Influence of Relationships Between Budget Functions and Business Analytics on Satisfaction with Budget Process

A Influência das Relações Entre as Funções do Orçamento e *Business Analytics* na Satisfação com o Processo Orçamentário

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Abstract

The objective of this research was to identify the influence of the relationship between budget functions and business analytics on satisfaction with the budget process. In order to fulfill the objectives of this study, questionnaires were used as a data collection instrument, applied in companies in the state of Santa Catarina, Brazil, directed to the accountants and/or accountants of the company. The structural equation modeling technique was applied to analyze the research assumptions, which were supported. The results point to the positive influence of the planning function on the use of business analytics during the budget process. It was found that the use of business analytics during the budget process is positively associated with satisfaction with the budget process.

Keywords: Budget Functions; Business Analytics; Satisfaction; Budget Process.

Resumo

O objetivo desta pesquisa foi identificar qual a influência da relação entre funções do orçamento e *business analytics* na satisfação com o processo orçamentário. Para o cumprimento dos objetivos deste estudo, utilizou-se como instrumento de coleta de dados, questionários, aplicados a empresas no estado de Santa Catarina, Brasil, direcionados para os contadores e/ou contadores da empresa. Foi aplicada a técnica de modelagem de equações estruturais para análise dos pressupostos da pesquisa, os quais foram suportados. Os resultados apontam a influência positiva da função do planejamento no uso do *business analytics* durante o processo orçamentário. Constatou-se que o uso do *business analytics* durante o processo orçamentário está associado positivamente à satisfação com o processo de orçamento.

Palavras-chave: Funções do Orçamento; *Business Analytics*; Satisfação; Processo Orçamentário.

1 Introduction

The literature presents national and international studies that point out criticisms and indicate the abandonment of the budget practice, citing its inefficiency and disadvantages in the elaboration and implementation of the budget process. In fact, it is necessary to make improvements in the budget processes, but the solution will not be to abandon them, because the benefits obtained in the budget are valuable and overcome their difficulties.

In this sense, to improve these processes, the use of information technology (IT) in budget processes strengthens the organization's decision-making. Among the benefits are the optimization of the company's performance, which causes an increase in information processing capacity and, consequently, improvements in business processes and competitive advantage (Zonatto *et al.*, 2020).

IT emerges by providing opportunities, increasing user access, and creating solutions that provide improvements, helping to achieve general and specific company goals (Bergmann *et al.*, 2020). For this reason, also considering the current market context that is in increasing evolution, there is a search for the optimization of business practices, which provide improvements, process optimization and new tools, in addition to the search for unnecessary cost cutting (Brands & Holtzblatt, 2015).

In the study carried out by Bergmann *et al.* (2020), the use of business analytics is highlighted, which ensures the optimization of processes and time savings, in addition to making the budget process increasingly relevant with the integration of information, methods and analysis. The authors emphasize that the use of BA in the budget process can be applied in different ways in companies, allowing the definition of clearer goals in relation to the allocation of technology resources. The BA provides organized and well-structured information, revealing complete data at all levels, making decision-making faster and more accurate in company management, contributing to competitive advantage and articulating improved strategies (Raffoni *et al.*, 2018).

Another aspect to be addressed in the use of the budget process is the degree of user satisfaction during the budget process, which involves several organizational aspects, from user performance to the global organizational environment. The level of dissatisfaction can be considered high when its users of the budget process are under a lot of pressure, thus, satisfaction and/or dissatisfaction depend on their own perception (Bissol & Oliveira, 2022). In this sense, it is understood that the association of satisfaction with budgetary participation is directly related to the way its users behave, which can be positive or negative, since it concerns the work being developed (Zonatto *et al.,* 2020).

Users' actions can also be stimulated through other variables, such as managerial performance and individual satisfaction. Companies should be concerned with the

level of employee satisfaction and consider the negative influence this can have on their performance. From the moment that its employees feel "satisfied", the company will be favored with greater productivity and low job turnover (Zonatto *et al.,* 2020).

Furthermore, satisfaction can be considered a way of expressing oneself in relation to the tasks and conditions available in the work environment. Therefore, the more users perceive that they can achieve their goals in the budget process, the greater their level of satisfaction. Therefore, the budget directly impacts the behavior of its users and consequently will influence the work environment through motivation, productivity, and satisfaction (Zonatto *et al.,* 2020; Bissol & Oliveira, 2022).

