CADERNOS EBAPE.BR

FGV EBAPE

ARTICLE

Leadership style, enabling performance measurement system, managerial attitudes, and managerial performance: a mixed methods analysis

Jobson Ribeiro Cabral [1]
Micheli Aparecida Lunardi [1]
Vagner Horz [2]
Pedro Henrique da Silva Melo Pereira [3]

[1] Universidade Regional de Blumenau (FURB) / Programa de Pós Graduação em Ciências Contábeis e Administração, Blumenau – SC, Brazil

[2] Universidade Federal do Rio Grande (FURB) / Programa de Pós-Graduação em Contabilidade e Administração, Rio Grande – RS, Brazil
[3] Universidade Federal do Paraná (UFPR) / Programa de Pós Graduação em Contabilidade, Curitiba – PR, Brazil

Abstract

The study analyzed how initiating structure and consideration leadership styles affect enabling performance measurement systems (enabling PMS), managerial attitudes, and managerial performance. Data was collected through a survey completed by 219 managers from the 1,000 largest and best Brazilian companies, according to a ranking by Exame magazine in 2020. The analysis used partial least squares structural equation modeling and fuzzy set qualitative comparative analysis. The findings show that leadership styles (initiating structure and consideration) do not interfere with managerial attitudes; however, employees respond differently to the leadership style when the organization adopts formal mechanisms to communicate strategic goals and processes (enabling PMS). This result suggests that enabling PMS supports management activities and strengthens control mechanisms, contributing to managerial attitudes and managerial performance. Thus, leadership style influences enabling PMS, improving control practices, performance evaluations, managerial attitudes, and managerial performance. As for practical and theoretical implications, the study shows that aligned leadership style and enabling PMS favor a collaborative environment, fostering the expression of ideas, and increasing influence over work and performance perception.

Keywords: Leadership style. Enabling PMS. Managerial attitudes. Managerial performance.

Estilo de liderança, sistema de medição de desempenho habilitante, atitudes gerenciais e desempenho gerencial: uma análise com métodos mistos

Resumo

O estudo objetivou analisar o efeito dos estilos de liderança de estrutura inicial e consideração no sistema de medição de desempenho habilitante e nas atitudes gerenciais, e seus reflexos no desempenho gerencial. Para isso, foi aplicada uma survey aos gestores das mil maiores e melhores empresas listadas pela Revista Exame no ano de 2020, o que resultou em 219 respondentes. Os dados foram analisados utilizando modelagem de equações estruturais por mínimos quadrados parciais e análise comparativa qualitativa de conjunto fuzzy. Os achados demonstram que os estilos de liderança (estrutura inicial e consideração) não interferem nas atitudes gerenciais, no entanto, os colaboradores respondem de maneiras diferentes ao estilo de liderança quando combinado com os mecanismos formais na organização para comunicar metas e processos estratégicos (sistema de medição de desempenho habilitante). Isso demonstra que a utilização do sistema de medição de desempenho habilitante desempenha um papel de suporte nas atividades de gestão e no fortalecimento dos mecanismos de controle, contribuindo para atitudes gerenciais e para o desempenho gerencial. Assim, o estilo de liderança exerce efeito no sistema de medição de desempenho habilitante, o qual colabora com as práticas de controle e avaliações de desempenho, impactando as atitudes gerenciais e o desempenho gerencial. As implicações práticas e teóricas demonstram que o estilo de liderança e o sistema de medição de desempenho habilitante alinhados favorecem o ambiente colaborativo, fomentando a expressão de ideias e permitindo maior influência sobre o trabalho e a percepção de desempenho.

Palavras-chave: Estilo de liderança. PMS habilitante. Atitudes gerenciais. Desempenho gerencial.

Estilo de liderazgo, sistema de medición del desempeño habilitador, actitudes directivas y rendimiento directivo: un análisis de métodos mixtos

Resumen

El estudio tuvo como objetivo analizar el efecto de los estilos de liderazgo de estructura inicial y consideración en el sistema de medición de desempeño (PMS, por su sigla en inglés) habilitador y en las actitudes de los directivos y sus efectos en el rendimiento de la gestión. Para ello, se aplicó una encuesta a los directivos de las mil mayores y mejores empresas incluidas en la lista de la revista Exame en 2020, lo que dio como resultado 219 encuestados. Los datos se analizaron mediante un modelo de ecuaciones estructurales de mínimos cuadrados parciales y un análisis comparativo cualitativo de conjuntos difusos. Los resultados muestran que los estilos de liderazgo (estructura inicial y consideración) no interfieren en las actitudes directivas, sin embargo, los empleados responden de forma diferente al estilo de liderazgo cuando se combina con los mecanismos formales de la organización para comunicar los objetivos y procesos estratégicos (PMS habilitador). Esto demuestra que el uso del PMS habilitador juega un papel de apoyo en las actividades de gestión y en el fortalecimiento de los mecanismos de control, contribuyendo a las actitudes directivas y al rendimiento de los directivos. Por lo tanto, el estilo de liderazgo tiene un efecto sobre el PMS habilitador, que colabora con las prácticas de control y las evaluaciones del desempeño, influyendo en las actitudes de los directivos y en su rendimiento. Las implicaciones prácticas y teóricas muestran que el estilo de liderazgo y el PMS habilitador alineados favorecen un ambiente de colaboración, fomentando la expresión de ideas, permitiendo una mayor influencia sobre el trabajo y la percepción del desempeño.

Palabras clave: Estilo de liderazgo. PMS habilitador. Actitudes directivas. Desempeño directivo.

Article submitted on July 11, 2024, and accepted for publication on January 14, 2025.
[Translated version] Note: All quotes in English translated by this article's translator.

