


Effects of budget favorability on the relationship between participation, attitudes and managerial performance


Efeitos da favorabilidade orçamentária na relação entre participação, atitudes e desempenho gerencial

Efectos de la favorabilidad presupuestaria en la relación entre participación, actitudes y desempeño gerencial


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Abstract

The research seeks to assess the intervening effects of budget favorability on the relationship between budgetary participation, attitudes towards budget decision makers (trust in the supervisor and organizational commitment) and managerial performance. The descriptive research was carried out through a survey and quantitative data approach (path analysis), with a sample of 156 managers with budgetary responsibility in large Brazilian industrial organizations. The results show that budgetary participation and budget favorability interact to directly influence managerial attitudes related to trust in the supervisor and organizational commitment. Such interactions consequently exert a direct and joint influence on managerial performance. In view of the analyzed sample, we conclude that budget favorability influences the relationship between budgetary participation, attitudes towards budget decision makers and managerial performance. These results contribute to the literature by deepening the understanding of the conditions for obtaining better managerial performance in the budgetary context and the intervening effects of budget favorability.

Keywords: Budgetary favorability; Budget participation; Organizational commitment; Trust in the supervisor; Managerial performance

Resumo

Esta pesquisa avalia os efeitos intervenientes da favorabilidade orçamentária na relação entre participação orçamentária, atitudes em relação aos decisores orçamentais (confiança no supervisor e compromisso organizacional) e o desempenho gerencial. Pesquisa descritiva foi realizada por meio de levantamento e abordagem quantitativa de dados (*path analysis*), com amostra composta por 156 gestores com responsabilidade orçamentária em organizações industriais de grande porte, sediadas no Brasil. Os resultados encontrados revelam que a participação orçamentária e a favorabilidade orçamentária interagem para influenciar diretamente as atitudes gerenciais relacionadas a confiança no supervisor e o compromisso organizacional. Por consequência, tais interações exercem influência direta e conjunta no desempenho gerencial. Pode-se concluir, para a amostra analisada, que a favorabilidade orçamentária influencia a relação existente entre participação orçamentária, atitudes em relação aos decisores orçamentais e o desempenho gerencial. Estes resultados contribuem para o entendimento dos condicionantes a obtenção

de melhor desempenho gerencial no contexto orçamentário e dos efeitos intervenientes da favorabilidade orçamentária.

Palavras-chave: Favorabilidade orçamentária; Participação orçamentária; Compromisso organizacional; Confiança no supervisor; Desempenho gerencial

Resumen

Esta investigación evalúa los efectos intermedios de la favorabilidad presupuestaria en la relación entre la participación presupuestaria, las actitudes hacia los tomadores de decisiones presupuestarias (confianza en el supervisor y compromiso organizativo) y el desempeño gerencial. La investigación descriptiva se realizó a través de un enfoque de encuesta y datos cuantitativos (*path analysis*), con una muestra de 156 gerentes con responsabilidad presupuestaria en grandes organizaciones industriales con sede en Brasil. Los resultados encontrados revelan que la participación presupuestaria y la favorabilidad presupuestaria interactúan para influir directamente en las actitudes gerenciales relacionadas con la confianza en el supervisor y el compromiso organizacional. En consecuencia, estas interacciones ejercen una influencia directa y conjunta sobre el desempeño gerencial. Se puede concluir, para la muestra analizada, que la favorabilidad presupuestaria influye en la relación entre participación presupuestaria, actitudes hacia los tomadores de decisiones presupuestarias y desempeño gerencial. Estos resultados contribuyen a la comprensión de los factores condicionantes para obtener un mejor desempeño gerencial en el contexto presupuestario y los efectos intervenientes de la favorabilidad presupuestaria.

Palabras clave: Favorabilidad presupuestaria; Participación presupuestaria; Compromiso organizacional; Confianza en el supervisor; Desempenho gerencial

1 Introduction

The corporate budget allows companies to quantify the available and necessary resources for the execution and development of their activities (Hannan et al., 2010). The budget also influences the behavioral aspects of employees as it is an instrument of management control that cannot exist without the individuals participation (Derfuss, 2016). This happens because the budget process demands the involvement of organizational actors for its materialization. Empirical budget research has examined how individuals react to the opportunity to participate in the organization's budgeting process (Derfuss, 2016; Dani et al., 2017). After all, by participating in budgeting processes, individuals can influence the definition of budget objectives and goals, enabling the participating manager to obtain a more favorable budget to carry out their work (Francis-Gladney et al., 2008).

However, these investigations have presented controversial results on the direct effects of budgetary participation and its interactive effects with other variables present in the budget context, on managerial performance (Zonatto et al., 2019), in addition to not observing the conditions under which this occurs, which would allow a better understanding of such results (Lunardi et al., 2020). It should also be considered that attitudes towards budget decision makers have also been poorly studied in the literature dealing with budget participation (Francis-Gladney et al., 2008). Previous studies report that managers are more likely to react negatively to situations of unfavorable results since their perceptions can be influenced through the equity assimilated during the procedures by which such results were established (Greenberg, 1990; Magner et al., 1995; Wentzel, 2002; Francis-Gladney et al., 2008).

This evidence (Magner et al., 1995; Wentzel, 2002; Francis-Gladney et al., 2008) suggests that budget favorability may determine how budgetary participation will influence the attitudes of budget managers and their managerial performance since this precedes the results achieved by the subordinate managers and is related to the conditions made available so that the budget objectives and targets are achieved. Consequently, they are able to influence the levels of trust in the supervisor and the commitment of subordinate managers to the company. Budget favorability is related to receiving a given budget allocation much better or much worse than requested (Francis-Gladney et al., 2008). It is related to the perception of how fair are the budget decisions taken by top managers in the company. According to Santos et al. (2021), in the budgetary context, the fair design and use of the budget process are capable of influencing managerial performance.

Therefore, it is possible to admit that the perception of budget favorability has a direct interaction with budgetary participation, impacting, positively or negatively, on managerial attitudes and performance. Despite this presumption, no evidence was found that such relationships were previously investigated, a theoretical gap explored in this work. We understand that this influence can occur from questions (cognitive aspects) that are formulated by subordinate managers in search of a justification, explanation, for such a situation (result achieved). As explained by Magner et al. (1995), the lack of participation in the organization's budget processes would lead managers to imagine how their results could be better, if they had the opportunity to participate in the company's budget discussions.

However, even with budgetary participation, there will not necessarily be a reduction of informational asymmetries in the budgetary context (Lavarda & Almeida, 2013). It must also be considered that, at least in

part, the interests of superior managers may be different from the interests of subordinate managers, which tends to affect the levels of trust in the superior (Francis-Gladney et al., 2008). In this condition, subordinates may question the behavior of the hierarchical superior and be unwilling to share private information. When this occurs, subordinate managers may come to believe that unfavorable outcomes were established through unfair procedures in budget decision-making (Magner et al., 1995; Francis-Gladney et al., 2008), which would be an explanation for the worst managerial performance achieved.

