

APPLICATION OF THE *BALANCED SCORECARD* IN THE IDENTIFICATION OF STRATEGIES FOR IMPROVING THE ACADEMIC PROCESSES OF THE UNIVERSITY OF THE STATE OF AMAZONAS



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ABSTRACT

The present study aims to identify strategies for improving the academic processes of the University of the State of Amazonas, from the perspective of its managers, through the *Balanced Scorecard* (BSC) model. Concepts related to the performance of academic processes are used as a theoretical basis. As methodological strategies, interviews are conducted with managers of the Institution, in order to obtain the necessary information for the application of the BSC. The results indicate that, for greater management efficiency, it is necessary to enhance efforts in the search for excellence by advancing in training, qualification and expansion of the human resources staff, reorganization of academic

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processes and standards, narrowing of interaction with society and capturing new model(s) of institutional financing.

Keywords: Academic processes. Academic management. *Balanced scorecard*.

INTRODUCTION

The Balanced Scorecard model is commonly used as a strategic management tool in business organizations. However, it has undergone successful adaptations in its perspectives for use in the scope of public administration (Ghelman and Costa, 2023; Zimmerman, 2015).

This sector is undergoing constant transformations, especially when it comes to cost management, control, transparency and efficiency. In this sense, Silva (2017) infers that in public administration, as in the case of public universities, it is necessary to use tools typical of the private sector, in order to meet the new demands for control, transparency, and efficiency in the management of public resources.

Chaves et al (2012) add that it is necessary to adopt performance evaluation methods, for example, to achieve more effective results through strategic guidance. As a reinforcement to the reflections, it is important to highlight the complex nature of university organizations, mainly due to the interactions in different areas of teaching, research and extension, in order to contribute to the dissemination of the values of both national and universal culture, as added by Rizzatti and Rizzatti Júnior (2004).

In this line of reasoning, the management of the University is intertwined in all its areas. In turn, Mandelli (2003) adds that the management of an organization is related to its behavior and performance, related to the adaptation or transformation of the environment in which it operates. Additionally, Pinto et al (2017) reinforce that management is a difficult field to be scientifically delineated and, in the case of public universities, this field becomes even more complex, as it is a social organization with excessive instrumentality governed by ideas of management, planning, forecasting, control and success.

In the pursuit of a differential in management, public universities have approached the practices of private universities, since they seek models that promote more efficiency, efficacy and effectiveness. To this end, Souza (2007) points out that educational institutions – especially public higher education institutions – seek to be seen as a service, with a view to strengthening consumer power in productive relations and even citizenship, even changing their focus from teaching to learning.

In this context, a University that deserves attention within the reality of Brazilian universities is the University of the State of Amazonas. Completing twenty-two years of existence in 2023, it has 36 active undergraduate courses, distributed in 25 municipalities in the state. As the rector at the time, Professor Lourenço Braga, points out, when he states

that this university emerged with an innovative pedagogical project and advanced technological resources, as it is *"a university focused on Amazonian affairs, with the awareness of universalization (...) of interaction and exchange of knowledge (...) [and mainly, with] the look at regional development"*.⁷ Especially because its management is paramount, as a driver of regional development in the Amazon.

The Amazon region, where UEA is located, is characterized by being a developing place, which still faces problems related to income distribution, health and sanitation resources and, among others, access to quality basic education and the provision of higher education.

Due to its potential to promote education and consequent regional socioeconomic development, it is important to have quality and efficient academic management at the University. In this context, the present study aims to identify strategies for improving the academic processes of the University of the State of Amazonas, from the perspective of its managers, through the *Balanced Scorecard* (BSC) model.

Once immersed in the Amazonian reality, the inferences of Palmeiras et al (2015) are added, in which they state that it is of fundamental importance to have academic management structured in the performance of its human resources, which considers in its actions the principles of administration, without prejudice to academic freedom. Even, because it also reinforces the system of a university organization that has in its peculiarities the coverage of the four distinct areas, most intertwined: teaching, research, extension and management. In short, the area of academic process management is the one that dialogues intrinsically with the others, making it important to have good planning and the promotion of strategic and effective measures with efficiency and effectiveness.

THEORETICAL FOUNDATION

PERFORMANCE OF ACADEMIC PROCESSES

Performance appraisal has become a fundamental instrument in the management of organizations, in the face of the dynamic competitive environment of inserted companies. As far as it is concerned, Machado, Machado and Holanda (2007) state that the measurement of performance – as the main objective – is a management instrument capable of providing effective management of the organization, dependent on a series of variables considered, as informative bases of criteria, concepts and principles adopted. In

⁷ UEA. UEA unites quality and technology. In.: **Folder**: Informativo Especial da UEA, 2002.

this line of reflection, Nuernberg et al (2016) show that universities often have their institutional objectives established in a vague and intangible way. While the use of indicators seems more tangible, with the goals defined by them and, judging, still, their fulfillment.

