

Projected transformations to improve the management of the accounting process at the University of Havana

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Received: 01 Jul 2021; Received in revised form: 01 Aug 2021; Accepted: 10 Aug 2021

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Abstract

This work deals with the transformations that are necessary to promote the accounting management of the University of Havana in search of a qualitative level higher than the current one. In the development of the work, the theoretical elements that support the research are addressed and the context in which accounting management is developed is exposed. The work refers to some of the main strengths and weaknesses of the accounting process identified by the authors through the application of a questionnaire to the qualified personnel who develop the accounting process. Based on the diagnosis made, it is proposed to influence elements such as human capital management, the accounting manual and the design of the accounting process management. Consequently, actions are proposed to be carried out in these three aspects that allow to improve the management of the accounting process at the University of Havana.

Keywords— Accounting process, Higher Education Institutions, Management.

I. INTRODUCTION

Due to the scientific development achieved, new labor demands and those of society in general, the increase in the number of Higher Education Institutions (HEIs) and the competition between them, as well as other changes and challenges that these types of institutions have, nowadays the issue of quality in Higher Education is worrying, since compliance with its standards largely depends on the relevance of HEIs.

Moving towards a desired model of university supposes building a humanistic, modern, scientific, technological and innovative university; integrated into society, the productive sector, territories and communities; as well as committed to the development of an advanced social project. These qualities demand that the Cuban university be relevant and be prepared to participate in sustainable human development, even though the challenges it faces and the untapped potentialities are many given the requirements of the economy and society. (Alpízar, 2018; p. 174).

According to Rodríguez Rodríguez, De León & Galarza (2015; p. 55): Higher Education Institutions have great challenges such as the generation of knowledge, the training of comprehensive, competent professionals with values, the offer of a more diversified postgraduate course linked to research, strengthening the internationalization process, and the development of information technologies and communication and the evaluation and participation systems of the university community in institutional management.

They also state that:

the teaching-learning, scientific research, university extension, economic-financial and other processes must be conceived as a single process that favors university management and anticipates changes, which also promote the insertion of people in them, to achieve results that have a favorable impact on the individual, the collective, the institutional and the social, always under the influence of certain historical social conditions.

The University of Havana (UH) is among the most distinguished universities in Cuba and Latin America. It is characterized by academic excellence, as well as a high scientific and pedagogical degree of its faculty, which is endorsed by the Excellent category obtained in the last institutional evaluation received. This category that it holds constitutes in itself a challenge for economic-financial management, especially for the accounting process, since this process must be on par with the rest of the substantive processes in terms of quality.

The UH is characterized by having a great geographic dispersion and managing a wide variety of activities that includes from teaching, research, extension, event management, projects and productions to the management of general services, accommodation, logistics, transportation, dining rooms, construction and specialized maintenance, among others.

Until 2003, its accounting and financial management was characterized by having a high degree of centralization; as well as a relatively small economic structure and staff, which together with its great variety of activities and geographic dispersion, made management very difficult from the accounting and control point of view. The external control actions received up to that moment highlighted the weaknesses of this organizational form and demonstrated the need for a change in management that would allow a better response to the control requirements and the management itself.

In this context, the "Project for the Change of the Financial Accounting Management System" was put into practice since 2004, which partially managed to decentralize management by creating various structures with specialized personnel and an accounting design according to the characteristics of each activity. This improvement process took place at the same time that the Economic-Financial Management Model (EFMM) was designed by the Ministry of Higher Education (MHE) and implemented in the universities based on their characteristics.

In 2009, 2011 and 2017 updates were made to the structure and content of the EFMM systems and subsystems with the aim of overcoming the shortcomings that it presented, as expressed Alpízar et al. (2017; p. 43):

The shortcomings of the implementation of the EFMM are marked by the lack of an effective integration of the EFM with the university processes and between the EFM systems themselves. The adjustments and transformations that are required due to the development of the model itself, the current demands and perspectives of the development of university processes, impacted by the conditions of the

environment and the implementation of the Guidelines of the Economic and Social Policy of the Party and the Revolution, as part of the updating of the Cuban economic model, reveal the need for systematic improvement and permanent innovation in the economic activity of higher education institutions attached to the MHE, and particularly in accounting.