Trust in the supervisor is an important conditioning factor for subordinate managers' attitudes towards the budget. Their propensity to share information occurs when they feel part of the organization, actively included in the company's budget process (Lunardi et al., 2020). Under these conditions, he will be more likely to provide relevant information to determine a more adequate allocation of budgetary resources, necessary for the development of the expected activities, which will positively impact his managerial performance and the quality of the entity's budget forecasts.

The same may occur in relation to the level of effort that the individual is willing to undertake in work activities. Individuals who actively participate in the organization's budgeting process become more committed to it (Zonatto, 2014). Evidence found in the literature also reveals that under conditions of high budgetary participation, such a management instrument (budget) becomes effective in terms of managerial performance, which is not generally observed in scenarios with low participation (Chong & Chong, 2002a; 2002b; Chong et al., 2006; Chong & Johnson, 2007).

Despite such evidence, recent studies developed in Brazil have shown the adoption of a different budget configuration among companies (Lunardi et al., 2020; Zonatto, Nascimento, et al., 2020). Likewise, they have suggested that budgetary participation, by itself, may not be capable and sufficient to ensure greater managerial performance, not reducing, for example, the levels of information asymmetry in the budget context (Lavarda & Almeida, 2013; Lunardi et al., 2020; Zonatto, Nascimento, et al., 2020).

With regard to budget favorability, the findings by Magner et al. (1995) also revealed different results on the possible effects of favorability on superior trust and organizational commitment. However, these authors did not observe the consequent effects of such interactions on managerial performance. Understanding the factors that influence managerial performance is important to understand the effects of the budget configuration adopted by the company, as well as the effectiveness of budget management processes (Lunardi et al., 2020). In addition, it is necessary to understand the implications of these variables on human behavior at work, since organizational actions are materialized from individual actions and organizational performance begins with individual performance (Lunardi et al., 2020; Zonatto, Nascimento, et al., 2020).

Such relationships such as budgetary participation, attitudes towards budget decision makers (trust in the supervisor and organizational commitment) and managerial performance were not observed in other studies developed on the subject, therefore, this investigation seeks to answer the following research question: What are the intervening effects of budget favorability on the relationship between budgetary participation, attitudes towards budget decision makers and managerial performance? To answer this question, the analysis of such relationships was based on two theoretical models, the first directly investigating the relationship between budgetary participation and these variables, and the second observing the possible intervening effects of budget favorability in this relationship.

Considering the theoretical gap identified, the research is justified because the budget process is an important management mechanism used by organizations to plan the future and assess the resources needed for the development of their activities (Covaleski et al., 2007; Hall, 2008). Also due to the importance attributed to the relationship between budgetary participation and the sense of favorability in the processes (Magner et al., 1995; Francis-Gladney et al., 2008) and in the evaluation of managerial performance (Zonatto, Nascimento, et al., 2020). Academic production related to these topics is still considered incipient (Dani et al., 2017) and inconclusive (Derfuss, 2016).

Budgetary participation goes beyond the expectation of influencing decision-making and obtaining a budget that is more favorable to the manager's needs for the conduct of his activities (Zonatto et al., 2019). It is related to attitudes and behaviors of individuals at work. Attitudes and behaviors reflect the willingness of individuals to share information and the effort that managers are willing to undertake to achieve better performance at work (Lunardi et al., 2020). However, this relationship is complex, as it involves the perceptions of individuals and their mental states.

Therefore, understanding if there are and what are the intervening effects of budget favorability in the relationship between budget participation, attitudes towards budget decision makers and managerial performance constitutes an important theoretical contribution of the study, capable of elucidating whether the inclusion of this variable (budget favorability), improves or not the analysis of predictors of better managerial performance in the budget context. Likewise, for the understanding of under what conditions a better managerial performance occurs. These are important research implications, which contribute to the production of new knowledge on the topic.

The research also contributes to managers and researchers interested in the subject, providing new evidence of the effects of the budget configuration adopted by organizations on the attitudes and behaviors of superior and subordinate managers. Thus, it allows us to understand the design effects of budget

management systems adopted by companies operating in Brazil, on attitudes and performance of individuals at work.

2 Theoretical Basis and Research Hypotheses

2.1 Budget Participation and Managerial Performance

Budgetary participation gives individuals autonomy to discuss the organization's problems with their superiors. It can also provide a condition in which people exchange information and ideas to solve problems and reach agreement on future decisions that may affect the company's performance (O'Connor, 1995). Organizational performance starts with individual performance (Lunardi et al., 2020).

Thus, budgetary participation has been identified as a means to promote improvements in the work environment. Among the factors linked to budgetary participation are the organization's managerial activities, the definition of the budget, the manager's view of the relationship between budget and the activities to be developed in the work environment, among other factors that seek to motivate individuals in their attributions. (Lau & Tan, 2006; Zonatto & Lavarda; 2013; Lunardi et al., 2020; Zonatto, Nascimento, et al., 2020).

The evidence found in the literature suggests that budgetary participation has a direct influence on managerial performance (Dorfuss, 2016). However, this tends to occur in situations of high levels of budgetary participation (Zonatto et al., 2019). They also reveal that budgetary participation is greater when there is a greater perception of the degree of difficulty in the task (Mia, 1989), this occurs because individuals need information that can qualify their budget decisions. Likewise, so that efforts can converge so that the established structural conditions are favorable to enable the achievement of the desired objectives.

According to Frezatti et al. (2011), factors such as understanding the decisions necessary for structured planning, defining the best moment for decision-making and the possibility of eliminating or reducing the feeling of uncertainty about where management problems are, are possible advantages of using of the budget process as a management tool, which can directly impact the management performance of organizations. For this reason, budgetary participation has been used as a support mechanism for organizational management, mobilizing individuals' commitment to work.

Effects of budgetary participation on managerial performance occur through cognitive, motivational and achievement value aspects (Zonatto, Bauer, et al., 2020). Participation makes managers feel valued in the organization, affecting their motivation to participate in budget processes (Zonatto, Bauer, et al., 2020) and their propensity to share information (Lunardi et al., 2020). Likewise, it reflects on individuals' perception of personal fulfillment. By participating, they start to feel actively involved in these organization management processes (Chong et al., 2006; Zonatto, Bauer, et al., 2020) and under these conditions, the perception of justice with the budget processes tends to be greater, reflecting positively on managerial performance (Santos et al., 2021).

