

## Zero-based budget performance analysis as a budgeting tool in a mixed economy company



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### **ABSTRACT**

The article aims to analyze the performance of Zero-Based Budgeting (ZBB) as a budgeting tool in a mixed economy company, from 2018 to 2021. The research was conducted through a case study of qualitative approach where there were two analyses. The first was the data of realized, budgeted and the variation of expenses and investments of the organization, and the second is the analysis of the methodology through a questionnaire answered by the team responsible for Budget Control regarding the negative and positive aspects of the ZBB. It was observed that the registration of events organized in a Budget Plan will not necessarily cause them to be fully realized, and that the methodology stands out for the budget control resulting from its rich detailing.

**Keywords:** Zero-Based Budgeting, Performance Analysis, Budget Plan, Strategic Planning.

## **1 INTRODUCTION**

In Strategic Planning there are some steps that the company must follow if it wants to implement and maintain it. The Budget Plan emerges as the top of the structure of the Balanced Scorecard, already defined the goals and strategic objectives, it is now necessary to define what it will be necessary to invest in so that the goals of the Strategic Planning are achieved.

The author Magda Nascimento (2021, p. 1) has a clear definition of how the Budget Plan can contribute within an organization:

The Budget Plan has as its main definition the planning of expenses and their revenues and investments, in order to predict the costs that the company will have in the future. Its definition



can also be as Strategic Planning in numbers, which through objectives and indicators makes use of clear perspectives of the actions that need to be taken to achieve the defined and desired goals.

Within the Budget Plan there is a world of various methodologies to be implemented, such as Continuous Budgeting, Flexible Budgeting and Zero-Based Budgeting. This research had as its main focus the methodology of Zero-Based Budgeting, which is the methodology used in the company that was the target of this research, seeking to answer the following question: How did Zero-Based Budgeting perform as a budgeting methodology in the years 2018 to 2021 in a mixed economy company?

To answer the research question above, the general objective was to analyze the performance of the Zero-Based Budgeting methodology as a budgeting tool in a mixed economy company. Studying the budget control of the company in a period of 4 years, more specifically in the period from 2018 to 2021. The present text also has three specific objectives, they are to describe the advantages and disadvantages of Zero-Based Budgeting, Understand the benefits of the ZBB methodology in relation to other budgets, Compare the performance of the methodology in the years 2018 to 2021.

The relevance of this study, as confirmation for Brazil is the presentation of the Zero-Based Budget as an effective budgeting tool not only for large companies, but also for small entrepreneurs who wish to have a better control of their spending, through the maximum details of the events planned for the next financial year. The knowledge of this tool will be beneficial for large, medium and small companies.

A proof of its effectiveness for the scientific community is the question that the authors Tozzi and Costa (2017, pg. 23) raise through the excerpt:

[...] a budget by the ZBB methodology brings questions to each budget piece: "If I were starting the company today, would I make this disbursement? Are these expenses and investments aligned with the strategy and my principles? Does it bring value to my mission and to the stakeholders?."

The contribution of the zero-based budget, is the focus on detailing each budgeted event, taking into account why the event is entering the budget plan and what its priority is for the budget of that year.

Taking into account the justifications presented, the research has the hypothesis that through the analysis of the performance of the zero-based budget, being used as a budgeting tool, it can be concluded that the company in question demonstrated significant improvements in the control of its expenses. And this improvement occurred through the thorough control of the variations, making the comparison of what was accomplished (spent), with what was budgeted (predicted).



## 2 THEORETICAL BASIS

### 2.1 THE HISTORICAL EVOLUTION OF THE BUDGET

According to Lunkes (2011, p.24):

[...] the need to budget is as old as humanity. Since money did not exist in its origin as a bargaining chip, cavemen needed to prepare for the long winters, foreseeing the need for food for the time [...] The origin of the word budget is due to the ancient Romans, who used a cloth bag called a *fiscus* for imposed collections. [...] In France, the term was known as *bouge* or *bougette*, and comes from the Latin *bulga*. Between 1400 and 1450 *the word bouguett* became integrated into the English vocabulary [...] the word *budget* quickly replaced the term *purse* and in 1800 it was incorporated into the English dictionary.

