraloría General del Estado, 2015) and will have the purpose of creating the conditions For the exercise of control, it is a comprehensive process applied by the highest authority, management and staff of each entity, which provides reasonable security for the achievement of institutional objectives and the protection of public resources (Gamboa Poveda, Puente Tituaña, & Vera, 2016). In the GAD of Ecuador there is no person directly responsible for internal control.

On the other hand, the Comptroller General of the State (CGE) issues the technical standards for the management of resources, which will be executed by the areas requesting these resources and will have the highest authority as responsible. Therefore, internal control would allow the processes to be carried out with a reasonable degree of security in meeting the objectives of each institution (Contraloría General del Estado, 2009).

In Ecuador, the new authorities of the Municipal GADs are elected for a period of 4 years, and the elected mayors make up their technical and political work team, this team receives the information from the different departmental directorates of the municipality that includes the Financial Directors, Accountants, Revenue Director, Treasurer, and other Headquarters (AME & GIZ., 2019). The study shows the weaknesses of internal control, none of those named has the responsibility for internal control.

The comptroller general of the Ecuadorian state according to article 212 of the (Constitucion de la Republica del Ecuador, 2008) has the function of directing the administrative control system that is made up of internal and external audits and the internal control of public and private entities. that have public resources. The regulations in Ecuador (Organic Law of the State Comptroller General, 2017) indicate that internal auditors are appointed by the highest authority of the State Comptroller General, a designation that is temporary or freely removable, that is, the Comptroller decides their stability. and the weather (Ley Orgánica de la contraloría General de Estado, 2017). Until October 2018, the designated auditor was technically and administratively controlled by the State Comptroller General's Office, maintaining coordination of the annual planning of special examinations to be carried out, it does not carry out the prior or subsequent control.

As of October 2018, the Municipal GADs do not maintain internal auditors due to the positions of the Control Body. When conducting the evaluation of 12 municipalities in Ecuador, until September 2021 there are no managers of the Internal Audit Units, departments that make up the structural and functional organic

## METHODOLOGY

For the statistical diagnosis of internal control in municipal GADs, multivariate statistics are proposed, to be able to show the effects of multiple variables, knowing the joint behavior of more random variables. For the selection of the municipalities (12 selected), the technical conglomerate analysis (cluster) is applied that focuses on the units of analysis, and that allows grouping and classifying the municipalities into homogeneous groups with similar characteristics and the most similar to each other. although different from the other groups, this allocation in the selection of municipalities obeys, for example: territorial extension in relation to assigned budgets, and the number of inhabitants per territorial extension, which allows the classification to be hierarchical according to the needs of the research.

This helped to improve the selection of the sample, having to compare municipalities with the same levels of budget commitment. The municipalities analyzed were: El Empalme, Balzar, Santa Elena, La Libertad, El Carmen, Puerto López, Jama, Quilina, Chillanes, Babahoyo, Buena Fé, Quevedo. Municipalities with high budgets are excluded from the selection, because the advantage over the others would skew the information.

For the analysis of the defined procedure, the instrument represented in table # 1 was created, which contains thirty-four items that include variables listed below:

1. Context: through the following items and the associated indicators we try to assess whether the mission, vision and objectives are aligned with the national objectives in the context of public administration. (1-10); These indicators correspond to the Planning internal control

- component, issued by the Office of the Comptroller General of the State, 200-02 Strategic Administration.
2. Design: The objectives we propose by Decentralized Autonomous Governments of Ecuador, are declared in terms of those competences that it is expected to acquire, and they have been planned in such a way that they are reviewable, assessable and that they affect practice. (11-16); The second indicator corresponds to Organizational structure, standard 200-04, organizational structure.
  3. Design of indicators in the municipalities: management indicators, we will evaluate if management indicators are designed by the municipalities, and if there is a department that does the timely monitoring of them: in consideration of the diversity of conditions, interests, motivations, achieving the fulfillment of objectives. (17-21); The third indicator corresponds to standard 200-06, Professional Competence.
  4. Design of indicators: application of indicators, we propose whether the contents of the management indicators used in the entities. (22-26); This indicator is taken from standard 200-06 Professional competence.
  5. Design of indicators: risks, determine the existing risks in an organization and the possible consequences, through the application of various techniques so as not to omit any significant event. (27-34); This indicator was taken from Standard 300 Risk Assessment, from the State Comptroller General's Office

Once the places where the study is carried out have been defined, such as the financial, planning, and administrative areas, since they are involved in the integral process of internal control, in order to face risks and provide reasonable assurance regarding the mission and objectives of the institutions. It was determined which population is subject to it, the generalization of the results was sought; sampling units, their scope and time were used for this purpose. A quantitative value was chosen in which a scale ranging from one to three is taken into account - high, medium, low.