In the study by Bergmann *et al.* (2020), managers' satisfaction with the budget process was submitted to analysis and, in this perspective, Zonatto *et al.* (2020) investigated the effects of budgetary participation in the creation of a new model of business analytics systems, which aims to determine in which aspects to direct the organization's efforts to BA and what are its impacts. In this sense, Appelbaum *et al.* (2017) suggest the development of a new model that provides new BA techniques, aimed at measuring company performance (BSC), from the perspective of management accounting (Ribeiro *et al.,* 2021).

Thus, given the context presented and considering the importance and relevance of the topic addressed, this research seeks to answer the following question: What is the influence of the relationship between budget functions and business analytics on satisfaction with the budget process? It aims to analyze the influence of the relationship between budgeting functions and business analytics on satisfaction with the budgeting process of medium and large companies located in the southern region of the country.

The accomplishment of the present study is justified through the theoretical/ academic and practical/managerial perspectives. Regarding the theoretical/academic perspective, given the theoretical context exposed, it was identified the need for studies that address the constructs of business analytics, satisfaction, and organizational performance, having the budget process as a central point. Some authors have highlighted the relevance of the relationship between business analytics, satisfaction, and performance in the budget process (Bergmann *et al.,* 2020). However, this topic lacks empirical studies that provide greater theoretical basis (Lunardi *et al.,* 2019). In this way, the results of this research can clarify the potential outcomes of BA in the budget process and, through these results, can contribute with empirical evidence, identifying the influences of performance (Bergmann *et al.,* 2020).

Regarding organizational performance, Bergmann *et al.* (2020) identified that the BA supports the planning function, as it is understood that this tool helps companies to reduce the duration of the budget and contributes with accurate information. Regarding the evaluation function, no significant influences were identified in the use of BA in the budget process. It should be noted that investments in IT promise

to improve performance, through decision-making, bringing faster actions. It is noteworthy, therefore, that companies must define in their strategic planning how much will be spent and the correct allocation of investment for the implementation of information systems.

Considering that these technologies demand high costs, their use must be consciously through the available technological resources (Torres, Sidorova, & Jones, 2018; Soares *et al.,* 2019a). In any case, it is essential that the information system meets the company's objectives, to successfully use the system (Brands & Holtzblatt, 2015). BA brings new knowledge to the company and its employees, allowing managers to assume a new role in data analysis, to obtain opportunities and challenges (Ashrafi *et al.,* 2018). According to the changes in the role of accounting and accounting in the company, users must adapt to these new changes, so that they are not considered incapable of developing their work (Brands and Holtzblatt, 2015).

2 Theoretical Framework

In the work by Raffoni *et al.* (2018), it was discussed how business analytics can be used to test strategies related to the performance of the organization, increasing the intention to use analytical methods in the monitoring and execution of strategies, with a view to analyzing which ways to strengthen the analytical approach to performance management.

In another perspective, Adhika *et al.* (2018) points out, in the empirical results of their research, that the use of IT strengthens the influences of budget planning and human resources. These scholars suggest that the absorption of budget information aligned with the use of technology will be positive, if they have good budget planning and that human resources have the necessary skills.

Budgetary emphasis on operational plans relates to decentralized organizational structure and repetitive processes, budgetary emphasis on internal communication relates to cost strategies and organization size, ongoing budgeting relates to operational plans and customized processes, and budget dimensions flexible and zero-based process relate to legal aspects (Trocz *et al.,* 2021).

H1: The importance of a company's budget planning is positively associated with the use of business analytics in the budgeting process.

In this sense, Lunardi *et al.* (2019) investigated the effects of work involvement, managerial decisions and information sharing of budgetary and managerial participation of controllers of Brazilian companies. The research aimed to demonstrate the budgetary participation of controllers in the face of work involvement and to

present the direct and indirect effects of budgetary participation and managerial performance, according to managerial decisions and the sharing of information with their superiors.

