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Effects of psychological empowerment on organizational commitment, role ambiguity and managerial performance in an environment of low budget participation

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Abstract

Objective: To analyze the effects of psychological empowerment on organizational commitment, role ambiguity and managerial performance in an environment of low budget participation.
Method: A descriptive survey with a questionnaire and quantitative data analysis (path analysis) was carried out with a non-randomized sample of 183 mid-level managers who work as general managers and administrative managers in a state-owned financial institution in southern Brazil.
Results: The results revealed a positive influence of psychological empowerment on organizational commitment and managerial performance, however, a negative influence is perceived between empowerment and role ambiguity. The findings also reveal that organizational commitment has a positive relationship with managerial performance. The evidence found allows us to conclude that in specific contexts of low budget participation, psychological empowerment can increase managerial performance by increasing organizational commitment and reducing role ambiguity. It was found that the greater the organizational commitment, the greater the effects of psychological empowerment on managerial performance.
Contribution: The environment of low budget participation is characterized as a context in which mid-level managers do not have the authority to define objectives and goals, as well as in the budget preparation process. In this context, this study contributes to the understanding of the psychological and behavioral effects on managerial performance in low budget participation environments, indicating to senior managers of state entities the behavioral effects perceived by mid-level managers as a result of the budget configuration adopted.

Keywords: Budgetary participation. Psychological Empowerment. Organizational Commitment. Role ambiguity. Managerial Performance.

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Introduction

The behavioral accounting literature has predominantly investigated the effects of budget participation on managerial performance (Birnberg et al., 2006; Derfuss, 2016; Lunardi et al., 2020; Zonatto et al., 2019). The evidence found has suggested that high budget participation can result in better managerial performance (Covaleski et al., 2006).

Not all organizations adopt a budget participation configuration, for example public companies, where the budget is outlined in a top-down manner with a low possibility of participation (Azevedo et al., 2022; Kasymova, 2017; Rodgers, 2010). Low budget participation occurs when individuals have no influence on the definition of objectives or goals and the allocation of budget resources or their influence is restricted and limited (Lau & Lim, 2002; Milani, 1975; Zonatto et al., 2019).

In the case of state-owned financial institutions, such as public retail banks, budget resources are set from the administrative area which, estimating the availability and needs of resources, vertically and unilaterally sets the budget for each unit or agency. Therefore, in this type of distribution, when this occurs, each unit is informed of the resources available for the development of its activities and may or may not receive sufficient budgets to exploit the potential of its region of operation. In financial institutions, the allocation of resources is also linked to the targets to be achieved in a given period (Suave et al., 2013).

Even under these conditions, the use of the budget to define the resources to be allocated to a given organization (Mucci et al., 2016) has an influence on the individual's behavior (Francis-Gladney et al., 2008; Magner et al., 1995), since the manager needs to converge efforts to achieve the objectives and goals set, regardless of the amount of resources available (Francis-Gladney et al., 2008). These interactions reflect in some way on their managerial performance.

The psychological empowerment of mid-level managers is a strategy adopted by organizations to enhance managerial attitudes, even if there are limited resources or limited authority (Barton & Barton, 2011). This occurs by allowing them, to some extent, access to information, decentralization of authority, and autonomy to act on their own (Barton & Barton, 2011). Thus, it is believed that through high levels of psychological empowerment, state-owned financial institutions act to stimulate their managers so that they can make a greater effort to achieve the expected results, resulting in greater organizational commitment and better managerial performance (Qing et al., 2020; Thomas & Velthouse, 1990).

When this psychological empowerment does not occur and there is no clarity about the decision-making limits of each manager, the consequence is the emergence of conflicts and role ambiguity, elements pointed out in the literature as inhibiting managerial performance (Jacomossi et al., 2018). This is mainly due to the fact that managers do not participate in the definition of objectives and budget targets and do not clearly understand their work assignments. In this way, psychological empowerment acts to stimulate proactive behavior on the part of managers, so that they can overcome these difficulties and achieve the objectives set (Malik et al., 2021).

The existing literature on budget participation (Lunardi et al., 2020; Milani, 1975; Monteiro et al., 2021; Santos & Lavarda, 2014; Zonatto & Lavarda, 2013; Zonatto et al., 2019; Zonatto et al., 2020), psychological empowerment (Klann & Beuren, 2014; Marginson & Ogden, 2005; Santos et al., 2017) and role ambiguity (Beuren et al., 2017; Jacomossi et al., 2018; Marginson & Ogden, 2005; Palomino & Frezatti, 2016; Zonatto et al., 2019) show that these issues are widely discussed in relation to managerial performance. However, the same is not evidenced in an environment of low budget participation.

Analyzing the characteristics of state-owned financial institutions, in which high stress (Bharathi & Gupta, 2017) is part of the routine that involves mid-level managers in the quest to achieve established goals (Neves Jr. et al., 2007; Silva et al., 2018), and believing that these institutions act to stimulate the commitment of their managers to improve their performance, through psychological empowerment, it becomes necessary to understand how such relationships occur and impact managerial performance. In this context, the aim of this research is to analyze the effects of psychological empowerment on organizational commitment, role ambiguity and managerial performance in bank branches of a state-owned financial institution, characterized by an environment of low budgetary participation in the definition of budgetary resources for the development of their work assignments.

The choice to carry out the research at a state-owned financial company was based on the fact that state-owned financial companies play an important role in the Brazilian economy (Simon et al., 2019). Understanding how budgeting procedures affect the behavior of individuals and their performance in financial institutions contributes to these institutions achieving greater financial performance, since organizational results are achieved from the sum of collective and individual efforts (Lunardi et al., 2020).