One of the issues recognized at that time and that still constitutes a challenge for the EFM of the UH is the one raised by Alpízar et al. (2018; p. 106) when he asserts «are the main requirements for the current and prospective development of the substantive university processes: the integration of the EFM with the substantive processes, the active management of knowledge, the flexibility and dynamism of the mechanisms of EFM and adaptation to the conditions of the internal and external environment. »

From the economic point of view, the UH is currently the most complex entity in Cuban higher education, being one of the ones that has had the most structural changes in recent years from this point of view and being a system of entities made up of five budgeted units, a Budgeted Unit with Special Treatment and a Foundation for the management of Science, Technology and Innovation.

The UH in its Internal Control System (ICS) applies a process approach with a process structure composed of macro processes, which are broken down into processes and these in turn into sub-processes. Among the macro support processes defined is that of Economic and Financial Management which, in turn, includes the Planning, Finance and Accounting processes.

The Accounting Process is defined by the authors as the process by which the data of the economic events that occurred are obtained, analyzed, identified, classified, recorded and communicated their results with opportunity and truthfulness to users, for control and taking decision-making, using available human and material resources, ensuring the efficient and effective use and destination of resources and compliance with the procedures that guarantee internal control.

This work is part of the doctoral research "Management of the quality of the accounting process at the University of Havana" developed by the authors and its objective is aimed at proposing the elements that must be influenced and actions to be taken to achieve improving the management of the accounting process at the University of Havana.

The following problem arises from the need to improve the management of the accounting process in the UH and make it provide reasonable assurance to the achievement of the institutional objectives: What elements must be

transformed to improve the management of the accounting process in the UH?

To solve this problem, an investigation is carried out whose **general objective** is to propose the elements subject to improvement and the actions to be developed to contribute to the improvement of the management of the accounting process in the UH, **the specific objectives** being:

- Systematize the theoretical bases about internal control, accounting and the process-based approach.
- Identify the main weaknesses of the current management of the accounting process in the UH.
- Propose the elements subject to improvement and actions to be developed to contribute to the improvement of the management of the accounting process in the UH.

To carry out the work, it is essential to address issues related to internal control, accounting, the process-based approach and quality management.

The most impactful definitions of internal control in the current economic life of our country have their origin in the document entitled "The new concepts of Internal Control" (COSO report), issued in 1992, which defines Internal Control as «a process carried out by the board of directors, management and the rest of the personnel of an entity, designed in order to provide a reasonable degree of assurance regarding the achievement of objectives within the following categories: Effectiveness and efficiency of operations; Reliability of financial information; Compliance with applicable laws and regulations ». (Cooper & Lybrand, 1997; p. 4).

The COSO report is the result of an investigation carried out in the United States with the aim of defining a new conceptual framework of internal control capable of integrating the various definitions and concepts that were used up to that time regarding this topic. In Resolution No.60 of 2011 issued by the Comptroller General of the Republic of Cuba (CGRC), which addresses aspects based on the COSO report, the "Internal Control System Standards" for our country are established. an expanded concept of Internal Control, based on the fact that it is a «process integrated into operations, with a focus on continuous improvement, extended to all activities inherent to management, carried out by management and the rest of the staff; it is implemented through an integrated system of rules and procedures, which help to anticipate and limit internal and external risks, providing reasonable security for the achievement of institutional objectives and adequate accountability ». (CGRC, 2011; p. 2). This definition is the one adopted by the author for the present work.

The five components that make up Internal Control are:

1. Control environment.
2. Risk prevention and management.
3. Control activities.
4. Information and communication.
5. Supervision and monitoring.

The Control Activities component is of central importance because it sets out the guidelines for the development of operations, establishing regulations and procedures that guarantee the quality of management focused on the fulfillment of the entity's objectives. Although the ICS covers all the processes and activities of organizations, this component has a special impact on financial and accounting processes by highlighting among its precepts the roles and responsibilities related to finance and accounting.