Already in the eighteenth century, spending plans were brought to the French parliament by the prime minister, an event that became known as *the opening of the budget*. In the United Kingdom, Prime Minister Gladstone embraced France's budgetary methods, and declared it to be something promising. In the years 1861 and 1866, the Committee on Public Accounts in parliament and the Offices of Comptroller and Auditor General were created. In the twentieth century was elaborated in the United States the so-called public budget which was an elaborate plan containing all the activities of the government, this contained all the revenues and expenses and used a limited number of standard accounts to promote the control of spending (Lunkes, 2011 p. 25).

In the first half of the twentieth century the budget and financial planning were confused because the degree of alignment was very close, the system worked relatively well, having them the accounting system as the basis of support of information (LUNKES, 2011 p. 1). As well as its evolution, the budget was getting closer and closer to the Strategic Planning, which will be better developed even within this research.

### 2.2 BALANCED SCORECARD AND BUDGET

The budget is a tool, whose need arises from the elaboration of strategic planning, through the budget plan. Once the company's strategies are defined, the need arises to better organize them, and for this the Balanced Scorecard emerged.

For the BSC methodology proposes the translation of the strategy into terms and strategic objectives (JUNIOR, 2021). The balanced scorecard reflects the first systematic attempt to develop a project for the performance evaluation system that focuses on the company's objectives, coordination and individual decision-making and provision of a basis for organizational learning (LUNKES, 2011 p.9 *apud* ATKINSON et al. 2000).

The BSC has the combination of indicators, financial and non-financial. This makes the organization structure its activities in the best way. The same indicators are grouped into four perspectives, they are: financial, customers, internal processes and learning and growth.



In summary, the financial perspective aims to evaluate the results of the strategic objectives that best structure the earnings expected by shareholders. The customer perspective structures the activities necessary for customer satisfaction. The perspective of internal processes is elaborated from the identification of the most critical processes for the achievement of the objectives of customers and shareholders (LUNKES, 2011 *apud* KAPLAN; NORTON, 1997, p.12). Learning and growth perspective, is the elaboration of the measures for the development of learning and the growth of processes and employees, this is evaluated from the measures of satisfaction, retention and productivity of employees.

Once the objectives have been established from the aforementioned perspectives, the stage of elaboration of the operational planning is reached. Lunkes (2011, p.14) states that the budgeting process involves the elaboration of detailed plans and profit objectives, forecasting expenses within the framework of existing plans and policies, and setting standards of action for individuals with supervisory responsibilities.

The budget is the phase in which the needs of the company are determined from the expenses, keeping them in accordance with the results of the organization. That is, it predicts what the company intends to spend and organizes according to its revenue.

[...] the BSC performs the first stage of the strategic planning implementation process through the strategic indicators, while the budget will carry out the second stage of implementation at the operational level through the operational goals. In this way the company can clearly and objectively define what it will need to disburse to achieve its goals and objectives defined in its strategic planning. Giving rise to the organization's Budget Plan. (LUNKES, 2011, p.16)

### 2.3 ZERO-BASED BUDGETING

Authors Lunkes (2011) and Tozzi and Costa (2017) date the emergence of zero-based budgeting to the 1960s. For Lunkes (2006 p. 86), the first formalization of the methodology occurred in the United States Department of Agriculture, but it was only officially implemented in 1969 by the company Texas Instruments. Tozzi and Costa (2017, p. 19) cite that Peter Pyhrr, in the year 1969 was a pioneer in the creation and development of a technique to cut costs, which reverberated the business world.

According to Tozzi and Costa (2017, p. 23) the zero-based budget is so called because it builds expenses and investments of the company without using the history, that is, budgeting the events as if the company were starting its activities for the first time.

Its advantage over other budgets is that, while the other budgets are basically updated by financial indicators and growth crises, they do not open spaces for questioning (TOZZI; COSTA, 2017 p.28). The zero-based budget induces those responsible for preparing the company's Budget Plan to a detailed analysis of what will be projected as next year's expense.

According to Kreuzberg et. al (2016, *apud* WHTEREBEN 1979, p. 38) "Given this retrospect it is verified how the ZBB has become one of the most promising techniques for the effective control



of discretionary activities and costs in hostile environments, in order to replace the traditional budget model."