In this context, considering that managerial performance is related to the degree of successful completion of tasks performed by the individual in the management process (Mia & Patiar, 2002) and understanding that the budget process acts to qualify the organization's management activities (Mia & Patiar, 2002). Frezatti et al., (2011), being able to positively influence the attitudes of individuals at work, through cognitive, motivational and achievement value aspects (Zonatto, Bauer, et al., 2020), the first research hypothesis establishes that: **H1. Budget participation is directly and positively related to managerial performance.**

2.2 Budget Participation and Attitudes Towards Budget Decision Makers

The budget is a management control instrument that can influence the behavior and attitudes of managers at work (Covaleski et al., 2007; Dorfuss, 2016). It is able to explain under what conditions its use can result in better managerial performance (Dorfuss, 2016; Dani et al., 2017). Understanding how individuals deal with the effects of using this management control artifact and participating in budget processes has been a constant object of studies in the field of budget research (Covaleski et al., 2007; Dorfuss, 2016), revealing inconclusive evidence on how such interactions occur.

Findings in the literature suggest that budgetary participation is a motivating factor for managers and their subordinates to understand the organization's budget propositions (Chong et al., 2006). According to Magner et al. (1995) budgetary participation allows individuals to influence this control instrument and, thus, obtain a fairer perception of its purposes, consequently, they become more committed to its use.

The participation of managers in the development of the budget should lead to a greater commitment of these employees to achieve the objectives, leading to a higher managerial performance (Nouri & Parker, 1998; Chong & Tak-Wing, 2003). Therefore, it is expected that when the perception of a fairer budget occurs (Santos et al., 2021), in which managers actively participate in the budget process, being able to exert influence in the allocation of resources, in the definition of objectives and goals (Zonatto, Nascimento, et al., 2020), these individuals are more committed to the organization.

Despite this, evidence found has suggested that it is the incentive mechanisms in the organizational environment that influence the attitudes of budget managers (Haesebrouck et al., 2021), which may explain, at least in part, how even with budgetary participation, not necessarily individuals are likely to share private information they have (Lunardi et al., 2020), maintaining, at some level, the existence of information asymmetry in budget processes (Lavarda & Almeida, 2013; Zonatto, Nascimento, et al., 2020).

An individual who can be easily identified by employees as having a decisive role in the budgeting process is a supervisor. This can have a great influence on the budgetary levels of the organization, as well as, it can deliberate about the opportunities of participation of their subordinates in the budget process (Magner et al., 1995; Francis-Gladney et al., 2008). Therefore, another variable that can help to understand the effects of budgetary participation on performance may be related to trust in the supervisor.

Within an organizational hierarchy, the supervisor of a given sector plays a relevant role in establishing budgetary procedures, since he is the natural representative of the unit (Magner et al., 1995). With this, the understanding of subordinate managers is that budget participation depends on the manager's incentive for it to occur (Kyj & Parker, 2008; Lunardi, Degenhart, et al., 2019; Degenhart et al., 2019). In this way, the incentive acts as a mechanism that enhances trust in the supervisor, encourages participation and information sharing (Lunardi et al., 2020).

Thus, under conditions in which budgetary participation is encouraged, it is believed that it may be able to increase managers' trust in their supervisor and their organizational commitment (Magner et al., 1995; Francis-Gladney et al., 2008). In this context, the second research hypothesis establishes that: **H2. Budgetary participation is directly and positively related to trust in the supervisor (H2a) and organizational commitment (H2b).**

The literature has indicated that the greater the trust of managers in their respective supervisors and their commitment to the organization, the greater tends to be their managerial performance. However, these relationships were not investigated in the configuration proposed in this work. It is suggested that this may occur under conditions in which the budget discussion can be qualified, based on the attitudes of subordinate managers towards budget decision makers (Francis-Gladney et al., 2008) and their propensity to share relevant information for the process budget (Lunardi et al. 2020).

Such circumstances induce individuals to make fewer decisions considered unethical and intuitive, due to their relationship and expectations towards supervisors and their organizational commitment. Such aspects are characterized as factors that intensify managerial performance (Whitener et al., 1998; Beuren et al., 2016), as they act as inhibitors of unwanted attitudes and behaviors (Greenberg & Scott, 1996; Cohen-Charash & Spector, 2001). Therefore, the third research hypothesis establishes that: **H3. Trust in the supervisor (H3a) and organizational commitment (H3b) are directly and positively related to managerial performance.**

2.3 Intervening Effects of Budget Favorability

Budget decision makers often assign budgets that differ considerably from those requested by subordinate managers participating in the budget process (Magner et al., 1995). In these circumstances, budgetary participation can have a distinct influence on individuals' perception of the real significance of their involvement with the budget (Francis-Gladney et al., 2008; Lunardi, Zonatto, et al., 2019).

The involvement of managers in the budget process has important cognitive effects on managerial attitudes and managerial performance (Zonatto, Bauer, et al., 2020), given that they can provide feelings of ownership and clarity of what is expected of them (Lunardi, Zonatto, et al., 2019). Such perception is a condition for them to feel actively involved with the organization's budget processes, committing themselves to the established budget objectives and goals (Zonatto, Nascimento, et al., 2020).

The final budget, which is the result of the entire budget process (Frezatti et al., 2011), provides participants a feedback on the recommended inputs that were or were not incorporated into the budget (Francis-Gladney et al., 2008). Such circumstances generate expectations that can be frustrated according to the results obtained (Magner et al., 1995; Francis-Gladney et al., 2008) leading these managers to reflect on the perception of how fair the entity's budget processes are (Santos et al., 2021).

Considering this scenario, the term budget favorability is used in the behavioral accounting literature to refer to deviations from participants' expectations in relation to the budget assigned to their work unit. Thus, a favorable budget indicates a better outcome, while an unfavorable budget indicates a worse budgetary outcome compared to the expected outcome (Magner et al., 1995; Francis-Gladney et al., 2008). In this way, budget favorability is characterized as the perception of the budget participant, when receiving a budget that is much higher or much lower than the requested one (Francis-Gladney et al., 2008).

This perception has repercussions on managerial attitudes towards the budget and, consequently, on managerial performance. Therefore, it becomes able to explain the effects of intervening variables, present in the budget process, which influence the relationship between budgetary participation, managerial attitudes and managerial performance, as proposed for this research.

By participating in the organization's budgeting processes, subordinate managers have fewer negative attitudes (Lunardi, Zonatto, et al., 2019) and are less likely to display feelings such as lack of trust

in their supervisors when receiving an unfavorable budget (Magner et al., 2019). al., 1995). This occurs because these individuals tend to develop a greater perception of budget favorability, as a result of having participated in the budget process (Magner et al., 1995).

This perception also tends to have a positive impact on the organizational commitment of managers. Little et al. (2002) explain that managers present positive organizational behavior when they perceive that budgetary procedures and their execution are being carried out fairly within the organizational scope.

In this context, two research hypotheses are established, the first being related to the direct effects of budgetary participation on favorability: **H4. Budget participation is directly and positively related to budget favorability.** And the second is related to the intervening effects of budget favorability in the relationship between budgetary participation and the managerial attitudes studied: **H5. Budget favorability influences the relationship between budgetary participation and trust in the supervisor (H5a) and budgetary participation and organizational commitment (H5b).**

Budget participation, as well as budget favorability, may present itself as an important influencer of organizational commitment, it also tends to impact managerial performance. Managers with high organizational commitment may make fewer decisions that are harmful to the company (Mowday et al., 1979; Beuren et al., 2016). The evidence found has suggested that budget favorability is positively related to managers' trust in their supervisor, as well as to their commitment to the organization (Magner et al., 1995; Francis-Gladney et al., 2008).