DOI: https://doi.org/10.1590/1679-395120240103x

INTRODUCTION

Leadership behavior in the organizational environment has attracted interest from management accounting researchers (Abernethy et al., 2010; Della Giustina et al., 2020; Dias & Borges, 2017; Hartmann et al., 2010; Nani & Safitri, 2021). Fleishman (1953) and Abernethy et al. (2010) highlight leadership styles in two strands: leadership style of consideration and leadership style of initiating structure. The leadership style of consideration (LSC) is characterized by leaders who are concerned about the well-being of their subordinates and are more relationship-oriented, as they have a friendly and trusting profile (Abernethy et al., 2010; Derue et al., 2011; Fleishman, 1953). The leadership style of initiating structure (LSI), in turn, directs subordinates with clear work instructions and performance targets to achieve the proposed objectives (Abernethy et al., 2010).

Another aspect explored by researchers in relation to the behaviour of leaders is managerial attitude, as highlighted by Hartmann et al. (2010) and Merchant and Van der Stede (2007), which is related to the set of behaviours, attitudes and decisions that managers adopt when carrying out their duties in the organization. These attitudes are fundamental to influencing employee performance, shaping the work environment and achieving organizational goals (Merchant & Van der Stede, 2007). However, such leaders need adequate managerial resources to effectively communicate these objectives and goals to be achieved.

The study by Van der Hauwaert et al. (2022) points to the Performance Measurement System (PMS) in the enabling configuration as a management support tool, in which they help the leadership to transmit, in a specific and general way, information to their subordinates about the development of their tasks. According to Adler and Borys (1996) and Kennedy and Widener (2019), enabling management controls allow employees to have greater responsibility and autonomy and, in addition, to have attitudes that are congruent with pre-established organizational objectives. In this sense, Martyn et al. (2024) discuss how PMS enhances the emergence of attitudes that balance informational dysfunctionality in achieving goals. Therefore, leaders who use PMS to evaluate the performance of their subordinates are more likely to have positive attitudes in their work environment and thus mitigate organizational control problems (Burney et al., 2017; Martyn et al., 2024; Van der Hauwaert et al., 2022).

Managers are able to understand the impact of their attitudes in relation to established performance measures, and thus align their actions with the proposed strategy, generating greater managerial performance (Hartmann et al., 2010; Van der Hauwaert et al., 2022). This relationship is explained by Bandura's Social Cognitive Theory (SCT) (1977a), which argues that individuals' actions and behaviors are related to their motor responses, verbal responses and interactions with the context in which they are inserted. According to SCT, there are factors that influence human development and action, such as behavioral factors (managerial attitudes) and cognitive factors (leadership style), influenced by the environment (PMS) (Bandura et al., 2008; Birnberg & Shields, 2020; Birnberg et al., 2006).

The relationship between leadership style, enabling PMS and employee attitudes in the workplace has been investigated by individual aspects of accounting practices. These aspects include the provision of feedback, access to information, target resources, visibility of processes and objective and subjective measures of performance (Hartmann et al., 2010; Van der Hauwaert et al., 2022). In this context, the following research objective was developed: to analyze the effect of leadership styles, initiating structure and consideration, on enabling PMS and managerial attitudes, and their effects on managerial performance.

The research is justified by the representativeness of the effect of leadership style on organizational results. Although it is known in the literature that the suggestion of management quality and its practices influence organizational performance, the discussion needs further empirical elucidation, since a generalized analysis still shows mixed effectiveness (Bloom et al., 2019; Ehmann et al., 2023). On the national scene, Degenhart et al. (2022) work on the importance of the figure of the leader and their attitudes in the behavior of their subordinates, making it possible to infer the existence of their impact on the performance of Brazilian companies. This relationship is relevant due to the wide degrees of sensitivity and the need for multi-criteria approaches when establishing performance metrics (Martyn et al., 2024).

In this way, the practical contribution of this study stands out, since the respondents perceive interactions between the PMS and the behaviour of individuals in organizational routines. The results also highlight how leadership styles (specifically LSC and LSI), when accompanied by the enabling PMS, contribute to performance control and evaluation, strengthening strategies and alignment between managers and employees. In terms of theoretical implications, the study contributes to an understanding

of the effects of leadership styles on enabling performance systems and the impact that appropriate adjustments have on a collaborative environment that allows for the expression of ideas. This relationship indicates greater employee influence over their work, as well as increasing their sense of empowerment, resulting in more positive managerial attitudes that optimize employee performance.

THEORETICAL BASIS AND RESEARCH HYPOTHESES

Leadership style and managerial attitudes

Leadership research is an important area of management and organizational behavior literature (Abernethy et al., 2010; Isa & Syah, 2021; Kieling et al., 2023; Simons & Dávila, 2021). Leadership is the process of influencing individuals to understand and agree on what needs to be done and how to do it, as well as being the means of facilitating individual and collective efforts to achieve shared goals (Abernethy et al., 2010). Kennedy and Widener (2019) highlight the role of the leader as an important mechanism for fostering socialization and promoting practices that are congruent with organizational objectives.

Fleishman (1953) discusses two leadership characteristics: LSC and LSI. The individual with characteristics of the consideration leadership style is characterized not only by a leader concerned with the well-being of subordinates, but also by one who wishes to have subordinates involved in the company's decision-making (Abernethy et al., 2010). Initiating structure leadership, on the other hand, shows that the leader structures their own role and that of their subordinates through the use of procedures, as well as formal and informal controls that guide and monitor performance (Abernethy et al., 2010).

Hartman et al. (2010) stated that, in the management accounting literature, the way leaders evaluate/measure employee performance is an important factor in determining their managerial attitudes. In this sense, Weber et al. (2002) explained that attitudes are a condition in which people respond to patterns of choice, and that they are related to the individual's tendency to respond to certain objects that end up influencing people's actual behavior. However, their effects can be reduced or enhanced depending on their leadership, and can culminate in better production methods, innovations and flexibilities that have an impact on performance and work activities (Crano & Prislin, 2006; Hartman et al., 2010; Kieling et al., 2023).