In the literature, the statements of Bulgacov et al (2009) can be observed, summarizing the indicators as qualitative parameters of verification and/or quantitative of measurement. This allows the understanding of how an organization's objectives are pursued and achieved, within a limited period, in a specific condition.

In this circumstance, Tadachie Flores (2005) analyzes the indicators, as a form of quantifiable representation of product and process characteristics, used in the organization of control and improvement of the quality of performance of products and processes, over time. On the one hand, quality indicators are associated with the quality peculiarities of the product or service, judged by the customer.

On the other hand, the performance indicators are associated with the characteristics of the product and the process, unfolded by the processor based on the specificities of the quality. Which means that *"a performance indicator is a number, [a] percentage or ratio that measures an aspect of performance, with the aim of comparing that measure with pre-established goals."*(TCU, 2000, p. 9c nm.)

In fact, it joins the explanations of Rummler and Brache (1994), when defining performance indicators as quantifying indices as a business, with activities and processes to achieve the specified goal. These authors point out that, without performance measures, the leaders of an organization do not have the grounds to: 1) communicate to employees the performance expectations expected by the organization; 2) know the events in the organization and area of activity; 3) identify performance deficiencies to be eliminated or reviewed; 4) provide *feedback* to employees, with a view to their actual performance in relation to the planned; 5) distinguish the performance to be rewarded and; 6) make decisions in a transparent and justified manner.

Nevertheless, the most appropriate indicators for measuring performance are those that meet the needs of the organization. According to the inferences of Atkinson et al (2000), cited by Popadiuck et al (2006), measurements are classified with the purpose of providing information for: a) the visibility of diagnostic measures, with the identification of strengths and weaknesses or with discrimination of the proposition of improvement actions; b) the control of performance measures, in relation to an established standard and; c) the

improvement of comparison and implementation measures, in relation to the established goal and the identification of opportunities.

In view of this, Merchant (2006) believes that the construction of performance indicators in an appropriate way is directly related to the success of an Organizational Performance Evaluation (ADO) system, in which some characteristics, criteria and properties are fundamental to be perceived at the time of construction of these indicators. In this way, the author characterizes the performance indicators as: a) congruence that must respect the organization's objectives; b) controllability, which must be controllable by the manager. If he is not given autonomy to influence and control the indicator, he loses motivational power; c) opportune that if it does not generate rewards, it will not have the desired effect; d) accurate, which is summarized in precision, objectivity and comprehension. The manager must know what he is measuring and have a relationship that compensates cost *versus* benefit.

In addition, the literature presents the performance indicators constructed, based on criteria that make them suitable for future analyses, according to the arguments of Shahin and Mahbod (2007) that the set of criteria most frequently referenced in the literature is Smart (*Specific, Measurable, Achievable, Realistic Time-bound*). And from the perspective of properties, a performance indicator respects the properties of scales when it exhaustively highlights the possible levels, the ordering of levels and the difference in attractiveness between them.⁸

Another relevant point of a performance measurement system is presented by Tezza, Bornia and Vey (2010), in which they indicate the points of view of the scope of the approaches (corporate, supply chain, services or individual), the type of approach (practical and theoretical), the focus (financial, non-financial), the level of approach (operational, tactical or strategic) and, the degree of complexity of some approaches.

For Tachizawa and Andrade (2006), the importance of indicators in the modern process of university management depends on measurements, information and analysis. The measurements need to be a consequence of the educational institution's strategy, covering the main processes and results. It is necessary to be aware of these highlights, since, according to Leitão (1987), there is a diversity of indicators referring to higher education in the literature. However, there is still a lack of indicators that can monitor the materialization of organizational strategies.

⁸ Ensslin and Ensslin (2009); Bortoluzzi, Ensslin and Ensslin (2010); Bortoluzzi et al (2010).

In a public university, the determination of a system for measuring the performance of academic processes should provide the basis for academic management, with a view to achieving the objectives, providing greater performance and quality in the training of human resources, fewer resources and expansion of educational development. In this sense, Attadia and Martins (2003) highlight the main performance measurement models that were previously indicated by Martins (1999), as shown in Chart 1 below.

Table 1. Main proposals for Performance Measurement Systems models.