Thus, it is understood that the greater the commitment of managers to the organization, possibly the greater their managerial performance, as the individual identifies with the organizational objectives and the work environment (Subramaniam & Mia, 2001; Zonatto, 2014), perceiving the budgetary context as fair. In this condition, it becomes more likely to converge efforts to reach the objectives and expected results. Thus, it can be inferred that the perception of budget favorability may affect organizations in a particular way, due to the greater acceptance of authority, trust, sense of control and accountability (Folger & Cropanzano, 1998; Kwong & Leung, 2002; Erdogan, 2002) or by reducing negative attitudes and unwanted behaviors (Greenberg & Scott, 1996; Cohen-Charash & Spector, 2001), which tends to reflect on managerial performance.

Thus, it is possible to admit that the favorability of results in the budget process, by affecting trust in the supervisor and the manager's organizational commitment, tends to influence the relationship between budget participation, these variables and managerial performance. Likewise, that such influence is enhanced in conditions of higher levels of budgetary participation (Zonatto et al., 2019) and greater perception of justice in budgetary processes (Santos et al., 2021).

Since the effects of budgetary participation on managerial performance may not occur directly (Lunardi et al., 2020; Zonatto, Nascimento, et al., 2020), given the complexity of the cognitive mechanisms that interact to determine the perception of individuals in relation to the information obtained and used in the budget process (Covaleski et al., 2007; Zonatto, 2014), and also, considering that the perception of how favorable the budget assigned to the manager's unit of responsibility is, tends to influence their managerial attitudes (Francis-Gladney et al., 2008), the sixth research hypothesis establishes that: **H6. Budget favorability influences the relationship between budgetary participation and managerial performance.**

Figure 1 presents the synthesis of the theoretical relationships investigated in the research.

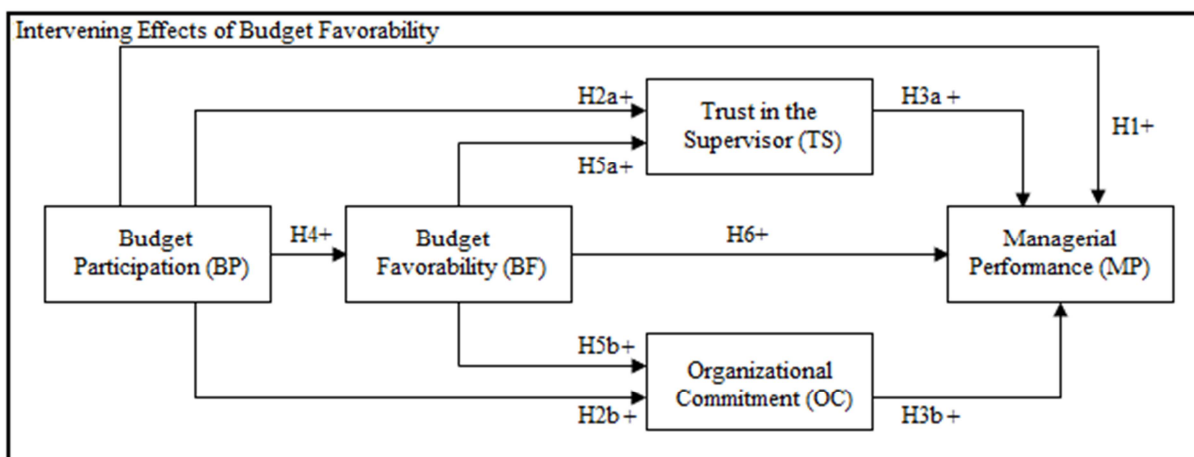


Figure 1 - Theoretical relations investigated in the research

Source: Prepared by the authors.

3 Research Methodology

The research is characterized as a descriptive study, carried out through a survey and a quantitative data approach. Descriptive because it provides an analysis of the relationship between budgetary

participation, attitudes towards budget decision makers (trust in the supervisor and organizational commitment) and managerial performance. Quantitative research, as such analysis is performed through the application of statistical analysis (path analysis), which allows assessing the significance of the interactions existing between the variables.

The research sample consisted of 156 managers with budgetary responsibility in large industrial organizations based in Brazil. These managers work in organizations listed among the largest industries with export operations in the country, according to the Ministry of Economy (Brasil, 2021). The definition of large companies with international operations that use budget as a management tool is converging on samples analyzed in other studies developed on the subject (Nouri & Parker, 1998; Zonatto, 2014).

The sample analyzed in this research is intentional, not probabilistic, being reached by accessibility, through telephone contact established directly with the organization. To define the individuals who were survey respondents, we used the questions by Chong et al. (2006), in order to identify if the organization in which the managers were inserted used the budget and if this manager had any responsibility related to the budget instrument. Thus, initially, managers from the controllership area were contacted and, in view of the manager's voluntary acceptance of participating in the research, the data collection instrument was applied by telephone to the 156 managers participating in the research.

Data collection was carried out through a questionnaire between January and May of 2019. The questionnaire used consisted of 31 questions, which were based on the constructs presented in Table 1.

Table 1:
Constructs and operational definition

Variables	Operational Definitions	Likert Scale	Authors
Budget Participation (BP)	Evaluates the influence of the individual in the budget process.	6 indicators 7-points <i>Likert S.</i>	Milani (1975)
Budget Favorability (BF)	Evaluates how favorable the budget assigned to your unit of responsibility is.	3 indicators 7-points <i>Likert S.</i>	Magner et al. (1995)
Trust in the Supervisor (TS)	Evaluates the individual's interpersonal trust in relation to his superior.	4 indicators 7-points <i>Likert S.</i>	Read (1962)
Organizational Commitment (OC)	Evaluates the strength of the individual's identification with the organization.	9 indicators 7-points <i>Likert S.</i>	Mowday et al. (1979)
Managerial Performance (MP)	Evaluates the performance measure of managers with budgetary responsibility in their work activities.	9 indicators 7-point <i>Likert S.</i>	Mahoney, Jerde and Carroll (1963, 1965) in Zonatto's (2014) version

Source: Prepared by the authors.

These constructs have been used by researchers who investigate the themes of budgetary participation and managerial performance in the accounting area, such as Nouri and Parker (1998), Chong and Chong (2002a), Chong and Chong (2002b), Chong et al. (2006), Chong and Johnson (2007), Lunardi et al. (2020), Zonatto, Nascimento, et al. (2020), among others. Likewise, they were used in research developed by Magner et al. (1995) and Francis-Gladney et al. (2008) on the subject of budget favorability.

