

UNIVERSIDAD TÉCNICA DEL NORTE

APPLIED SCIENCES ENGINEERING FACULTY INDUSTRIAL ENGINEERING MAJOR

THESIS BEFORE OBTAINING THE DEGREE ON INDUSTRIAL ENGINEERING

TOPIC:

STANDARDIZATION OF PROCESSES FOR THE MUNICIPAL CONTROL OF THE DECENTRALIZED AUTONOMOUS GOVERNMENT OF SAN MIGUEL DE IBARRA

AUTHOR: HÉCTOR PATRICIO CHANTERA CUASQUE

DIRECTOR: Mr. RODRIGO MATUTE

IBARRA - ECUADOR

2015

STANDARDIZATION OF PROCESSES FOR THE MUNICIPAL CONTROL OF THE DECENTRALIZED AUTONOMOUS GOVERNMENT OF SAN MIGUEL DE IBARRA

Author: Héctor Patricio Chantera Cuasque.

Director: Mr. Rodrigo Matute.

SUMMARY

This thesis project has been developed with the purpose of contributing to the solution of the problems identified in the Units and Administrative Directions that conform the Municipality, for instance, lack of organization, complex and bureaucratic activities, outdated processes and activities that do not add value and rebound in the inefficient services answer to the citizens.

KEY WORDS

Administration of Processes, Processes, Procedure, Indicators of Administration, Analysis of Added value, Diagrams of flow, Map of Processes, Characterization of Processes, Quality, Improves of Process.

INTRODUCTION

The standardization of processes inside of an organization is carried out due to multiple reasons; the demand that imposes us a globalized market has made us change the vision of the world and the business, where the competitiveness is the satisfaction at the client; the goods/services quality and the cost.

The Decentralized Autonomous Municipal Government of San Miguel de Ibarra in order to complete these control mechanisms and the claim in the demand of the services on the Strategic Plan settles down inside the objectives main to improve standardize the processes and procedures to guarantee the effective and efficient Municipal Administration (GAD-I, 2009-2014, p. 31).

Therefore, inside the Municipality of Ibarra is realized the initial diagnosis in the different Units and Administrative Directions related to the administration of Municipal Control, which allows to identify its real information flow, chord the current situation of its activities, and the corresponding interaction defending its reach in the administration and service to the citizens.

THEORETICAL FRAMEWORK.

Processes Administration

The focus of an organization based on processes consists in identification, standardization and systematic application of the developed processes considering their interaction and integration by means of bonds cause-effect, which involve three dimensions. *Technique, People and Organization.* (Pérez, 2012, págs. 30-31)

International Standard ISO 9000 promotes the adoption of a process-based approach when developing, implementing and improving the effectiveness of a system of quality management to increase customer satisfaction by meeting their requirements.

Additionally, it can be applied to all processes methodology known as "Plan-Do-Check-Act" (PDCA). PDCA can be briefly described as:

- **Plan:** To establish the objectives and necessary processes to get agreement results with the requirements of the client and the politicians of the organization.
- **Duty:** To implement the processes.
- **Check:** To carry out the pursuit and the mensuration of the processes and the products regarding the politicians, the objectives and the requirements for the product, and to inform on the results.
- Act: To take stocks to improve the acting of the processes continually. (Organización Internacional de Normalización, 2008)

Matrix of Added value. - it is a tool that allows to analyze each one of the activities of the process starting from two dimensions:

- Add value to the process or not.
- It is necessary in the process or not.

The combinations of these two dimensions are:

It adds value and is necessary.

- It doesn't add value but it is necessary.
- It adds value but it is not necessary.
- It doesn't add value and it is not necessary

	ADD VALUE						
۲۲		YES	NO				
NECESSARY	YES	IMPROVE	OPTIMIZE				
ES .		TRANSFER	DELETE				
<u> </u>	NO	(to another					
2		area)					

Figure 1. Dimension of added value.

Source: Author.

Diagram of flow.