Table No. 1 Questionnaire to diagnose the performance of the internal control

Questions			
1	¿Has the autonomous municipal government defined the mission and vision of the entity?	18	Management indicators have been carried out for the internal evaluation of the institutional objectives
2	¿Does the planning system include the formulation, execution, control, monitoring and evaluation of the institutional multi-year plan and annual operating plans that consider the institutional function, mission and vision as a basis and are consistent with Government plans and SENPLADES guidelines?	19	The design of the indicators foresees the different levels of competence of the servers

3	The entity has an annual operating plan that contains: objectives, indicators, goals, programs, projects and activities that will be promoted during the annual period.	20	It has designed objectives based on general and specific objectives based on strategic planning and action plans
4	The POA was formulated in accordance with the processes and policies established by the National Planning System (SNP), the Norms of the National Public Investment System (SNIP) and the guidelines of the budget system.	21	The design of the indicators considers values, policies, objectives and strategies in the internal structure
5	¿ Was the POA formulated based on a detailed analysis of the internal situation and the environment?	22	The management indicators identify the internal and external factors of the entity
6	An internal control system has been established to ensure compliance with institutional objectives, goals, programs, projects and activities.	23	The effectiveness of the management indicators used is periodically evaluated
7	Permanent monitoring and evaluation of the POA and Pluriannual Plans will be carried out	24	he elaborated management indicators are shared with all levels of the entity and are approved
8	Within the analysis of the situation and the environment for the design of the POA, the results achieved and the deviations to the previous programming were considered	25	The management indicators are carried out considering external factors: economic, environmental, technological, political and social
9	In the POA, emerging needs have been identified to meet the present and future demands of internal and external users and the available resources, within a quality framework.	26	Management indicators are carried out considering internal factors: infrastructure, personnel, technology
10	The products of formulation, compliance, monitoring and evaluation of the Multi-Year Plan and POA were disseminated to all the entity's staff and the community in general.	27	The evaluation of administrative risks is carried out in order to prevent consequences in the management
11	The organizational structure allows the management levels to meet the objectives of the GAD	28	Has the highest authority established the necessary mechanisms to identify, analyze and treat the risks to which the entity is exposed in order to achieve its objectives? Eg risk map
12	Institutional objectives are relevant and are linked to the needs of the internal and external client	29	Managers develop plans, response method and monitoring of changes, as well as a program that provides the necessary resources to define actions to mitigate risks

13	The objectives clearly show the incidence of GAD management	30	There is adequate planning of risk management, which reduces the eventuality of the occurrence and the negative effect to alert the entity regarding its adaptation to changes in the entity
14	The objectives are open to modifications depending on the development of compliance with them	31	Managers develop plans, response methods and monitoring of changes, as well as a program that provides the necessary resources to define actions to mitigate the risks of the entity
15	The objectives promote the integration of tics in the different processes of municipal management activities	32	Sufficient information is obtained about risk situations to estimate their probability of their occurrence or of unwanted events
16	The multi-year objectives are monitored in accordance with the annual objectives of the GAD	33	Complex programs or activities, cash management, high staff turnover and growth, establishment of new services, redesigned information systems, rapid growth, new technology, among others are considered high potential risk factors
17	¿ Does the entity have up-to-date and approved processes to assess the knowledge and skills competencies of the institution's servants and servants?	34	Risks are determined by considering valuation techniques and data from observed past events, which can provide an objective basis in comparison with estimates

Source: The authors

The hierarchical cluster analysis procedure allows the elements of internal control to be accumulated. In this way, the elements are grouped into conglomerates according to the deficiencies found in the different areas of an entity (Vega de la Cruz & González Reyes, 2017).