Performance Measurement Model	Main features
Performance Measurement Matrix	<ul style="list-style-type: none"> • Internal and external Performance Measures, financial and non-financial; • Performance measures linked to strategy.
SMART – Performance Pyramid	<ul style="list-style-type: none"> • Performance measures of internal efficiency and external effectiveness; • Performance measures unfolded in the company's strategy.
Integrated Performance Measurement System	<ul style="list-style-type: none"> • Strategic deployment for business, business unit, processes and activities generates measures considering the requirements of <i>stakeholders</i>, external monitoring, objectives and performance measures.
Performance Prism	<ul style="list-style-type: none"> • Performance measurement of <i>stakeholder satisfaction</i>; • Communication of the strategy; • Approach to business process management.
Balanced ScoreCard	<ul style="list-style-type: none"> • Performance measures grouped into four perspectives; • Cause-and-effect relationship between perspectives reflects strategy.

Source: Attadia and Martins, 2003.

Specifically, regarding the *Balanced Scorecard* (BSC), which was idealized by Kaplan and Norton (1992), the justification for its creation is the need and importance of measuring and evaluating an organization's performance, because what is not measured is not managed. Thus, the authors who devised the model say that,

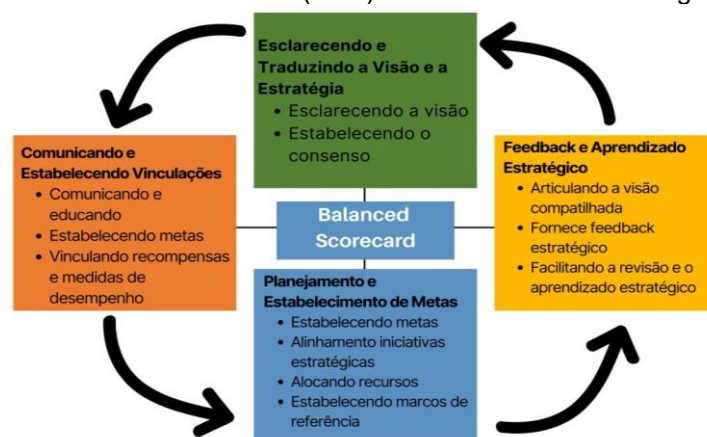
The group discussions led to an expansion of the *scorecard*, which became the (...) '*Balanced Scorecard*', organized around four distinct perspectives – financial, customer, internal, and innovation and learning. The name reflected the short- and long-term balance between financial and non-financial measures, between leading and lagging *indicators*, and between internal and external performance perspectives. (KAPLAN and NORTON, 1992, p. 8)

The BSC has the power to be more than a system of measurements. And, its true power "occurs when it ceases to be a system of measurements, (...) [transforming] *in a strategic management system*".⁹In this sense, the BSC has the following characteristics: a)

⁹ Kaplan and Norton, 1992, p. 20.

clarify and obtain consensus regarding the strategy; b) communicate the strategy to the entire company; c) aligning departmental goals and people to the strategy; d) to associate strategic objectives with long-term goals and annual budgets; e) to identify and align strategic initiatives; f) to carry out periodic and systematic strategic reviews; g) obtain *feedback* to deepen and improve the knowledge of the strategy. As shown in Figure 1 below.

Figure 1. *Balanced Scorecard* (BSC) as a framework for strategic action.



Source: Adapted from Kaplan and Norton (1992)

The *Balanced Scorecard* fills the gap in most management systems, with the lack of a systematic process to implement and with obtaining *feedback* on the strategy. The management processes built from the *scorecard* ensure that the organization is aligned and focused on the implementation of the long-term strategy.

For Pereira et al (2015), numerous contemporary approaches apply the *Balanced Scorecard* (BSC) from its original form, through hybrid or combined forms,¹⁰ in the search for performance in the most diverse areas of activity. Pereira et al (2015) describe the applications of the BSC, implemented in universities, demonstrating the conceptual map of studies around the world, highlighting the main applications, as shown in Figure 2 below.

¹⁰ (Lawrence, Sharma (2002); Libby, Salterio; Webb (2004); Sartorius, Trollip, Eitzen (2010); Zangouinezhad, Moshabaki (2011); Franceschini, Turina (2013).

Figure 2. Concept map of the application of BSC in universities.



Source: Pereira et al, 2015, p.5.