The SCT advocates that the individual's behavior (managerial attitudes) is influenced by a set of factors, for example, the cognitive factor (leadership style), which acting interactively influence each other, determining human action in a context of social interaction (Bandura, 1977b). Psychology-based research into leadership styles and managerial attitudes has linked these characteristics to mental/cognitive and behavioral states, respectively. In this sense, under the theoretical lens of Bandura's SCT (1977a), cognition is capable of influencing the individual's behaviour; in other words, leadership styles positively drive behaviour (managerial attitudes) and help achieve the critical factors of organizational success (Bedford et al., 2019; Simons & Dávila, 2021).

Hartman et al. (2010) point out that one of the objectives of leaders is to positively influence the expectations of subordinates to achieve organizational goals. These positive expectations (positive attitudes) increase personal rewards for subordinates so that they know the path to the goals to be achieved (Hartman et al., 2010; Isa & Syah, 2021; Martyn et al., 2024). In this sense, LSI is particularly relevant, since it aims to structure the roles of its subordinates to achieve organizational goals (Hartman et al., 2010). LSI leadership insists on meeting deadlines, decides in detail what will be done and how it should be done, and establishes clear channels of communication and clear patterns of work organization (Abernethy et al., 2010). In this context, the following research hypothesis was developed:

H1a: The leadership style of initiating structureis positively related to managerial attitudes.

In LSC, leaders develop a working atmosphere of mutual trust—with respect for the ideas and consideration for the feelings of subordinates—and which involves empowerment, allowing subordinates to have a voice in decision-making processes, supporting them to think for themselves and treating them fairly through individualized consideration (Abernethy et al., 2010; Martyn et al., 2024). Such leader characteristics influence the behavior (managerial attitudes) of subordinates (Abernethy et al., 2010; Hartman et al., 2010; Isa & Syah, 2021). When subordinates perceive that they can influence the outcomes of decisions and that they are participants in an equitable relationship with their leader, it is likely that their perception of justice

will be improved and they will have better managerial attitudes (Hartman et al., 2010; Kennedy & Widener, 2019). Thus, the research hypothesis was developed:

H1b: The leadership style of consideration is positively related to managerial attitudes.

Performance Measurement System (PMS)

In a business environment, a management control system (MCS) is used to facilitate the achievement of management objectives and to assess whether these objectives are being met (Abernethy et al., 2010). MCSs vary widely in design and generally include rules and procedures, codes of conduct, standards and performance measures, as well as monitoring and feedback mechanisms with incentives to guide and motivate employees to achieve organizational goals (Merchant & Van der Stede, 2007).

Among the research on management control systems, attention has been focused on the designers of performance measurement systems and their importance in business settings (Artz et al., 2012; Cabral et al., 2024; Ferreira & Otley, 2009; Merchant, 2006). A PMS is at the heart of most organizations, and its design should reflect their strategy (Merchant & Van der Stede, 2007).

As defined by Ferreira and Otley (2009), a PMS plays a supporting role in a wide range of management activities, including strategic processes involving strategy formulation and ongoing strategy implementation and management. Furthermore, by facilitating learning and change in this way, the PMS can support or facilitate emerging strategies (Artz et al., 2012).

Adler and Borys (1996) presented a typology of institutionalized bureaucracy in companies. In this approach, the authors identified dimensions that make up a system for users and applied these dimensions to the organizational context to explain enabling characteristics such as repair, internal transparency, global transparency and flexibility. The repair function allows users to repair their own processes, rather than interrupting their work when they encounter failures or deadlocks. Internal transparency follows the internal logic of operation and information about the state of the system, if available, is presented in a way that the user can understand. Global transparency refers to the understanding of the system and its ability to provide users with comprehensive information on the status of the entire production process. Flexibility, on the other hand, provides users with information and suggested options for deciding on the best adaptations (Adler & Borys, 1996; Souza & Beuren, 2018).

The PMS in the enabling configuration allows its users to observe the causal logic of their activities, both in local processes and in the company's overall results, providing the opportunity to adjust indicators to specific situations, as well as correcting problematic processes (Wouters & Wilderom, 2008). These aspects increase the likelihood of learning, as they stimulate the user's understanding of the logic of the process and provide information on the level of achievement of goals, which can improve managerial performance (Souza & Beuren, 2018).

Van der Hauwaert et al. (2022) point to PMS in the enabling configuration as a management support tool that helps leaders inform their subordinates specifically and generally about the progress of their tasks. Leaders use PMS to motivate their subordinates and alleviate organizational control problems (Van der Hauwaert et al., 2022). Employees are able to understand the impact of their actions on performance indicators, align their activities with the organizational strategy and thus achieve work performance (Cabral et al., 2024; Simons & Dávila, 2021; Souza & Beuren, 2018) as well as improve their managerial attitudes.

In this context, early-stage leaders who use the PMS to evaluate subordinates' performance are more likely to have positive attitudes in the workplace, reducing organizational management problems (Burney et al., 2017; Van der Hauwaert et al., 2022). This makes it possible to investigate in depth how leaders interfere in the configuration of an PMS and how this effect will influence the managerial attitudes and performance of middle managers. In this sense, the following research hypothesis was developed:

H2: There is a positive mediating effect of enabling PMS on the relationship between the leadership style of initiating structure and managerial attitudes.

On the other hand, LSC is relationship-oriented and influences the use of personal and cultural controls, bringing employees into line with the company's values (Abernethy et al., 2010). Leaders see PMS in the enabling configuration as a reactive way of solving organizational problems, being a channel for dialogue that prevents problems from happening (Isa & Syah, 2021; Van der Hauwaert et al., 2022). As such leadership also allows subordinates to have a voice in decision-making processes, it positively influences managerial attitudes (Abernethy et al., 2010; Hartman et al., 2010).

Bedford et al. (2019) point out that aspects related to human cognition can influence PMS. Bandura's Social Cognitive Theory (1977a) advocates that the environment (PMS) is a predictor capable of influencing behavior (managerial attitudes), while PMS interacts with the individual's cognitive processes to influence results at the company level. In this context, the following research hypothesis was developed:

H3: There is a positive mediating effect of enabling PMS on the relationship between the leadership style of consideration and managerial attitudes.