This research is relevant because the constructs of psychological empowerment, organizational commitment, role ambiguity, and managerial performance are usually analyzed in environments with high budgetary participation, where the literature shows that participation has a positive impact on managerial performance. This study analyzes psychological empowerment in an environment of low budget participation and in state-owned financial institutions, in order to contribute to the existing literature and develop new management practices for the companies analyzed.

In this way, the study seeks to make contributions: (i) to the literature on the subject of low budget participation and its behavioral effects on individuals, through the literature review and the evidence found; (ii) to the Brazilian banking sector, from the perspective that mapping the budgetary characteristics and their impacts on the behavior of managers in banks can serve as a benchmark for these institutions, implying greater managerial performance; and, (iii) to the academic community, as this study can serve as a basis for further research in this and other sectors of the economy.

In general, in the academic and social spheres, the study also seeks to draw attention to the low budget participation implemented by financial organizations, its effects, and its impacts on organizational performance, which can be affected by organizational commitment and role ambiguity.

2 Theoretical basis and research hypotheses

2.1 Budget Participation and Psychological Empowerment

Among the management control systems used by organizations, the budget is one of the most discussed. According to Milani (1975), employee participation in budgeting is a process in which subordinates have the opportunity to become involved and influence the process of setting the budget. Studies such as Chenhall and Brownell (1988), Chong and Chong (2002), Derfuss (2016), Zonatto et al. (2019), Dani et al. (2017), Jacomossi et al. (2018), and Lunardi et al. (2020) have shown that budget participation enables employees to gather, exchange, and disseminate information that is relevant to their work. This contributes to their cognition, motivation, and psychological well-being. On the other hand, a low-participation environment has been identified as a breeding ground for problems such as information asymmetry, conflicts, role ambiguity, and lower managerial performance (Zonatto et al., 2019).

Although these results have been identified in organizations that adopt a participatory budget configuration, with different levels of participation, it should be borne in mind that not all organizations adopt this type of budget configuration. This is the case with public companies, state-owned enterprises, and financial institutions. In conditions where there is low budget participation, behavioral factors may differ from those identified in an environment of high budget participation (Brownell, 1982). This is because the effects of management practices may not reflect the perception of fairness and adequacy of the demands necessary for the development of managers' work activities (Francis-Gladney et al., 2008; Nouri & Parker, 1996).

In the context of public and financial companies, the low level of budget participation is attributed to the top-down design of budget participation mechanisms. These mechanisms are created by senior management, with limited opportunities for participation in budget rules (Azevedo et al., 2022). Public organizations have responsibilities to provide services and navigate dynamic and turbulent environments, while also managing budget constraints (Felício et al., 2021). Additionally, they face pressures from society. This increases the pressure for results, considering the current limitations.

The participation of individuals in the budgeting process contributes to the establishment of clearly defined goals that are aligned with existing demands. It can serve to counteract or compensate for the absence of one or more contextual factors, restoring the manager's sense of autonomy and generating greater psychological empowerment (Malik et al., 2021). Psychological empowerment is based on employees' perceptions of whether or not they feel empowered to carry out their work activities. It involves psychological aspects that lead to pro-active attitudes on the part of the individual at work. As explained by Marginson and Ogden (2005), psychological empowerment is shaped and can be influenced by the organizational environment.

Siegall and Gardner (2000) and Monje-Amor et al. (2021) suggest that organizational factors, such as communication with the supervisor, general relations with the company, teamwork and concern for performance, are instrumental in creating an environment that the manager will see as conducive to empowerment. It is therefore hoped that in an environment of low budget participation, these aspects will have a positive impact on the psychological empowerment of managers. In this study, an environment in which budget participation is low or non-existent, considered ceremonial, is assumed, since the managers studied have no management in the definition of objectives, targets, or the allocation of resources. In this case, it is important to consider that evidence found in the literature has suggested that, in this environment, the expected positive effects of budget participation on managerial performance may not be significant (Zonatto & Lavarda, 2013).

In view of the above, considering that the environment under study is characterized as one of low budget participation (ceremonial) and that this is the context in which these managers operate, it is understood that the strategy found to minimize the negative effects of this low budget participation is the psychological empowerment of managers. Therefore, the first research hypothesis proposes that budget participation (ceremonial) is positively related to managers' psychological empowerment (H1. There is a positive relationship between budgetary participation (ceremonial) and psychological empowerment), since their actions will seek to overcome the challenges of the environment, with a view to achieving the desired objectives and results, even if the budgetary configuration is not considered the most appropriate.

2.2 Cognitive Effects of Psychological Empowerment

Malik et al. (2021) point out that psychological empowerment refers to the intrinsic motivation of the task, positive experiences derived from the tasks performed, and the production of motivation, satisfaction, and commitment. Meyerson and Kline (2008) argue that psychological empowerment is associated with how individuals feel competent and empowered in the workplace. They suggest that this association would lead to positive employee performance. According to Kundu et al. (2019), psychological empowerment can enhance employee performance in the banking context. According to the authors, training should be provided to organizational leaders of financial institutions to facilitate the development of empowering behaviors among them.

Previous studies have shown that psychological empowerment is positively related to organizational commitment (Manz & Sims, 1987; Qing et al., 2020). Therefore, it is expected that high levels of psychological empowerment will motivate managers in financial institutions to exert greater effort in order to achieve their goals. This is anticipated to lead to increased organizational commitment (H2) and improved managerial performance (H3) (Beuren et al., 2017; Hall, 2008; Marginson & Ogden, 2005; Thomas & Velthouse, 1990). In financial institutions, Kundu et al. (2019) demonstrated that psychological empowerment has a positive impact on managerial performance.