Below, through Figure 1, it is possible to understand clearly and objectively the advantage of the Zero-Based Budget over the other budgets, which use a historical basis.

Figure 1 - Zero-Based Budget vs. Historical Base Budget



Source: Tozzi and Costa (2017, p.30)

Zero-Based Budgeting has as main advantages the links of the numbers with their destinations, each project, activity or process aligned with the strategy, finds its value properly separated. It also allows an efficient management of the budget, being able to identify deviations to the slightest signs of change, and with this the decision making will also be fast and assertive.

Unlike historically-based budgets, in which all stages of the budget are done in a top-to-down order, the ZBB is elaborated collaboratively, creating the culture of ownership and responsibility over the budget, so it gives the necessary trigger to take the organization out of the comfort zone. (TOZZI; COSTA, al, 2017, p.34). As main disadvantages, the authors Tozzi and Costa (2017, p 35) describe only two, they are the need for a relatively larger team for the preparation of the budget, and involves a greater effort to comply with the requirement of proofs, bases and justifications of each planned expense.



### 3 METHODOLOGY

The method used in the present study was the hypothetical-deductive method. Following the concepts of Kaplan (1972 *apud* GIL 2003, p. 99), in which he describes the steps to follow to use the method:

[...] The scientist, through a combination of careful observation, skillful anticipation, and scientific intuition, attains a set of postulates which govern the phenomena in which he is interested, from which he deduces the consequences by means of experimentation, and in this manner refutes the postulates, replacing them, when necessary, with others, and so proceeds.

Due to the fact that this research used data from a historical period of four years, from 2018 to 2021 and the search for interviews with the remaining responsible persons who are still in the company, it was verified that the approach of this article was qualitative.

The classification of the present article regarding the research procedures was given as a case study, within the concepts of Gil (2008, p. 57-58). Obeying the purposes of the research within what the author wrote:

- a) explore real-life situations whose boundaries are clearly defined;
- b) describe the situation of the context in which a particular investigation is being made;
- c) explain the causal variables of a given phenomenon in very complex situations that do not allow the use of surveys and experiments.

Where the research explored the real case of an organization that uses Zero-Based Budgeting as a tool to make a better budget control and investigate whether or not the tool benefited the organization and from this, determine what were the pros and cons of using the methodology.

This research also has an exploratory objective, because it aimed to clarify and develop the concepts and ideas of zero-based budgeting, as a budgeting tool, with the intention of clarifying and presenting through the analysis of the budget control of a mixed economy company the benefits and harms of zero-based budgeting within the organization in question

#### 3.1 DEFINITION OF THE UNIVERSE AND SAMPLE SELECTION

The universe of the research was a mixed economy company, whose branch is classified as industry. The company currently has around 350 employees, including outsourced and since its inception has been growing significantly, which requires the utmost care with its expenses. The type of sample used was non-probabilistic, since they will be data from budget control for the years 2018 to 2021.



### 3.2 DATA COLLECTION INSTRUMENTS

To acquire the information more precisely, a questionnaire was elaborated via Google Forms, which complied with the requirements stipulated by the author Antônio Carlos Gil (2008, p.116) in:

[...] b) only questions related to the proposed problem should be included; (c) questions whose answers can be obtained more precisely by other procedures shall not be included; d) the implications of the question should be taken into account with the procedures of tabulation and analysis of the data; e) questions that penetrate the privacy of people should be avoided; f) the questions must be formulated in a clear, concrete and precise manner; g) the interviewee's reference system should be taken into account, as well as his/her level of information l) the number of questions should be limited [...].

For the purpose of reporting experiences, the questions sought to record the impression of the interviewees, in the view of managers and other employees involved in budget control, that the zero-based budget left in terms of spending control and comparative analysis between what was done and what was budgeted by the company and improvement in processes. The research samples were conducted with two employees, a manager and an analyst, who are responsible for the budget control of the company, it should be taken into account the reduced staff in which the company was at the time.

To analyze the performance in numbers, we searched the records of expenses and investments (realized x budgeted) of the years selected for research. These records were found available on the organization's website.

### 3.3 PROCESSING OF COLLECTED DATA

The treatment of the answers collected through a questionnaire aimed to serve as an empirical record, that is, a record of experiences lived by those responsible with the Zero-Based Budget being used over the years.