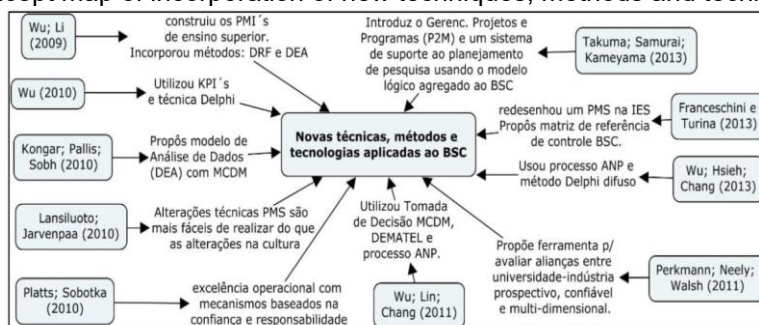
Among the works studied by Pereira et al (2015), the following stand out: a) the article by Cugini, Michelon and Pilonato (2011), describing the implementation of strategic maps in the BSC of a university department, as an efficient way of measuring performance. An important contribution of strategic maps lies in the aid in the monitoring and construction of the departmental mission and goals, used more broadly. b) a case study carried out in 15 universities, with a hybrid model that allows the evaluation of higher education performance in a more scientific and reasonable way¹¹. c) for the necessary improvement in the quality and performance of the organization, the study by Franceschini and Turina (2013) describes a methodology based on the BSC model to redesign a Performance Measurement System (PMS) in the university.

In detail, Franceschini and Turina (2013) propose a BSC control reference matrix. The "mapping analysis" of SMP was developed to allow the understanding and verification of whether all operational aspects involved in the achievement of goals have been considered and whether appropriate indicators have been defined. As an example, the methodology is applied to a service of the university itself.

Pereira et al (2015) highlight, in chronological order, the conceptual mapping of the representative dimension of the incorporation of new techniques, methods and technologies to the *Balanced Scorecard* in Universities. The ten main studies identified in this dimension in the period between 2009 and 2013 are highlighted. Figure 3 shows the authors and the main characteristics incorporated. The new techniques, methods and technologies applied to the BSC are related in the form of a concept map, based on the various studies commented.

¹¹"Based on the BSC method, the Performance Measurement Indicators (PMI) of the higher education system were constructed, incorporating the methods: Data Reduction Factor (DRF) and Data Envelopment Analysis (DEA), a DRF-DEA model is proposed for the evaluation of the university's performance". (WU; LI, 2009).

Figure 3. Concept map of incorporation of new techniques, methods and technologies to BSC.



Source: Pereira et al, 2015, p.7

Finally, the use of the BSC in Brazilian public universities gains space with its systematic application as a management tool. The research by Boligon et al (2014) stands out, which used BSC as a tool to support organizational strategies. Through simple observation and interviews applied to the management of the study organization, the authors proposed a methodology for implementing BSC in three stages: knowing and interpreting the company's mission, vision and strategy; survey and structuring of strategic indicators and implementation of the structure of strategic indicators. Thus, they gained knowledge of the main benefits and critical points of the organization, which made it possible to align strategy, processes, and people.

METHODOLOGICAL PROCEDURES

The study is developed as a case study investigation. According to André (2005); Mazzotti (2006); Stake (1995); Yin (2001), a case study is defined by two common traits: a) existence of a particularity that deserves to be investigated and; b) the need to develop a deep study on this particularity, due to the existence of aspects that characterize it and require multiple methodological procedures.

The object of analysis of this study, UEA, was created in 2021 and has shown increasing evolution in terms of courses offered, vacancies and students enrolled. In 2020, the University offered 3,379 vacancies in 287 undergraduate courses (PROPLAN, 2021).

To obtain the information necessary for the analysis, interviews were conducted with six academic managers who are decision-makers, linked to the Dean of Undergraduate Education (PROGRAD) and the General Academic Secretariat (SAG). From the perspective of these managers, we sought to identify strategies for improvements in the academic management of the University based on a *Balanced Scorecard* (BSC) model.

To this end, the perspectives presented in PDI_2017/2021 of UEA are considered, organized with the four traditional lines (financial, customer, internal processes, and learning and growth), with a fifth for a Higher Education Institution, which is educational. To approach this study, the works of Cugini, Michelon and Pilonato (2011) and Franceschini and Turina (2013) are used as a mirror, both adaptations of the original BSC proposed by Kaplan & Norton (1992).

Thus, the strategic map based on BSC presented by UEA is investigated, which aligns the mission, vision to a set of strategic objectives, strategic guidelines and lines of action organized in five perspectives: financial, customer, internal processes and learning and growth. To highlight the academic processes and management in the context proposed in the educational perspective of UEA, whose strategic objectives are: excellence in higher education education, encouragement and support for research and innovation, in addition to promoting the fulfillment of academic needs aiming at student satisfaction. (PDI, 2017-2021)

For the analysis of the interviews, Bardin's (1977) Content Analysis (CA) is used as a method. For Appolinário (2009, p.27), *"normally, in this type of analysis, the fundamental elements of communication are identified, numbered and categorized"*. Subsequently, *the categories found are analyzed against a specific theory*", in this case, the definitions presented in the BSC.