Previous studies have shown that psychological empowerment is positively related to organizational commitment (Manz & Sims, 1987; Qing et al., 2020). Therefore, high levels of psychological empowerment are expected to stimulate managers in financial institutions, so that they can make a greater effort to achieve their goals, resulting in greater organizational commitment (H2) and better managerial performance (H3) (Beuren et al., 2017; Hall, 2008; Marginson & Ogden, 2005; Thomas & Velthouse, 1990). In financial institutions, Kundu et al. (2019) showed that psychological empowerment positively influences managerial performance. According to Çetin and Aşkun (2018), this is because psychological empowerment generates self-efficacy and motivation for the task, which leads to greater performance at work.

Based on this evidence, two research hypotheses are proposed: There is a positive relationship between psychological empowerment and organizational commitment (H2), and between psychological empowerment and managerial performance (H3).

Marginson and Ogden (2005) argue that empowering mid-level managers leads to the emergence of role ambiguity. This is mainly due to their lack of clarity regarding the limits of the organizational hierarchy and their assigned tasks (House & Rizzo, 1972; King & King, 1990). Previous studies have defined role ambiguity as the absence of clarity in certain aspects of a relationship, such as hierarchy, the nature of tasks or functions, or the consequences of an individual's actions (Aghghaleh et al., 2014). According to Breaugh and Colihan (1994) and Lunardi et al. (2020), ambiguity refers to the perception of uncertainty regarding various aspects of employees' work performance. Thus, the existing literature in this field has consistently supported a positive correlation between psychological empowerment and role ambiguity.

However, it should be borne in mind in this research that in the organizational structure of the financial institutions surveyed, the mid-level manager, represented by the service unit manager, has the autonomy to manage his work unit when empowered. This autonomy can psychologically reduce his perception of a lack of clarity in carrying out his work duties. This is because once senior management has allocated resources and established targets, their performance will be evaluated based on their ability to meet the expected outcomes. Therefore, their objective is to develop a set of actions that they consider most appropriate, enabling them to effectively achieve the set targets.

Therefore, it is possible that in this banking context and considering these environmental characteristics, the relationship between psychological empowerment and role ambiguity may not be confirmed. This could result in a negative association, which occurs due to the autonomy given to the manager to manage their unit of responsibility. Thus, the fourth research hypothesis is established: H4: There is a negative relationship between psychological empowerment and role ambiguity.

2.3 Organizational Commitment, Role Ambiguity and Managerial Performance

Marginson and Ogden (2005) analyzed the extent to which managers may commit to meeting budget targets, not because of the threat of accountability or the promise of reward, but because it provides a sense of clarity and security in carrying out their activities. The authors sought to understand whether managers who experience task ambiguity and uncertainty can use budgets as a means of coping with these challenges. They propose that one way to reduce role ambiguity would be to commit to the budget.

Morris and Koch (1979), Chong et al. (2006), and Zonatto et al. (2020) presented evidence that when subordinates have high organizational commitment, they tend to have a strong understanding of their role within the organization. In this way, a greater understanding of their role in the organization reduces role ambiguity among employees.

In this study, based on the findings of Marginson and Ogden (2005), it is suggested that organizational commitment, similar to commitment to the budget, can also decrease role ambiguity. It is argued that higher organizational commitment leads to lower levels of conflict and role ambiguity. This argument finds support in studies such as Oliver and Brief (1978) and Fisher and Gitelson (1983), who observed that role ambiguity is negatively correlated with organizational commitment. The fifth research hypothesis states that: H5: There is a negative relationship between organizational commitment and role ambiguity.

Role ambiguity is influenced by both organizational characteristics and the personal characteristics of individuals (Zonatto et al., 2019; Marginson & Ogden, 2005). Role ambiguity has been explored in studies on the subject and is also linked to managerial performance (Lunardi et al., 2020; Marginson & Ogden, 2005; Zonatto et al., 2019). The literature has shown the significant negative impact of role ambiguity on managerial performance (Aghghaleh et al., 2014; Beuren et al., 2017; Dunk, 1993; Lunardi et al., 2020; Zonatto et al., 2019).

The evidence found suggests a negative relationship between role ambiguity and the managerial performance of subordinates (Dunk, 1993). This is because role ambiguity generates increased uncertainty regarding the potential outcomes of an individual's work, which ultimately leads to reduced work performance (Lunardi et al., 2020; Shields et al., 2000). Therefore, it is considered that even in scenarios of greater budgetary participation and increased vertical information sharing, role ambiguity has a negative impact on managerial performance (Lunardi et al., 2020). Thus, the sixth research hypothesis states that: H6: There is a negative relationship between role ambiguity and managerial performance.

According to Nouri and Parker (1996), employees who have a high level of organizational commitment tend to have positive feelings towards their organizations. Thus, organizational commitment has received substantial attention in previous research due to its significant impact on work attitudes, such as managerial performance (Yousef, 2002).

Previous studies have examined the relationship between organizational commitment and job performance. Mowday et al. (1974), Baugh and Roberts (1994), and Kaveski et al. (2021) concluded that there is a positive correlation between organizational commitment and job performance. The link between committed employees and performance, in terms of meeting sales targets and generating changes in profits, is positive. This is because individuals who perform better are more likely to identify with the organization (Benkhoff, 1997).

Putti et al. (1990), Mayer and Schoorman (1992), and Kaveski et al. (2021) also found results that support this relationship, indicating that performance is strongly related to commitment. Although this evidence establishes such a relationship, it should be borne in mind that Kalleberg et al. (1995) found a modest correlation between organizational commitment and work performance, while Leong et al. (1994) found a weak correlation between these variables. According to the authors, this can occur when organizational identification is not perceived, and the level of effort undertaken is insufficient to enhance managerial performance.