The treatment of the files and documents collected was through the analysis through the use of data available on the organization's website aiming to show in numbers how the performance of the Zero-Based Budget was in a period of four years.

### 3.4 DESCRIBE THE STAGES OF THE RESEARCH

The research began through a bibliographic investigation on the subject addressed, from the concepts of the zero-based methodology, to the elaboration of the interview and analysis of the numerical data, in order to structure them within the norms of the standardizing body. Subsequently, an excerpt of the theoretical study was made in order to select the main texts that will support the theoretical foundation of the research. Then, the selected texts were read and filed. After the selected texts were filed, the information recorded in the company's documents was collected and the questions that served as the basis for the questionnaire were elaborated.



## 4 RESULTS AND DISCUSSIONS

### 4.1 ABOUT THE INSTITUTION

Based on the structural scheme of the author Frezzatti et. al (2011, p. 450), and adapting to the present research of the studied organization, which provided access to information within the legalities and granted access to those involved in the Budget Plan, has the following characteristics:

- (i) is a Mixed Economy Society;
- (ii) develops the budget plan in a participatory manner;
- (iii) has a highly collegial management environment in the discussion and implementation of plans and projects;
- (iv) uses the Zero-Based methodology since 2012, the year of its implementation, together with Strategic Planning;

### 4.2 PERFORMANCE ANALYSIS

In order to better understand the performance analysis of this article, it is necessary to turn to the word performance itself. Looking for the concept of the word and reading articles that deal with topics such as organizational performance evaluation (Barbosa 1996) and financial performance evaluation (Texeira and Amaro, 2013) is understood by performance is the evaluation of the projected result and what was actually accomplished, verifying the benefits of a certain action under its target and identifying points of improvement within each area. As described in item 3, the performance analysis was as follows:

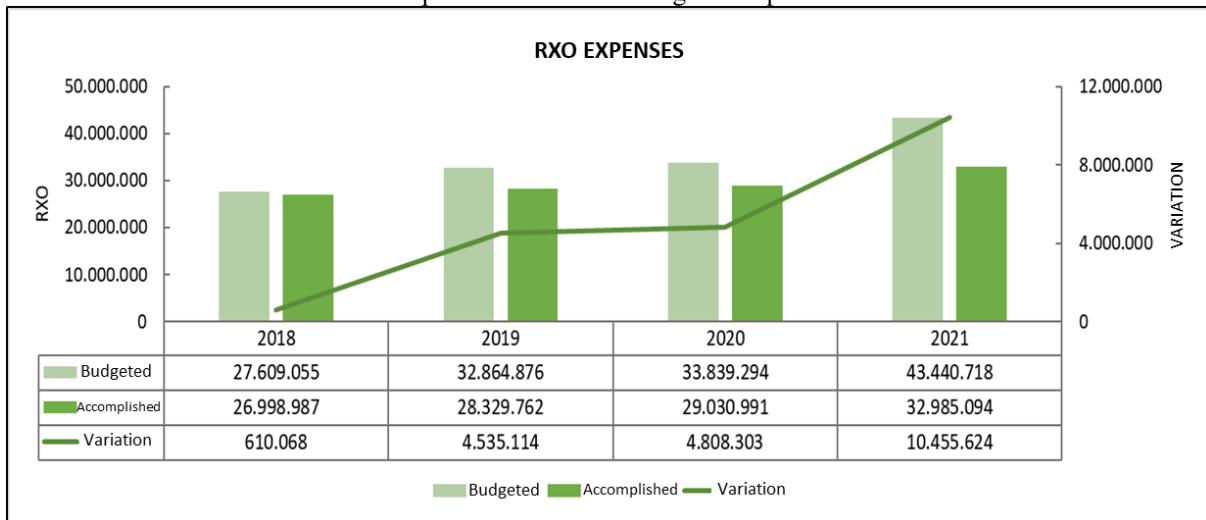
#### 4.2.1 Analysis of Graphs

A priori, a search for the necessary information was carried out on the company's website, which makes available all the data that can be opened to the public through this tool. Afterwards, the numerical data were consolidated in an excel spreadsheet structured in *realized, budgeted and variation*. From the numerical data, two graphs were elaborated, one representing the expenses, the other representing the investments. The need to analyze the numerical data through the graphs is to scale the variation of what was spent and what was predicted. With this, the following views were obtained.