All questions asked were presented on a 7-point Likert scale. In the constructs referring to budgetary participation, budget favorability, trust in the supervisor and organizational commitment, managers were asked to indicate the level of agreement with the statements presented, where 1 represents the maximum level of disagreement and 7 the maximum level of agreement. For the managerial performance construct, the scale used includes the manager's self-assessment in relation to his managerial performance in budgetary activities (in his unit of responsibility). In this case, the manager must self-evaluate his performance in comparison to the performance (in the unit of responsibility) of other managers of the same hierarchical level within his organization, where 1 represents a below-average performance and 7 an above-average performance.

From the elaborated questionnaire, a pre-test was carried out with two managerial management researchers, with expertise in the study object and three professionals who work as controllers of industrial organizations, with the purpose of evaluating the statements presented in the data collect instrument. Data were handled in spreadsheets in Excel® software and later transferred to SPSS® software (Statistical Package for the Social Sciences) for statistical tests. Initially, the Factor Analysis was performed, through which the validation of the theoretical measurement constructs was carried out. As proposed by Hair Jr. Et al. (2009), the indicators were grouped into their respective measurement constructs, respecting the factor loadings (with a minimum value of 0.60) and the results of the significance of the KMO test, the Bartlett sphericity test and the Total Variance Explained. The reliability analysis was performed by observing the Cronbach's Alpha coefficient of the measurement constructs (with a minimum value of 0.70).

After the validation and purification of the measurement constructs, data analysis took place using descriptive statistics, correlation matrix and path analysis. In the descriptive statistical analysis, the minimum and maximum values, mean and standard deviation of the indicators of each measurement construct were

observed. The correlation matrix was evaluated based on the statistical significance of the identified correlations and the path analysis based on the *t-test* results and the *p-value* of each analyzed path.

These procedures are in line with the data analysis methods adopted in previous studies on the subject, such as Nouri and Parker (1998), Chong et al. (2006), Zonatto et al. (2019) and Zonatto, Bauer, et al. (2020), who also evaluated the possible effects of intervening variables on the relationship between budgetary participation and managerial performance. In this research, two theoretical models of analysis were tested. In the first one, the analysis of the intervening effects of budget favorability was suppressed to analyze the relationship between budgetary participation, managerial attitudes and performance. In the second, this variable was included in the analysis performed. The results found are presented below.

4 Results Analysis

Initially, the results found for the factorial and descriptive analysis of the measurement constructs analyzed are presented (Table 2).

Table 2:
Factor analysis and descriptive statistics of measurement constructs

Results of Factor Analysis of Measurement Constructs													
Variables							AC	KMO	BST		TVE		
BP. Budget Participation							0,951	0,852	986,461		0,804		
BF. Budget Favorability							0,934	0,746	409,351		0,884		
TS. Trust in the Supervisor							0,915	0,826	497,596		0,807		
OC. Organizational Commitment							0,917	0,919	1084,441		0,656		
MP. Managerial Performance							0,959	0,950	2082,899		0,854		
Results of Factor and Descriptive Analysis of Measurement Constructs Indicators													
Ind.	FL	Com.	Min.	Max.	Aver.	SD	Variable	FL	Com.	Min.	Max.	Aver.	SD
BP01	0,852	0,725	1,00	7,00	5,74	1,26	BF01	0,916	0,839	1,00	7,00	6,08	1,40
BP02	0,852	0,726	1,00	7,00	5,73	1,21	BF02	0,948	0,899	1,00	7,00	5,92	1,34
BP03	0,913	0,833	1,00	7,00	5,67	1,22	BF03	0,957	0,915	1,00	7,00	6,03	1,34
BP04	0,916	0,839	1,00	7,00	5,54	1,35	TS01	0,827	0,684	1,00	7,00	6,53	1,23
BP05	0,923	0,852	1,00	7,00	5,88	1,24	TS02	0,900	0,810	1,00	7,00	6,53	1,06
BP06	0,922	0,851	1,00	7,00	5,65	1,30	TS03	0,919	0,845	1,00	7,00	6,53	1,06
							TS04	0,942	0,888	1,00	7,00	6,58	1,05
Ind.	FL	Com.	Min.	Max.	Aver.	SD	Variable	FL	Com.	Man.	Max.	Aver.	SD
OC01	0,604	0,364	3,00	7,00	6,43	0,76	MP01	0,857	0,734	1,00	7,00	5,46	1,29
OC02	0,851	0,725	3,00	7,00	6,46	0,78	MP02	0,911	0,830	1,00	7,00	5,26	1,26
OC03	0,619	0,383	1,00	7,00	5,85	1,32	MP03	0,926	0,857	1,00	7,00	5,27	1,27
OC04	0,809	0,654	3,00	7,00	6,40	0,82	MP04	0,936	0,877	1,00	7,00	5,34	1,32
OC05	0,871	0,759	4,00	7,00	6,63	0,69	MP05	0,937	0,878	1,00	7,00	5,21	1,33
OC06	0,876	0,768	3,00	7,00	6,52	0,80	MP06	0,906	0,820	1,00	7,00	5,13	1,34
OC07	0,867	0,752	4,00	7,00	6,56	0,70	MP07	0,948	0,899	1,00	7,00	5,28	1,30
OC08	0,870	0,756	3,00	7,00	6,39	0,90	MP08	0,942	0,888	1,00	7,00	5,24	1,32
OC09	0,868	0,753	4,00	7,00	6,53	0,70	MP09	0,952	0,906	1,00	7,00	5,31	1,35

Var: Variables; Min.: Minimum; Max: Maximum; Aver.: Average; SD: Standard Deviation; AC: Alfa de Cronbach; KMO: Sample Adequacy Measure; BST: *Bartlett Sphericity Test*; TVE: Total Variance Explained; Ind.: Indicator; FL: Fatorial Load; Com.: Commonalities; *Significance at 1% level.

Source: Research data.

The results found in the factor analysis indicated the grouping of all variables in their measurement constructs. Cronbach's Alpha coefficients for each construct were greater than 0.8, as were the indicators of the Kaiser-Meyer-Olkin (KMO) test, which were all greater than 0.746. The results of Bartlett's sphericity test reveal the significance and adequacy of the analyzes performed to assess the general consistency of the data. The same is observed in relation to the Total Variance Explained, higher than 65% in all cases analyzed, which indicates that the final composition of these measurement constructs is suitable for the analysis of trajectories, indicating a high explanatory power for the relationships investigated in this research.

It is observed through the results of the descriptive statistical analysis (where 1 represents total disagreement and 7, total agreement), that the levels of budgetary participation differ among part of the organizations surveyed. Likewise, not all managers participating in the survey are satisfied with the budgets they receive in their organization. This evidence reveals that not all managers perceive the budget of their work unit as favorable. The evidence found also shows that not all managers have high levels of trust in their superiors, and the same occurs in relation to organizational commitment.