Non-experimental research cannot manipulate or control study variables. The researcher limits himself to observing the phenomena as they occur in the environment, to later describe and analyze these events. (Montaño, 2021) The researcher fulfills the role of observer. For this reason, this type of research is applied since the information provided by the municipalities established in the sample has not been manipulated; The approach was mixed, the qualitative phase of this research

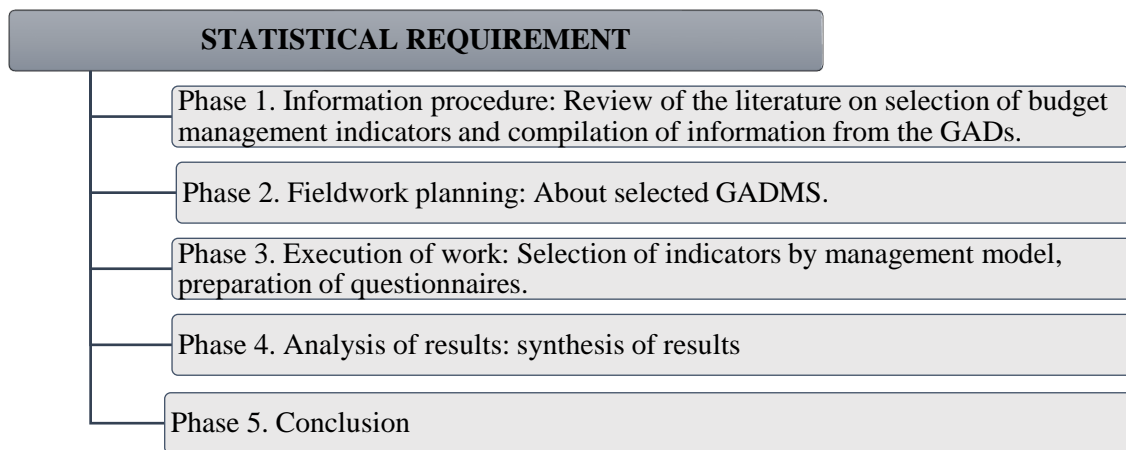
was carried out by collecting data related to the evaluation of internal control in the selected departments that went through an audit process in the years 2015-2019 through the application of interviews, maintaining an order and continuity of a structured scheme.

The quantitative phase consisted of gathering information related to the study variables through the application of surveys, based on an internal control evaluation questionnaire. Figure No.1 shows the process carried out in this investigation.

The field work (in situ) follows the guidelines proposed by (Velásquez & Armas, 2015) in the process of selection and elaboration of Sustainable Development indicators, for planning and decision-making of the Autonomous Municipality of

Caroní, which are developed in five phases as shown in Figure 1, and are described below:

Figure No.1  
Statistical requirements of the investigation



Source: The authors

#### Identification of the Sample Frame

The sampling frame takes into account the different levels of participation in investment, competition or budget execution, and based on this, the application of the surveys was programmed:

1. Number of municipalities (Decentralized Autonomous Governments (N = 221)
2. Addresses and headquarters (N = 2431)
3. Municipal coordinators / advisor (N = 1105)

#### Determination of sample size

The sample will be constructed according to its structural relevance within the population and due to its statistical significance, it will be probabilistic and will be estimated by applying the simple random sampling method without replacement. Twelve municipalities were chosen that have the same size and the same average budget (they receive up to 10.00 billion dollars a year from the government). The sample must be representative in such a way that it provides

reliable information to make the inferences and analysis of the research.

The data on the components of the sampling frame were delineated by the Functional Organic (organization chart).

Regarding the directions and headquarters, it is considered by the size of the departments by the number of employees to:

- a) Financial direction = 96
- b) Human talent management = 56
- c) Address / head of property registry = 32
- d) Direction / head of fixed assets = 48
- e) Directorate / Head of Public Procurement = 24
- f) Directorate / head of communication = 40
- g) Directorate / Head of Community Development = 32

The size of the population is 328 middle management officials, to determine the size of the sample the methodology set out in the research work of (Vega de la Cruz, Pérez Pravia, & Tapia Claro) is used in the

exposed context, the Formula 1 expresses the calculation of the sample size by using simple random sampling where  $n_m$  is the sample size;  $(p)$  is the probability with which the phenomenon occurs;  $q = (1 - p)$  is equivalent to the probability that the phenomenon does not occur;  $N$  is the size of the population;  $e$  is the probability of error for the confidence level; and finally,  $K$  is the critical value corresponding to the chosen confidence level.