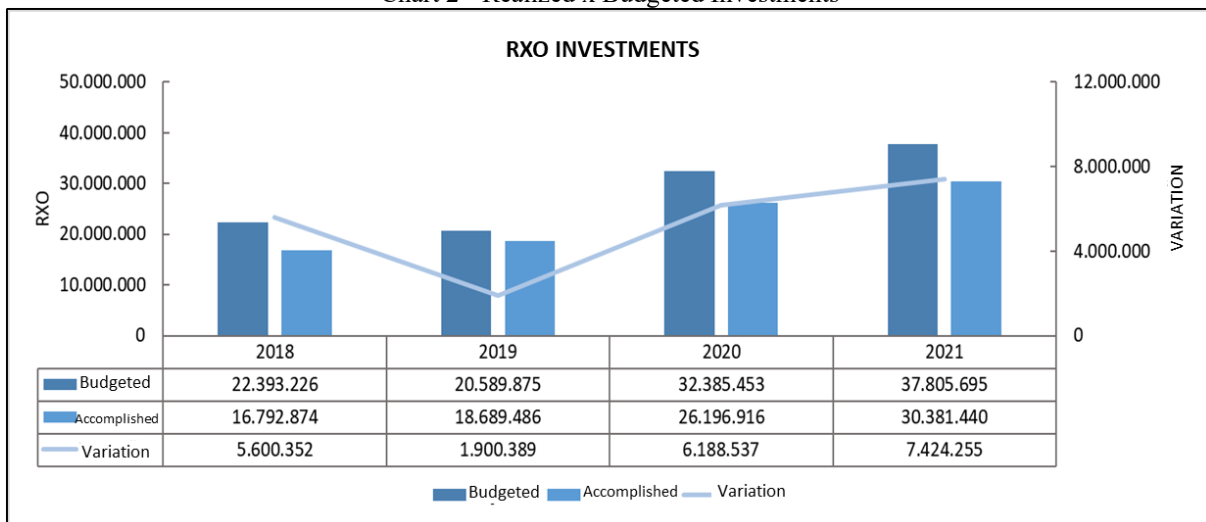


Graph 1 - Realized vs. Budgeted Expenses



Source: Prepared by the author

Chart 2 - Realized x Budgeted Investments



Source: Prepared by the author

From the data analyzed, it is possible to obtain the following notes:

1. The company's expenses evolved in the period analyzed, which was accompanied by variations lower than expected;
2. The variations, although they do not follow a value standard, are always below what was predicted, that is, the company does not exceed its spending forecast. Expenditure data varied over the years R\$1,330,775.00 from 2018 to 2019, from 2019 to 2020 R\$701,229.00 and from 2020 to 2021 R\$3,954,103.00. The organization's budget data ranged from R\$ 5,255,821.00 from 2018 to 2019, from 2019 to 2020 R\$ 974,418.00 and from 2020 to 2021, R\$ 9,601,424.00.

It is possible to obtain the following analysis through the structured data above, following the premises of what a budget aims at as described by Lunkes (2011, p.14), the budget is the stage of the



strategic planning process in which the best relationship between results and expenses is estimated and determined to better meet the needs, characteristics and objectives of the company in the period [...]. Thus it can be defined as a plan of operational processes for a given period.

It is a representative form of the economic-financial objectives to be achieved by the organization (p.28). It is concluded that the company studied projects more than it spends, the variations range from R \$ 600,000.00 to R \$ 10,000,000.00, according to what is assumed it is possible to affirm that the objectives of the organization projected for these periods analyzed were not fully achieved, but one must take into account the reasons that led the company to not meet all the objectives over the years.

#### 4.2.2 Analysis of Questionnaire Responses

Seeking to understand the events in those years, a questionnaire was elaborated to learn more about the employees' point of view on the subject. Containing the questions:

Table 1 – Questionnaire

Question Type	QUESTION
Objective	What is your degree?
Discursive	How long have you been working or working with Zero Base Budgeting?
Discursive	How is the Budget Plan elaboration routine using ZBB?
Discursive	According to your experience, what are the advantages of using the ZBB as a methodology for preparing the Budget Plan?
Discursive	According to your experience, which disadvantages were presented using ZBB as a methodology for preparing the Budget Plan?
Discursive	Do you consider ZBB a good budgeting methodology for the organization? Why?
Discursive	Based on your budget control experience in the years 2018, 2019, 2020 and 2021 in the studied company. Justify the variations below: (Chart 2 and 3)

Source: Prepared by the author

In terms of work experience in the organization studied, one employee reported having three years of experience, the other reported having more than eight years of experience. Both have postgraduate degrees in the administrative area.

