# **Balanced Scorecard model for strategic planning in Peruvian educational institutions**

Juan Alfredo Tuesta Panduro<sup>1\*</sup> https://orcid.org/0000-0002-1707-5143

Juan Dionicio Paz Soldán Chávez<sup>1</sup> https://orcid.org/0000-0002-9605-9706

Lincoln Fritz Cachay Reyes<sup>2</sup> https://orcid.org/0000-0002-1971-4818

Jackie Frank Chang Saldaña<sup>2</sup> https://orcid.org/0000-0002-1260-6355

<sup>1</sup>Universidad Nacional Agraria de la Selva, Tingo María, Perú

<sup>2</sup>Universidad Nacional de Ucayali. Ucayali. Perú

\*Autor for the correspondence: alfredo.tuesta@unas.edu.pe

#### **ABSTRACT**

The objective is to know the progress of the Balanced Scorecard implementation in educational institutions, which is based on a strict focus on maximizing the four perspectives: financial, user focus, internal processes, and learning and growth, making the best possible use of available resources. The results obtained show that the progress of the Balanced Scorecard in the education sector is slight. It is concluded that the implementation of the Balanced Scorecard model, generates motivation in the educational managers, given that the work area improved its conditions notably, which results in a greater and effective disposition to solve the problems of the educational sector in all its levels.

**Keywords:** Balanced Scorecard Model; Strategic Management; Educational Institution; Process Improvement.

### Introduction

According to the United Nations Educational, Scientific and Cultural Organization (2021) the new Coronavirus forced about 72% of students to leave their studies due to the closure of their schools, imposing a great challenge for the authorities that manage education at all levels.

In the Peruvian educational context, the Ministry of Education, the governing body for regular basic education and the National Superintendence of University Education (Sunedu) for higher education are in charge of overseeing the management and quality of education. In management, integration and processes are essential for their performance, public educational institutions in some regions are not in equal conditions to compete with private sector educational institutions who meet with higher quality the requirements made by students.

With the implementation of new methodologies for work, this has impacted on lower response times and more efficient service costs, this forces private or public institutions in general and especially in the education sector to take and give importance to the management of these vital areas, if they want to be competitive in context full of multiple problems (Piñero, Vivas and Flores, 2018).

Piñero, Vivas and Flores (2018) point out that the administrative area in an institution should focus its attention on implementing an efficient and quality management model, this area usually in ministries, is allocated a large percentage of national, regional or municipal budgets. Any savings in the area's management processes have a multiplier effect and are valued by its citizens from the point of view of the results of the government representative's management (Aldama et al, 2022).

Currently, some changes have been made in the management processes, but there is still a deficiency in the input, output and control of human and material resources, which has an impact on the order and control of the processes in the aforementioned area. Everything points to the need to implement a management system and the authors consider that the most appropriate for management is the Balanced Scorecard model, the creators of which were Kaplan and Norton in 1992 (Garcia and Goncalves, 2022).

In this research it is assumed that, for the administrative area of the educational system in Peru, the methodology developed by the Balanced Scorecard is the first step in the search for better management, which allows the reduction of bureaucracies, costs and increases the quality of service to be provided to students. The objective of this research is to know the progress of the Balanced Scorecard implementation in Peruvian educational institutions.

## **Development**

For Jaen, Villanueva and Novillo (2020), when the Balanced Scorecard management model was developed, it proposed an alternative to traditional management, which began to lag behind and often generated labor and social problems.

The philosophy that assumed the management model called Balanced Scorecard pointed towards quality initially refers to a management model that translates strategies into related objectives, measured through indicators and linked to action plans that allow aligning the behavior of the members of the organization (Espinoza et al, 2022).

We could say that the Balance Scorecard provides us with an image that allows us to examine how we are carrying out the strategy in the medium and long term. In order to focus this postulate previously, it is necessary to specify the vision of the institution in strategic objectives related to each other according to different perspectives. The usefulness of the Balance Scorecard does not depend on the type of institution, but on the problems it faces (Jaen, Villanueva and Novillo, 2020).

These principles are already widely disseminated and there are many companies, institutions, organizations and industries of different types that use it, ranging from service companies, hospitals, educational centers, entrepreneurship to non-profit associations in Peru (Inga, Coyla and Montoya, 2022; Hernández and Angamarca, 2020).

The design and implementation of this model seeks to achieve management processes under an adequate and quality working condition that generates the use of working time and reduces costs. This methodology does not require a large investment, nor a specialized human resource; it does not exclude anyone, so everyone receives knowledge in their workplace (Jaen, Villanueva and Novillo, 2020; Inciarte, 2020).

For Jaen, Villanueva and Novillo (2020) the results obtained with the implementation of the management model called Balanced Scorecard, improves the productivity of a company, it would not be contradictory to adopt this work system, which allows among other things, to generate orderly environments and update the stock of materials and resources; as well as having an excellent management of many vital processes for a

company, industry or agency of the national, regional or municipal government or an educational institution.

Since this management model is directly related to the human resources of an area, it provides adequate working conditions and consolidates what is currently called organizational culture. We know that human resources find it satisfactory to be able to perform their tasks in clean, orderly and safe environments; since this reduces the possibility of occupational accidents, strengthening the commitment and sense of belonging in workers for their workplaces (Jaen, Villanueva and Novillo, 2020). It has a wide application; it is currently present in factories and service institutions in the public and private sectors.

At present, in the face of high competition, there is no organization that can produce good things without having a good approach to business or institutional management. Likewise, there is no company related to services that can be productive and efficient without the application of a philosophy based on the principles of the Balanced Scorecard management model.