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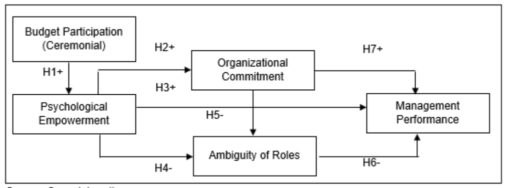
Given the evidence found, the seventh hypothesis states that: H7: There is a positive relationship between organizational commitment and managerial performance.

Figure 1 summarizes the theoretical model and the relationships that were investigated.

Figure 1
Theoretical model of analysis



Source: Own elaboration.

The methodological procedures adopted are presented below.

3 Methodological Procedures

This study is characterized as descriptive research, conducted through a survey (a single entity) and quantitative data analysis (specifically, path analysis). The study population consists of 989 professionals who hold management positions and do not take part in the budget preparation process, but who have the autonomy to exceed budget targets in their unit of responsibility at a state-owned financial institution. The sample analyzed, which was non-probabilistic, intentional, and obtained through accessibility, comprised 183 valid responses from bank branch managers who voluntarily completed the data collection instrument.

The research instrument adopted for data collection was developed with objective questions that covered the variables analyzed in the study. The study followed ethical procedures, including obtaining informed consent from participants. The identities of the participants and the organization they belong to were kept anonymous. Participants also had the right to withdraw from the research at any time without needing to provide a justification. Participants were also guaranteed a comprehensive analysis of the data in a consolidated form using a quantitative approach, and the findings were utilized to prepare this paper.

Table 1 displays the variables utilized and their corresponding operational definitions.

Table 1
Constructs and operational definition

Variables	Operational definitions	Scale	Authors
Ceremonial Budget Participation (BPC)	Evaluates the budget received (already defined) in their unit of responsibility.	1 indicator 7- point Likert*	Own elaboration
Psychological Empowerment (EMP)	Determines the respondents' level of empowerment in carrying out their work.	7 indicators 7-point Likert*	Adapted from Marginson and Ogden (2005)
Role Ambiguity (AMB)	It describes the lack of clarity of expectations regarding work roles and the degree of uncertainty regarding their tasks.	8 indicators 7-point Likert*	Adapted from Kahn et al. (1964) and Rizzo et al. (1970)
Organizational Commitment (OCO)	Measures respondents' organizational commitment.	9 indicators 7-point Likert*	Mowday et al. (1979)
Managerial Performance (MP)	Evaluates the performance of managers in their work activities.	11 indicators 7-point Likert**	Mahoney et al. (1963, 1965) in the version by Zonatto (2014)

Note: * 7-point Likert scale, which assesses the level of total disagreement (1) or total agreement (7) with the statements presented. **7-point Likert scale assessing the performance achieved by the manager in their work activities, with 1 being below average performance and 7 being above average performance.
Source: Prepared by the authors.

Considering the criteria for defining the study population and the fact that the context (low budget participation environment) is similar for all survey participants, a single question was asked to assess the level of budget participation. The aim of this question was to determine whether the respondent "normally receives my unit's or agency's budget ready." Confirmation of this question reinforces the characteristic of an environment with low budgetary participation, where the budget is outlined in a top-down manner.

The other questions related to psychological empowerment, role ambiguity, organizational commitment, and managerial performance constructs were developed based on previous studies on the subject, as outlined in Table 1. These instruments have been used in previous studies on the subject, such as Marginson and Ogden (2005), Beuren et al. (2017), Zonatto et al. (2019), and Lunardi et al. (2020). This indicates their suitability for the purposes of the research.

In addition to these questions, data was also gathered on age, gender, education, tenure with the company and in the current role, and the hierarchical level of the position, as depicted in Table 2.

Table 2
Characterization of research participants

Age	**Ab. Freq.**	**Rel. Freq.**	**Education**	**Ab. Freq**	**Rel. Freq.**	**LTC**	**Ab. Freq.**	**Rel. Freq.**
Up to 30 years	16	8,74	High school	17	9,29	Up to 5 years	12	6,56
31 to 40 years old	75	40,98	Graduation	78	42,62	From 6 to 10 years old	54	29,51
41 to 50 years old	34	18,58	Specialization	80	43,72	From 11 to 20 years old	54	29,51
Over 51 years old	58	31,69	Master's Degree	7	3,83	Over 21 years old	63	34,43
			Doctorate	1	0,55	**Total**	**183**	**100**
Total	**183**	**100**	**Total**	**183**	**100**	**LTJ**	**Ab. Freq.**	**Rel. Freq.**
Sex	**Ab. Freq.**	**Rel. Freq.**	**NHF**	**Ab. Freq.**	**Rel. Freq.**	Up to 5 years	93	50,82
Feminine	64	34,97	Low	35	19,13	From 6 to 10 years old	60	32,79
Masculine	119	65,03	Average	60	32,79	From 11 to 20 years old	25	13,66
			High	88	48,09	Over 21 years old	5	2,73
Total	**183**	**100**	**Total**	**183**	**100**	**Total**	**183**	**100**

Note: LTC. Length of time with the Company; LTJ. Length of time in the Job; NHF. Hierarchical Level of Function.
Source: Prepared by the authors.

Most of the participants in the survey are males, over 31 years old, and have a university degree. The average length of time they have worked for the company is over 10 years. On the other hand, the average tenure in the position is approximately 7 years. The job is typically considered to be at a medium or high hierarchical level in most cases.