According to Brayfield and Crockett (1955), managerial attitudes influence individual performance in the workplace. The authors' findings were confirmed by Mia (1988), who showed that managers who were actively involved in the management process reported good attitudes and superior leadership performance. Cäker et al. (2021) also revealed that when managers' attitudes were proactive and positive, performance in management processes (in this case, budgeting) was also considered high. Thus, when managers have positive managerial attitudes, they will be able to achieve better results at work (managerial performance) (Cäker et al., 2021).

When leaders perceive the presence of PMS as administrative support, they may react differently to its effects, implying greater managerial attitudes (Cäker et al., 2021). Degenhart et al. (2022) pointed out that managerial attitudes improve managerial performance because individuals have a self-referential cognitive system that allows them to control their behavior, making them select the appropriate actions to be carried out in a given environment.

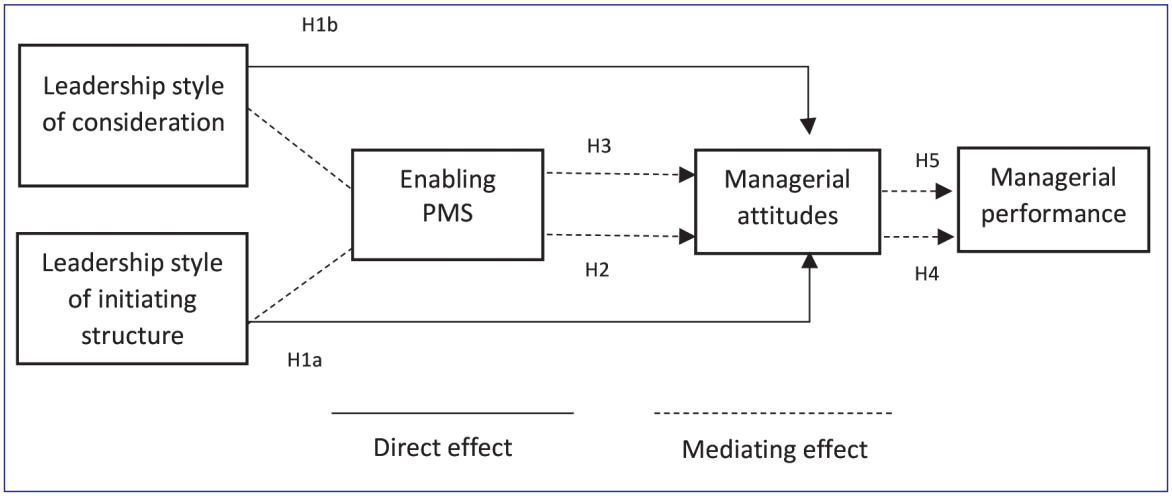
In this context, the leader's attitude can lead to greater managerial performance from subordinates. In addition, these leader attitudes may interfere with the configuration of the performance measurement system adopted by the organization, which will imply greater managerial attitudes in subordinates and managerial performance. Thus, the fourth and fifth research hypotheses were developed.

H4: There is a positive mediating effect of enabling PMS and managerial attitudes on the relationship between the leadership style of initiating structure and managerial performance.

H5: There is a positive mediating effect of enabling PMS and managerial attitudes on the relationship between the leadership style of consideration and managerial performance.

Figure 1 shows the research model. Additionally, two control variables are inserted into the model: age and length of service of the manager.

Figure 1
Search model



Note: PMS = performance measurement system.
Source: Elaborated by the authors.

ANALYSIS METHODS AND PROCEDURES

The target population of this study comprises the middle managers of the 1,000 largest and best companies listed by Exame magazine in 2020, who were invited to participate voluntarily via the LinkedIn platform between August and November 2022. The process of finding and approaching managers involved identifying those responsible for the planning and control, controlling, technology, quality and risk sectors, using corporate sources and platforms such as LinkedIn. After validating their information, we sent personalized invitations at strategic times—8 a.m., 12 noon and 5 p.m.—based on the greatest flow of access to the platform during these periods. To increase the take-up rate, we also sent scheduled reminders to those who didn't respond initially. In all, of the 2,601 invitations sent out, 219 managers took part, which resulted in a return rate of 8.42%, highlighting the rigor and exclusivity of this study's data collection.

The study sample covered diverse economic sectors, representing all five regions of Brazil. This geographical scope allowed for a more accurate representation of the characteristics of companies at a national level, taking into account geographical factors and possible cultural differences. The sample of 219 respondents is viable for the research, given that the minimum number recommended by the GPower 3.1.9.7 software was 129 respondents.

The commercial sector was the most representative, with 42.01% of the responses, followed by industry (33.79%) and services (24.20%). Of the 219 companies in the sample, 194 are publicly traded and 25 are privately held. Among the areas in which the companies operate, retail stands out, with a predominance over the commercial sector (31.96%). The industrial and service sectors have the greatest diversity in terms of their areas of activity, such as agribusiness (6.39%), food (5.48%), automation (5.02%), textiles (6.39%) and oil (5.02%) for industries; and financial services (4.11%), hospital services (4.57%) and information technology (8.68%) for the service sector.

With regard to the length of time these companies have existed, 11.42% have been in business for up to 10 years, 32.42% have been in business for between 10 and 50 years and 56.16% have been in business for over 50 years. With regard to the number of employees, 12 companies in the sample have up to 1,000 employees. Among the others, 2% have up to 100 employees and 3% up to 500 employees. Finally, 197 companies have more than 1,000 employees.

With regard to gender identification, 62.56% were male, 36.99% female and 0.46% preferred not to say. With regard to the predominant age group, 85 (38.27%) respondents were aged between 21 and 30; 34.70% were aged between 31 and 40; 26.03% were aged between 41 and 50; and only 1 (1%) professional was aged over 51, which represents 0.46% of the respondents. With regard to the academic qualifications of the 219 respondents, who work as analysts, supervisors, coordinators and

managers, it was found that all of them have completed higher education; 194 have completed postgraduate studies at a lato sensu level (specialization) in different areas; 60 have completed a master's degree; and only 3 participants have a doctorate.