These descriptive statistical analysis results reinforce the importance of the analysis proposed in this research. Since the levels of budgetary participation differ between organizations, as well as the managerial attitudes of budget decision makers, it becomes relevant to analyze the interactions that occur between these variables, as well as the analysis of their consequent reflections on managerial performance. Likewise,

it becomes relevant to understand the possible intervening effects of managers' perception in relation to budget favorability in this relationship, in order to better understand the conditions in which better managerial performance is achieved.

This evidence converges with studies developed on the subject, which have shown the adoption of different budget configurations among the companies studied (Lunardi et al., 2020; Zonatto, Nascimento, et al., 2020). The budget is used for different purposes, such as defining objectives and goals, motivating employees, evaluating performance and allocating resources (Covaleski et al., 2007; Derfuss, 2016). For this reason, the budget process tends to influence individuals' attitudes at work (Zonatto, Bauer, et al., 2020). Thus, it is inferred that in some organizations managers do not perceive their influence on budget processes, which can negatively affect their managerial performance (Kyj & Parker, 2008; Zonatto & Lavarda, 2013). Individuals who do not actively participate in budget processes may not share private information they have, which tends to negatively impact the quality of established budget forecasts (Lunardi et al., 2020; Zonatto, Nascimento, et al., 2020).

Even participating in the budget process, when this participation of managers is passive or ceremonial, in which managers are only communicated about budget goals and objectives, the effects of participation on managerial performance may not be as expected (Zonatto et al., 2019). In this condition, budgetary participation may not have a positive effect on budget favorability, since individuals' perceptions of the real significance of their involvement with the budget tend not to be developed (Magner et al., 1995; Francis-Gladney et al., 1995; Francis-Gladney et al. al., 2008; Lunardi, Zonatto, et al. 2019).

The final budget, the result of the entire budget process (Frezatti et al., 2011) is established from the identification of the existing demands in each unit of the organization. Therefore, it constitutes an identified premise for the development of managers' work activities (Magner et al., 1995; Francis-Gladney et al., 2008). When perceived as fair, it tends to positively influence managerial performance (Santos et al., 2021), which occurs through cognitive and motivational mechanisms, which reflect on managers' attitudes and behaviors at work (Zonatto, Bauer, et al., 2020).

It is for this reason that budget processes can be approached as a form of feedback on requests made by managers, who, when presenting their requests, describe their expectations for resources needed to carry out the activities that are expected in their work unit. When such expectations are not met, the feeling of frustration regarding the results obtained can be attributed to the unfavorable designation of the budget, which, according to Magner et al. (1995) and Francis-Gladney et al. (2008), it acts as a cognitive mechanism used to explain the results achieved.

Therefore, by actively participating in the budget process, individuals are more likely to socialize the private information they have (Lunardi et al., 2020) and to be more favorable to the budget received (Magner et al., 1995; Francis-Gladney et al., 2008). Consequently, they become more likely to trust their supervisor and commit to the organization (Francis-Gladney et al., 2008), which is believed to lead to an improvement in managerial performance. The analysis of the correlations identified in the research (Table 3) suggests support for such statements.

Table 3:
Correlation matrix

Variables	BP	BF	TS	OC	MP
Budget Participation (BP)	1				
Budget Favorability (BF)	0,485**	1			
Trust in the Supervisor (TS)	0,545**	0,654**	1		
Organizational Commitment (OC)	0,465**	0,349**	0,330**	1	
Managerial Performance (MP)	0,727**	0,469**	0,431**	0,441**	1

** Correlation is significant at the 0.01 level (2 ends).

Source: Research data.

There is a positive and significant correlation between all variables of the measurement constructs selected for the research, which reveals that, at some level, such relationships occur. These results suggest that higher levels of budgetary participation reflect greater perception in relation to budget favorability, and that the favorability that the manager has when receiving the budget from his unit, generates greater confidence in his supervisor, as well as a greater commitment to the organization. In this condition, higher levels of managerial performance are observed.

Budget participation promotes dialogue between the actors involved in the budget process, which allows for an alignment of actions and interests. As a consequence, there is a perception of more favorable (Magner et al., 1995) and fair (Santos et al., 2021) budgets. Information sharing occurs when the actors involved in the budget process are willing to share private information they have (Lunardi, Zonatto, et al., 2019; Lunardi et al., 2020), which qualifies the budget forecasts made. For this reason, trust in the supervisor and organizational commitment (Magner et al., 1995) are managerial attitudes capable of influencing the relationship between budgetary participation and managerial performance.

In order to analyze the theoretical relationships investigated, two theoretical models of analysis are tested, in which, initially, we seek to infer about the direct effects of budgetary participation on managerial attitudes and performance (model 1, Table 4). Then, on the possible intervening effects of budget favorability in this relationship (model 2, Table 5). The results of the trajectory analyzes of the first model tested are presented in Table 4.

Table 4:
Results of the trajectory analysis of the first model tested (without the effects of favorability)

Dependent variables	Independent variables	β -standard	t-statistic	P-value	R ²	Standard Error	F	Anova Sig.
TS	BP	0,545	8,062	0,000	0,297	2,96261	64,995	0,000
OC	BP	0,465	6,524	0,000	0,217	4,24148	42,561	0,000
MP (Equation 01)	BP	0,648	9,250	0,000	0,543	6,86743	60,280	0,000
	TS	0,036	0,545	0,587 ^{ns}				
	OC	0,128	2,055	0,042				
MP (Equation 02)	BP	0,666	10,781	0,000	0,542	6,85163	90,689	0,000
	OC	0,131	2,128	0,035*				

Caption: BP: Budget Participation; TS: Trust in the Supervisor; OC: Organizational Commitment; MP: Managerial Performance; *Significance at 5% level; ^{ns}Relationship not significant.

Source: Research data.

Based on the results of the analysis of trajectories, it can be observed that budgetary participation has a direct influence on the managerial attitudes studied. This evidence reinforces the cognitive and motivational roles of budgetary participation (Chong et al., 2006; Zonatto, Bauer, et al., 2020), which act as predictors of trust in superiors and organizational commitment (Magner et al., 1995; Francis-Gladney et al., 2008). However, trust in the supervisor does not directly influence managerial performance, which is determined by the interaction between budgetary participation and organizational commitment.

The evidence found in this research stage also reveals a direct and positive influence of budgetary participation on managerial performance. These results are similar to studies such as Chong and Chong, (2002a), Chong et al. (2006), Chong and Johnson (2007) and Zonatto and Lavarda (2013). However, they differ from the findings of Chong and Chong, (2002b), Lunardi et al. (2020) and Zonatto, Nascimento, et al. (2020). According to Zonatto et al. (2019), the direct effects of budgetary participation on managerial performance are directly perceived when levels of budgetary participation are high, which is observed in the analyzed sample.

These results support the first hypothesis established for the research: **H1. Budget participation is directly and positively related to managerial performance.** As highlighted in the literature, the participation of managers in the budget process may induce the commitment of individuals to the goals set. Therefore, your effort to organize them tends to be greater. It is for this reason that a positive and significant relationship is identified between these variables and managerial performance.