This tool is a great utility for organization because its use contributes to the development of a better institutional administration, in aspects like:

- They show in a global way the composition of a process or procedure for what they show understanding when showing it as a drawing. The human brain recognizes the drawings easily. A good diagram of flow replaces several text pages.
- Duplicities are presented during the development of the procedures, as well as the responsibilities and the points of decision.
- They facilitate procedures' analysis, showing graphically who provides inputs or resources and who they go directed to.
- They are good tool to qualify the new representatives, and support when the holder responsible for the procedure is absent, so that another person can replace it.

• The creation of the diagram of flow is an activity that adds value, because the process that represents is available to be analyzed, not only for who take it to end, but also for all the interested parts that will contribute new ideas to change it and to improve it. (MIDEPLAN, June, 2009, p. 3)

METHODOLOGY APPLICATION

The Methodology for Rising Processes was used to carry out the the Decentralized processes in Autonomous Municipal Government of San Miguel de Ibarra (GAD-I), it focuses on implementation to the future of having а system administration of the quality, therefore, Methodology **PDCA** is the an alternative that ISO 9001-2008 propose us.

The international standards promote the adoption of a focus based on processes for the development of the system of administration of quality, in the project it will be carried out by each activity to complete the general aspects of the stages of the methodology PDCA that settles down for the Process of Rising and Standardization in the Municipality:

Plan: The Planning stage is to a) study the current situation, collect information and generates a diagnosis. Among the activities taking place at this is the definition stage processes, their inputs, outputs, customers and suppliers. Identify expectations. identify customer problems and developing possible solutions that are also part of the activities to develop.

In this phase, the product is intended to be achieved, establishing a Survey Plan Information for all products and services of the units and departments of the Municipality for the dictionary or inventory processes; It will be made to identify all elements of processes, such as: inputs, outputs, controls used bγ resources Process Characterization; the, interaction and subsequent general classification of all processes through a map of processes that identify each of the procedures that interact in different established processes.

Do: Making the design and b) documentation of Macro process, processes and procedures with a focus on Business Process Management with reference to the inventory documented in the **Dictionary** Processes existing processes. Such information is used in unity with municipal competencies for structuring Map Process.

The stage of making, the plan puts into practice, that is to say it is developed a pilot of the previously realized plan approves. This implementation is limited it is an experiment to evaluate a proposed solution and to offer objective data.

c) **Check:** Establish the indicators of processes for the measure and carry out the monitoring of indicators on the variability and repetition in all the designed processes and procedures identified. In this, it is necessary to

implement or elaborate a plan of pilotage the processes.

The stage of verifying determines if during the rehearsal the plan this worked correctly, or if they have not been problems or additional opportunities. It intends new solutions and they are evaluated by returning to the stage of making.

Act: Identify the opportunities of improvement and act for the improvement of the processes. In this last stage, to adjust, the final plan. It puts into practice the improvements and become a continuous practicing way.

For the development of each a the stages, tools facilitate the administration and they allow to obtain in agreement information with the improvement of processes or the solution of the identified problems; tools like the chain of value, diagrams of flow, womb of value pleasure of activities, they are used with the end d to obtain information for the realization of the diagnosis of the current situation of the processes or problem.

Processes and Procedures.

Once done the structuring, the design, and the analysis of all the products and services for each one of the Directions and Units, it Controls the Municipality, also, the processes and procedures are defined to document; this is carried out with the participation of Directors, Responsible for Units and Public Attendants in the taking of decisions hierarchy level.

For the documentation of procedures, the information rises and each one of main activities of the the **Process** Characterization of is analyzed establishing this way the Procedures for each process Environmental Control, Sanitary Control. Predial Control and Control of Public Spaces. The processes and procedures to document and standardize are:

Table 1 List of Standardize Procedures.

	LIST OF MUNICIPAL CONTROL PROCEDURES						
Νº	PROCESES	Νo	PROCEDURES				
1	Environmenta I Control	1	Environmental assessment of activities fastened to control				
		2	Combustible waste collection				
2	Predial Control	Control of buildings and construct reports					
3	Health	4	Sanitary assessment of activities fastened to control				
	Control	5	Public spaces sanitation				
		6	Market Health Inspection Control				
	Control of Public Spaces	7	Control set outdoor advertising				
		8	Control of mobile outdoor advertising				
4		9	Inspection of mobile advertising				
7		10	Provisional seizure of goods				
		11	Notification for violating ordinances				
		12	Control and inspection of places of entertainment				

Source: Author.