To minimize possible failures resulting from common method bias (CMB) resulting from data collection using a single method (survey), measures were adopted in the construction of the questionnaire. These measures included incorporating didactic guidelines into the questionnaire and emphasizing the anonymity of the respondents, ensuring that the answers independently and impartially filled in all the items related to the study (Podsakoff & Organ, 1986). After data collection, Harman's single factor test was applied, which revealed a single factor explaining 34.85% of the variance. This result suggests that CMB did not have a significant impact on the research results (MacKenzie & Podsakoff, 2012), reinforcing the effectiveness of the preventive measures taken.

To assess non-response bias, this study compared early and late respondents at each stage of data collection via Student's t-test, using descriptive statistics to analyze key variables including demographic characteristics and survey responses. The analyses involved the application of means, medians, standard deviations and frequency distributions. No significant differences were identified between the early and late respondent groups. Consequently, we conclude that non-response bias does not represent a significant concern for the data in this study (Armstrong & Overton, 1977).

The research instrument was translated and revised by a language professional and then submitted to qualitative analysis by three management accounting researchers and two managers, with the aim of verifying understanding of the instrument. In addition, a pre-test was carried out with 15 PhD students with experience in the area of controllership, belonging to a Postgraduate Program in Accounting Sciences, in order to certify the understanding of the instrument.

The study used reflective constructs, which can be interpreted as a representative sample of all items potentially available in the construct's conceptual domain. This is because a reflective measurement model stipulates that all items reflect the same construct (Hair et al., 2017). Thus, the questionnaire was segregated into four blocks, the first being the enabling PMS, which was measured using the Van der Hauwaert et al. scale (2022) with the dimensions of repair, internal transparency, global transparency and flexibility from the study by Adler and Borys (1996). The second block was leadership style, which was adapted from the instrument by Abernethy et al. (2010), which seeks to assess the style of consideration and initiating structure.

The third block, regarding the construct of managerial attitudes towards the budget, was adapted from the instrument by Merchant and Van der Stede (2007). And finally, the third block, which assesses managerial performance, used the self-assessment instrument by Mahoney et al. (1963, 1965), in its version adapted by Zonatto et al. (2020)—all used a seven-point scale. Managers' age and length of service were used as control variables.

The software used in the study was SmartPLs 3.0.e. PLS-SEM was chosen because of its applicability in management research, its robustness in the absence of data normality and its ability to deal with models of a certain complexity (Hair et al., 2019), as well as allowing relationships between constructs to be tested (Hair et al., 2017). As a complementary technique, fsQCA was used, which identifies the combinations of conditions that lead to certain results (Ragin, 2008, 2009), proving relevant to complement the results obtained with PLS-SEM (Monteiro et al., 2022; Muñoz-Pascual et al., 2019).

In general, PLS-SEM allows hypotheses to be tested, while fsQCA is used in a complementary way to understand the possible organizational configurations that lead to achieving a high level of the investigated result (Cruz et al., 2022; Monteiro et al., 2022)—in this case, high managerial performance by managers.

DATA ANALYSIS

Quantitative approach: PLS-SEM

The PLS-SEM analysis begins with the evaluation of the measurement model (Table 1), where the reliability and validity of the factors were checked. For the Enabling PMS construct, a type I second-order modeling approach was applied, using the indicator repetition technique (Sarstedt et al., 2019). To calculate the Average Variance Extracted (AVE) and composite reliability (CR) of the second-order latent construct (Enabling PMS), calculations were performed in Microsoft Office Excel, using indicators of the external loadings, as recommended by Bido and Silva (2019). Table 1 shows the results of the measurement model obtained in this research.

Table 1
Measurement model

Panel A: Descriptive statistics, reliability and convergent validity						
Variables	Average	SD	α	rho_a	CR	AVE
1. Leadership style of consideration	5,76	1,27	0,926	0,929	0,944	0,772
2. Leadership style of initiating structure	6,06	1,11	0,922	0,925	0,942	0,764
3. Enabling PMS	6,10	0,93	0,958	0,960	0,962	0,866
4. Repair	6,21	0,92	0,908	0,908	0,942	0,844
5. Global transparency	6,09	0,98	0,838	0,838	0,925	0,861
6. Internal transparency	6,10	0,88	0,847	0,869	0,897	0,686
7. Flexibility	6,04	0,97	0,865	0,872	0,918	0,788
8. Managerial attitude	6,21	0,90	0,896	0,913	0,928	0,765
9. Managerial performance	5,61	1,09	0,869	0,877	0,901	0,604

Panel B: Calculation of CR e AVE second order		
Enabling PMS	Load	1 – Carga^2
Repair	0,949	0,099399
Global transparency	0,929	0,136959
Internal transparency	0,907	0,177351
Flexibility	0,938	0,120156
AVE		0,866
CR		0,962

Panel C: Discriminant validity – Fornell-Larcker criterion							
Variable	1	2	3	4	5	6	7
1. Leadership style of consideration	0.879						
2. Leadership style of initiating structure	0,729	0,874					
3. Enabling PMS	0,657	0,766	0,930				
4. Managerial attitude	0,552	0,581	0,784	0,874			
5. Managerial performance	0,334	0,423	0,513	0,536	0,777		
6. Age	-0,271	-0,356	-0,413	-0,274	0,069	-	
7. Operating time	0,230	0,308	0,277	0,095	0,139	0,585	-

(Continue)

Panel D: Discriminant validity – HTMT criterion							
Variable	1	2	3	4	5	6	7
1. Leadership style of consideration							
2. Leadership style of initiating structure	0,787						
3. Enabling PMS	0,695	0,809					
4. Managerial attitude	0,608	0,634	0,837				
5. Managerial performance	0,366	0,451	0,541	0,585			
6. Age	0,280	0,369	0,415	0,285	0,140		
7. Operating time	0,236	0,321	0,283	0,138	0,169	0,585	

Note: The bold values on the diagonal represent the square root of the AVE. α = Cronbach's alpha; AVE = *average variance extracted*; CR = composite reliability; SD = standard deviation; HTMT = *heterotrait-monotrait ratio of correlations*; PMS = performance measurement system; rho_a = average inter-item correlation.
Source: Elaborated by the authors.

