

Effects of resilience and managerial attitudes on the relation between participative budgeting and managerial performance*

Efeitos da resiliência e atitudes gerenciais na relação entre participação orçamentária e desempenho gerencial

Jonas A. S. Grodt¹, Vinícius C. S. Zonato¹, Larissa Degenhart¹,
Yvelise G. Piccinin¹, and Márcia Bianchi²

¹ Federal University of Santa Maria, Santa Maria, RS, Brazil

² Federal University of Rio Grande do Sul, Porto Alegre, RS, Brazil

Authors' notes

Jonas A. S. Grodt is now an administrative technician in education at the Department of Administration and Planning – Coordination of Budget, Accounting, and Finance of Federal Institute Sul-riograndense (Instituto Federal Sul-rio-grandense – IFSUL); Vinícius C. S. Zonato is now a professor at the Graduate Program in Accounting of Federal University of Santa Maria (Universidade Federal de Santa Maria – UFSM); Larissa Degenhart is now a professor at the Graduate Program in Accounting of UFSM; Yvelise G. Piccinin is now an administrative technician in education at UFSM; Márcia Bianchi is now a professor at the Graduate Program in Controlling and Accounting of the Federal University of Rio Grande do Sul (Universidade Federal do Rio Grande do Sul – UFRGS).

Correspondence concerning this article should be addressed to Vinícius C. S. Zonato, Avenida Roraima, 1000, Cidade Universitária, Camobi, Santa Maria, Rio Grande do Sul, Brazil, ZIP code 97105-900. Email: vinicuszonatto@gmail.com

To cite this paper: Grodt, J. A. S., Zonato, V. C. S., Degenhart, L., Piccinin, Y. G., & Bianchi, M. (2023). Effects of resilience and managerial attitudes on the relation between participative budgeting and managerial performance. *Revista de Administração Mackenzie*, 24(5), 1–27. <https://doi.org/10.1590/1678-6971/eRAMG240285.en>

* We thank the Brazilian National Council for Scientific and Technological Development (CNPq) and the Research Support Foundation of the State of Rio Grande do Sul (FAPERGS).



This is an open-access article distributed under the terms of the Creative Commons Attribution License.

This paper may be copied, distributed, displayed, transmitted or adapted for any purpose, even commercially, if provided, in a clear and explicit way, the name of the journal, the edition, the year and the pages on which the paper was originally published, but not suggesting that RAM endorses paper reuse. This licensing term should be made explicit in cases of reuse or distribution to third parties.

Este artigo pode ser copiado, distribuído, exibido, transmitido ou adaptado para qualquer fim, mesmo que comercial, desde que citados, de forma clara e explícita, o nome da revista, a edição, o ano e as páginas nas quais o artigo foi publicado originalmente, mas sem sugerir que a RAM endosse a reutilização do artigo. Esse termo de licenciamento deve ser explicitado para os casos de reutilização ou distribuição para terceiros.

Abstract

Purpose: To analyze the effects of psychological resilience and managerial attitudes (job involvement and commitment to budget goals) on the relationship between participative budgeting and managerial performance.

Originality/value: The present study innovates by providing evidence of the cognitive effects of psychological resilience, the affective effects of job involvement, and budget goal commitment on the relationship between budgetary participation and managerial performance, which is the theoretical gap explored.

Design/methodology/approach: Descriptive and quantitative survey research carried out through structural equation modeling (SEM) with a sample composed of 251 controllers working in companies in Southern Brazil.

Findings: The findings show that the intervening variables (psychological resilience and managerial attitudes) exert a positive influence on the tested relations. The results demonstrate that participative budgeting influences managerial performance through the cognitive effects of psychological resilience, combined with the affective effects of budget goal commitment. Job involvement enhances levels of psychological resilience and has positive effects on managerial performance. Thus, it can be concluded that budget configuration influences controllers' resilience levels and contributes to their commitment to budget goals, as it triggers cognitive and affective reactions that increase managerial performance.

Keywords: participative budgeting, resilience, job involvement, commitment to budget goal, managerial performance

Resumo

Objetivo: Analisar os efeitos da resiliência psicológica e das atitudes gerenciais (envolvimento no trabalho e comprometimento com as metas orçamentárias) na relação entre participação orçamentária e desempenho gerencial.

Originalidade/valor: A pesquisa inova ao fornecer evidências dos efeitos cognitivos da resiliência psicológica, dos efeitos afetivos do envolvimento no trabalho e do comprometimento com as metas orçamentárias na relação entre participação orçamentária e desempenho gerencial, sendo essa a lacuna teórica explorada.

Design/metodologia/abordagem: Realizou-se uma pesquisa descritiva, de levantamento e quantitativa por meio de modelagem de equações estruturais (MEE), em uma amostra composta por 251 profissionais *controllers* de empresas da Região Sul do Brasil.

Resultados: Os resultados revelam que as variáveis intervenientes (resiliência psicológica e atitudes gerenciais) exercem influência positiva na relação testada. Os achados demonstram que a participação orçamentária influencia o desempenho gerencial por meio dos efeitos cognitivos da resiliência psicológica somados aos efeitos afetivos do comprometimento com as metas orçamentárias. O envolvimento no trabalho potencializa os níveis de resiliência psicológica e apresenta efeitos positivos no desempenho gerencial. Assim, pode-se concluir que a configuração orçamentária exerce influência nos níveis de resiliência dos *controllers* e contribui para o seu comprometimento com as metas orçamentárias, uma vez que desencadeia reações cognitivas e afetivas que elevam o desempenho gerencial.

Palavras-chave: participação orçamentária, resiliência, envolvimento no trabalho, comprometimento com as metas orçamentárias, desempenho gerencial

INTRODUCTION

Every organization requires a management control system that ensures the achievement of organizational goals effectively and efficiently. One of the most important elements in this system is budgeting (Bangun, 2017), which is essential for the execution of business processes, as it encompasses planning, control, and decision-making (Pradana, 2021). Participative budgeting (PB) refers to the involvement of managers in setting budget goals and objectives and their influence on setting the budgets of their units (Milani, 1975; Shields & Shields, 1998). In this way, budgeting is a means of coordinating the organization in its action plan (Bangun, 2017).

PB enables communication between superiors and subordinates, which improves cognition, attitudes, and managerial performance (MP) (Ni et al., 2009). Scholars have found conflicting direct effects of PB on MP (Dani et al., 2017; Derfuss, 2016): positive (Monteiro et al., 2020; Santos et al., 2021), negative (Etemadi et al., 2009), and non-significant effects (Jermias & Yigit, 2013; Macinati et al., 2016; Venkatesh & Blaskovich, 2012). Such inconclusive results indicate that MP can be influenced by PB through intervening variables (Dani et al., 2017; Derfuss, 2016; Monteiro et al., 2020).

There are studies that have related PB and MP on the basis of intervening variables (Guidini et al., 2020; Jacomossi et al., 2019; Lunardi et al., 2019, 2020; Monteiro et al., 2020; Zonatto et al., 2019). However, no studies to date have analyzed the indirect cognitive and affective effects of intervening variables on this relation, which is a theoretical gap that motivated the development of the present study. Psychological resilience (PR) is seen as an important psychological capacity that influences the definition of human action in the work environment. Likewise, it interacts with managerial attitudes (MA) to determine MP.