It is important to mention that Bardin (1977) divides CA into three phases: pre-analysis (organization of the material), exploration of the material and the treatment of the results: inference and interpretation, calling them pre-analysis, analytical description and inferential interpretation. As shown in Chart 2.

Table 2. Phases of content analysis

Phases	Phase breakdown
Pre-Analysis	- Organization of the material: choice and selection of documents (corpus of analysis), the formulation of hypotheses and/or objectives and elaboration of indicators that support the final interpretation.
Material Exploration	- In-depth study guided by hypotheses and theoretical references. - Elaboration of indicators that will guide the interpretation of the results: choice of counting units (coding), selection of counting rules (classification) and the choice of categories (categorization).
Results Handling	- Referential interpretation - Reflection and intuition based on documents establish relationships. Unveil the latent content that the documents have.

Source: Adapted from Bardin (1977).

It should be noted that in order to choose the corpus of analysis (documents to be analyzed) some points must be considered, they are: exhaustiveness, representativeness, homogeneity, pertinence and exclusivity, which I present demonstrating its aspects in Chart 3.

Table 3. Aspects of the *corpus of analysis*.

Phases	Phase breakdown
Completeness	Selections of documents that deal with a certain purpose should not be used, considering <i>all existing ones</i> , in order to avoid biased conclusions. Information should not be omitted.
Representativeness	The analysis must be carried out based on a representative sample of the universe investigated.
Homogeneity	The data must refer to the same theme, obtained by the same techniques and collected by similar individuals.
Pertinence	The documents must be sources of information appropriate to the objectives of the research.
Exclusivity	The same content element cannot be randomly classified into two different categories.

Source: Adapted from Bardin (1977).

It should be noted that, according to Lüdke and André (1986), there are two types of unit of analysis: the unit of record, which relates to elements obtained through the decomposition of one or set of messages, and the unit of context, which concerns comprehension in order to encode the unit of record, which corresponds to the segment of the message. Note that the investigator's analysis may select specific segments of the content to do the analysis, depending on the purpose and questions of the investigation. The context in which a given unit occurs may also be more important than its frequency, depending on its method of codification on the nature of the problem, the theoretical approach and the research questions.

In the final phase of CA, the need for a new judgment of the categories regarding their scope and delimitation is also recurrent in the literature, following the orientation that:

When there are no more documents to analyze, when the exploration of new sources leads to redundancy of information or to a very small addition, in view of the effort expended, and when there is a sense of integration in the information already obtained, it is a good sign to conclude the study. (LÜDKE and ANDRÉ, 1986, p. 44)

RESULTS and DISCUSSIONS

To discuss the possibility of improving academic management processes, information from interviews with managers is used, with a view to applying a *Balanced Scorecard* (BSC) model. The perspectives presented in PDI_2017/2021 of UEA are

considered, organized with the four traditional lines (financial, customer, internal processes, and learning and growth), and a fifth for a Higher Education Institution, which is educational, has been adapted.

For verification, the BSC model is adapted by adopting the following initial categories of analysis: 1) perspective of strategic guidelines (educational); 2) learning and innovation perspective (learning and growth); 3) financial perspective; 4) customer (society) perspective; and 5) internal perspective (internal processes). To this end, it is based on the strategic map of UEA shown in Figure 4:

Figure 4. UEA strategic map.



Source: PDI/UEA (2017/2021).

From then on, the potentialities of academic performance and administrative performance are presented and analyzed in the two subsections below.

ACADEMIC PERFORMANCE

Considering the perspectives set out in the PDI_UEA, a relevant intermediate category is determined, called "academic performance", presented in the initial categories that originated it, the guiding concept that supports the intermediate category and the strategic objectives of UEA, as illustrated in Chart 4.

Table 4. Intermediate category – academic performance.

Initial category	Guiding concept	Strategic objectives of UEA	Intermediate category
Perspective of strategic guidelines (educational)	Guidance of the stages of operational planning of the academic area.	Excellence in higher education, encouragement and support for research and innovation, and promotion of meeting academic needs with a	Academic Performance

		view to student satisfaction	
Learning and innovation perspective (learning and growth)	Orientation towards mechanisms that transform greater knowledge of resources into innovative products and services.	Excellence of management practices and results; efficiency and effectiveness of professional and managerial performance; and gradual and conscious growth of UEA's infrastructure.	

Source: Prepared by the author (2022).