$$n_m = \frac{K^2 pqN}{e^2(N - 1) + K^2 pq}$$

Formula 1

Meanwhile, the sample size is calculated using stratified sampling, in which case each stratum is determined using formula 2:

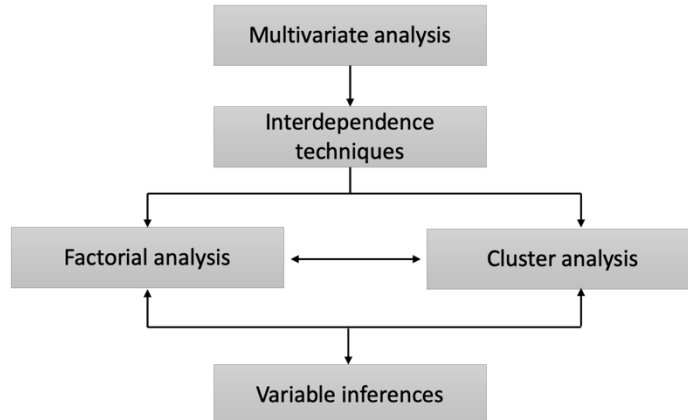
$$n_e = n \frac{n_m}{N}$$

Formula 2

Where  $(n_e)$  is the size of the stratum to be analyzed, and  $(n)$  the population size of the stratum.

To carry out the information processing, the method proposed by (Vega de la Cruz, Pérez Pravia, & Tapia Claro) is followed, where they recommend making inferences through univariate, bivariate and multivariate statistics. The purpose is to simultaneously validate a set of variables in order to measure the correct use of internal control indicators in the municipalities. figure No.2

Figure No. 2 Multivariate method for explanation of variables to the GADM in Ecuador



Source: The authors

The sampling by strata that is presented in table No. 2, determined the size of the sample starting from the departments or addresses of each municipality by means of a simple random sampling on the number of officials in (addresses and headquarters), which were indicated in 328 for the 12 selected municipalities.

The selected municipalities have similar characteristics in terms of territorial extension and budget allocation. Simple or random sampling is the most common way to obtain a representative sample with random selection of the elements, with the assurance that each one of the individuals in the population has the same possibility of being chosen with the use of a table, of



random numbers (Cortés, Mur, & Iglesias , 2020).

The estimated error for the selection of the sample is 5%, in a context in which there was a probability of success of 50% (for municipalities with similar characteristics).

Similarly, the probability of failure was taken into account, since there was no information on these events; consequently, a critical value of 1.96 was recommended, for 95% confidence. What determined that 178 surveys are carried out.

Table No. 2

#	Calculation of the number of strata in the GADM				
	Addresses	Description Special Exam	No. of officials	% representation of officials	Sample size
1	In the Financial Department and other related units	To the process of determination, collection, control and registration of the values for urban and rural property taxes, rates and special contributions.	96	29.3%	52
		To the process of registration, control and payment of accounts payable; and third party funds			
		To the process of determination, collection, control and registration of the values for taxes on urban and rural properties, rates and special contributions			
		To the process of registration, control and payment of accounts payable; and third-party funds			
		To the payments and obligations generated by concept of fines, interests and glosses			
2	In the management of human talent and other related units	At the entrance of servers and servants; and, to the technical administration of human talent.	56	17.1%	30
3	In Property Registrar	To the process of collecting property registry values	32	9.8%	17
4	In the direction of Bodega	To the use, maintenance, mobilization and control of vehicles and machinery (long-lasting goods)	48	14.6%	26
5	In the direction of public purchases	To the acquisitions of goods and services made through the process of very small amounts	24	7.3%	13
6	In the direction of communication	To advertising and propaganda expenses	40	12.2%	22
7	In the direction of community development	Compliance with the provisions issued in relation to people with special abilities	32	9.8%	17
<b>Total</b>			<b>328</b>	<b>100%</b>	<b>178</b>

Questionnaire to diagnose the performance of the internal control

Source: The authors

## Results and Discussion

The study of correlation between the variables takes as a reference the structure of the data by studying the correlations between the variables, in such a way, this procedure summarizes the data to a reduced number in the 5 components described in the research methodology.

In this evaluation, 3 components were analyzed: control environment, risk assessment, professional competence.