Thus, this study assumes that PR and MA tend to enhance the relation between PB and MP. According to Bangun (2017), it is undeniable that the human role is present in budgeting and that individuals' psychic condition influences their final performance. To this end, this study proposed a model of analysis of cognitive (RE) and affective-attitudinal effects (job involvement and commitment to the budget goal) to explain the indirect effects of PB on MP.

Resilience is one of the components of psychological capital (an individual's positive state of psychological development), which is also composed of self-efficacy, hope, and optimism (Luthans et al., 2007). It refers to the ability to recover from adversities, conflicts, failures, uncertainties, and positive changes based on increased responsibilities (Luthans et al., 2007).

Therefore, PB tends to improve this psychological capacity as well as MP in budget activities. These relations can be better understood from the perspective of the Social Cognitive Theory (SCT), which indicates that cognitive, personal, behavioral, and environmental factors, when interacting, influence an individual's action and development (Bandura, 1977). In this study, cognitive and personal factors can be understood as PR, behavioral factors are understood as MAs, and environmental factors, as incentives (Degenhart et al., 2022) for subordinates to participate in budgeting.

MAs also tend to be improved in the budgetary context from the moment when individuals participate in this process (Ni et al., 2009) and have developed the PR capacity. Job involvement (JI) refers to individuals' level of psychological identification with their jobs and the value of work for self-image (Kenis, 1979). Commitment to budget goal (CBG) is related to managers' commitment to goal setting and the effort applied to achieve them (Chong & Johnson, 2007). In this way, PB, together with PR, can increase individuals' JI and their CBG, producing positive effects on MP. The Affective Events Theory (AET) (Weiss & Cropanzano, 1996) explains these relations (Ni et al., 2009) by suggesting that individuals' behaviors at work are influenced by characteristics of the organizational environment, and the latter influence thoughts, feelings, and actions of individuals and organizations (Brief & Weiss, 2002).

Thus, through events that occur at work, individuals will have affective reactions, which will result in attitudes and behaviors (Weiss & Cropanzano, 1996). Individuals can feel different emotions, such as anger, frustration, pride, or joy, and these reactions imply different behaviors (Weiss & Cropanzano, 1996). Therefore, it is suggested that PB is an event that occurs at work and that positive affective reactions – as a result of this participation – would influence attitudes such as a greater JI and CBG, which, in turn, would result in better MP. Macinati et al. (2018) claimed that PB triggers cognitive-based mechanisms, which aim to align individual and organizational values. Therefore, such interactions are expected to determine MP.

In Brazil, there is little behavioral research on PB and MP, which underscores the relevance of the present study (Dani et al., 2017; Zonatto et al., 2019). Corroborating this finding, no studies to date have analyzed the relationship between PB and the PR variable, but previous research has addressed PB and psychological capital (Degenhart et al., 2022; Nascimento, 2017; Pradana, 2021; Schlup, 2018; Venkatesh & Blaskovich, 2012; Bangun, 2017). Furthermore, Degenhart et al. (2022) concluded that, together, psychological capital and MAs positively influence the relation between PB



and MP of controllers in budget activities, and such findings have motivated the research design proposed in the present study.

In this context, based on the above-mentioned research gap, this study seeks to answer the following question:

- What are the effects of PR and MAs on the relation between PB and MP?

The aim of the study is to analyze the effects of PR and MAs on the relationship between PB and MP of controllers in Southern Brazil. This study is thus relevant because more research is needed on PB and MP (Jacomossi et al., 2018) and on budgeting at the individual level, as evidenced in studies on attitudes and behaviors (Guidini et al., 2020). Another motivation is to understand, in the light of SCT (Bandura, 1977) and AET (Weiss & Cropanzano, 1996), how the cognitive effects of resilience and the affective effects of JI and CBG can influence the relation between PB and MP.

The study contributes to the field of knowledge by seeking to empirically understand the indirect effects of PB on MP through intervening variables. Therefore, the theoretical model of this study, centered on cognition and MAs, seeks to highlight the importance of investigating the perceptions of individuals who work in budgeting and showing which attitudes and behaviors tend to be improved in this context. The study contributes to the management accounting literature that examines behavioral aspects linked to the relationship between PB and managers' performance by seeking to understand the conditions (cognitive and affective) that lead PB to promote better performance in budget activities. These relations are analyzed in the light of the SCT and AET.

The findings can be useful for professionals who work in budget activities in organizations because insights into the influence of cognitive and affective variables on the relation between PB and MP will motivate managers to adopt better organizational practices. Thus, the more organizations develop positive attitudes in employees, the better the budget process and MP will be. In turn, they can affect the economic and financial performance of organizations.

THEORETICAL BACKGROUND AND HYPOTHESES

Enabling effects of participative budgeting

Resilience can be developed at work by superiors when they provide mechanisms for managers to make better decisions (Luthans et al., 2007).



One of these mechanisms may be participation in budget processes (Venkatesh & Blaskovich, 2012). When individuals participate in budget setting, they have influence over it in their units and the freedom to make suggestions (Kenis, 1979; Milani, 1975). Therefore, they feel motivated to achieve results. SCT (Bandura, 1977) can shed light on the relation between PB and PR since the incentive to participate – an environmental factor, according to this theory, when interacting with cognitive and personal factors – influences the development of resilience. This finding corroborates that of Ni et al. (2009), who argued that work environment characteristics could influence individuals' cognition.

To Venkatesh and Blaskovich (2012), resilient individuals can adapt to challenging situations since they have the cognitive abilities to overcome obstacles. PB encourages the development of this capacity because individuals who actively help to set budgetary objectives feel prepared to overcome adversities that may occur in this process (Venkatesh & Blaskovich, 2012). Therefore, PB fosters the development of resilience in subordinates (Bangun, 2017; Pradana, 2021; Venkatesh & Blaskovich, 2012) because, by participating in this process, they increase the probability of positive results in the face of risks and uncertainties (Venkatesh & Blaskovich, 2012). Studies have found a positive influence of PB on psychological capital (Degenhart et al., 2022; Nascimento, 2017; Schlup, 2018; Venkatesh & Blaskovich, 2012), but no studies to date have analyzed the effects of PB on PR itself. Thus, it is assumed that:

- H_1 : PB is positively associated with PR.

In addition to cognitive factors (PR), affective factors (JI and CBG) can also be developed and improved in individuals through participation in budget processes (Ni et al., 2009). The MAs analyzed in this study are JI and CBG. JI refers to how much individuals identify with their job, how much work affects their self-image, and how important individuals' self-image is in the workplace (Lodahl & Kejnar, 1965), which implies a link between employees and their job activities. A link is established between PB and JI when work activities pose challenges that demand specific skills, and tasks have clear goals and feedback (Siqueira, 2008).