This methodology provides the necessary elements to be able to compete in national and international markets; however, it does not guarantee that the company will be successful in its processes. An institution, organization or company with a good management methodology such as the Balanced Scorecard management model achieves efficiency and effectiveness in its management processes (Contreras and Zare, 2019; Socconini and Barrantes, 2015).

A strong core of this methodology comes from the words organize and order, there are few organizations where human resources know and understand their meaning and consequently can put them into practice. Many of the workers interpret these words as arranging things by putting them in a specific place giving the sensation of well-ordered rows (Delgado, 2022; Andrade and Mendoza, 2022).

This methodology is guided by the words organize, order, cleanliness and discipline. These concepts are in the bases and foundations to achieve the minimum level of improvisation, cost reduction, safety and efficiency in process planning (Contreras and Zare, 2021; Socconini and Barrantes, 2015).

This time translates into low productivity, and less efficient the organization becomes. Workers, administrative employees and managers are aware of the losses and economic costs that are generated when this practice of searches is performed daily in companies or organizations. An organization to be more effective and efficient must apply the

methodology of the management model called Balanced Scorecard in each and every one of its areas and as well as in all the processes it develops (Torres, Alvarez and Zurita, 2019).

Regarding the selection of articles, two criteria were taken into account, those that aim to review articles that focus on Balanced Scorecard management, as well as the time of publication is not more than five years and in journals indexed in databases such as Scopus, Scielo, or Latindex 2.0 catalog among others.

The type of research is applicative since it uses a systematic review of literature about the Balanced Scorecard management. The scope or level of this research is exploratory, because it is about knowing the progress of the scientific literature on planning and strategic management based on the Balanced Scorecard model in the processes of this sector.

According to the results of the exploration of several national and international scientific articles, it can be stated that in the current context there is a marked deficiency in strategic planning and management in educational institutions, probably related to a lack of appropriate actions of human resources. This result expresses that more adequate mechanisms should be established, i.e., the knowledge and actions developed should be closely related to the activities to be developed by the officials of these government institutions.

It is necessary that the identification and determination of the sequence of processes, the first step is to define the processes that form the technical structure of the organization, in addition to their interactions and some typology, categorization or priority criteria. It is necessary to consider whether these processes are significant enough to be part of the process structure and at what level of detail they should be done (Arteaga and Esquivel, 2022).

The identification and selection of the processes that will be part of this structure must be the result of a multidisciplinary reflection and work on the activities developed in the organization and their impact or influence on the achievement of the strategy, objectives and results. The following factors can be used to identify them: influence on the mission, vision and strategy; on the achievement of strategic objectives; impact on customer satisfaction; effects on the quality of the product or service; associated risks; intensive use of resources and compliance with legal and regulatory requirements.

An organization can use different tools to identify the processes that make up its structure. In any case, the involvement of the organization's leaders is essential to

coordinate and promote the configuration of the process structure, as well as to ensure its alignment with the defined mission, vision, strategy and strategic objectives (Morelo, Bello and Aguilar, 2022).

Once the processes have been identified and selected, the need arises to define and represent the structure in a way that facilitates the determination and interpretation of their interrelationships. The most representative way to reflect the identified processes and their interrelationships is precisely through a Process Map, which is the graphic representation of the organization's process structure (Suárez, et al., 2022).

- For Suárez, et al. (2022), in order to elaborate a process map and facilitate its interpretation and use, the possible groupings in which the identified processes are included, mentioned below, must be previously defined:
- Planning or organizational management processes: These are those that are linked to the scope of management responsibilities. They include processes related to strategic planning, setting policies, establishing objectives, providing communication, ensuring the availability of necessary resources and management reviews.
- Resource management processes: Those processes that determine, provide and maintain the necessary resources (human, infrastructure and work environment) required for the management of the company.
- Realization processes: These include all the processes that provide the result expected by the organization. They are those processes that allow to carry out the production or the provision of the service.
- Measurement, analysis and improvement processes: These are the processes that
  allow the performance of the other processes to be monitored, their results to be
  measured, analyzed and improvement actions to be established.

Finally, to know the statistical behavior of a repetitive process, one can resort to the use of various statistical tools such as control charts, process capability and the like.

In the different institutions in Peru, the application of the Balanced Scorecard should begin with the definition of the mission, vision and values of the institution. The organizational strategy will only be consistent if these elements have been conceptualized. From the definition of the mission, vision and values, the strategy is developed, which can be represented directly in the form of strategy maps, or conceptualized, before, in another format (Hurtado, 2018).

Again, the important thing is not but the development of the strategy is part of the model, what is really important is if there is a defined and adequate strategy. If it is, it will be the starting point for the elements of the model; otherwise, the first step will consist of defining the strategy. In many implementations, the strategy is usually already defined, and what is involved is to put it on a strategy map (Osejos, Baque and Basurto, 2022).

### **Conclusions**

The implementation of the Balanced Scorecard model in Peruvian educational institutions is totally new in its application in practice; however, everything points out that the benefits achieved with this methodology will bring benefits to the institution. The balanced scorecard as it is also known, with a correct implementation should generate a high level of motivation in human resources, standardization of processes, generating a better work environment, which would result in effectiveness and efficiency of the tasks and processes developed in their daily activities of the institutions.

To solve the localized problems, the Balanced Scorecard-based system model should be applied and adapted to improve all the management processes of the analyzed area. With the systematization of the results applying the proposed model, a guide can be built to be subsequently applied in other institutions of the educational sector.