Accounting is a highly regulated professional practice in the country and in its theoretical conception it is nourished by the dissimilar definitions and experiences that have taken place throughout several centuries of existence that it has worldwide. According to del Toro Ríos (2019; p. 3): «The specialization of production, the proliferation of private property and exchange, by conditioning the existence of society, developed Accounting, turning it into a science capable of accurately recording financial operations, classifying them by their nature and serving art of the administration."

In the presentation to the Cuban Accounting Standards by the Ministry of Finance and Prices (MFP) it is established that "Accounting registers, classifies and summarizes, in monetary terms, the economic operations that occur in an entity and through it the interpret the results obtained, representing an effective means for the direction of this. » (MFP, 2005; p. 1).

Accounting does not exist or works for itself, it is not an end but a means to reasonably know the current situation of the entity, analyze and compare this situation, both with past moments and with the current situation of similar entities in the same branch, carry out estimates of future events, serve as support in decision-making, among others. The quality of the information presented depends on both the established procedures and the people who execute them in terms of their professional capacity, disposition, interests and commitment to carry out the tasks and conditions to carry them out.

The management approach used by the entity to function will depend on the approach applied to manage the accounting. The traditional function-based approach recognizes accounting as a system that is made up of several subsystems. In this sense, Resolution No. 268 of

2018 of the MFP establishes the internal control procedure associated with each accounting subsystem; However, since the CGRC issued the ICS standards through Resolution No. 60 of 2011, it is discussed in terms of processes, not subsystems. However, this does not imply any antagonistic contradiction since the subsystems of the traditional approach can be made compatible with the processes and sub-processes of the process approach and in this sense the UH applies the latter approach to its ICS.

Among the most relevant process definitions in Cuban practice are those of the International Organization for Standardization (ISO) and those of the CGRC. In the international standard ISO-9000, process is defined as a "set of mutually related activities that use inputs to provide an intended result." (ISO, 2015; p. 15). In Resolution 60 of 2011 of the CGRC, a process is defined as the "set of resources and activities that transform input elements (inputs) into output elements (product / service); resources include personnel, finances, facilities, equipment, technologies, techniques, and methods." (CGRC, 2011; p. 27). This definition is the one that will be applied in the development of this work.

The process-based approach is a way of identifying the internal processes of the entities, their interactions and putting them in function of the clients to achieve their satisfaction. In this sense, the UH has been working for several years to change the traditional approach of management by functions to the approach by processes, especially in financial economic management and, therefore, in the accounting process. This change is not achieved in a short time because it requires that people assimilate the new approach and create a culture in the organization that promotes this practice. One element that has undermined this has been the fluctuation in recent years of personnel in economic areas. The accounting process in its performance depends to a high degree on three fundamental elements: human capital, the accounting manual and the design of the process management itself.

II. METHODOLOGY

The study was carried out through the application of a survey to the personnel of the Economics departments of the Assurance Budgeted Unit at the University of Havana (UPAUH) and the UH to update the diagnosis of the accounting process situation and determine the main strengths and weaknesses associated with the process. In the sample chosen between the two areas, 15 colleagues from different occupational categories and with important responsibilities in different sub-processes of the accounting process were included, among which are:

- 3 managers,

- 5 main specialists,
- 3 higher level specialists,
- 2 mid-level technicians and
- 2 empirical technicians with experience in the activity.

Two variables were defined (Management of the quality of the accounting process and Performance requirements of the accounting process) and for each one the dimensions and the corresponding indicators were established, to which the questions of the applied questionnaire were associated. Each indicator had an assessment scale that allows identifying the extent to which the results are satisfactory in terms of the indicator and the variable, as shown in Table 1:

Table 1: Assessment of the results obtained

Results	Values
Satisfactory	more than 85% of the positive responses
Acceptable	from 60% to 84% of positive responses
Poor	40% to 59% of positive responses
Bad	less than 40% of positive responses

Source: self-made

The following conditions were also established:

- Dimensions with a bad evaluated indicator cannot be rated as satisfactory. Their evaluation is acceptable if they do not have indicators evaluated as poor. Its evaluation is deficient or bad depending on the indicators evaluated as poor.
- Dimensions with more than one indicator evaluated as bad are evaluated as bad.
- Variables with a dimension evaluated as bad cannot be rated as satisfactory or acceptable. Its evaluation is poor or bad depending on the dimensions evaluated as poor.
- Variables with more than one dimension evaluated as bad are evaluated as bad.