According to Chong et al. (2006), PB increases the individual's involvement with their work. Studies have shown that PB has a positive influence on JI (Lunardi et al., 2019) and even a non-significant one (Kenis, 1979). AET provides further insights into the relation between PB and JI because the characteristics of the organizational environment affect individuals'

thinking, feeling, and actions, influencing their behaviors and attitudes (Brief & Weiss, 2002; Weiss & Cropanzano, 1996), which can be understood as employees' feelings about their work (Milani, 1975). Therefore, when subordinates feel involved in setting a budget and receive information from their superiors, they start to feel autonomous in budget planning activities (Milani, 1975). Consequently, they will present greater JI, will consider their work important, will feel satisfaction when performing their tasks and will be connected to them and will experience them intensely (Moynihan & Pandey, 2007; Siqueira, 2008). Thus, it is assumed that:

- H_2 : PB is positively associated with JI.

CBG corresponds to managers' involvement in the process of setting budget goals and the effort they apply to achieve them (Chong & Johnson, 2007). Studies have shown a positive relationship between PB and goal commitment (Chong & Johnson, 2007; Degenhart et al., 2022; Jermias & Yigit, 2013; Saidu & Musa, 2017). AET can help explain the relation between PB and CBG by suggesting that, in the face of events that occur at work, individuals have affective reactions, which will result in behavioral attitudes (Weiss & Cropanzano, 1996). Thus, when participating in budget-setting activities, employees may have feelings of involvement and budgetary control, and these feelings can increase CBG (Nguyen et al., 2019). PB makes employees feel confident, increases their sense of control, causes less resistance to change and improves commitment to budgeting decisions (Shields & Shields, 1998).

Therefore, when employees are involved in budget activities, they may feel free to express an opinion on the subject, and, as they have some influence over budgeting decisions (Milani, 1975), they feel more committed to achieving budget results in their department and make greater efforts to obtain them (Erez & Arad, 1986; Latham & Steele, 1983). Thus, it is believed that:

- H_3 : PB is positively associated with CBG.

Cognitive effects of psychological resilience

This study has also addressed the cognitive effect of PR on MAs and performance. According to Luthans et al. (2007), if individuals have the positive resource of PR, they cope with organizational difficulties, psychologically identify with their job (Kenis, 1979), become involved and strive to

achieve budget goals (Chong & Johnson, 2007). The influence of PR on MAs analyzed in the study can be addressed under the light of SCT because when cognitive and personal factors interact with behavioral and environmental ones, they encourage individuals' actions and development (Bandura, 1977). No studies to date have analyzed the effects of PR on MAs (JI and CBG) in the budgetary context. However, previous research has analyzed psychological capital and JI (Alessandri et al., 2018) and CBG (Degenhart et al., 2022), and positive results have been reported.

Through positive adaptation in the face of adversity and change, the resilience component can reduce the negative effect of work demands (Alessandri et al., 2018). Therefore, when individuals have developed their PR, they start to recover from negative and positive events (progress and increased responsibilities), adapt to unpredictable events (Luthans et al., 2007), and dedicate themselves to work, making stronger ties, identifying with their job, and recognizing the importance of their profession (Lodahl & Kejnar, 1965; Moynihan & Pandey, 2007). In addition, they will make greater efforts and be more committed to achieving budget goals in their area of responsibility (Erez & Arad, 1986; Latham & Steele, 1983). Therefore, it is assumed that:

- PR is positively associated with JI (H_4) and with CBG (H_5).

Resilience is a capacity that also tends to influence employees' performance (Luthans et al., 2007). Employees who develop greater resilience become prepared to face difficult situations and make the efforts required to achieve goals (Nascimento, 2017). Psychological capital, comprised of resilience and other capabilities, is considered to be a mechanism that positively relates to budgeting and performance (Venkatesh & Blaskovich, 2012). The positive mediating effect of psychological capital on the relation between PB and MP was reported in accounting research (Degenhart et al., 2022; Nascimento, 2017; Pradana, 2021; Schlup, 2018; Venkatesh & Blaskovich, 2012).

In addition, there are studies that used only one of the psychological capabilities (self-efficacy) as a mediating variable between PB and MP, revealing positive (Macinati et al., 2016) and non-significant effects (Ni et al., 2009) of self-efficacy in this relation. However, there are no studies that used only the psychological capacity of PR, a fact that motivates and gives relevance to the present study. It is expected that in situations with higher levels of PB, controllers have high levels of resilience and better MP.

- H_6 : PR is positively associated with MP.

Affective effects of managerial attitudes

The affective effects of MAs (JI and CBG) on the relation between PB and MP can be examined, according to AET, as affective issues that influence attitudes and behaviors (Weiss & Cropanzano, 1996). Venkatesh and Blaskovich (2012) argued that mental states and MAs are important mediating variables that tend to enhance the relationship between PB and MP when in the budgetary context.

In this sense, the more value individuals add to their work and the more satisfaction work brings to their lives (Lodahl & Kejnar, 1965; Moynihan & Pandey, 2007), the more involved they will be in setting budget goals and the more effort they will put into achieving them (Chong & Johnson, 2007). By being involved with work, it is assumed that they will make greater efforts and be more committed to achieving budget goals in their department (Erez & Arad, 1986; Latham & Steele, 1983). Thus, the following hypothesis was formulated:

- H₇: JI is positively associated with CBG.

Macinati et al. (2020) reported that JI improved MP. Alessandri et al. (2018) showed that JI has a positive mediating effect on the relationship between psychological capital and work performance. For Lunardi et al. (2019), controllers' involvement was considered to be positively associated with performance, and PB increased JI, thus improving MP.

MP is effective when employees experience a positive motivational state characterized by affection (Alessandri et al., 2018). Thus, it is assumed that the more involved controllers are with the budget process, the better they will perform in budget activities:

- H₈: JI is positively associated with MP.

Regarding CBG, the more committed individuals are to achieving budget goals, the better their overall performance will be in activities such as planning, investigation, coordination, evaluation, supervision, selection, negotiation, and representation (Mahoney et al., 1965). For Jermias and Yigit (2013), when committed to the budget goals, individuals tend to make more efforts to achieve them, and thus, there is a positive influence on MP. In this sense, CBG is a determining factor for MP when individuals are committed to goals, diligent, and persistent (Degenhart et al., 2022). These findings corroborate the positive results found by studies on the relation between

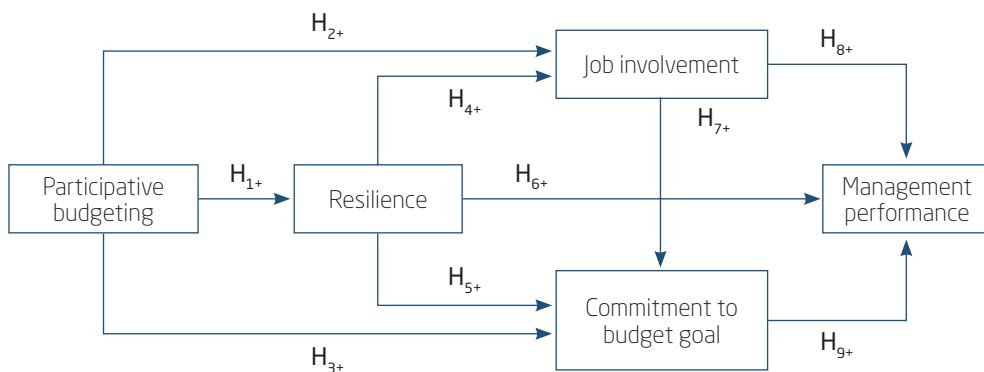
CBG and MP (Chong & Johnson, 2007; Degenhart et al., 2022; Jermias & Yigit, 2013). In this way, the following hypothesis was proposed:

- H_9 : CBG is positively associated with MP.