Entering with the first initial category of analysis, from the perspective of strategic (educational) guidelines, the institutional desire expressed in institutional planning instruments and interviewees' reports for the search for excellence is strong. At this point, the following is affirmatively highlighted:

Considering the Dean of Undergraduate Education that deals with teaching policies, we highlight the following strategic guidelines: Improvement of the Quality of Education; Institutionalization of Innovative Teaching Activities; Expansion of Qualified Access and the Effectiveness of Training Processes, Expansion of National and International Institutional Cooperation, Improvement, Expansion, Feasibility and Conservation of the Bibliographic Collection and Creation and Implementation of the UEA Institutional Repository. (GESTOR.5, 2022)

The following set of institutional strategic objectives can be observed: excellence in higher education, encouragement and support for research and innovation, and promotion of meeting academic needs with a view to student satisfaction. The educational area is described to guide the strategic guidelines and execution of activities, being part of the larger set of institutional planning.

According to Cateli (2013), the strategic guidelines aim to guide the stages of operational planning, contemplating the analysis of the variables of the external environment (opportunities and threats) and internal environment (strengths and weaknesses) in order to avoid threats, take advantage of opportunities, use strengths and overcome weaknesses of weaknesses. It should be added that the perceived proposition of institutional excellence is the incorporation of the philosophy well exposed by Harada (2010) when he says: *"which is to be open again and again to improvement [...] the quality of the movement in action, the vigor of seeking, more and more, the best of oneself"* as the construction of the set of excellence in management and higher education.

Progressing to the perspective of learning and innovation (learning and growth), the professional experience of the civil servants and the internal planning of the sectors stand out. In this sense, the following reports of the Managers stand out, as illustrated in Chart 5.

Table 5. Managers' report – learning and innovation perspective.

Interviewee	Strengths	Weaknesses	Actions to Correct Weaknesses
Manager.2	<ul style="list-style-type: none"> - Teamwork; - Internal organization of the sector; - Experience of the team in the work they develop; - Study and planning meetings. 	<ul style="list-style-type: none"> - Lack of institutional training [knowledge about UEA]; - Lack of investment in the training of administrative technicians [qualification]. 	<ul style="list-style-type: none"> - Promote the participation of administrative technicians in courses, congresses and workshops to update knowledge.
Manager.5	<ul style="list-style-type: none"> - Human Capital; - Communication; - Organizational [internal organization]. 	<ul style="list-style-type: none"> - [Lack] of Decentralization of information, in some cases [Not explained]. 	<ul style="list-style-type: none"> - Constant awareness.

Source: Prepared by the author (2022).

Based on the reports, it is possible to observe that the main weaknesses pointed out are related to deficiencies in human resources. In general, this signals the need for training and incentive of personnel for better management. And, it is exactly in this regard that most of the indications of a solution come in order to promote the participation (offer and awareness) of civil servants regarding the need for training and qualification.

As a characteristic of this perspective, the search for mechanisms for solving problems and generating greater knowledge predominates, which for UEA are summarized in the search for: excellence in management practices and results; efficiency and effectiveness of professional and managerial performance; and gradual and conscious growth of UEA's infrastructure. From this perspective, Freeman (1991) and DeBressone and Amesse (1991) assert that organizational entanglements act as catalysts for access and transformation of resources into innovative products and services.

Finally, regarding academic performance, the following weaknesses are evidenced: the lack of institutional training [knowledge] and the gap in the training/qualification of civil servants. In this sense, it is important that civil servants know the relevant points of their activities, their area of activity and the Institution. And also, promote the management of their knowledge with adequate training/qualification so that academic management can achieve greater efficiency.

ADMINISTRATIVE PERFORMANCE

Continuing with the analysis of the *BSC* model considering the perspectives set out in the PDI_UEA, a relevant intermediate category is determined, called "administrative performance", presented in the initial categories that originated it, the guiding concept that supports the intermediate category and the strategic objectives of UEA, as illustrated in Chart 6, below.

Table 6. Intermediate category – administrative performance.

Initial category	Guiding concept	Strategic objectives of UEA	Intermediate category
Financial perspective	Orientation of the implementation and respective distribution of financial resources in order to achieve institutional goals.	Effective financial execution of the resources available in the 2017/2021 interstice budget, investments in vectors: teaching, research and extension from fundraising from state and federal governments, private initiative and international agencies, and support for students through fundraising for investment in community affairs programs	Administrative Performance
Customer (society) perspective	Orientation of the HEI as a driver of educational (teaching, research and extension) and cultural practices	The integration and interaction between UEA and society, quality academic training and expansion of extension actions.	
Internal perspective (internal processes)	Guidance for improving processes in the academic and administrative spheres.	Participation, communication and visibility of management processes; continuous monitoring and evaluation; and quality and speed of the services provided.	

Source: Prepared by the author (2022).