III. RESULTS

The defined variables and their results were the following:

- Variable 1. Quality management of the accounting process: coordinated activities to direct and control in relation to quality the obtaining of the data of the economic events that occurred, their analysis, identification, classification, recording and

communication of the results with opportunity and truthfulness to users, using available human and material resources. Associated with this variable are the dimensions: Approaches, Human Capital and Parts

of quality management. Each of the dimensions has four associated indicators. The summary of the results of the analysis of the variable is shown in Table 2.

Table 2: Results of the analysis of the variable Quality management of the accounting process

Dimension	Indicator	Satisfactory: + 84	Scale in%		
			Acceptable 60 - 84	Poor: 40 - 59	Bad: -40
Approaches	Process Approach		70		
	Customer focus		63		
	Risk approach				38
	Improvement focus	97			
Human capital	Leadership commitment and	90			
	Preparation and overcoming		60		
	Assessment				20
	Relationship management		73		
Parts of quality management	Planning				23
	Control		60		
	Assurance			50	
	Upgrade			40	
Total quantity		2	5	2	3

Source: self made

Of a total of 345 questions that correspond to the variable, 197 responses were positive, which represents 57%, 99 responses were negative, for 29% and 49 respondents did not know about it, for 14%. In correspondence with the positive responses, this variable evaluates as deficient, which is ratified by having two dimensions evaluated as acceptable and one evaluated as bad. In all dimensions there is an indicator evaluated as bad, which shows that there are weaknesses with the quality management of the accounting process to be overcome in a general way. This gives an overall POOR result for the variable, which means that work must be done to solve the weaknesses detected. When analyzing this variable, it can be concluded that the main strengths and weaknesses are the following:

Strengths

1. Generalized consideration that the entity should promote the use of the process approach.
2. Recognition that it is important to satisfy the information requirements of the users of the accounting information when developing the accounting process procedures.
3. The importance of taking into account the risks of each accounting sub-process when developing procedures is recognized.
4. An important part of the workers in the economic area are trained to carry out the accounting process with quality.
5. Position in favor of the improvement of the personnel and the improvement of the procedures manual as elements of improvement of the accounting process.

6. Managers and workers committed to the quality of the accounting process.
7. Adequate identification of internal and external users of accounting information.

Weaknesses

1. Different degree of preparation and implementation of the accounting manual in the entities.
2. In the procedures designed for the accounting process, the needs of university areas and users of accounting information have not been prioritized.
3. Not all the risks inherent to accounting sub-processes are defined.
4. Perception that the use of risk-based thinking is not promoted.
5. Workstation not designed in accordance with the procedures established in the accounting manual.
6. Personnel evaluations not quantified and do not adequately reflect the relationship between the requirements for the position, the work performed and the correspondence with the designed procedures.
7. Undefined quality objectives for the accounting process.

8. The resources necessary to carry out the accounting process properly are not guaranteed.
9. Infrequent internal evaluation of compliance with the procedures designed in the accounting manual.
10. Quality management unevenly in the areas by not performing in all actions aimed at planning, organizing and controlling the quality of the activities they perform.
11. Lack of indicators to measure user satisfaction with accounting information.

Variable 2. Performance requirements of the accounting process: link between the need to assess the quality of the accounting process and the need to measure the quality of the main characteristics that make accounting information useful. The following dimensions are associated with this variable: Accounting performance and Measurement of the characteristics that make accounting information useful. Each of the dimensions has three associated indicators. The summary of the results of the analysis of the variable is shown in Table 3.