Answering the question, regarding the routine preparation of the Budget Plan, it was possible to reach the following conclusion. The Company holds the Budget Workshop, it is the moment in which each area defines together with the planning team the actions it intends to carry out for the following year. At this time, each area makes the survey of its active contracts, renewal periods, projects and initiatives that are linked to Strategic Planning, need for hiring, promotions and others that have financial impact. From these surveys, the planning area begins the process of consolidating the information of all areas and makes an analysis of the total cost of the Company. Afterwards, the process of construction of



the Financial Statements begins and the search for approval with the Executive Board, which after its considerations, submits to the approval of the Company's Board of Directors.

As for the advantages of the ZBB for the organization were obtained the following answers, the board can identify the bottlenecks of the budget, the facilitation of the visualization of the budget execution through tools such as Power BI, in which each area can track and compare its expenses after the accounting closing, with this it is possible to have a good planning of the activities and projects that will be executed, Analyze all expenses to carry out any activity, Eliminate waste and give the opportunity to make decision by priority spending.

As disadvantages it was reported that the method requires more time of dedication to carry out the Budget, since it needs to align the actions with the Strategic Planning, with the Business Plan in addition to verifying the active contracts of each area. However, all this care serves to make sure that nothing will be forgotten increasing the reliability of the information passed on, the rich detail increases the difficulty of review, although it does not make it impossible.

And with all the above placements both employees consider the Zero-Based Budget a good budgeting tool, because its realization forces the leaders of the organization to plan and expand the budget planning so that the other employees can get involved and create a plan and thus facilitating the communication and progress of the future projects of the organization.

The justification of the variations of in a general context, it was observed throughout the analyses, the "budgetary surplus" has always been due to the slowness of the administrative processes, due to the fact that the organization is a Mixed Economy Society, thus having to follow the laws that govern the state-owned companies, among them Law 8,466/93 and 14,133/2021 that establishes general rules on bids and administrative contracts pertinent to the public administration, that is, in a mixed economy company that obeys the Bidding Law, the variations presented may be delays in the bidding process.

The processes are always initiated in the year in which the budget is planned, and in the course of the bidding process some impediment is cause for nullity of the auction having in most cases the need to restart the entire process causing often the planned resource to be postponed to the following year, thus resulting in the budget variation presented in the years mentioned in the table. In addition, there are also actions postponed from one year to the next, there may also be improvement in processes and activities that generated savings and actions not carried out by strategic decisions after budget approval.

## **5 FINAL CONSIDERATIONS**

The present study sought to analyze the performance of the Zero-Based Budget in a mixed economy company in the State of Amazonas over four years, precisely from the years 2018 to 2021.



To obtain the data, a case study of qualitative approach was carried out since for the investigation there was a survey and analysis of numerical data seeking to reconcile the premises of the ZBB with what was carried out within the budget control, as well as the elaboration of a questionnaire to analyze not only the exact information of the events that were budgeted in the budget, as well as its extrinsic factors, which led the organization to not reach all its established goals, that is, to In view of what was researched and analyzed, it was found that there is no single justification for budget variations, as previously mentioned in item 4.2.1, the organization for being of mixed economy must meet the legal requirements, more specifically the Laws 8.466/93 and 14.133/2021 that establishes general rules on bids and administrative contracts pertinent to the public administration, which influences the effectiveness of acquisitions, since it governs the processes elaborated for this purpose. There are also postponed actions, process improvement initiatives that generate savings, events that depend on decision making by senior management. Thus, it is verified that the budget activity in this organization depends on several factors that interfere relatively in its realization, and the events may occur in that year or just be postponed.

In addition, the detailed preparation that the Zero-Based Budget offers for the Budget Plan should be taken into account, taking into account that the target organization of this research complies with the requirements of the ZBB, as recorded by the employees. Thus, it is feasible to verify that the facilitation of the visualization of the budget execution effectively provides a better budget control.