Added value analysis

The Added Value analysis was carried out with the participation and application of the flow of processes that contributes to evaluate and improve each one of the activities through working meetings and in analysis of each procedure and its activity, with the useful help of the diagrams of flow of each procedure that at the moment it was identified and I document, of he/she is carried out it the analysis of added value of

the processes, it allows us to facilitate and to identify in each one of the diagrams and activities the different possibilities that you can follow a process, that which is good to determine the added value for the citizen and the Institution.

In the analysis of added value of each procedure it is carried out with the stocks of eliminating, to combine, to change the sequence and to simplify; this is carried out to each procedure that you/they conform the Macro process of Municipal Control.

RESULTS

According to the general analysis of the processes, all the processes don't complete 80% added value to the client, therefore, it is necessary to revise each one of the activities which do not add value to simplify or eliminate. Most of the activities need inspection to revise and simplify. For all the processes, the inspections are necessary for such a reason they cannot be eliminated.

Table 2. Comparative analysis of results.

	PROCEDURES	CURRENT ANALYSIS				PROPOSAL ANALYSIS					
Νo		VA	Assessment	Movement	Archive	Delay	VA	Assessment	Movement	Archive	Delay
1	Environmental assessment of activities fastened to control	55%	42%	3%	0%	0%	68%	28%	4%	0%	0%
2	Combustible waste collection	56%	22%	9%	0%	0%	64%	25%	11%	0%	0%
3	Control of buildings and construction reports	78%	22%	0%	0%	0%	78%	22%	0%	0%	0%
4	Sanitary assessment of activities fastened to control	69%	28%	3%	0%	0%	76%	19%	5%	0%	0%
5	Public spaces sanitation	63%	26%	11%	0%	0%	63%	26%	11%	0%	0%
6	Market Health Inspection Control	64%	29%	7%	0%	0%	64%	29%	7%	0%	0%
7	Control set outdoor advertising	64%	21%	14%	0%	0%	64%	21%	14%	64%	64%
8	Control of mobile outdoor advertising	64%	29%	7%	0%	0%	64%	64%	64%	0%	0%
9	Inspection of mobile advertising	67%	17%	17%	0%	0%	67%	17%	17%	0%	0%
10	Provisional seizure of goods	67%	13%	7%	13%	0%	67%	13%	7%	13%	0%
11	Notification for violating ordinances	73%	14%	5%	5%	5%	73%	14%	5%	5%	5%
12	Control and inspection of places of entertainment	64%	25%	11%	0%	0%	64%	25%	11%	0%	0%

Source: Author.

We can observe the results of each process and the variation the each one of the stocks of eliminating, combining, changing sequence and the simplification for the analysis parameters like it is the added value. inspection, movement, file and it delays of current process and I eat project proposal for the improvement of each procedure.

Analysis activities elimination which do not add value.

Chart 3. Analysis of the elimination of non-value added activity.

ELIMINATION OF ACTIVITIES							
PROCEDURE	CURRENT	PROPOSAL					
Environmental assessment of activities fastened to control	33	24					
Combustible waste collection	28	28					
Control of buildings and construction reports	23	23					
Sanitary assessment of activities fastened to control	32	23					
Public spaces sanitation	19	19					
Market Health Inspection Control	14	14					
Control set outdoor advertising	14	14					
Control of mobile outdoor advertising	14	14					
Inspection of mobile advertising	8	8					
Provisional seizure of goods	15	15					
Notification for violating ordinances	22	22					
Control and inspection of places of entertainment	28	28					

Source: Author

In chart 3, one can observe the elimination of 3 activities in the procedure of environmental control of

activities subject to control and the procedure provisional seizure of merchandises, in the other procedures it is not considered the elimination of activities but if it suggests the stocks to combine, change sequence and simplify that allows them to improve the activities in each procedure.