From the confirmatory factor analysis, question LSC1 of the consideration leadership construct; LSI4 of the leadership style of initiating structure construct; AM3, managerial attitudes; and PM1, PM3 and PM5 of managerial performance were excluded. As for the other questions, they had a satisfactory factor loading (> 0.7), according to Hair et al. (2019). The internal reliability of the constructs was demonstrated by the consistency of Cronbach's alpha (α) with values above 0.70, while the CR showed satisfactory results (> 0.7) (Hair et al., 2019). The convergent validity of the model was confirmed, since the AVE value exceeded the appropriate limit of 0.5 (Hair et al., 2019).

Discriminant validity was established using the Fornell-Larcker criterion, in which the values in bold on the diagonal (square root of the AVE) were higher than the correlations between the constructs (Hair et al., 2017), and was verified using the heterotrait-monotrait ratio of correlations (HTMT) criterion, where the values obtained were lower than 0.85, as suggested by Hair et al. (2019). Once the validity of the measurement model had been proven, we moved on to the structural model, as shown in Table 2. The process used 5,000 resamples using the bootstrapping method, with bias-corrected and acceleration (BCA), as well as a two-tailed test.

Table 2
Structural model

Panel A: Research hypotheses						
Relationship	Hypothesis	Beta (β)	Value t	p-value	(5%; 95%)	Decision
LSI AM	H1a	-0,076	0,944	0,345	(-0,197;0,065)	Not Supported
LSC AM	H1b	0,106	1.180	0,238	(-0,047;0,247)	Not Supported
LSI Enab. PMS AM	H2	0,492	5.916	0,000***	(0,344;0,617)	Supported
LSC Enab. PMS AM	H3	0,169	1.878	0,060*	(0,052;0,343)	Supported
LSI Enab. PMS AM PM	H4	0,264	4.297	0,000***	(0,167;0,367)	Supported
LSC Enab. PMS MA PM	H5	0,090	1.784	0,074*	(0,028;0,191)	Supported
Age PM	-	-0,024	0,368	0,713	(-0,130;0,070)	-
Time of operation PM	-	0,142	2.319	0,020**	(0,145; 0,248)	-

Panel C: R2, Q2 e VIF			
Variable	R2	Q2	Maximum VIF
Enabling PMS	0,608	0,419	2,129
Managerial attitude	0,637	0,470	2.303
Managerial performance	0,287	0,158	1,796

Note: AM = managerial attitude; LSI = leadership style of initiating structure; LSC = Leadership style of consideration; Enab. PMS = enabling performance measurement system; PM = managerial performance; Q^2 = predictive variance; R^2 = explained variance; VIF = variance inflation factor. *p < 0,1; **p < 0,05; ***p < 0,01.

Source: Elaborated by the authors.

Discriminant validity was established using the Fornell-Larcker criterion, in which the values in bold on the diagonal (square root of the AVE) were higher than the correlations between the constructs (Hair et al., 2017), and was verified using the heterotrait-monotrait ratio of correlations (HTMT) criterion, where the values obtained were lower than 0.85, as suggested by Hair et al. (2019). Once the validity of the measurement model had been proven, we moved on to the structural model, as shown in Table 2. The process used 5,000 resamples using the bootstrapping method, with bias-corrected and acceleration (BCA), as well as a two-tailed test.

Table 2 shows the structural model and the hypotheses analyzed. H1a showed no significance for the relationship between leadership style of initiating structure and managerial attitude. H1b reveals a non-significant relationship between consideration leadership and managerial attitude. H2 shows a significant and positive relationship between leadership style of initiating structure, enabling PMS and managerial attitude. The role of enabling PMS in total mediations is highlighted (H3, H4 and H5). H3 shows a significant and positive relationship between considerate leadership, enabling PMS and managerial attitude. H4 shows a significant and positive relationship between leadership style of initiating structure, enabling PMS, managerial attitude and managerial performance. H5 shows a significant and positive relationship between consideration leadership, enabling PMS, managerial attitude and managerial performance.

Fuzzy-set qualitative comparative analysis (fsQCA)

To employ the fsQCA technique, we first calculated the construct scores by averaging the items and then set the values to 7, 4 and 1. In this way, the conditions (leadership style of consideration, leadership style of initiating structure, enabling pms and managerial attitude) and the outcome (managerial performance) were calibrated at 7 (full membership), 4 (crossover point) and 1 (no full membership), following the calibration procedures carried out by Bedford et al. (2016) and also by Galeazzo and Furlan (2018). The control variables (length of service and age) were calibrated by percentile at 0.95 (full membership), 0.50 (crossover point) and 0.05 (no full membership) (Muñoz-Pascual et al., 2019). For control variables that are different from likert scales, percentile scaling can be used (Ragin, 2008). The condition analysis was then carried out with a consistency of at least 0.8, representing conditions that are almost always necessary, and a consistency of at least 0.9, indicating conditions that are always necessary (Ragin, 2008). The results show that the variables leadership style of consideration (0.934), leadership style of initiating structure (0.9562), enabling PMS (0.981) and managerial attitude (0.986) are always necessary conditions. The study used the analysis of sufficient conditions for the desired result, i.e. high performance, to occur. A 26-row truth table was developed, which meets consistencies greater than 0.80, and single coverage above 0.25, indicating adequacy and considerable informative power, respectively (Ragin, 2008). Table 3 shows the solutions sufficient to achieve high performance from managers.