Figure 1 shows a summary of the theoretical relations investigated in the present study.

Figure 1

The theoretical model of analysis and research hypotheses



Source: Elaborated by the authors.

METHODOLOGICAL PROCEDURES

This study is characterized as descriptive, quantitative survey research. It describes the effects of PR and MAs on the relation between PB and MP. The population consisted of professional controllers of the 500 largest companies in Southern Brazil according to the ranking published in the *Revista Amanhã* magazine. The largest companies in this region of Brazil were selected for analysis because they have consolidated management practices, e.g., budgeting (Santos et al., 2021).

The sample consisted of 251 managers with budgetary responsibilities, 205 of whom were male. The predominant age range was between 30 and 40 years old (118 controllers out of the total number), and only 14 of them in the whole group were under 30 years. Regarding job tenure, the average was of eight years of activity. The average time working in the current position was of six years. The level of budget used for performance evaluation was high in these organizations (5.72 on average on a seven-point Likert scale).

There was a similar finding for the hierarchical level of the position currently held by these managers (5.78 points on average). An analysis was made of the perceptions of managers with budgetary responsibilities who work as controllers since this is a key role in companies aiming at successful activities (Palomino & Frezatti, 2016).

Table 1 shows the constructs used in this research.

Table 1
Research constructs

| Variables | Indicators/scale | Authors |
|---------------------------------|--|---|
| Participative budgeting (PB) | Six indicators/seven-point Likert scale* | Milani (1975) |
| Psychological resilience (PR) | Six indicators/six-point Likert scale* | Luthans et al. (2007) |
| Job involvement (JI) | Seven indicators/seven-point Likert scale* | Lodahl and Kejnar (1965), Moynihan and Pandey (2007), and Siqueira (2008) |
| Commitment to budget goal (CBG) | Five indicators/seven-point Likert scale* | Latham and Steele (1983) and Erez and Arad (1986) |
| Managerial performance (MP) | Nine indicators/seven-point Likert scale** | Mahoney et al. (1965) |

Source: Elaborated by the authors.

Note. * From 1 (strongly disagree) to 6 or 7 (strongly agree); ** from 1 (below average performance) to 7 (above average performance).

After the data collection instrument was elaborated, it was translated and then translated back by language experts. The collection instrument was also evaluated by a professor/researcher with a Ph.D. degree who is a specialist in the field of this research. The assertions were also analyzed by three managers from Brazilian organizations that had budgetary responsibilities. Subsequently, the final version of the research instrument was elaborated, with a final number of 33 questions. The pretest was applied to three controllers of large companies in Southern Brazil, who were considered possible survey respondents. After that, data collection was carried out between October 2020 and January 2021. An invitation to participate in the survey was sent through LinkedIn to managers of the targeted companies with a profile on the business networking platform. After the acceptance, they received the link to the questionnaire.

After the collection, the data were tabulated and imported to SPSS and SmartPLS softwares for statistical treatment. The analysis procedure involved frequency analysis, exploratory factor analysis (EFA), method bias test, discriminant validity test, and structural equation modeling (SEM), based on partial least squares. For EFA of the constructs, the following criteria were used: Cronbach's alpha (> 0.70), Kaiser-Meyer Olkin (KMO ≥ 0.50), Bartlett's test of sphericity ($p < 0.05$), factor loadings of the indicators (> 0.35) and commonalities (> 0.60) (Hair et al., 2009).

Subsequently, a discriminant validity analysis of the measurement constructs was made to check their suitability for using SEM. Finally, the relations observed in this study were evaluated with SEM, based on partial least squares, using the SmartPLS software. Table 2 shows the indicators applied to enable inferences about the theoretical validity, the adequacy of the measurement constructs, the goodness of fit of the structural model tested, and the significance of the investigated relations.

Table 2
Evaluation criteria for measurement constructs

| Criteria | Indicator | Expected value | Works |
|--|--|--|--|
| Discriminant validity | Fornell-Larcker criterion | Values of the square roots of average variance extracted (AVE) must be higher than the values of the correlations of the constructs. | Fornell and Larcker (1981) and Ringle et al. (2014) |
| Normality test | Collinearity statistic (variance inflation factor - VIF) | VIF < 5.00 | Hair et al. (2009) |
| Goodness of fit indicators of the structural model | Average variance extracted (AVE) | AVE > 0.50 | Henseler et al. (2009), Hair et al. (2014), and Ringle et al. (2014) |
| | Composite reliability (CR) | CR > 0.70 | |
| | R square (R^2) | Values greater than zero $R^2 > 0.00$ | Henseler et al. (2009), Hair et al. (2014), and Ringle et al. (2014) |
| Predictive relevance | Predictive relevance (Q^2) | Values greater than zero $Q^2 > 0.00$ | |

(continues)

Table 2 (conclusion)***Evaluation criteria for measurement constructs***

| Criteria | Indicator | Expected value | Works |
|---------------------------|---|---|--|
| Effect size | Effect size (f^2) | Values of 0.02, 0.15, and 0.35 are considered small, medium, and large, respectively. | Henseler et al. (2009), Hair et al. (2014), and Ringle et al. (2014) |
| Standardized coefficients | Student's t test (significance of investigated relations) | $t \geq 1.96$ $p < 0.05$ | |
| | Path coefficients | Values (positive or negative) in a range between -1 and +1. | |

Source: Adapted from Ringle et al. (2014).

RESULTS

The EFA results indicated the grouping of all variables in the respective measurement constructs. For all constructs, Cronbach's alpha coefficient was greater than 0.80, meeting the reliability assumptions. The indicators of the KMO test were higher than 0.70, showing statistical significance. For the total explained variance, the results were greater than 52% in all cases. These results indicate that the final composition of the measurement constructs has adequate explanatory power for the analysis of the theoretical relations investigated in this study, according to the parameters recommended by Hair et al. (2009).

The results of the descriptive statistical analysis revealed that all the indicators of the analyzed constructs presented minimum and maximum responses, suggesting disagreement and maximum agreement between the questions. Thus, it can be inferred that not all organizations for which the respondents work have a participative budget configuration. Not all managers participating in the research show resilience, are involved with their jobs and are committed to budget goals, nor do they perform better in budget activities. From the analyzed responses, the JI construct showed the lowest averages, while CBG, the highest ones. These findings reinforce the opportunity to carry out this study, which allows testing the combined interactive effects of different levels of PB, individual resilience, and MAs in MP, enabling the achievement of very relevant results for this field of study.

Since the analyzed data were collected from the same source (same respondent), Harman's single-factor test was used, as recommended by

Bido et al. (2018), to check the existence of common-method bias among the responses. The result of this test indicated that the constructs analyzed together generated six factors, with the first factor explaining only 30.61% of the total explained variance, which suggests the absence of method bias. Likewise, the analysis of the discriminant validity test, considering the Fornell-Larcker (1981) criterion, indicated that the values of the square roots of the AVE are higher than the values of the correlations of the measurement constructs, which suggests the discriminant validity of the structural model tested. In this way, SEM could be performed, and the relations – which are the object of study – could be tested.