In studies by Sponem and Lambert (2016) and Defaveri, Santi and Toigo (2019), we sought to verify the impacts of budget characteristics and functions on user satisfaction. Sponem and Lambert (2016) carried out their study with French companies, while Defaveri, Santi and Toigo (2019) directed their study in the Brazilian territory, identifying how budgets are developed and how the individual characteristics of Brazilians cause effects on satisfaction with the budget process.

The results of Sponem and Lambert (2016) indicate that its users feel more satisfied when the budget is used as a tool for discussion, for business issues and for the socialization of individuals within the organization. The results of Defaveri, Santi and Toigo (2019) indicate that the main factor causing satisfaction is the performance evaluation function, in which users demonstrate their commitment and capacity to the organization. The remuneration factor indirectly causes satisfaction and allows us to conclude that engagement is a determining factor in satisfaction.

H2: There is no association between the importance of the budget assessment function and the use of business analytics in the budget.

Bergmann *et al.* (2020) analyzed the use of business analytics in the budget process and its satisfaction effects, considering that BA proposes to automate processes and save time. The focus of this study was directed to the analysis of technical determinants (data infrastructure and sophistication), the budget functions (planning and evaluation) and their effects for the use of analytical methods. The use of BA indicates that it favors data automation, through its more sophisticated collection and analysis, which support business management based on this information, so it can be exposed that technology affects management and performance indicators. These implementations provide optimization and time savings and can outperform human performance (Gallina *et al.,* 2018).

In view of the results, the authors in question argue that the budget process is based on data, being a facilitating factor for the use of analytical methods. In addition, BA provides increased budget satisfaction, overcoming dissatisfaction with traditional budgeting processes. The sophistication of the data infrastructure is a motivating factor in companies and highlights the importance of the BA planning role in the budget process, when the company seeks to align organizational aspects, such as: planning, forecasting, coordination, and resource allocation. It is noteworthy that no significant relationship was found with the budget evaluation function and that other tools can be used for this function.

H3: A company's use of business analytics during the budget process is positively associated with satisfaction with the budget process.

According to the in-depth studies that evaluate the influences on business analytics, satisfaction and organizational performance, Table 1 presents the hypotheses previously elaborated that aim to assist in this research.

Table 1. Hypotheses identified in the literature.

	Hypotheses	Reference
H1	The importance of a company's budget planning is positively associated with the use of business analytics in the budgeting process.	Adhika *et al.* (2018); Bergmann *et al.* (2020).
H2	There is no association between the importance of the budget assessment function and the use of business analytics in the budget process.	Bergmann *et al.* (2020).
H3	A company's use of business analytics during the budget process is positively associated with satisfaction with the budget process.	Defaveri *et al.* (2019); Lunardi *et al.* (2019).

Source: Elaborated by authors.

According to the design of the study hypotheses with the constructs related to the theme, the theoretical model of the present research was structured. In this model, the variables that will be analyzed as determinants in the budget process are indicated (Figure 1).

Figure 1. Research model.
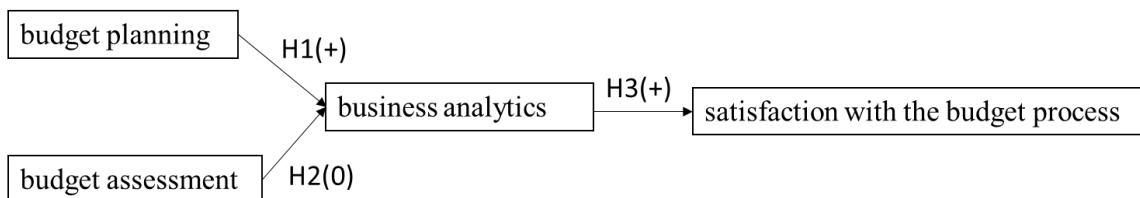
Source: Elaborated by authors.

The present study seeks to identify the influences on the budget process, considering the following variables: business analytics, satisfaction with the budget process and the evaluation and planning functions. The hypotheses proposed for this study are determined from the quantitative data, in the next section, the methodological aspects will be presented, which involve the sample design, techniques of collection, treatment and analysis of data.

3 Method

It is understood that the present research has a quantitative character, based on the use of data collection instrument and statistical techniques, which were used

to evaluate organizational influences in the budget process, such as: planning and performance, decision making and systematization of data, according to the data obtained.