As the third initial category of analysis, from the financial perspective, the need for greater investment and efficiency in spending is latent as an institutional pursuit, highlighted in the Managers' reports, as illustrated in Chart 7.

Table 7. Report of the managers – financial perspective.

Interviewee	Strengths	Weaknesses	Actions to Correct Weaknesses
Manager.2	- Ensure the Pedagogical Project of the Courses from its conception to the results after the external evaluation of the course.	- Lack of resources to improve the weak points detected in external evaluations such as: library, computer lab, specific laboratory for the courses, etc.	- [Better distribution of fund supplements] To emphasize that in my administration (2018 to the present day) I never received a supplement of funds for the sector.
Manager.4	- The electronic academic management system (LYCEUM);	- Outdated academic management system;	- Acquisition of a new electronic academic

	<ul style="list-style-type: none"> - The electronic management system for digital processes (SIGED); - Other electronic systems that allow access to all sectors and educational units in the capital and the countryside. 	<ul style="list-style-type: none"> - Inadequate physical structure for some services; - Inadequate administrative structure, in order to better serve the flow of services; - Reduced number of servers. 	<ul style="list-style-type: none"> management system with new and better features; - Renovation and expansion of the physical structure; - Reform and expansion of the administrative structure; - Public tender or hiring of temporary employees.
Manager.5	<ul style="list-style-type: none"> - Anticipation of the budget forecast for the development of programs and projects [planning]. 	<ul style="list-style-type: none"> - When third parties do not send the necessary documentation within the deadline for the appeal request, generating a consequent delay in payment [non-compliance with the deadline]. 	<ul style="list-style-type: none"> - Constant improvement in communication between the responsible sectors.

Source: Prepared by the author (2022).

From the reports, it can be seen that the main weaknesses presented are related to the lack of financial resources. This is pointed out in the need for greater investment in management tools and adequate physical spaces for more adequate management. And, in relation to this, the solutions are clear in the sense of the need for new sources of income and, at the same time, efficient planning and execution of existing resources.

In addition, it is verified that the strategic objectives for the institutional financial perspective are: effective financial execution of the resources available in the 2017/2021 interstice budget, investments in vectors: teaching, research and extension from fundraising from the state and federal governments, private initiative and international agencies, and support to students through fundraising for investment in community affairs programs. In this context, the financial planning of activities plays a fundamental role, with the possibilities of application and respective distribution of financial resources in order to achieve institutional goals. For Melo, Silva and Costa (2011), financial planning is an organization that helps to establish goals and allows performance to be measured.

Moving on to the perspective of the client (society), the idea of the Institution as a driver of higher education is consolidated. This is present in the Managers' reports, as illustrated in Chart 8.

Table 8. Managers' report – customer (society) perspective.

Interviewee	Strengths	Weaknesses	Actions to Correct Weaknesses
Manager.2	<ul style="list-style-type: none"> - The reformulation of the curricular matrices of the courses according to the National Curriculum Guidelines; - The team's commitment to meet the demands of students such as the use of studies, equivalence, etc. 	<ul style="list-style-type: none"> - Few people for many demands and many courses to advise the PPC [HR quantity]. 	<ul style="list-style-type: none"> - Have more technical advisors [HR hiring]; - Have an extension of the CAE in each center or unit to support the NDE's in the preparation of the pedagogical projects of the courses.
Manager.3	<ul style="list-style-type: none"> - Ability to make decisions in immediate actions, to solve problems that negatively impact the Special Courses; - Good relationship with the Course Coordinators to meet the pedagogical demands of the Special Courses. 	<ul style="list-style-type: none"> - Dependence on the sometimes excessive time of the processes of other sectors; - Variations in the processing sequence of activities. 	<ul style="list-style-type: none"> - Focus on the human capital that works with the processes, at all levels; - Training and qualification for the creation of a "PDCA" mentality; - Implementation of a process management system, with the description and registration of tasks and activities, responsibilities, pertinences and hierarchy involved in the process.
Manager.4	<ul style="list-style-type: none"> - Provision of diploma and final transcript to the graduate at the time of graduation; - Speed in the dispatch and registration of documents. 	<ul style="list-style-type: none"> - Need to expand the Virtual Secretariat. 	<ul style="list-style-type: none"> - Acquisition of a new electronic academic management system.

Source: Prepared by the author (2022).

Based on the reports, the main weaknesses are: lack of human resources and the time spent between processes. The need for specific management training (PDCA) and the hiring or allocation of servers for this area is evidenced. In this way, the solution is the adjustment of processes and adequacy of human resources, either by reallocation of servers from other sectors and/or temporary hiring (commissioned position) or, more appropriately, the reallocation of civil servants from the permanent staff (public tender).