Table 3 shows a summary of the results of the structural model fit indices.

Table 3
Fit and reliability indices of the tested model

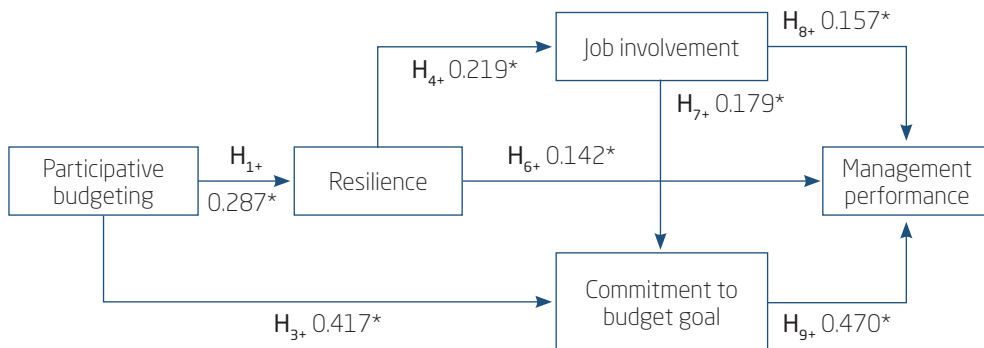
| Variables | Discriminant validity | | | | | Collinearity statistic (VIF) | | | |
|-----------|-----------------------|-------|-------|-------|-------|------------------------------|-------|-------|-------|
| | PB | PR | Jl | CBG | MP | PR | Jl | CBG | MP |
| PB | 0.825 | | | | | 1.000 | 1.090 | 1.091 | |
| PR | 0.287 | 0.720 | | | | | 1.090 | 1.140 | 1.084 |
| Jl | 0.101 | 0.230 | 0.793 | | | | | 1.058 | 1.097 |
| CBG | 0.447 | 0.204 | 0.231 | 0.919 | | | | | 1.084 |
| MP | 0.448 | 0.273 | 0.298 | 0.535 | 0.781 | | | | |

| Variables | Reliability and goodness of fit indicators | | | | | |
|-----------|--|---------------------------|------------------|-----------|--|-------------------------------|
| | AVE | Compound reliability (CR) | Cronbach's alpha | R squared | Predictive relevance (Q ²) | Effect size (f ²) |
| PB | 0.681 | 0.927 | 0.904 | | | 0.543 |
| PR | 0.518 | 0.864 | 0.815 | 0.082 | 0.038 | 0.327 |
| Jl | 0.630 | 0.922 | 0.902 | 0.054 | 0.032 | 0.500 |
| CBG | 0.844 | 0.964 | 0.954 | 0.237 | 0.191 | 0.758 |
| MP | 0.610 | 0.934 | 0.920 | 0.337 | 0.196 | 0.511 |

Source: Elaborated by the authors.

In the theoretical model tested (Figure 1), it was found that the path that evaluates the effects of PB on Jl did not present significant values, and neither did the path that evaluates the relation between PR and CBG. The other relations were confirmed in the study, as can be seen in Figure 2.

Figure 2
Estimates of refined structural model paths



Source: Elaborated by the authors.

* Statistical significance.

Based on these results, it was found that PB enhances PR and CBG, leading to better MP under conditions of higher PR levels, JI is enhanced, which results in better CBG and performance in budget activities. PR and CBG are constraints for achieving better MP through the participation of managers in budget processes. These results indicate the cognitive (PR) and affective (CBG) effects of participation on performance.

ANALYSIS AND DISCUSSION OF THE RESULTS

Table 4 shows the standardized coefficients and the significance of the relations tested.

Table 4
Standardized coefficients and significance of the relations of the tested model

| Structural paths | Standardized coefficients | Standard error | t values | ρ | R ² | Hypotheses | Results |
|------------------|---------------------------|----------------|----------|--------|----------------|-----------------|---------------|
| PR ← PB | 0.287 | 0.086 | 3.326 | 0.001 | 0.082 | H ₁₊ | Supported |
| JI ← PB | 0.038 | 0.079 | 0.487 | 0.627 | 0.054 | H ₂₊ | Not supported |
| JI ← PR | 0.219 | 0.072 | 3.039 | 0.002 | 0.054 | H ₄₊ | Supported |

(continues)

Table 4 (conclusion)**Standardized coefficients and significance of the relations of the tested model**

| Structural paths | Standardized coefficients | Standard error | t values | ρ | R ² | Hypotheses | Results |
|------------------|---------------------------|----------------|----------|--------|----------------|-----------------------------|---------------|
| CBG ← PB | 0.417 | 0.088 | 4.749 | 0.000 | 0.237 | H ₃ ⁺ | Supported |
| CBG ← PR | 0.043 | 0.080 | 0.541 | 0.589 | 0.237 | H ₅ ⁺ | Not supported |
| CBG ← JI | 0.179 | 0.059 | 3.031 | 0.003 | 0.237 | H ₇ ⁺ | Supported |
| MP ← PR | 0.142 | 0.060 | 2.346 | 0.019 | 0.337 | H ₆ ⁺ | Supported |
| MP ← JI | 0.157 | 0.056 | 2.786 | 0.006 | 0.337 | H ₈ ⁺ | Supported |
| MP ← CBG | 0.470 | 0.089 | 5.256 | 0.000 | 0.337 | H ₉ ⁺ | Supported |

Source: Elaborated by the authors.

Regarding the analysis of the enabling effects of PB on PR and MAs, the findings show that PB positively influences PR, thus, H₁ – PB is positively associated with PR – is supported. This finding converges with previous studies by Bangun (2017), Degenhart et al. (2022), Nascimento (2017), Pradana (2021), Schlup (2018), and Venkatesh and Blaskovich (2012), who found a positive influence of PB on psychological capital, with PR as one of its components.

The results indicate that when controllers are faced with higher PB levels, and they feel that they have influence over budgeting decisions in their units and actively participate in this process (Milani, 1975), they can more easily overcome situations of uncertainty, risks, and conflicts in the corporate environment (Luthans et al., 2007). This finding also suggests that PB is an important source of success, as it provides budget managers with the opportunity to interact with their superiors to receive feedback on their personal beliefs, cognition, and experience so that they can carry out their budget-related tasks (Pradana, 2021). Involvement in the budget process can also exert positive psychological pressure on controllers, who can improve their self-potential through increased resilience and other components of psychological capital (Bangun, 2017).

There was a non-significant relation between these variables regarding the path that investigates the enabling effects of PB on JI. Thus, H₂ is not supported – PB is positively associated with JI. This result corroborates the findings of Kenis (1979) and differs from the results reported by Lunardi

et al. (2019). It suggests that, for the researched sample, active participation in defining the budget of their units does not directly reinforce the feeling of involvement with work, and affective effects (JI) are influenced by other variables in the controllers' budgetary context. In this way, the level of individuals' psychological identification with work and the influence work has on their self-image (Kenis, 1979) are enhanced by other characteristics of the work environment, such as PR, as found in this study.