CONCLUSIONS

The bibliographical revision allowed to establish the tools and applicable methodologies of the Administration for Processes focused to the execution of the guidelines and competitions that settle down normative legal related to the control public entities in the processes and procedures to offer the service to the citizenship.

With PHVA methodology begins the initial diagnosis for the design and the structuring of the processes and procedures according to the list of the services/products and the control competitions for the Municipality.

The administration indicators that it intends for each procedure allow to generate and measure the proposal of outlined improvement has a positive result in the short term and be reflected in the internal and external quality of the process to offer the service.

Based on the tools of added value analysis of the processes and the diagrams of initial flows, the proposal of improvement of two procedures is elaborated for that which had participation of those responsible for the Divisions and involved Directions.

It is standardized four characterizations of processes, ten descriptions of procedures with their respective diagrams of flows, allowing to identify and each one of the activities that are developed in the Units and Directions and works in the Macro processes Municipal Control in order to o settle down.

The approval of this project was carried out jointly with all the processes and procedures documented by means of the Administrative Resolution N° 045-DAM-2014 with respect to reforming of the Manual of Processes and Procedures GAD-I; emitted by the Illustrious Municipal Council March 12 the 2014.

The standardization of processes allowed to fulfill the Norms of Internal checks of the General Controllership of the State and the Guidelines of Administration Processes established by the Public Administration so that the acting is efficient and effective in this type of public entities.

RECOMMENDATIONS

Execute improvement actions outlined before in order to motivate those responsible ones toward a working process commitment in team to be prepared for the changes and to maintain the permanent mission of offering quality in the service.

Upgrade the elements that interact in the developed processes to give execution and preparation in the ordinances and normative effective, in each one of the Divisions and Directions involved in the development of the project.

Perform the control and measurement of the procedures in order to strengthen the cultural change and the technical competitions according to the operative necessities and endow the officials dynamic and systemic activities focused in the satisfaction of the citizenship.

The people in charge and Directors of Divisions and Directions of the Municipality respectively will implement the training plans in all the levels of public servants to improve the acting and to motivate to the human talent.

Upgrade the Manual of Processes and Procedures for the Municipal Control when some change exist in the flow of the information or some improvement developed in the low time the responsibility of the in charge one of the Administration for Process.

BIBLIOGRAPHY

Constitución de la República del Ecuador . (2008). Ecuador. GAD-I. (2009). Planeación Estrégica 2009-2014. Ibarra. Gobierno Federal M. (Septiembre de 2008). Herraminetas para el Análisis y Mejora de Procesos. 3. H., M. (2011). Gerecia de Procesos. Bogota: Alfaomega. Harrington, H. J. (1994). Mejoramiento de los Procesos de las empresas. McGraw-Hill.

Jaramillo, C. M. (s.f.). Indicadores de Gestión. Junta de Castilla y León. (2010).

Actualizacion de Guia para la Gestion por Procesos 2.

Organización Internacional de Normalización (ISO). (2005). ISO 9000. Sistemas de gestión de la calidad -Fundamentos y Vocabulario. Ginebra-Suiza: ISO.

Organización Internacional de
Normalización (ISO). (Actualización 2005).
GTC - ISO/TR. 10013. Directrices de
documentación de sistema de gestión de
la calidad. Bógota: INCONTEC.
Organización Internacional de
Normalización. (15 de 11 de 2008).
Sistema de la Gestion de la CalidadRequisitos. Ginebra, Suiza.
Ortiz, M. L. (Junio de 2008). Manual de
Procesos y Procedimientos. Bases
Estrategicas y Organizacionales. Tomo 1.
Cartagena de las Indias.

Pérez, J. A. (2012). Gestion Por Procesos (Cuarta ed.). España: ESIC. Política, M. d. (2012). Código Orgánico de Ordenamiento Territorial, Autonomía y Descentralización. Quito-Ecuador: V&M Gráficas.

Secretaria Nacional de Administracion Publica. (2011). *Acuerdo Nº 784, Norma Técnica de Gestión de Procesos.* Quito. Velasco, J. A. (2012). *Gestiosn por Procesos.* España: ESIC EDITORIAL.