Table 3: Results of the analysis of the variable Performance requirements of the accounting process

Dimension	Indicator	Scale in%			
		Satisfactory: + 84	Acceptable 60 - 84	Poor: 40 - 59	Bad: -40
Accounting performance	Recognized importance	96			
	Accounting Manual		83		
	Evidence-based decision making		60		
Measurement of the characteristics that make accounting information useful	Measurement Understandability				37
	Measurement Relevance		67		
	Measurement Reliability				23
Total quantity		1	3	0	2

Source: self made

Of a total of 180 questions that correspond to the variable, 114 responses were positive, representing 63%, 47 responses were negative, for 26% and 19 respondents answered not knowing about it, for 11%. Corresponding to the positive responses, this variable could be evaluated as acceptable but the result could be misleading as it has one dimension evaluated as acceptable and the other evaluated as bad. This gives a general POOR result for the variable, which shows that work must be done to

solve the weaknesses detected. When analyzing this variable, it can be concluded that the main strengths and weaknesses are the following:

Strengths

1. Consideration that measuring the quality of the accounting process is important.
2. Consideration that a quality accounting process contributes to the strengthening of internal control and the achievement of the entity's objectives.

3. Consideration that a good definition of the evaluation of the sub-processes influences the evaluation of the process.
4. Recognition of the benefit offered by the accounting manual for the work performance of the personnel.

Weaknesses

1. Although in each budgeted unit there is a manual that includes its own sub-processes, in an integral way they are not all grouped in a single document.
2. Limited evidence-based decision making for personnel management.
3. Insufficiencies of the workers in the knowledge of the processes and sub-processes of the accounting and financial management and the file of the sub-process they work.
4. Insufficient use of the information generated by the accounting process for decision-making.
5. There are no quality indicators for the accounting process and for each sub-process.

IV. DISCUSSION

Based on the weaknesses detected in the study, it is proposed to intentionally work on the following priorities:

4.1 Human capital

- Promote training and improvement (basic training, rotation for training in different jobs, Internal Control courses, ASSETS System, university environment).
- Reinforce links with academic areas (insert trained from the faculties, students of professional practices, etc.)
- Quantify the evaluations through indicators linked to the fulfillment of the work plans and their link with the procedures of the manual.
- Prepare improvement plans based on the weaknesses identified in the evaluations.
- Prepare a job design for the specialist in charge of monitoring the quality of the accounting process.
- Establish work routines and time slots for specialists. Calculate time they should dedicate to each type of activity and allow time to:
 - Receive documents.
 - Review, analyze and classify information.

- Identify the economic facts and their registration form.
- Post and reference documents.
- File documentation.
- Review archived documentation.
- Prepare reports.
- Interaction with users, clients, areas, suppliers (via telephone, email and in person).
- Advice and attention to areas.
- Participate in meetings, inspections, checks and other internal control actions of the economic area and in the areas.
- Improvement in the position (includes study of the procedures manual, searches and updating of regulations, etc.).
- Improvement outside the position (includes courses, seminars, meetings, videoconferences, training and others outside the physical workplace).

4.2 General Accounting Manual

- Review the elements that comprise it. Include quality items on the process and sub-process tabs.
- Study the relationship of the procedures described with the design of jobs to achieve alignment: Procedures-Job Design-Work Plan-Evaluation-Training based on the weaknesses of the evaluation.
- Verify that the procedures are being followed as designed.
- Design an evaluative instrument to measure its use and effectiveness and identify changes in the environment that warrant its modification.
- Incorporate risk management as part of the sub-process design.
- Determine how often it should be updated.

4.3 Process management design

- Apply a management approach with quality elements.
- Design and apply instruments to measure customer satisfaction with the process.
- Establish indicators for measuring the variables of the sub-processes based on those defined for the process in Table 4:

Table 4: Management indicators of the accounting process

Variables	Indicators and desired values
1) Comprehensive accounting information	1.1) 100 % of users understand accounting reports.
2) Relevant accounting information	2.1) 90 % of users use accounting information for decision making
3) Reliable accounting information	3.1) Accounting closing sub-process with 100% of indicators met.
4) Comparable accounting information	4.1) 100 % of the balances of the last 10 years available.

Source: self made

V. CONCLUSIONS

Currently there are weaknesses in the management of the accounting process of the University of Havana that generate risks for the fulfillment of the objectives set.

The improvement of the elements related to the human capital involved in the process, the accounting manual and the elements of the design of the process management will contribute to the improvement of the management of the accounting process at the University of Havana.

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