For the effects of PB on CBG, there was a positive and significant influence between the variables, a result that allows H_3 – PB is positively associated with CBG – to be supported. These results show that when employees are involved in the budget process of their unit, give opinions and make suggestions about the budget and its process (Milani, 1975), they apply more effort and commit to achieving the budget goals of their area of responsibility (Erez & Arad, 1986; Latham & Steele, 1983). These findings are in line with those found by Chong and Johnson (2007), Degenhart et al. (2022), Jermias and Yigit (2013), and Saidu and Musa (2017). Thus, the controllers who participated in the present study were committed to budget goals, involved in the budget setting and made efforts to achieve these goals (Chong & Johnson, 2007) when there was a greater PB.

The analysis of the cognitive effects of PR on MAs and on performance showed that resilience has a positive influence on JI and MP. In this way, H_4 and H_6 – PR is positively associated with JI and MP, respectively – are supported. This finding is consistent with the literature that analyzed psychological capital and JI (Alessandri et al., 2018). Based on this result, it is suggested that controllers who have a positive attitude in the face of adversity react positively to organizational problems (Luthans et al., 2007), have greater JI, consider their job something they like to do the most, experience their duties intensely and consider that their best hours are those experienced at work (Lodahl & Kejnar, 1965; Moynihan & Pandey, 2007; Siqueira, 2008). This result corroborates the arguments of Macinati et al. (2018) when addressing that highly involved employees feel psychologically present at work, connected and integrated with activities. In this way, they show greater interest in their work and persistence in the face of difficulties.

Likewise, the positive result of PR and MP corroborates the findings of Bangun (2017), Degenhart et al. (2022), Nascimento (2017), Pradana (2021), Schlup (2018) and Venkatesh and Blaskovich (2012). However, such studies did not analyze resilience individually but rather the construct of psychological capital. This result also suggests that controllers who present higher levels of resilience, who reacted positively to unpredictable events in

the work environment and to their duties at work, *i.e.*, dealt adequately with difficulties and stressful situations in the organizational environment (Luthans et al., 2007), improved their levels of performance in budget activities regarding planning, investigation, coordination, evaluation, supervision, selection, negotiation and representation and improved their overall performance in budget-related activities (Mahoney et al., 1965). This finding also reveals that the psychological capabilities of psychological capital – namely, resilience – are focused on improving the mental strength of managers, thus leading to an increase in MP. The reason is that employees with such developed capabilities believe that they can carry out all the work assigned to them and achieve budget goals (Pradana, 2021).

For PR and CBG, there was no significant direct relationship between these variables. Therefore, H_5 – PR is positively associated with CBG – is not supported. In view of this finding, PR is not enough to directly and significantly influence CBG; rather, the participation of controllers in budget processes helps to increase their commitment and achieve budget goals. No studies were found to have tested the PR construct with CBG. However, the four positive capacities of psychological capital were tested with CBG. Degenhart et al. (2022) found a positive and significant influence of psychological capital on controllers' CBG, and this finding is different from those reported in the present study. This result suggests that for PR to exert a direct and significant influence on CBG, these individuals may need other positive capabilities of psychological capital and active participation in the budget process.

Also, as proposed in this study, an analysis was made of the affective effects of MAs on performance. As for the direct effects of JI on CBG, it can be inferred that there is a direct and positive influence between these variables. Thus, H_7 – JI is positively associated with CBG – is supported. These findings also show that for the researched sample, the controllers who feel more involved in their work (Moynihan & Pandey, 2007; Siqueira, 2008) are more committed to budget goals and consider it important to achieve them in their area of responsibility (Erez & Arad, 1986). According to Bangun (2017), individuals who are actively involved in the budget process tend to do their best so that the team's potential can be developed to achieve the goals set for a given period.

This study also demonstrated the existence of a direct influence on the relation between JI and MP and CBG and MP. Based on these results, H_8 and H_9 – JI is positively associated with MP, and CBG is positively associated with MP, respectively – are supported. These results are in line with the literature, which indicates a positive relation between JI and MP (Lunardi et al.,

2019; Macinati et al., 2018). Also, they reveal that performance in budget activities is improved when employees experience a positive motivational state characterized by affection (Alessandri et al., 2018). The respondents of the present study who were involved in work performed their duties more intensely (Moynihan & Pandey, 2007; Siqueira, 2008) and had a better MP (Mahoney et al., 1965). These results suggest that managers who dedicate themselves to fulfilling their duties work with greater intensity, focus, and cognitive and emotional connection with the tasks that they are responsible for, which results in better MP (Macinati et al., 2020).

These results are also supported by the literature when considering the direct and positive influence of BGC on MP (Chong & Johnson, 2007; Degenhart et al., 2022; Jermias & Yigit, 2013). This result indicates that controllers' increased performance in activities involving planning, investigation, coordination, evaluation, supervision, selection, negotiation, and representation (Mahoney et al., 1965) depends on greater BGC and on the effort made to achieve them in their area of responsibility (Erez & Arad, 1986).

In general, regarding the analysis of the intervening effects of RE and MAs on the participation-performance relation, it can be inferred that PB indirectly and positively influences the MP of controllers of the Southern Region of Brazil through RE and MAs (BGC). These findings reveal that the more participative controllers are in the budget activities of the companies that they work for, the more developed their PR tends to be, resulting in better MP and CBG. Thus, there were clear cognitive and affective effects of participation on performance. Therefore, the results indicate that PR and CBG are determinant variables for controllers' performance in budget activities, and such elements can be enhanced when these managers participate in budget processes. Another relevant result is that PR enhances controllers' job involvement, which may also lead to improved performance.

The results of the present study converge with the assumptions of SCT and AET, allowing the findings to be analyzed from two perspectives, the cognitive and the affective ones. Regarding SCT (Bandura, 1977), the results corroborate the interactionist effects of contextual, cognitive, and personal factors, *e.g.*, their influence on human behavior at work, since the actions of employees are influenced by factors of the organizational environment (PB), affecting, in a way, individuals' cognition (PR) and affective issues relative to the budgetary context (PB and CBG). In this way, controllers make greater efforts to achieve better MP in budget activities in conditions that present higher cognitive levels of PR, positively affecting attitudes and behaviors at work.

From the perspective of AET (Weiss & Cropanzano, 1996), based on events in the organizational environment, employees react emotionally to these events, which influences behaviors and attitudes. In this case, when controllers participate in setting budget goals, they can improve not only cognition (PR) but also their attitudes. As a consequence, in this context, there are positive affective effects on CBG and JI, which results in a better MP. PB can lead to the achievement of goals because employees are involved in challenging planning and problem-solving tasks and have influence or control over the budget, which are considered effective events in the budgetary context. Therefore, it is important for superiors to enhance controllers' cognitive and affective variables, given their positive performance benefits.

CONCLUSION

The findings indicated that participation in budget decision-making has direct effects on PR and CBG and indirect effects on MP through PR and CBG. Therefore, the positive effect of PB on attitudinal and behavioral variables and on performance was validated through the SCT and AET perspectives. In addition, PR leverages MP in budget activities through the involvement of controllers in the budget process. Therefore, higher PR levels reflect higher JI and better performance. In turn, the direct effects of PR on CBG were not significant, nor were the effects of PB on JI. These results suggest that the involvement of controllers with budgeting targets depends on the enabling effects of PB and that JI is enhanced through cognitive issues such as PR.