The object of analysis of the present study covers companies located in the southern region of the country, covering the three states: Rio Grande do Sul, Santa Catarina, Paraná, covering all segments. To expand the possibilities of the population participating in the study, we sought to analyze medium and large companies in the southern region of the country. To compose the sample, a combination of three national rankings was carried out, namely (2019): 1) Economic value; 2) 1000 largest companies in the country (Exame Magazine); 3) list of the 500 largest companies in southern Brazil, in order to complement and reinforce the sample. Given this, the aim was to reach companies with greater potential for systematizing budget processes. In Table 2, it is possible to observe the composition of the companies divided by state.

Table 2. Sample.

Sample	Rio Grande do Sul	Paraná	Santa Catarina
Valor Econômico (Economic value)	74	73	38
Revista Exame (Exame Magazine)	65	55	34
500 Maiores do Sul (500 Largest in the South)	189	186	125
Sum	328	314	197

Source: Elaborated by authors.

The questionnaire was sent through the Google Forms platform, asking respondents to in 2019, so that their answers were not influenced by the pandemic period. In addition, we requested that your responses be based on the considerations of the company's CEO. To disseminate the questionnaire, contact was sought on the companies' electronic portal, sending emails and inviting them to collaborate with the present study. In addition, companies were searched on the professional LinkedIn platform, through which messages were sent, requesting their collaboration with this research. To obtain the largest number of responses, it was established that it was not mandatory to mention the name of the company and the position/function, so that the respondents felt safe and comfortable to answer the questions in the questionnaire. Questionnaires were sent to all the companies in Table 2. Forty-nine responses were obtained. The questionnaire was built on a Likert scale. Data were analyzed by structural equation modeling with partial least squares estimation (PLS-SEM) using SmartPLS3 software.

4 Results and Discussion

After exporting the primary data collected to the SmartPLS3® software, the preliminary data report was obtained. Hair Junior *et al.* (2017) recommend that the evaluation of the measurement model analyze the following aspects: convergent validity, reliability, and discriminant validity. Initially, the cross factor loadings were evaluated, according to the criterion of Chin (1998), demonstrating to be adequate, as shown in Table 3.

Table 3. Cross loads.

Variable	Business analytics	Evaluation Function	Planning Function	Satisfaction with Budget Process
BA1	0,763	0,31	0,578	0,523
BA2	0,789	0,452	0,682	0,341
BA3	0,847	0,373	0,700	0,360
BA4	0,916	0,368	0,737	0,448
BA5	0,944	0,317	0,673	0,427
BA6	0,862	0,314	0,718	0,273
BA7	0,807	0,323	0,609	0,293
EF1	0,272	0,893	0,547	0,375
EF2	0,470	0,951	0,657	0,301
EF3	0,050	0,605	0,279	0,444
PF1	0,789	0,398	0,859	0,484
PF2	0,766	0,377	0,813	0,574
PF3	0,633	0,564	0,901	0,362
PF4	0,445	0,823	0,708	0,176
PF5	0,467	0,745	0,794	0,308
SBP1	0,507	0,333	0,416	0,929
SBP2	0,326	0,258	0,510	0,825
SBP3	0,159	0,404	0,321	0,759

Source: Research data.

According to the analysis performed in Table 3, it was identified that the factor loadings. Although PF4 has a higher load value, it was decided to leave it because it had a high load in the construct itself and the results of the other analyzed items were not adequate. Thus, in view of the indicators analyzed, the model has discriminant validity (DV), according to the criterion of Chin (1998). Table 4 shows the results, according to the application of the Heterotrait-Monotrait criterion.

Table 4. Heterotrait-Monotrait criterion.

Variable	Business Analytics	Evaluation Function	Planning Function	Satisfaction with Budget Process
Business Analytics	-	-	-	-
Evaluation Function	0,374	-	-	-
Planning Function	0,832	0,738	-	-
Satisfaction with Budget Process	0,455	0,566	0,550	-

Source: Research data.

In Table 4, it was observed that the results are less than 0.90. According to Henseler, Ringle and Sarstedt (2015) and previous research, it is suggested that the threshold value to be considered should be 0.90, corroborating results and meeting the HTMT criteria. Internal consistency values were evaluated using Cronbach's Alpha and composite reliability. Table 5 shows the values calculated together with the values related to the AVE.