These results also support the second hypothesis elaborated for the research: **H2. Budgetary participation is directly and positively related to trust in the supervisor (H2a) and organizational commitment (H2b).** These results corroborate the studies by Magner et al. (1995) and Francis-Gladney et al. (2008), indicating that when managers participate in budget processes, they tend to show greater trust in their superiors, as they believe in what is passed on during the budget discussion stage. Under these conditions, these managers tend to be more committed to the organization, showing themselves to be more likely to act to obtain better performance.

However, the results found reveal that higher levels of trust in the superior do not necessarily reflect positively on the managerial performance variable (H3a), which allows partially supporting H3. **Organizational commitment (H3b) is directly and positively related to managerial performance.** Such conditions suggest that, despite budgetary participation inducing individuals to have greater trust in their supervisors, as well as increasing their commitment to organizational objectives, these factors do not have the same influence on managerial performance. Managerial performance is the result of successful activities developed by managers in their work assignments (Mia & Patiar, 2002).

Therefore, it can be inferred that, upon learning about the conditions that they will have for the development of their work activities, managers may present a positive behavior related to a greater confidence in the superior, since they start to believe in what is passed on to them. However, this does not mean that they agree with the amount of resources allocated to their unit of responsibility, which reinforces the importance of the analysis of the possible intervening effects of budget favorability in this relationship. This evidence provides an explanation for the conditions under which managerial performance is achieved, even if there is trust in the superior and this trust is not able to reflect directly in better managerial performance.

Table 5 presents the results observed in the path analyses of the second model tested, where we sought to analyze the possible intervening effects of budget favorability in the existing relationship between budget participation, managerial attitudes, and performance.

Table 5:
Results of the trajectory analysis of the second model tested (with the effects of favorability)

Dependent variables	Independent variables	β -standard	t-statistic	P-value	R ²	Standard Error	F	Anova Sig.
BF	BP	0,485	6,883	0,000	0,235	3,16226	47,373	0,000
TS	BP	0,297	4,530	0,000	0,496	2,51673	75,234	0,000
	BF	0,510	7,772	0,000				
OC	BP	0,387	4,795	0,000	0,236	4,20133	23,668	0,000
	BF	0,161	1,989	0,048				
MP (Equation 03)	BP	0,626	8,937	0,000	0,557	6,78460	47,504	0,000
	BF	0,160	2,176	0,031				
	TS	-0,051	-0,673	0,502 ^{ns}				
	OC	0,111	1,797	0,074 ^{**}				
MP (Equation 04)	BP	0,611	9,213	0,000	0,556	6,77238	63,416	0,000
	BF	0,134	2,145	0,034 [*]				
	OC	0,110	1,785	0,076 ^{**}				
MP (Equation 05)	BP	0,610	9,487	0,000	0,564	6,70958	65,562	0,000
	BFxTS	-0,186	-1,385	0,168 ^{ns}				
	BFxOC	0,379	2,707	0,008				
MP (Equation 06)	BP	0,654	10,498	0,000	0,547	6,82060	92,214	0,000
	BF	0,152	2,442	0,016 [*]				

Caption: BP: Budget Participation; BF: Budget Favorability; TS: Trust in the Supervisor; OC: Organizational commitment; MP: Management Performance; *Significance at the 5% level; **Significance at 10% level; ^{ns} Relationship not significant. Source: Research data.

The results of the trajectory analysis carried out confirm the findings found in the analysis model tested previously, which revealed direct and positive effects of budgetary participation on the managerial attitudes studied (trust in the supervisor (**H2a**) and organizational commitment (**H2b**) and on managerial performance, supporting hypotheses H1, **H2** and **H3b**. The results shown in Table 5 also confirm the intervening effects of budget favorability, indicating an improvement in the explanation coefficient (R²) of the measurement models that incorporate this variable. The effects tested with the favorability variable budget are confirmed in all analyzed paths, which confirm such interaction.

The results found support the fourth research hypothesis: **H4. Budget participation is directly and positively related to budget favorability**. These results suggest that the greater the budgetary participation of managers, the better their receptivity with regard to possible deviations from expectations in relation to the expected results of a budget that is more favorable to the requests presented by their unit of responsibility. By being part of the budget process and feeling included in its development (Lunardi, Zonatto, et al. 2019), the participant tends to better accept the budget assigned to him (Magner et al., 1995; Francis-Gladney et al., 2008), committing to its execution.

In this condition, regardless of the amount of resources allocated to the unit under their responsibility, whether favorable or unfavorable in relation to what is requested, this manager tends to be more committed to the organization, as they feel part of the company's budget processes. Thus, they will make greater efforts to achieve the desired goals, which may reflect positively on their managerial performance, even if such conditions are not those considered ideal or more favorable.

This evidence, supported by the interaction observed between budgetary participation, budget favorability and managerial attitudes, support the fifth research hypothesis: **H5. Budget favorability influences the relationship between budgetary participation and trust in the supervisor (H5a) and budgetary participation and organizational commitment (H5b)**.

These results reinforce the intervening effects of managers' perception of how fair the organization's budget processes are (Santos et al., 2021), transparent and inclusive (Lunardi et al., 2020). Likewise, they reveal the importance of informative roles in the budget process, used as a management mechanism capable of influencing managers' attitudes and behaviors at work (Chong et al., 2006; Zonatto, Bauer, et al., 2020).

Budget participation, by promoting positive organizational behavior (Little et al., 2002), allows managers to make less subjective and opportunistic decisions, which, to some extent, may be harmful to the organization (Mowday et al., 1979; Beuren et al., 1979; Beuren et al., 2002). al., 2016). Budget favorability promotes managers' trust in their superiors. Likewise, it acts to boost the organizational commitment of managers. This occurs because there is trust in the budgetary processes established in the organization

(Magner et al., 1995; Francis-Gladney et al., 2008), which contributes to their acceptance and legitimacy over time.

With regard to the intervening effects of budget favorability in the relationship between budgetary participation and managerial performance, the results found also confirm such interaction, which allows supporting **H6. Budget favorability influences the relationship between budgetary participation and managerial performance.**

The first model tested (Table 5) to evaluate such interactions (Equation 03) revealed that only supervisor trust does not have a direct, joint influence on managerial performance. These results are confirmed in the purified analysis model (Equation 04), which excluded from the analyzed paths the relationship between these variables (TS → MP). The model that evaluates the direct, interactive joint effects of budget favorability and managerial attitudes, with budgetary participation and managerial performance (Equation 05), confirms such interaction. It reveals that budgetary participation, budget favorability and organizational commitment act to enhance performance. These results provide an explanation of the conditions under which better managerial performance is achieved.

Comparatively analyzing the results found between the tests carried out, it is verified that the budget favorability is relevant for the establishment of a higher level of confidence in the superior (0.510). However, the greatest effect on organizational commitment occurs from the influence of higher levels of budgetary participation (0.387). This evidence reinforces the evidence that budget favorability acts to legitimize the budget definitions implemented in the organization by superior managers.