Table 3
Sufficient solutions for high performance

Variables	Settings for high performance	
	S1	S2
Leadership style of consideration	●	
Leadership style of initiating structure		●
PMS Enabling	●	●
Managerial Attitude	●	●
Time of Operation	●	●
Age	●	●
Gross Coverage	0,939	0,904
Single Coverage	0,028	0,041
Consistency	0,932	0,924
General Solution Coverage	0,959	
Overall Solution Consistency	0,926	

Note: ● = presence of condition; part without circles = indifferent condition; PMS = performance measurement system.
Source: Elaborated by the authors.

Table 3 shows two intermediate solutions that are sufficient to achieve high performance from managers. In the first solution (S1), it is necessary to have the presence of the consideration leadership style, the enabling PMS, the managerial attitude, the length of service and the age of the managers in order to achieve high performance. In the second solution (S2), the presence of the leadership style of initiating structure, enabling PMS, managerial attitude, length of service and age of managers is what leads to high performance.

Discussion of findings

The results presented do not support hypothesis H1a, indicating that the leadership style of initiating structure does not influence managerial attitudes. These findings diverge from those of Bedford et al. (2019), who point out that leadership styles have a positive impact on managerial attitudes and help to achieve critical organizational success factors.

H1b was not confirmed, with the leadership style of consideration not influencing managerial attitudes. This highlights that difficult tasks and goals may limit the unique impact of the LSC leadership style on employees' managerial attitudes. Hartman et al. (2010) highlight relevant factors for subordinates to seek results from decisions, such as participating in an equitable relationship with the leader and perceiving procedural justice, which leads to better managerial attitudes.

The relationships in H2 were confirmed, showing that the enabling PMS has a mediating effect on the relationship between the leadership style of initiating structure and managerial attitudes. The results indicate that employees perceive that their leaders provide support and the necessary resources to perform their duties, which favors managerial attitudes. Burney et al. (2017) and Van der Hauwaert et al. (2022) corroborate these findings and point out that leaders who use the PMS to evaluate subordinates' performance are more likely to have positive attitudes in the workplace, reducing organizational management problems.

The results suggest that employees may respond differently to the LSI leadership style when combined with the formal mechanisms in the organization for communicating strategic goals and processes, which can affect managerial attitudes. Thus, the LSI leadership style can favour the structure of subordinates' roles to achieve organizational goals (Hartman et al., 2010). This can be beneficial for employees who are starting out in a new position or who need more support to carry out their tasks, as clear guidance and defined work instructions can increase employees' confidence and managerial attitudes (Abernethy et al., 2010). The LSI leadership style collaborates by directing subordinates with clear work instructions and performance targets to achieve the proposed objectives (Abernethy et al., 2010).

H3 was confirmed, showing that enabling PMS has a mediating effect on the relationship between the considerate leadership style and managerial attitudes. The results show that the considerate leadership style is conducive to building trusting relationships between leader and employees, and enabling PMS strengthens control mechanisms, making employees feel confident that their leader supports them in their tasks—which positively affects their managerial attitudes. Abernethy et al. (2010) and Hartman et al. (2010) point out that LSC leadership allows subordinates to have a voice in decision-making processes, which also positively influences their managerial attitudes.

The LSC leadership style represents the social relationships created between supervisors and subordinates, characterized by a friendly and trusting profile (Abernethy et al., 2010; Fleishman, 1953). In this context, the use of certain performance measures can influence work-related managerial attitudes, depending on the leadership style adopted (Hartman et al., 2010).

Hartmann et al. (2010) demonstrate that enabling PMS reinforces leadership styles and attitudes in the workplace. They have dedicated themselves to examining specific aspects of accounting practices, such as the provision of feedback, access to information, resourcing of goals, visibility of processes and objective and subjective measures of performance. Burney et al. (2017) add that leaders who use PMS to evaluate the performance of their subordinates are more likely to have managerial attitudes in their work environment and thus mitigate organizational control problems.

H4 was supported, showing that the enabling PMS has a mediating effect on the relationship between the leadership style of initiating structure, managerial attitudes and managerial performance. The findings indicate that the leadership style of initiating structure, together with the enabling PMS, clearly defines the goals and expected results for employees. This helps to align expectations between managers and employees, favoring managerial attitudes and stimulating managerial performance. Degenhart et al. (2022) point out that leadership style plays a crucial role in the development of managerial attitudes that improve managerial performance in organizations.

Hartman et al. (2010) add that managers who are actively involved in the management process, with a leadership style of initiating structure, provide employees with adequate training and growth opportunities, improving their competencies and contributing to their managerial attitudes and their performance on tasks. Van der Hauwaert et al. (2022) point out that enabling PMS reinforces leadership styles in managerial attitudes, fostering employee development and work performance. This shows that managers who optimize positive managerial attitudes obtain more satisfactory results at work, such as managerial performance (Cäker et al., 2021).

H5 was supported, showing that enabling PMS has a mediating effect on the relationship between considerate leadership style, managerial attitudes and managerial performance. The results indicate that leaders who show consideration for team members create a working environment in which employees feel valued, listened to and supported. This emotional support, perceived by employees as an enabling PMS, positively influences their managerial attitudes, promoting greater satisfaction, engagement and resulting in managerial performance.

In this way, the LSC leadership style strengthens the social relationships established between supervisors and subordinates, providing a friendly and trusting working environment, which optimizes the managerial attitudes and work performance of employees (Abernethy et al., 2010; Fleishman, 1953). Hartman et al. (2010) also point out that CE leadership allows subordinates to have a voice in decision-making processes, which positively influences their managerial attitudes. When employees perceive that their leader cares about their well-being and is willing to support them, this strengthens mutual trust (Burney et al., 2017; Hartman et al., 2010).