The perspective of the client (society) is expressed in the strategic objectives, that is: the integration and interaction between UEA and society, quality academic training and expansion of extension actions. Also, the promotion of the necessary resources for students (clients) to overcome obstacles that may compromise their permanence in the institution. According to Ulyseia et al. (2013), society's greatest desire is for the HEI to be a driver of educational and cultural practices, articulated for the joint realization of actions in the field of

continuing education and in the production of services that meet its social vocation, with maximum efficiency and profitability.

Finally, we arrive at the initial category of analysis called "internal perspective" (internal processes) that give direction to the harmonization of organizational processes in the search for quality and the Managers report, as illustrated in Chart 9.

Table 9. Managers' report – internal perspective (internal processes).

Interviewee	Item	Answer	Topic
Manager.2	Human Capital	- Commitment of the people who are part of the Sector, their talents, skills and knowledge.	Strengths
	Organizational Capital	- The Institutional Development Plan (PDI) that guides institutional activities.	
	Informational Capital	- Integration between people, which facilitates the flow of relevant information.	
	Human Capital	- Low amount of human capital.	Weaknesses
	Organizational Capital	- Need to make the attributions of each sector increasingly clear in the PDI.	
	Informational Capital	- Need to improve communication by maintaining CAE meetings in the Units and Centers.	
	Human Capital	- Promote competitions and appreciation for technical-administrative employees.	Actions to Correct Weaknesses
	Organizational Capital	- Need to align attributions so as not to overload the human capital that others share.	
	Informational Capital	- Improve communication between sectors, create an intranet to enable internal communication and update the information of the Pro-Rectories on the UEA Portal.	
Manager.3	Human Capital	-Appropriate knowledge, skills and attitudes.	Strengths
	Organizational Capital	- Shared and example-based leadership.	
	Informational Capital	- Proper targeting of information.	
	Human Capital	- Lack of greater mastery in the PDCA mindset.	Weaknesses
	Organizational Capital	- Specific gaps in alignment.	
	Informational Capital	- Dichotomy in the evaluation of the direction of information.	
	Human Capital	-Training.	Actions to Correct Weaknesses
	Organizational Capital	- Strengthen actions to bring team members closer together [between sectors of academic management].	
	Informational Capital	- Registration of procedures related to the performance of tasks.	
Manager.4	Human Capital	- Highly qualified servers.	Strengths
	Organizational Capital	- Teamwork skills.	
	Informational Capital	- Computerization of tasks.	
	Human Capital	- Lack of updating and continuing education	Weaknesses
	Organizational Capital	- Misalignment of procedures, standards and techniques.	

	Informational Capital	- Electronic academic management system.	
	Human Capital	- Participation of civil servants in courses, training, seminars, symposiums.	Actions to Correct Weaknesses
	Organizational Capital	Not answered.	
	Informational Capital	- Acquisition of a new electronic academic management system.	

Source: Prepared by the author (2022).

Based on the reports, the main weaknesses are: the low number of civil servants and the need for continuing education, in addition to the lack of clarity regarding the attributions of each sector, added to the misalignment of procedures of the standards and precarious internal communication of the sectors of UEA. From this perspective, the similarity of answers with what was found in other perspectives regarding the need for more human resources and their training is evident. This, in addition to the demand for better planning and description of the activities undertaken to achieve more efficient management. The solution is the promotion of competitions, appreciation of civil servants and the improvement of internal communication tools and methods.

According to PDI_2017/2021, UEA's institutional strategic objectives from an internal perspective (internal processes): participation, communication, and visibility of management processes; continuous monitoring and evaluation; and quality and speed of the services provided. For Ulysea et al. (2013), internal processes in higher education institutions aim to improve the aspects of student service in the academic and administrative spheres.

Closing this subtopic, in short, it is found that the greatest management challenges lie in administrative performance, emerging as the most relevant weaknesses: the insufficiency of financial resources, the growing demand for human resources, the need for training and qualification of human resources and the deficit in internal communication. To expand improvements in this area, it is necessary to expand the human resources staff (competitions for professors and administrative technicians), promote improvements in internal communication to increase the integration of the institution's areas and expand external communication, in addition to the activities and actions of the Institution that generate social impact and regional development, thus attracting, greater social validation to UEA.

FINAL CONSIDERATIONS

In the investigation of the possibility of greater efficiency of academic management processes, carried out through the *Balanced Scorecard model*, it is concluded that it is necessary to enhance efforts in the search for excellence.

Ways to achieve this are the advancement in the training, qualification and expansion of the human resources staff, reorganization of academic processes and standards, narrowing of interaction with society, in addition to attracting new model(s) of institutional financing.

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