When this occurs, subordinate managers are more likely to accept authority, a sense of control, and accountability (Folger & Cropanzano, 1998; Kwong & Leung, 2002; Erdogan, 2002), even though they receive less than requested budget resources (Magner et al. al., 1995; Francis-Gladney et al., 2008). In such conditions (higher BP), in addition to a lower level of information asymmetry (Lavarda & Almeida, 2013; Zonatto & Lavarda, 2013) and a higher level of sharing of private information (Lunardi et al., 2020) are expected, a decrease in negative attitudes and unwanted behaviors is expected (Greenberg & Scott, 1996; Cohen-Charash & Spector, 2001).

This set of actions promotes managerial performance, as can be seen from the synthesis of the results evidenced in the trajectory analysis presented in Figure 2.

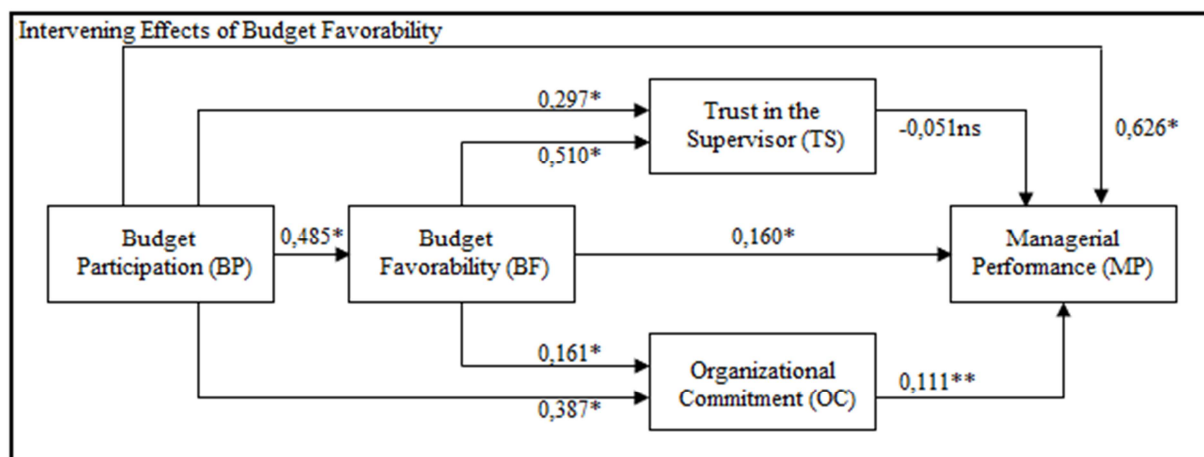


Figure 2 - Results of the analysis of trajectories of the intervening effects of budget favorability

Source: Research data.

It can be inferred that budget participation and budget favorability interact to directly influence managerial attitudes related to trust in the supervisor and organizational commitment. Consequently, they exert a direct and joint influence on managerial performance. Therefore, it can be inferred that budget favorability influences the relationship between budgetary participation, attitudes towards budget decision makers and managerial performance. These results reveal that, when perceiving their influence on the organization's budget processes and when receiving a budget allocation favorable to their work needs, subordinate managers become more likely to trust the supervisor and show a high organizational commitment. In these conditions, they tend to present a better managerial performance in their work activities.

5 Conclusions

The survey results reveal important implications for the field of study. Budget participation has been a constant topic of debate in the field of management accounting and has revealed conflicting results in relation to its effects on managerial performance. The theoretical assumption is that the participation of

individuals in the budget process tends to maximize the most diverse characteristics related to their work. However, this has only been confirmed after a certain minimum level of participation.

The evidence found in this investigation reveals that high levels of budgetary participation enhance trust in the supervisor, organizational commitment and especially managerial performance in their work activities. The same does not occur in situations of low levels of budgetary participation. Budget favorability proved to be a determining variable for the attribution of greater trust in the supervisor, interacting with budgetary participation to determine a greater level of commitment of individuals at work and their managerial performance. These evidences reveal the effects of the design of budget management systems adopted by companies operating in Brazil, on attitudes and on the performance of individuals at work.

These findings provide an explanation of the circumstances in which budget configuration is able to influence managerial performance. The participation of managers produces such effects when they manage to get involved in the processes of defining objectives, goals and in the allocation of resources destined to their unit of responsibility. Providing ample information, from the supervisor to the subordinate, and vice versa, enhances organizational communication and the search for solutions to existing problems in the budgetary context.

It must be considered that the budget acts to qualify the decision-making processes, which occurs from the establishment of an adequate and structured planning of organizational activities. Thus, it acts as a management tool that allows for more assertive decision-making, when designed to reduce subjectivity in determining the budget assumptions being defined, which occurs when the organization's budget forecasts are prepared.

The autonomy to issue an opinion and to present suggestions qualifies budget discussions and promotes trust in the supervisor, which also tends to reflect on the perception of fairness of budgetary processes. Fairer processes, in addition to contributing to the definition of a more effective budget forecast, with greater accuracy, provide a greater organizational commitment of the subordinate manager with the established premises, which tends to reflect positively on their managerial performance.

This commitment is necessary so that the manager can present a proactive behavior, committed to the budget definitions, so that he is involved to achieve the desired results. On the other hand, a manager's dysfunctional behavior, which inhibits or restricts the sharing of information, may reflect in managerial attitudes and inappropriate behavior, which may not result in the desired managerial performance.

This evidence reinforces the effects of participatory budgeting on the attitudes and behavior of managers at work. They corroborate the analysis of the cognitive, motivational and realization value effects of budgetary participation, which positively reflect on managerial performance. They also reveal the intervening effects of the perception of subordinate managers in relation to budget favorability and its influence on this relationship, a variable that has been neglected in the research developed on the topic of budgetary participation and managerial performance.

In addition to the theoretical contributions provided by the research, the findings contribute so that organizations and managers with budgetary responsibility can assess the budget configuration adopted, so that they can understand its influence on attitudes related to budget decision makers and on managerial performance, as well as on the quality of processes established budgets and the accuracy of the budget forecasts made. From this assessment, changes can be implemented, with the purpose of stimulating organizational communication, sharing information and achieving better performance.

The study has some limitations, such as the sample used, the theoretical model of analysis proposed (which covers only two attitudinal variables), and the analysis of the results at a single point in time, which does not allow for generalization of the results. However, it provides important insights that stimulate further studies.

Understanding the interaction between budget favorability with other managerial attitudes and their consequent effects on managerial performance is still a research gap to be explored in the accounting literature. Variables such as motivational styles, motivation for budget participation and managerial attitudes towards the budget can be used in new studies. Aspects related to the level of participation and knowledge of managers in budgetary routines and processes can also be observed, as well as the leadership style of senior managers and the levels of incentives for budgetary participation.

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DATASET

The dataset that supports the results of this study is not publicly available.

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