The constructs used in the survey were translated and checked by language experts (2). Subsequently, the questionnaire was sent to a research professor with a PhD in accounting, who specializes in this subject, for analysis and suggestions. Five pre-tests were also conducted with individuals who serve as unit managers in the field. After evaluation, no further adjustments were necessary. Therefore, the questionnaire was administered to the target population.

Data was collected through a link that was sent once via corporate email. The link was forwarded by the corporate university of the institution that is the subject of the study. The questionnaire was prepared using the Qualtrics platform and then sent to potential research participants. The invitation clearly stated that participation was voluntary. Once the necessary clarifications had been made and the ethical procedures had been ensured, 183 managers voluntarily decided to take part in the research by answering the questionnaire in full.

After collecting the data, it was tabulated and analyzed. The first stage of data analysis involves descriptive statistical analysis, which includes identifying the range (minimum and maximum), mean, and standard deviation. Based on these results, the measurement constructs were validated using factor analysis. The goal was to explain the set of variables within each construct and evaluate any issues related to common method bias. According to Hair Jr. et al. (2010), in samples of 150 respondents, the factor loadings of the indicators of each measurement construct must be greater than 0.45 in order to be considered significant. This observation was made in the study. The results of the common method bias test also revealed that the set of evaluated indicators is grouped into 9 different factors. However, the first factor only explains 26.32% of the total variance, suggesting that there is no method bias.

Once the measurement model had been validated, the hypotheses were tested using path analysis, which is a similar procedure to that used in other studies on the subject (Nouri & Parker, 1998; Chong et al., 2006). The analysis was conducted using SPSS® software. According to Maroco (2011), the aim of this analysis is to break down the association between variables with direct and indirect effects and to observe these variables in a set of causal relationships. The results of the research are presented below.

4 Analysis and discussion of results

4.1 Characterization of the Budget Process

In the organization that is the focus of this study, the budget is defined by central management, and the professionals in management positions in each banking unit (branches) do not participate in the processes of preparing and defining the budget for their respective units of responsibility. This lack of participation characterizes an environment of low budgetary involvement. Budgets are defined in advance by a single administrative unit, which exclusively handles the planning and monitoring of budget targets. This unit is located at the institution's head office and has no contact with the branches and their operational areas.

The budget targets are proposed for a one-semester time horizon, aligning with the commercial targets. Each target has a pre-defined weight assigned by unit. The results are monitored monthly, and at the end of the semester, the budget target must be achieved at 100% of the total forecast for all evaluation items. However, failure to achieve one of the items can be compensated for by another, as long as at least 50% of the target for the first item has been achieved. For example, if the unit has a larger number of employees than anticipated for the branch's size. This surplus can offset the failure to meet the target by reducing overtime hours.

Achieving the final target, after compensations, means avoiding penalties on the commercial target. Commercial and budget targets are therefore interconnected, and the employees' final bonus depends on both. In cases where this objective has not been achieved, the units will have their achievement of the commercial target reduced by 10% of the result. This reduction is due to the higher consumption of resources and the failure to meet the set targets.

Once proposed by central management, the targets are not modified until the end of the term. Only at the end of each semester, they are reviewed again to check for distortions in planning or implementation by the agencies. At this point, a comparison is made between the attainment of commercial and budgetary goals. If there is an excess in the achievement of the former, the unit managers are required to provide an explanation for these results. Therefore, these managers must justify their failure to achieve one or more budget targets.

Faced with this budgeting proposal, managers receive their budget target and commercial target without having had any opportunity for participation. However, they are empowered and have the autonomy to act within or outside the proposed limits in order to achieve the commercial targets. So, if they decide to propose commercial actions that involve printed materials, landline or mobile phone calls, overtime, and other expenses beyond the budget, they must be able to deliver a commercial result that exceeds expectations to justify these additional costs.

Table 3
Results of the validation of the measurement constructs and descriptive statistical analysis

Research Constructs	AC	KMO	TEB	Df	Sig.	VTE
Empowerment (EMP)	0,704	0,732	151,625	10	0,000	46,14%
Organizational Commitment (OCO)	0,882	0,901	826,273	36	0,000	55,05%
Role Ambiguity	0,886	0,897	627,705	21	0,000	60,46%
Management Performance	0,925	0,915	1222,874	45	0,000	60,89%