Based on the evidence found in this study, it can be inferred that the organization's budgetary configuration influences employees' PR levels and CBG and, consequently, produces cognitive and affective effects on MP in budget activities. Organizations that embrace participatory budgeting are more likely to improve the resilience and CBG levels of controllers who work directly in budget activities and, thus, indirectly promote better levels of JI and MP.

These findings suggest the conditioning effects of PR and CBG levels on the relationship between participation and performance in budget activities, thus determining their consequent effects on JI and MP. Such findings help explain the cognitive mediating effects of PR and the affective effects of MAs on the relationship between participation and performance, *i.e.*, they show that the effects of PB on MP may not come from a simple causal relation, but rather, as a result of certain conditioning factors (Lunardi et al., 2020).



These findings show the conditions under which PB leads to better MP, contributing to the field of research and the understanding of how the researched variables interact. This study makes a relevant contribution to the literature by making an analysis of the cognitive and affective effects of PB on MP and providing further insights into the field of research on behavioral and managerial accounting.

In practical terms, the results can offer managers some guidance on how they can take measures to ensure that controllers have effective cognitive and affective support to develop their budget activities. Therefore, the results have significant managerial implications because they show that controllers respond to organizational practices (PB) and how their cognition (PR) and affective behaviors (JI and CBG) can be adequate to improve MP. In other words, the results provide guidelines for managers to enhance such issues in organizations and thus guarantee the support required with regard to the environmental, cognitive, and behavioral issues that influence the development of activities in the budgetary context.

Therefore, for budgeting practices to be effective in increasing positive PR and MAs in controllers, an information-sharing approach should be considered in organizations, involving those responsible for making budget-related decisions and considering PB a means of enhancing results and MP. Controllers may also focus on the need to develop programs that include feedback on performance, with a view to participating more actively in budget processes and, thus, improving their cognitive and affective values at work. As PB triggers positive attitudes, cognition, and behaviors in employees, managers can monitor improvements in employee performance to design their work activities with a view to improving MP in budget activities (Macinati et al., 2018).

In addition to its contributions, this study has limitations, which point out to the need for future research. The generalization of the results is limited because the sample consisted of controllers from companies in Southern Brazil. Future research may extend the external validity of the results to other Brazilian regions. Another limitation is the fact that the association between the variables cannot prove causality owing to the cross-sectional nature of the study and the theoretical stance adopted by the variables in the theoretical model. Experimental studies can also demonstrate how causal relations can occur between the variables proposed in this study. Future research should also address antecedents of PB and the use of other psychological abilities with behavioral variables (*e.g.*, trust in superiors, satisfaction, and motivation at work).



REFERENCES

- Alessandri, G., Consiglio, C., Luthans, F., & Borgogni, L. (2018). Testing a dynamic model of the impact of psychological capital on work engagement and job performance. *Career Development International*, 23(1), 33–47. <https://doi.org/10.1108/CDI-11-2016-0210>
- Bandura, A. (1977). *Social learning theory*. Prentice-Hall.
- Bangun, N. (2017). Budgetary participation and managerial performance through psychological capital and perception of innovation. *Journal Akuntansi*, 21(2), 278–301. <https://doi.org/10.24912/ja.v21i2.199>
- Bido, D., Mantovani, D. M. N., & Cohen, E. D. (2018). Destrução de escalas de mensuração por meio da análise factorial exploratória nas pesquisas da área de produção e operações. *Gestão & Produção*, 25(2), 384–397. <https://doi.org/10.1590/0104-530X3391-16>
- Brief, A. P., & Weiss, H. M. (2002). Organizational behavior: Affect in the workplace. *Annual Review of Psychology*, 53, 279–307. <https://doi.org/10.1146/annurev.psych.53.100901.135156>
- Chong, V. K., Eggleton, I. R. C., & Leong, M. K. C. (2006). The multiple roles of participative budgeting on job performance. *Advances in Accounting*, 22, 67–95. [https://doi.org/10.1016/S0882-6110\(06\)22004-2](https://doi.org/10.1016/S0882-6110(06)22004-2)
- Chong, V. K., & Johnson, D. M. (2007). Testing a model of the antecedents and consequences of budgetary participation on job performance. *Accounting and Business Research*, 37(1), 3–19. <https://doi.org/10.1080/00014788.2007.9730055>
- Dani, A. C, Zonatto, V. C. S., & Diehl, C. A. (2017). Participação orçamentária e desempenho gerencial: Meta-análise das relações encontradas em pesquisas da área comportamental da contabilidade. *Advances in Scientific & Applied Accounting*, 10(1), 54–72. <http://dx.doi.org/10.14392/asaa.2017100104>
- Degenhart, L., Zonatto, V. C. S., & Lavarda, C. E. F. (2022). Efeitos do capital psicológico e atitudes gerenciais na relação entre participação orçamentária e desempenho. *Revista Contabilidade & Finanças*, 33(89), 216–231. <https://doi.org/10.1590/1808-057x202113790>
- Derfuss, K. (2016). Reconsidering the participative budgeting-performance relation: A meta-analysis regarding the impact of level of analysis, sample selection, measurement, and industry influences. *British Accounting Review*, 48(1), 17–37. <https://doi.org/10.1016/j.bar.2015.07.001>

- Erez, M., & Arad, R. (1986). Participative goal-setting: Social, motivational, and cognitive factors. *Journal of Applied Psychology*, 71(4), 591–597. <https://doi.org/10.1037/0021-9010.71.4.591>
- Etemadi, H., Dilami, Z. D., Bazaz, M. S., & Parameswaran, R. (2009). Culture, management accounting and managerial performance: Focus Iran. *Advances in Accounting, Incorporating Advances in International Accounting*, 25(2), 216–225. <https://doi.org/10.1016/j.adiac.2009.08.005>
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 1–15. <https://doi.org/10.1177/002224378101800313>
- Guidini, A. A., Zonatto, V. C. S., Degenhart, L., & Schlup, D. (2020). Evidências da relação entre participação orçamentária, ambiguidade de papéis e o desempenho gerencial. *Cuadernos de Contabilidad*, 21, 1–27. <https://doi.org/10.11144/Javeriana.cc21.erpo>
- Hair, J. F., Jr., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2009). *Análise multivariada de dados*. (9. ed.). Bookman.
- Hair, J. F., Jr., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106–121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In R.R. Sinkovics, & P. N. Ghauri (ed.) *New Challenges to International Marketing* (Advances in International Marketing, (20)), Emerald Group Publishing Limited, Bingley. 277–319. [https://doi.org/10.1108/S1474-7979\(2009\)0000020014](https://doi.org/10.1108/S1474-7979(2009)0000020014)
- Jacomossi, F., Schlup, D., & Zonatto, V. C. S. (2019). Efeitos da participação orçamentária na relação entre ambiguidade e conflito de papéis e o desempenho gerencial. *Advances in Scientific & Applied Accounting*, 11(3), 391–409. <http://dx.doi.org/10.14392/asaa.2018110302>
- Jermias, J., & Yigit, F. (2013). Budgetary participation in Turkey: The effects of information asymmetry, goal commitment, and role ambiguity on job satisfaction and performance. *Journal of International Accounting Research*, 12(1), 29–54. <https://doi.org/10.2308/jiar-50385>
- Kenis, I. (1979). Effects of budgetary goal characteristics on managerial attitudes and performance. *The Accounting Review*, 54(4), 707–721. <https://www.jstor.org/stable/245627>