Factor Analysis and Principal Component Analysis (PCA) are closely related and are a multivariate data reduction analysis technique. Some authors consider the second as a stage of the first and others consider them as different techniques (Universidad de Alicante, 2021). The instrument used in the research initially had 32 basic questions that collected the 5 dimensions detailed in the methodology. This made it possible to correct elaboration errors, eliminating 15

questions that did not contribute significantly to the research.

As a result of the factorial analysis (Table 3), the Kaiser-Meyer-Olkin (KMO) measure of sample adequacy is obtained that greater than 0.699, which is equivalent to the minimum recommended value; a result that suggests the relevance of the factor analysis.

(Universidad de Alicante, 2021) The KMO test (Kaiser, Meyer and Olkin) relates the correlation coefficients,  $r_{jh}$ , observed between the variables  $X_j$  and  $X_h$ , and  $a_{jh}$  are the partial correlation coefficients between the variables  $X_j$  and  $X_h$ . The closer to 1 the value obtained from the KMO test has, it implies that the relationship between the variables is high. If  $KMO \geq 0.9$ , the test is very good; notable for  $KMO \geq 0.8$ ; median for  $KMO \geq 0.7$ ; low for  $KMO \geq 0.6$ ; and very low for  $KMO < 0.5$ .

Bartlett's sphericity test:

If Sig. (P-value)  $< 0.05$  we accept  $H_0$  (null hypothesis) > factor analysis can be applied. If Sig. (P-value)  $> 0.05$  we reject  $H_0$  > factor analysis cannot be applied.

Table No. 3 KMO and Bartlett test

KMO and Bartlett test		
Kaiser-Meyer-Olkin measure of sampling adequacy		0,699
Bartlett's test of sphericity	Approx. Chi squared	1303,33 0
	Gl	120
	Sig.	,000

Source: The authors

Meanwhile, by studying the communalities 1 of the extraction, it is evident that the variable corresponding to the evaluation of indicators is the worst explained: the model

is only capable of reproducing 76.0% of its original variability. In this case, validity was analyzed from the internal or construct point of view; According to the above, in table

No.4, this is called the component matrix, since the principal components method was used as the extraction method.

The total variance explained by the first three components is 71.40% of the total

variance explained. The matrix of components informs us of the relationship between the variables, grouping them and, therefore, reducing the amount of data with which the investigation began.

Table No. 4 Relevant results of the factor analysis

KMO	0,699		Components						
	Initial	Extraction	1	2	3	4	5	6	7
Planning system	1,000	0,851	0,901	-0,065	0,089	-0,058	0,103	0,155	0,006
Operative plan	1,000	0,815	0,891	0,043	-0,059	-0,027	0,025	0,039	0,257
POA tracking	1,000	0,862	0,592	0,086	-0,192	-0,281	-0,322	0,118	0,429
POA needs	1,000	0,769	0,076	0,802	0,120	-0,090	0,038	0,182	0,251
The objectives	1,000	0,808	-0,235	0,766	0,146	-0,029	0,294	-0,073	-0,076
Goal development	1,000	0,767	-0,240	-0,602	-0,107	0,596	-0,103	-0,079	0,068
Tics integration	1,000	0,793	0,279	0,574	0,422	0,145	0,394	-0,027	-0,141
Designed goals	1,000	0,775	-0,009	-0,046	-0,854	0,114	-0,020	-0,076	0,126
Evaluation Indicators	1,000	0,760	0,102	-0,272	-0,846	-0,075	-0,086	-0,022	-0,028
Risk assessment	1,000	0,867	0,097	0,232	0,203	-0,750	0,354	-0,078	0,101
They develop plans	1,000	0,830	0,003	0,318	0,366	0,642	0,320	0,206	-0,006
Risk planning	1,000	0,782	-0,021	-0,254	-0,044	0,141	-0,886	0,009	0,038
Monitoring changes	1,000	0,761	0,086	0,130	-0,013	0,141	-0,047	0,862	0,241
Risk information	1,000	0,848	0,360	-0,001	0,441	-0,145	-0,015	0,582	-0,382
High risk factors	1,000	0,808	0,218	-0,437	0,380	0,095	0,273	0,453	0,296
Data evaluation techniques	1,000	0,874	-0,321	-0,048	0,089	0,043	0,034	-0,185	-0,837