Table 5. Model internal consistency.

Variable	Cronbach´s Alpha	Composite Reliability	AVE
Business Analytics	0,934	0,947	0,721
Evaluation Function	0,0825	0,865	0,689
Planning Function	0,880	0,909	0,669
Satisfaction with Budget Process	0,809	0,878	0,706

Source: Research data.

After analyzing the results mentioned in the previous paragraph, the validation of the measurement model was verified in terms of convergent validity, discriminant validity (cross-loads, Fornell-Larcker criteria and HTMT criteria) and reliability of the construct, obtaining the model of structured measurement, as shown in Figure 2.

Figure 2. Structured measurement model.
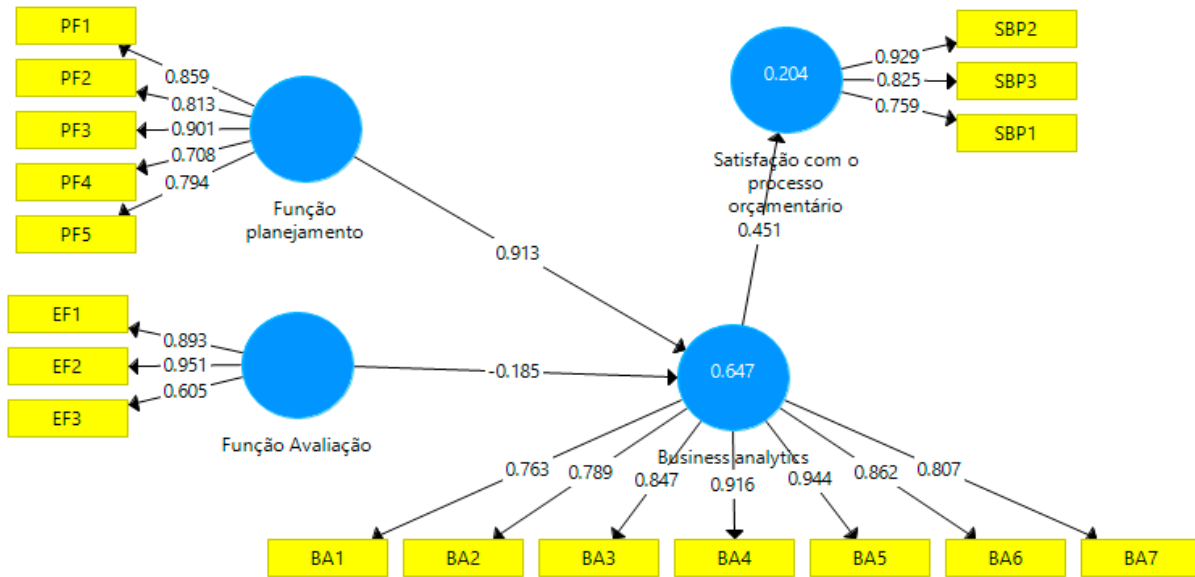
According to the validation of the measurement model against the established criteria, the next subsection is intended for the evaluation of the structural model. After completing the evaluation of the measurement model, this subsection evaluates the structural model of the present study.

The first evaluation performed was the collinearity analysis, identifying the variance inflation factor of the proposed model. Hair Junior *et al.* (2017) emphasize the importance of this analysis, since if this assumption is not met, it could make the results questionable, since the model base could be considered unreliable. The authors emphasize that, in the PLS-SEM, a VIF value equal to or greater than ten is an indication of a collinearity problem. If the level of collinearity is high, the authors recommend removing one of the corresponding indicators. In this sense, Soares *et al.* (2019b) reinforce those variables that have a VIF value of less than 10 suggest that there is no problem of multicollinearity in the data collected. The values shown in Table 6 are lower than 10, thus keeping all the variables in the model. All variables remained in the model.

Table 6. Variance Inflation Factor (VIF).