- Latham, G. P., & Steele, T. P. (1983). The motivational effects of participation versus goal setting on performance. *Academy of Management Journal*, 26(3), 406–417. <https://psycnet.apa.org/doi/10.2307/256253>
- Lodahl, T. M., & Kejnar, M. (1965). The definition and measurement of job involvement. *Journal of Applied Psychology*, 49(1), 24–33. <https://doi.org/10.1037/h0021692>
- Lunardi, M. A., Zonatto, V. C. S., & Nascimento, J. C. (2019). Effects of job involvement, managerial attitudes, and information sharing on controllers' performance in the budgetary context. *Review of Business Management*, 21(3), 540–562. <https://doi.org/10.7819/rbgn.v21i3.4000>
- Lunardi, M. A., Zonatto, V. C. S., & Nascimento, J. C. (2020). Efeitos cognitivos mediadores do compartilhamento de informação na relação entre participação orçamentária e desempenho gerencial. *Revista Contabilidade & Finanças*, 31(82), 14–32. <http://dx.doi.org/10.1590/1808-057x201908610>
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. Oxford University Press.
- Macinati, M. S., Bozzi, S., & Rizzo, M. G. (2016). Budgetary participation and performance: The mediating effects of medical managers' job engagement and self-efficacy. *Health Policy*, 120(9), 1017–1028. <https://doi.org/10.1016/j.healthpol.2016.08.005>
- Macinati, M. S., Nieddu, L., & Rizzo, M. G. (2018). Examining the role of value congruence, professional identity, and managerial job engagement in the budgetary participation-performance link. *Health Care Management Review*, 45(4), 290–301. <https://doi.org/10.1097/HMR.0000000000000231>
- Mahoney, T. A., Jerdee, T. H., & Carroll, S. J. (1965). The job(s) of management. *Industrial Relations: A Journal of Economy and Society*, 4(2), 97–110. <https://doi.org/10.1111/j.1468-232X.1965.tb00922.x>
- Milani, K. (1975). The relation of participation in budget-setting to industrial supervisor performance and attitudes: Field study. *The Accounting Review*, 50(2), 274–284. <https://www.jstor.org/stable/244709>
- Monteiro, J. J., Rengel, R., Lunkes, R. J., & Lavarda, C. E. F. (2020). Efeito da participação orçamentária no desempenho gerencial mediado pela satisfação no trabalho e justiça procedimental. *Advances in Scientific and Applied Accounting*, 1(1), 206–226. <https://doi.org/10.14392/asaa.2020130311>
- Moynihan, D. P., & Pandey, S. K. (2007). Finding workable levers over work motivation: Comparing job satisfaction, job involvement, and organizational commitment. *Administration & Society*, 39(7), 803–832. <https://doi.org/10.1177/0095399707305546>



- Nascimento, J. C. (2017). *Efeitos do capital psicológico de controllers em atitudes, comportamentos e no desempenho gerencial sob o contexto orçamentário*. [Dissertação de mestrado não publicada]. Universidade Regional de Blumenau.
- Nguyen, N. P., Evangelista, F., & Kieu, T. A. (2019). The contingent roles of perceived budget fairness, budget goal commitment and vertical information sharing in driving work performance. *Journal of Asian Business and Economic Studies*, 26(1), 98–116. <https://doi.org/10.1108/JABES-06-2018-0026>
- Ni, F.-Y., Su, C.-C., Chung, S.-H., & Cheng, K.-C. (2009). Budgetary participation's effect on managerial outcomes: Mediating roles of self-efficacy and attitudes toward budgetary decision makers. *NTU Management*, 19(2), 321–347. <https://dx.doi.org/10.2139/ssrn.921322>
- Palomino, M. N., & Frezatti, F. (2016). Role conflict, role ambiguity and job satisfaction: Perceptions of the Brazilian controllers. *Revista de Administração (São Paulo)*, 51(2), 165–181. <https://www.scielo.br/j/rausp/a/JxvzyVQpZdn8q4SqNzh9Z5C/?lang=en>
- Pradana, B. G. V. (2021). The role of psychological capital and leader member-exchange on participatory budgeting and performance. *Media Ekonomi dan Manajemen*, 36(1), 11–26. <http://dx.doi.org/10.24856/mem.v36i1.1695>
- Ringle, C. M., Silva, D. da, & Bido, D. de S. (2014). Modelagem de equações estruturais com utilização do SmartPLS. *REMark-Revista Brasileira de Marketing*, 13(2), 56–73. <https://doi.org/10.5585/remark.v13i2.2717>
- Saidu, S. K., & Musa, B. (2017). Budgeting participation, goal commitment and accounting performance of Nigerian listed banks. *Saudi Journal of Business and Management*, 2(1), 19–23. <https://saudijournals.com/media/articles/SJBMS-2119-23.pdf>
- Santos, V., Beuren, I. M., & Marques, L. (2021). Desenho e uso justos do processo orçamentário e desempenho gerencial. *Revista Contabilidade & Finanças*, 32(85), 29–45. <https://doi.org/10.1590/1808-057x202010750>
- Schlup, D. (2018). *Efeitos mediadores do capital psicológico e da síndrome de burnout na relação entre participação orçamentária e desempenho gerencial*. [Dissertação de mestrado não publicada]. Universidade Regional de Blumenau.
- Shields, J. F., & Shields, M. D. (1998). Antecedents of participative budgeting. *Accounting, Organizations and Society*, 23(1), 49–76. [https://doi.org/10.1016/S0361-3682\(97\)00014-7](https://doi.org/10.1016/S0361-3682(97)00014-7)
- Siqueira, M. M. M. (2008). Envolvimento com o trabalho. In M. M. M. Siqueira (Org.), *Medidas do comportamento organizacional* (pp. 141–146). Artmed.



- Venkatesh, R., & Blaskovich, J. (2012). The mediating effect of psychological capital on the budget participation-job performance relationship. *Journal of Management Accounting Research*, 24(1), 159–175. <https://doi.org/10.2308/jmar-50202>
- Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. In B. M. & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 18, pp. 1–74). Elsevier Science, JAI Press.
- Zonatto, V. C. S., Weber, A., & Nascimento, J. C. (2019). Efeitos da participação orçamentária na assimetria informacional, estresse ocupacional e desempenho gerencial. *Revista de Administração Contemporânea*, 23(1), 67–91. <https://doi.org/10.1590/1982-7849rac2019170327>

EDITORIAL BOARD

Editor-in-chief
Gilberto Perez

Associated editor
Amalia Pérez-Nebra

Technical support
Gabriel Henrique Carille

EDITORIAL PRODUCTION

Publishing coordination
Jéssica Dametta

Editorial intern
Victória Andrade Rocha

Language editor
Paula Di Sessa Vavlis

Layout designer
Emap

Graphic designer
Libro