Source: Extraction method: Component analysis

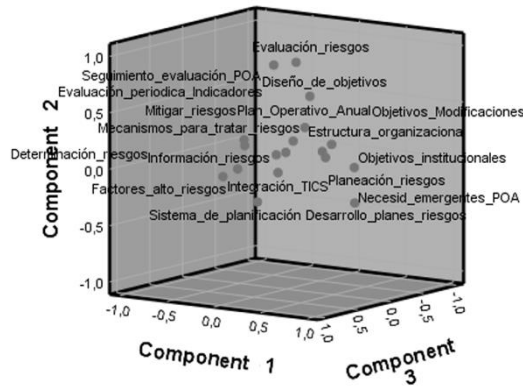
Source: The authors

From the factor analysis (Matrix of rotated components) we can conclude that the variables they are grouped into three large groups, (see figure No.1):

1. Component 1: the association of the variables development of plans, risk information, planning systems, monitoring of the POA, risk assessment is related to the determination of valuation techniques.
2. Component 2: the association between irrigation planning, integration of ICTs High risk factors, the institutional objectives are related to the annual operating plan.
3. Component 3: risk control, change monitoring, development of objectives, POA needs are related to the design of the objectives.

Graphic No. 1

Rotated space components

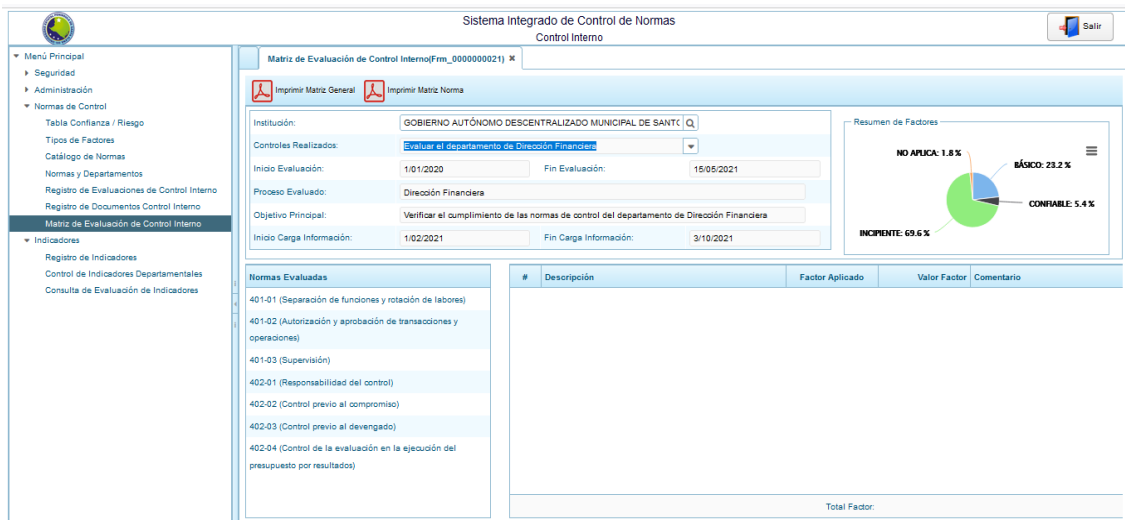


Source: The authors

Through the internal control system of the Santa Elena Peninsula State University (UPSE), designed by the authors, in

collaboration with workers from the accounting areas of the same university located in Ecuador, for its design and execution, the data were evaluated and entered, obtaining the following results:

Graphic No. 2  
Integrated standards control system



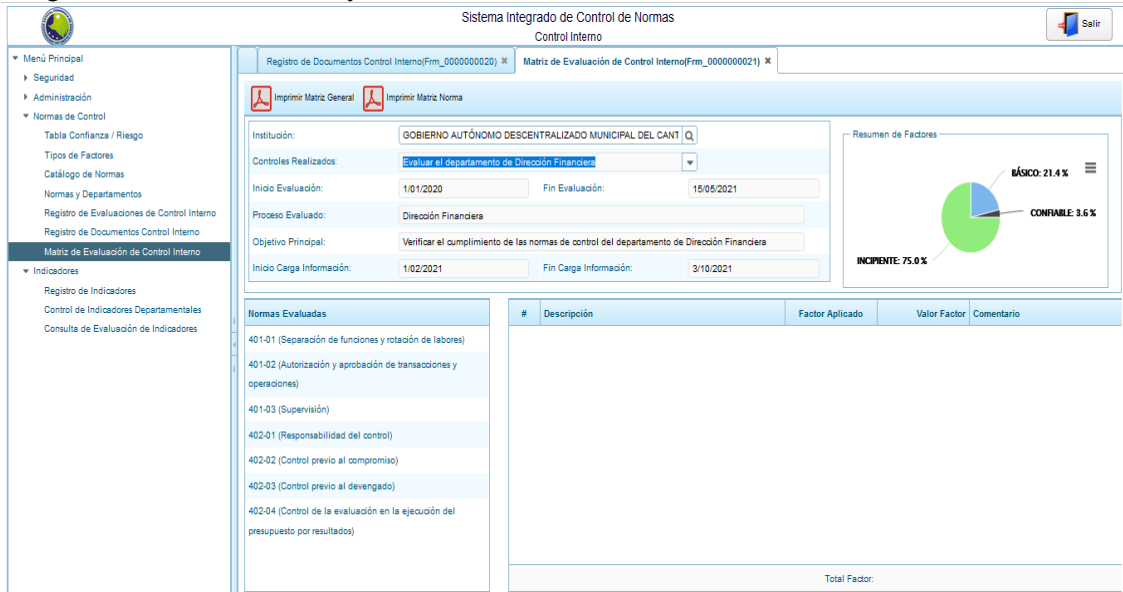
Source: Financial Area - Financial Directorate

Shortcomings in prior control procedures. There is no evidence of control of the prior or continuous control with respect to planning. It is concluded that 69.60% of the

standards evaluated in this area have the Incipient grade, while 5.40% are Reliable.

Graphic No. 3

Integrated standards control system



Source: Financial Area - Financial Directorate

The inference was validated by analyzing the results of the reports of the State Comptroller General in the special examinations and the components analyzed, existing major drawbacks in these areas.

Table No. 5 special tests and components tested

Departmental address	Description Special Exam	Internal control processes applied and results
Financial Management and other related units.  96 officials	To the process of determination, collection, control and registration of the values for urban and rural property taxes, rates and special contributions.	Absence of internal control system. Glosses and administrative sanctions. There is no evidence of any internal control process or evaluation of results and recommendations for external audits by the organizations control.
	To the process of registration, control and payment of accounts payable; and third-party funds	
	To the process of determination, collection, control and registration of the values for taxes on urban and rural properties, rates and special contributions	
	To the process of registration, control and payment of accounts payable; and third-party funds.	
	To the payments and obligations generated by concept of fines, interests and glosses	
Management of human talent and other related units	At the entrance of servers and servants; and, to the technical administration of human talent.	56
Property Registrar	To the process of collecting property registry values	32
Storage Department	To the use, maintenance, mobilization and control of vehicles and machinery (long-lasting goods)	48
Public purchasing department	To the acquisitions of goods and services made through the process of very small amounts	24
Communication Department	Advertising and propaganda expenses	40
Community development department	Compliance with the provisions issued in relation to people with special abilities	32

Source: The authors

## Conclusions

- The internal audit departments apply the control to the processes that are planned annually by the

Comptroller, this study only detected until November 2018, with exams passed in 2019.

- The evaluated GADs do not correctly apply the policies and procedures established in the Regulations of the State Comptroller General's Office.
- The effect of the selected components resulting from the research on the control variables is evidenced.
- The commitment of each component analyzed and its impact on the variables they cover affect the risk of the GAD.
- In internal control, there is no evaluation of planning, risk information, planning systems, monitoring of the POA, in order to know the status of the processes.
- Risk control is an input for strategic planning integrating internal control, there is no evidence of improvements to the processes. In addition, there is no evidence of evaluations of indicators or monitoring of them.
- The external audits through reports leave the observations and recommendations reflected to the highest authority and to their managers, but no rectifications of errors are observed in their entirety, nor is the progress of the recommendations monitored in the approved reports.
- A strategic planning model updating regulations and identifying new processes, data analysis, measurement of indicators and results aligned with institutional objectives, will allow the GADs to improve their efficiency and effectiveness of their processes.
- There must be a software that allows to accurately evaluate the components of the GAD that have inferred and have the characteristics.

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