Dim.	Qst.	Mean	SD	Min.	Max	CF*	Com*	CF**	Com**
BPC	POC	5,42	1,95	1,00	7,00	-	-	-	-
Organizational Commitment (OCO)	COM1	6,37	0,85	1,00	7,00	0,72	0,53	0,72	0,53
	COM2	6,48	0,84	1,00	7,00	0,70	0,49	0,70	0,49
	COM3	5,33	1,58	1,00	7,00	0,61	0,37	0,61	0,37
	COM4	5,61	1,17	1,00	7,00	0,75	0,56	0,75	0,56
	COM5	6,55	0,75	1,00	7,00	0,83	0,69	0,83	0,69
	COM6	5,74	1,18	1,00	7,00	0,81	0,66	0,81	0,66
	COM7	5,90	1,19	1,00	7,00	0,82	0,67	0,82	0,67
	COM8	4,97	1,53	1,00	7,00	0,76	0,57	0,76	0,57
	COM9	6,51	0,90	1,00	7,00	0,64	0,41	0,64	0,41
Empowerment (EMP)	EMP1	5,85	1,17	1,00	7,00	0,66	0,45	0,67	0,45
	EMP2	4,66	1,46	1,00	7,00	0,66	0,44	0,67	0,45
	EMP3	5,20	1,54	1,00	7,00	0,68	0,48	0,69	0,48
	EMP4	4,64	1,67	1,00	7,00	0,70	0,50	0,70	0,49
	EMP5	5,82	1,33	1,00	7,00	0,64	0,47	0,66	0,43
	EMP6	1,64	1,18	1,00	7,00	0,21	0,66	-	-
	EMP7	2,37	1,74	1,00	7,00	0,33	0,53		
Role ambiguity (AMB)	AMB1	6,26	1,18	1,00	7,00	0,68	0,47	0,68	0,46
	AMB2	5,50	1,27	1,00	7,00	0,75	0,56	0,75	0,56
	AMB3	4,03	1,87	1,00	7,00	-0,10	0,99	-	-
	AMB4	5,25	1,39	1,00	7,00	0,70	0,50	0,70	0,50
	AMB5	6,17	1,02	1,00	7,00	0,81	0,67	0,82	0,67
	AMB6	5,99	1,19	1,00	7,00	0,84	0,72	0,84	0,71
	AMB7	5,50	1,31	1,00	7,00	0,80	0,65	0,80	0,65
	AMB8	5,77	1,22	1,00	7,00	0,83	0,69	0,83	0,69
Management Performance (MP)	DG1	4,80	1,19	1,00	7,00	0,82	0,68	0,82	0,67
	DG2	4,92	1,21	1,00	7,00	0,75	0,61	0,75	0,56
	DG3	4,63	1,27	1,00	7,00	0,60	0,63	-	-
	DG4	4,86	1,18	1,00	7,00	0,77	0,63	0,76	0,58
	DG5	5,43	1,19	1,00	7,00	0,75	0,57	0,76	0,57
	DG6	5,20	1,28	1,00	7,00	0,81	0,66	0,82	0,67
	DG7	4,56	1,44	1,00	7,00	0,63	0,64	0,61	037
	DG8	5,24	1,28	1,00	7,00	0,81	0,79	0,82	0,67
	DG9	4,92	1,19	1,00	7,00	0,74	0,69	0,76	0,57
	DG10	5,01	1,14	1,00	7,00	0,80	0,74	0,81	0,66
		5,12	1,20	1,00	7,00	0,87	0,81	0,88	0,77

Note: Dim. Dimension; Qst. Questions; Mean. Mean; S.D. Standard Deviation; Min. Minimum; Max. Maximum; CF*. Factor Load (initial construct); Com*. Communalities (initial construct); CF**. Factor Loadings (purified construct); Com**. Communalities (purified construct); BPC. Budget Participation (Ceremonial).
Source: Research data.

With regard to the composition of the measurement constructs, the analysis results indicated that items AMB3, EMP6, EMP7, and DG3 had indicators with low factor loads and were grouped together in a separate factor. As a result, these items were excluded from the measurement models. All the constructs achieved Cronbach's alpha coefficients higher than 0.7 and total variance explained higher than 0.5 (except for empowerment, which had a VTE close to this value). As for the KMO test, which aims to explain the factors that make up the variable, all values were above 0.7, which is considered very good, according to Hair Jr. et al. (2010). Bartlett's test of sphericity, which was statistically significant ($p = 0.000$) in all the analyzed models, confirms the internal consistency of the measurement constructs, as recommended by Hair Jr. et al. (2010).

The common method bias test carried out indicated that there were no issues with method bias. The first factor of the analyzed set of indicators explained 26.32% of the total variance. In this way, these constructs can be utilized for the proposed analyses in this research, allowing for the investigation of the impact of psychological empowerment on organizational commitment, role ambiguity, and managerial performance.

With regard to the frequency of responses obtained, the results showed that for all the questions asked, there were responses ranging from the minimum and maximum values on the scale used. These results show that in the analyzed sample, there are managers with different behaviors, which highlights the opportunity to investigate these relationships in the studied context.

In general, while some managers demonstrated a high level of empowerment, organizational commitment, and managerial performance, others exhibited the opposite outcome. The research identifies the lowest averages in the constructs of psychological empowerment and managerial performance. This suggests that not all managers have developed the necessary psychological capacity to achieve better performance.

Compared to these measurement constructs (EMP x MP), role ambiguity exhibits slightly higher results, with organizational commitment being the dimension with the highest results. Studies on the subject (Jacomossi et al., 2018; Zonatto et al., 2019) have revealed that organizational managers have experienced high levels of role ambiguity, even though they participate in the budget process. These results show that not all managers who have budgetary responsibility perceive clarity in the definition of their roles, which is consistent with the findings of Palomino and Frezatti (2016), Jacomossi et al. (2018), and Zonatto et al. (2019).

Even though this environment is characterized by high levels of stress (Pinheiro & Günther, 2002) and pressure for results (Silva & Ramos, 2018), the commitment of managers is necessary to achieve the objectives and goals of desired results (expectations). Thus, even though managers encounter various challenges and tensions, they must utilize their cognitive and motivational resources to achieve desired outcomes. As Chong and Johnson (2007) explain, managers who are committed to the organization are more likely to exert extra effort in an attempt to achieve their goals, which ultimately results in better performance at work.

4.3 Analysis of Results

Table 4 shows the findings from testing the research hypotheses.