Variables	VIF	Variables	VIF	Variables	VIF
SBP1	1.778	BA4	4.869	PF3	4.040
SBP2	1.641	BA5	7.894	PF4	5.179
SBP3	1.957	BA6	7.039	PF5	7.423
BA1	2.804	BA7	4.668	EF1	3.456
BA2	2.539	PF1	2.691	EF2	2.110
BA3	2.808	PF2	3.049	EF3	2.041

The last evaluation verified if the relationships are significant, through Student's t test and the p-value, using the SmartPLS3® function, bootstrapping with a significance level of 5%. Table 7 indicates the values found for the significance of the structural relationship of the present model and, considering the subsequent results, it was identified that the values of the relationships between the LVs are above the reference value of 1.96, according to the level of significance followed by 5% (Hair Junior *et al.,* 2017).

Table 7. Hypotheses.

	t student	*p* value
BA ->SBP	2,999	0,003
EF -> BA	0,889	0,374
PF -> BA	7	0,000

Source: Research data.

In view of the results, it was observed that all hypotheses were validated, since the hypotheses of business analytics > satisfaction with the budget process and the planning function > business analytics obtained values lower than 5%, confirming their influence on these variables. The hypothesis of the evaluation function > business analytics was greater than this value, evidencing the confirmation of the hypothesis that the evaluation function does not influence business analytics. After the conclusion of the analysis of the measurement model and the evaluation of the structural model, it was decided to present the results in a synthesized form together with the parameters of the literature. This organization is used to make a comparison according to each analysis performed.

Considering the results presented, it is possible to affirm the importance of the planning function on the use of business analytics in the budget process, being the one that stands out the most among all the options, and secondly, the use of business analytics during the process. budgeting is associated with satisfaction with the budget process. Finally, it was identified that there is no influence on the budget evaluation function and the use of business analytics in the budget process. Thus, based on the data obtained in this research and the respective data analysis, the hypotheses of the present study were evaluated.

H1: The importance of a company's budget planning is positively associated with the use of business analytics in the budgeting process.

As discussed in the study by Bergmann *et al.* (2020), business analytics supports the planning function, due to the reduction of the budget duration, and acts by improving the accuracy of the information. Thus, the authors in question argue that the importance of the planning function is positively associated with the use of business analytics, and according to the results found here, the hypothesis was supported.

It is understood that investments in data infrastructure are necessary to improve company processes, revealing that efforts to support the budget process together with business analytics promotes greater overall satisfaction with the process (Bergmann *et al.*, 2020). For Sivabalan *et al.* (2009), the role of planning in the budget process refers to the development of a plan, including: coordination of resources between units, action plans and definition of costs according to the basis of prices and innovation.

In the study carried out by Appelbaum *et al.* (2017), it is noteworthy that the BA is used to assist in the performance of managerial accountants, issuing financial reports, measuring performance, and serving as a data source (composed of internal and external data). Furthermore, these authors state that there are three types of data analysis methods that can be used according to the problem definition: descriptive analysis, predictive analysis, and prescriptive analysis. In this light, according to Bergmann *et al.* (2020), satisfaction with the budget process is directly linked to the satisfaction of the employee responsible for this process, regarding its duration, use of resources and costs. Grover *et al.* (2018) argue that analytical methods may be better suited to the existing constraints of the planning function than people.

H2: There is no association between the importance of the budget assessment function and the use of business analytics in the budget process.

As in the study by Bergmann *et al.* (2020), the hypothesis in question was supported in the present study, again identifying its confirmation, indicating that in fact there is no association between the evaluation function and the use of BA in the budget process. For this reason, relevant questions on the topic are addressed.

The questions applied in the questionnaire related to the function of budget evaluation, sought to understand: the importance of employee motivation to achieve budget goals: the pertinence of performance evaluation of the budget process; and, finally, the relevance of remuneration in the budget process, and the relevance of its impacts.

For Bergmann *et al.* (2020), the budget evaluation function refers to performance based on the evaluation budget, considering that performance evaluation can be applied to individuals and organizations, and it can also be divided between personal evaluation and business unit evaluation. According to Sivabalan *et al.* (2009), such division is favorable in companies that do not use the budget as a way of evaluating their employees, but, even so, seek to identify the business performance against the budget.

The evaluation function associated with the use of BA makes companies set more precise goals due to the use of technology. However, companies may intentionally avoid using BA, as it is understood that its use can influence employee performance (Bergmann *et al.*, 2020).