As is pointed out in the book *Orçamento Empresarial* in which the authors paraphrase Sanvicente and Santos:

[...] Budget is an instrument of planning the activities of an organization, also emphasize it as an instrument of control. For the budget to be used as an instrument of control, it is enough that, through management reports, the projections are compared with the results actually obtained. (University of São Paulo, p.09)

The Zero-Based Budget methodology was beneficial for the organization in question, since the details that enrich the Budget Plan in its preparation, despite the time that this methodology requires, are essential for the monitoring of budget execution so it is possible to see the evolution of the planned with what is actually being executed.



## REFERENCES

- ASSOCIAÇÃO BRASILEIRA DE NORMAS TÉCNICAS. ABNT NBR 6023: informação e documentação: referências: elaboração. Rio de Janeiro: ABNT, 2018.
- FREZATTI, Fábio; NASCIMENTO, Artur Roberto; JUNQUEIRA, Emanuel; RELVAS, Tânia Regina Sordi. Processo Orçamentário: Uma Aplicação Da Análise Substantiva Com Utilização Da Grounded Theory. o&s - Salvador, v.18 - n.58, p. 445-466 - Julho/Setembro - 2011. Disponível em: <https://www.scielo.br/j/osoc/a/rsb3hP5TWDXfLRjXCVfJfjr/?format=pdf&lang=pt>. Acesso em: 08/02/2023.
- GIL, Antônio Carlos. Como elaborar projetos de pesquisa. - 4. ed - São Paulo: Atlas, 2002.
- GIL, Antonio Carlos Métodos e técnicas de pesquisa social. - 6. ed. - São Paulo : Atlas, 2008.
- JUNIOR, Nilson Jose de Oliveira. Diagnóstico e Operacionalização da Estratégia. Manaus: Curso de Administração ESO/UEA, 2021.
- KREUZBERG Fernanda; BECK, Franciele et al. Orçamento Base Zero: Um Estudo De Caso Sob A Perspectiva Da Teoria Institucional. Minas Gerais: Contabilidade Vista & Revista, vol. 27, núm. 3, 2016. Disponível em: <https://www.redalyc.org/pdf/1970/197047686003.pdf>. Acesso em 09 de out. 2021.
- LAKATOS, Eva Maria. Fundamentos de Metodologia Científica - 5 ed. - São Paulo: Atlas, 2003.
- SOUZA, Andréa Lanza Cordeiro de; TEXEIRA, Elton Pereira; NUNES, Keyla Cirqueira Cardoso; MADURO Márcia Ribeiro; BITTENCOURT, Maryângela Aguiar; LIMA, Orlem Pinheiro; ARAUJO, Paulo César Diniz; SENA, Raylene Rodrigues; RIZZATO, Sálvio de Castro e Costa. Manual de Conclusão do Estágio Curricular Supervisionado do Curso de Administração — Curitiba : CRV, 2022.
- NASCIMENTO Magda Silva. A Importância do Planejamento Orçamentário e Estratégico nas Organizações de Pequeno, Médio e Grande Porte. Manaus: IPOG, 2021
- LUNKES, Rogério João. Manual de Orçamento. 2ª ed. São Paulo:Atlas S.A. 2011
- TOZZI & COSTA. Revolução Orçamentária: o avanço do orçamento base zero (ZBB). São Paulo : Trevisan, 2017.
- Universidade de São Paulo. ORÇAMENTO empresarial. Disponível em: <<https://edisciplinas.usp.br/mod/resource/view.php?id=2229259>>. Acesso em: 24 fev. 2023.
- DELICADO Teixeira, Nuno Miguel; CABRAL Amaro, António Gerson. Avaliação Do Desempenho Financeiro E Da Criação De Valor – Um Estudo De Caso. Revista Universo Contábil, vol. 9, núm. 4, outubro-dezembro, 2013, pp. 157-178 Universidade Regional de Blumenau Blumenau, Brasil.
- BARBOSA, Livia. Meritocracia à brasileira: o que é desempenho no Brasil?. Ano 47, Volume 120 nº3 Rio de Janeiro: Revista do Serviço Público, 1996.