Table 4
Results of hypothesis testing

Relationships Investigated			β-standard	t-statistic	p-value	R^2	f^2	Hyp.	Results
BPC	→	EMP	0,180	2,465	0,015*	0,032	0,149	H1+	Supported
EMP	→	OCO	0,277	3,875	0,000*	0,077	0,430	H2+	Supported
EMP	→	AMB	-0,182	3,013	0,003*	0,393	0,459	H4-	Supported
OCO	→	AMB	-0,552	9,136	0,000*	0,393	0,459	H5-	Supported
EMP	→	MP	0,274	3,937	0,000*	0,235	0,515	H3+	Supported
OCO	→	MP	0,229	2,787	0,006*	0,235	0,515	H7+	Supported
AMB	→	MP	-0,124	1,472	$0,143^{ns}$	0,235	0,515	H6-	Not supported

Note: EMP: Empowerment; OCO: Organizational Commitment; AMB: Ambiguity; MP: Managerial Performance; BPC: Budget Participation (Ceremonial); * Relationship significant at 0.05; ns Relationship not significant; f^2 Effect Size.
Source: Research data.

The results found confirm the relationships proposed in this research, except for the direct effects of role ambiguity on managerial performance (H6). These effects, although negative as expected, are not statistically significant. The relationship between BPC (participative budgeting) and EMP (employee psychological empowerment) is positive and significant, providing support for H1: There is a positive relationship between budget participation and psychological empowerment. These results show that managers who receive their budget ready-made, and therefore have low budget participation, are empowered by the company's top management to achieve the expected results.

This is necessary to enhance their proactive managerial attitudes in order to overcome the challenges presented in the pursuit of achieving the established budgetary and commercial targets. Therefore, other organizational factors, such as the communication established between managers and subordinates, the commitment of the team being led, and the focus on performance targets, are factors that emerge in this environment to support the development of actions aimed at achieving high performance (Monje-Amor et al., 2021; Siegall & Gardner, 2000).

The results also showed that psychological empowerment positively influences organizational commitment, confirming the second hypothesis of the study (H2): There is a positive relationship between psychological empowerment and organizational commitment. This result is predicted in the literature, but only in environments with high budget participation. Therefore, in the analyzed context, these findings represent a valid academic contribution by demonstrating that it is possible to achieve greater results even in an environment with low budget participation. Organizational commitment through the psychological empowerment of managers. Therefore, empowering managers is a strategy adopted to mitigate the negative effects of low budget participation predicted in the literature and to increase organizational commitment.

The relationship between psychological empowerment and managerial performance is also confirmed (Hall, 2008; Marginson & Ogden, 2005), supporting H3: There is a positive correlation between psychological empowerment and managerial performance. Given these results, it can be said that psychological empowerment not only enhances organizational behavior but also improves the performance of managers in their work activities. This evidence shows that the intensity of the effort, the timing of the effort, and the flexibility of managers can influence the effectiveness and managerial performance of individuals (Beuren et al., 2017). In this sense, managerial performance increases when managers perceive autonomy in carrying out their work (Beuren et al., 2017; Zonatto et al., 2019).

Analyzing the relationship between psychological empowerment and role ambiguity, we found a significant negative relationship between these variables, which supports H4: There is a negative relationship between psychological empowerment and role ambiguity. In the organizational structure of financial institutions, the mid-level manager, represented by the service unit manager, is granted formal autonomy to manage their work unit, which helps reduce role ambiguity resulting from empowerment.

Thus, their perception of a lack of clarity in the development of their work duties tends to be lower because they have the autonomy to determine how to conduct their work activities in order to achieve the expected organizational results. The organizational hierarchy in financial institutions is well-defined, and the segment is characterized by the clarity of the duties and tasks of each function. The Central Bank of Brazil, as the supervisory body, requires that these duties and tasks be regulated and known to each employee.

Therefore, although they may experience high levels of tension and stress at work (Pinheiro & Günther, 2002) resulting from institutional pressures to achieve objectives and goals (Silva & Ramos, 2018), their performance maintains, to some extent, a certain autonomy that allows them to direct their efforts to fulfill what is expected of them. However, at the end of each evaluation cycle, it will be accountable to central management for its performance, both in terms of budget and commercial aspects.

The analysis of the influence of organizational commitment on role ambiguity revealed a statistically significant negative relationship between these variables, which supports H5: There is a negative relationship between organizational commitment and role ambiguity. These results show that when empowered, managers are more committed to their work, which reduces the negative effects of role ambiguity. Understanding what is expected of individuals helps reduce role ambiguity, which is associated with higher levels of organizational commitment (Chong et al., 2006; Morris & Koch, 1979; Zonatto et al., 2020). This is because managers experience a sense of clarity and security in carrying out their work activities (Marginson & Ogden, 2005). This is why they strive to achieve better performance.

The findings of the sixth and seventh hypotheses support this statement. Previous studies on role ambiguity (Beuren et al., 2017; Katz & Kahn, 1970; Marginson & Ogden, 2005) have examined the relationship between role ambiguity and managerial performance. These studies suggest that role ambiguity, which is generated by empowerment, has a negative impact on managerial performance. This finding is consistent with the results of the present research. However, these effects were not significant, which does not support H6: There is a negative relationship between role ambiguity and managerial performance.

Since the empowerment of managers increases organizational commitment, which has a strong negative impact on role ambiguity, its negative effects on managerial performance were not observed. It can therefore be inferred that role ambiguity did not affect managerial performance in the analyzed sample. The positive influence of organizational commitment on managerial performance supports this assessment, confirming H7: There is a positive relationship between organizational commitment and managerial performance.