However, Bergmann *et al.* (2020) mention that these companies can make it very clear that they prefer not to use the BA, due to the evaluation of the budget, opting only

for the active participation of their employees in the budget process, aiming to increase the performance of these employees based on psychology. In their study, Sivabalan *et al.* (2009) highlight the difficulty of companies in using the budget as a method of evaluating employees, identifying that it is not possible to measure performance properly and that the circumstances are unpredictable. Therefore, in view of the theoretical discussion regarding the importance of the budget evaluation function and what are the effects on the use of business analytics in the budget process, the hypothesis in question was formulated, identifying that there is no empirical evidence to justify its use.

H3: The use of business analytics during the budget process is positively associated with satisfaction with the budget process.

The hypothesis addressed was supported, as in the study by Bergmann *et al.* (2020). In their research, Taipaleenmaki and Ikaheimoa (2013) analyzed issues related to the influences of information technology on managerial and financial accounting, whereas Brynjolfsson and McElheran (2016) analyzed data-based decision making. In this bias, the questionnaire of the present study addressed issues related to certain aspects of satisfaction with the budget process, such as the duration of the budget process, the destination of the company's resources, the costs involved in this process and, finally, the automation of Dice.

Bergmann *et al.* (2020) argue that the use of business analytics in the budget process comes with the promise of saving time and automating the business process, in the face of analytical methods. Thus, it is understood that the use of BA can help to overcome dissatisfaction with the budget process. The authors believe that technological advances in this area can surpass human performance, helping companies more safely in decision making. In the study, Brynjolfsson and McElheran (2016) emphasize that companies that invest in information technology presented a greater amount of digitized information and that data-driven companies should increase investment in IT for the provision of information based on decision in facts. The authors conclude that data improvement can create opportunities for the company and make it make better decisions.

In this way, considering the great changes that have occurred in recent years in data storage and processing technologies, new ways of collecting data have emerged, causing managers to change the way they make decisions, which were previously based on their intuition, starting to rely more on the presentation of data (Brynjolfsson & Mcelheram, 2016; de Souza *et al.,* 2022). According to the results of the study carried out by these authors, it was identified that the use of fact-based decision in the USA practically tripled the production of companies between 2005 and 2010, and it was noticed that the IT levels of the most qualified and high-ranking employees are associated with this type of decision.

In this sense, Bergmann *et al.* (2020) indicate that the use of business analytics helps companies in relation to relevant issues such as strategic behavior of key agents in the budget and analysis of the advantage of information if it is used ethically. In view of the above, it was identified how technology affects the management of the company, as the effects of business analytics on satisfaction with the budget process are submitted to analysis.

However, even though the use of business analytics in the budget process does not eliminate all existing difficulties, it manages to provide improvements in time consumption, automatically improving response time in certain situations and requiring less resources, due to the speed of data automation (Bergmann *et al.*, 2020). Furthermore, the accuracy of the budget forecast will be attributed to the person responsible for the budget process within the company, contributing to their satisfaction in the process.

5 Conclusions

The present study aimed to answer the following question: What is the influence of the relationship between budget functions and business analytics on satisfaction with the budget process? From the data collected through the questionnaire applied to the companies in the sample, it was found that there is a positive influence on the effect of the planning function associated with the use of business analytics during the budget process. In addition, it was found that the use of business analytics during the budget process is positively related to satisfaction with the budget process. Still, it was identified that, in fact, there is no relationship between the role of evaluation in the use of business analytics during the budget process.

Furthermore, with regard to budgetary satisfaction, it is important to highlight the following aspects that influence this construct, namely: clear goals in the budget process; achievement of personal and/or department goals; participation in the budget process; and reaching the deadline for finalizing the budget and motivation. It should be noted that although the results presented meet the objectives proposed for the present study, some limitations presented throughout the work must be considered. The first limitation is that there are few studies that approach the joint perspective of the relationships of the analyzed constructs.

Finally, in order to reduce some of the limitations raised and encourage new studies, the following are suggestions for possible directions: a) studies that analyze aspects that specifically encompass satisfaction with the budget process; b) studies aimed at analyzing the constructs of this research, from a practical perspective in a particular company; c) studies that analyze all the constructs of the present research, in a qualitative perspective; d) studies that investigate why companies\people refuse to participate in scientific research in this area.

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