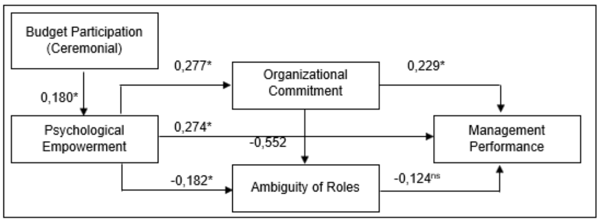
As demonstrated in the studies conducted by Nouri and Parker (1996), Mayer and Schoorman (1992), and Kaveski et al. (2021), organizational commitment has been shown to have a positive impact on managerial performance. These results show that managers who feel empowered and have a strong identification with the organization are able to overcome the tensions and stresses of the work environment (Pinheiro & Günther, 2002; Silva & Ramos, 2018). As a result, they are more likely to achieve better managerial performance. This evidence is confirmed by the analysis of the indirect effects of psychological empowerment on role ambiguity (EMP->OCO->AMB: -0.153*) and managerial performance (EMP->OCO->MP: 0.063*).

Although these values are low, their effects are statistically significant ($\rho<0.05$). This indicates that psychological empowerment has cognitive effects and serves as an antecedent determinant of organizational commitment and managerial performance in an environment with low budget participation. Likewise, it indicates that the combined effects of psychological empowerment and organizational commitment can reduce the role ambiguity identified in this environment.

In highly competitive environments such as the financial market, the use of the budget as a performance indicator can lose importance (Hansen & Van Der Stede, 2004), mainly due to limited budget participation. However, when it is used, it is linked to business objectives, which serve as a benchmark for evaluating the effectiveness of the efforts made to achieve the desired outcomes. In this way, even though it is determined from the top down, it is used to define managerial attitudes and behaviors in order to achieve the desired results.

Figure 2 summarizes the results.

Figure 2
Results of the theoretical relationships investigated
Theoretical Model of Analysis



Source: prepared by the authors.

In highly competitive environments such as the financial market, the use of the budget as a performance indicator can lose importance (Hansen & Van Der Stede, 2004), mainly due to limited budget participation. However, when it is used, it is linked to business objectives, which serve as a benchmark for evaluating the effectiveness of the efforts made to achieve the desired outcomes. In this way, even though it is determined from the top down, it is used to define managerial attitudes and behaviors in order to achieve the desired results.

Table 5
Results of the Complementary Analysis

Variables	BPC	EMP	OCO	AMB	MP
Sex	-0,065	-0,122	0,256*	0,237*	-0,063
Age	0,110	0,044	-0,061	-0,066	0,007
Level of Education	0,043	0,001	0,084	0,062	0,102
Working Time in the company	0,145	0,066	-0,079	0,106	-0,084
Working Time in the Function	-0,143	0,071	-0,029	-0,091	0,064
Function Hierarchical Level	0,156**	0,138	0,134	0,147**	0,206*
R^2	0,250	0,193	0,274	0,366	0,248
Sig. Anova	0,075b	0,346b	0,031b	0,001b	0,080b

Note: EMP: Empowerment; CO: Organizational Commitment; AMB: Ambiguity; MP: Managerial Performance; BPC: Budget Participation (Ceremonial).
Source: Survey data.

The results revealed that male managers are more committed to the organization under study. Likewise, it is those professionals who experience greater role ambiguity. Regarding the hierarchical level, the evidence found reveals that these managers perceive the budget configuration as non-participatory. These managers also perceive greater function ambiguity, although they demonstrate higher managerial performance. Aspects such as age, level of education, and length of time working at the company and in the role do not show a significant relationship with the variables under study.

5 Final Considerations

This study analyzed the effects of psychological empowerment on organizational commitment, role ambiguity, and managerial performance in bank branches of a state financial institution with low budgetary participation. Descriptive research was conducted using a survey and a quantitative approach to analyze the data (path analysis). The sample consisted of 183 respondents who held management positions in the institution under study.

The results demonstrate that there is a statistically significant direct relationship between budgetary participation and psychological empowerment. Psychological empowerment has a positive influence on organizational commitment, and both factors significantly contribute to managerial performance. Higher levels of psychological empowerment and organizational commitment are associated with reduced role ambiguity. Although managers experience a certain level of role ambiguity in their positions, the impact on their performance is not significant.

This evidence reveals important implications for the field of study, considering the characteristics of the environment being studied. The research contributes to the understanding of the psychological and behavioral effects on managerial performance in environments with low budgetary participation. It indicates to state entities the behavioral effects perceived by mid-level managers as a result of the adopted budgetary configuration. Although the findings indicate these relationships, they also reveal that these professionals are vulnerable to an environment of institutional pressure for results (financial and commercial), with empowerment being a strategic approach. Adopted to promote proactive managerial attitudes in order to achieve goals expected results.

The pressure to deliver results, as it requires presenting performance justifications and utilizing available budgetary resources, combined with the inability to negotiate objectives and results targets, creates dynamic and turbulent environments with budgetary constraints. This reinforces the need for managers to collaborate and strive for better results. Organizational commitment is a significant managerial attitude that helps reduce unclear job expectations, which can lead to frustration among managers and hinder their performance.

Although there may be a perception of uncertainty regarding the tasks and functions performed, the commitment and autonomy in the work carried out facilitating the search for possible solutions to make budget execution feasible and achieve the desired results. Thus, a greater sense of autonomy at work tends to generate greater psychological empowerment. Likewise, factors such as organizational support, internal communication, leadership team involvement, and institutional concern with performance contribute to the creation of an environment conducive to the psychological empowerment of managers.

Therefore, it can be concluded that the psychological empowerment of these managers can promote their organizational commitment, reduce role ambiguity, and enhance managerial performance.

The presented results cannot be generalized; however, the evidence encourages the undertaking of new studies, demonstrating indications of factors that influence the actions of a specific group of managers. The examination of additional analysis variables, such as other psychological capacities, managerial attitudes, and contextual factors, that may impact these relationships presents a valuable research opportunity for conducting further studies on the subject.

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