In the additional analysis (fsQCA), two equally effective ways (solutions) are presented for employees to demonstrate high managerial performance. In the first solution (S1), it is necessary to have the presence of the considerate leadership style, the enabling PMS, the managerial attitude, the length of service and the age of the managers in order to achieve high performance. The results show that the considerate leadership style favors a collaborative and respectful environment and fosters an enabling PMS, in which employees feel free to express their ideas and contribute in a meaningful way. This sense of belonging and involvement can lead to more positive managerial attitudes, such as teamwork, willingness to share knowledge, commitment to organizational goals and work performance (Abernethy et al., 2010; Degenhart et al., 2022).

In the second solution (S2), the presence of the leadership style of initiating structure, enabling PMS, managerial attitude, length of service and age of managers is what leads to high performance. He points out that the leadership style of initiating structure combined with enabling PMS can provide resources, information and autonomy for decision-making. This increased

autonomy allows employees to have more influence over their work and feel more empowered, which can lead to more positive managerial attitudes and optimize employees' managerial performance. This can result in increased collaboration in directing subordinates with clear work instructions and performance targets, fostering managerial attitudes in their work environment and improving organizational controls (Hartman et al., 2010; Van der Hauwaert et al., 2022). These results indicate that, in addition to the presence of an enabling PMS and appropriate managerial attitudes, organizations can continuously transition between leadership style approaches with an emphasis on initiating structure or consideration, according to their organizational needs, while still maintaining high levels of managerial performance.

CONCLUDING REMARKS

The study analyzed the effect of the initiating structure and consideration leadership styles on the enabling performance measurement system (PMS) and managerial attitudes, and their effects on managerial performance. The results of the research showed that both leadership styles do not interfere with managerial attitudes, as employees respond in different ways to the leadership style when combined with the formal mechanisms in the organization for communicating strategic goals and processes. This demonstrates that the use of the enabling PMS plays a supporting role in a wide range of management activities and in strengthening control mechanisms, contributing to the managerial attitudes and managerial performance of employees.

From this, it can be concluded that the enabling PMS clearly defines the goals and expected results for employees, favoring the alignment of expectations between managers and employees, as well as managerial attitudes and the stimulation of managerial performance. This shows that the leadership style of initiating structure provides employees with adequate training and growth opportunities, while the consideration leadership style creates a work environment in which employees feel valued, listened to and supported, in line with the enabling PMS, leading to better managerial attitudes and work performance.

In terms of theoretical implications, the study contributes to the understanding that leadership styles and enabling PMS, when properly adjusted, favor a collaborative environment in which employees feel free to express their ideas and contribute in a meaningful way, allowing them to have more influence over their work and feel more empowered. This can lead to more positive managerial attitudes and optimize employees' managerial performance.

The findings show practical implications by demonstrating that leadership styles (Initiating Structure and Consideration) and the enabling PMS collaborate with performance controls and evaluations, impacting on managerial attitudes. This relationship allows us to consider how the appropriate use of the enabling PMS makes it possible to strengthen strategic decisions and the socializable elements of the organization. These elements can be restructured, enabling processes that are more congruent with the company's goals, as well as directing the expected attitudes towards the desired and applicable management approach.

The application of fuzzy-set analysis (fsQCA) as a complement to PLS-SEM analysis helps to explore causal complexity and the multiple paths that can lead to high managerial performance. In this way, the mixed methods approach provides managers with a holistic view so that they can make more informed decisions, adjusting their strategies according to the specific conditions of their organization. Finally, some limitations should be pointed out. The generalization of the results should be done with caution due to the cross-sectional research design. Therefore, future research could consider other leadership styles, such as Autocratic and Bureaucratic, and Transformational and Transactional, as well as approaching the research with different performance measurement systems.

REFERENCES

Abernethy, M. A., Bouwens, J., & Van Lent, L. (2010). Leadership and control system design. *Management Accounting Research*, *21*(1), 2–16. https://doi.org/10.1016/j.mar.2009.10.002

Adler, P. S., & Borys, B. (1996). Two types of bureaucracy: Enabling and coercive. *Administrative Science Quarterly*, *19*(1), 61–89. https://doi.org/10.2307/2393986

Armstrong, J. S., & Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*, *14*(3), 396–402. https://doi.org/10.1177/002224377701400320

Artz, M., Homburg, C., & Rajab, T. (2012). Performance-measurement system design and functional strategic decision influence: the role of performance-measure properties. *Accounting, Organizations and Society*, *37*(7), 445–460. https://doi.org/10.1016/j.aos.2012.07.001

Bandura, A. (1977a). Social learning theory. Englewood Cliffs, N. J.: Prentice-Hall, Group & Organization Studies. In T. Boone, A. J. Reilly, & M. Sashkin. *Social learning theory. Englewood Cliffs, N. J.: Prentice-Hall* (Vol. 2, 3rd ed., pp. 384–385). Group & Organization Studies. https://doi.org/10.1177/105960117700200317

Bandura, A. (1977b). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191

Bandura, A., Azzi, R. G., & Polydoro, S. (2008). *Teoria social cognitiva: conceitos básicos*. Artmed.

Bedford, D. S., Bisbe, J., & Sweeney, B. (2019). Performance measurement systems as generators of cognitive conflict in ambidextrous firms. *Accounting, Organizations and Society*, *72*(1), 21–37. https://doi.org/10.1016/j.aos.2018.05.010

Bedford, D. S., Malmi, T., & Sandelin, M. (2016). Management control effectiveness and strategy: An empirical analysis of packages and systems. *Accounting, Organizations and Society*, *51*, 12–28. https://doi.org/10.1016/j.aos.2016.04.002

Bido, D. S., & Silva, D. (2019). SmartPLS 3: especificação, estimação, avaliação e relato. *Administração: Ensino e Pesquisa*, *20*(2), 488–536. https://doi.org/10.13058/raep.2019.v20n2.1545

Birnberg, J. G., Luft, J., & Shields, M. D. (2006). Psychology theory in management accounting research. *Handbooks of Management Accounting Research, 1*, 113–135.

Birnberg, J. G., & Shields, M. D. (2020). Journal of Management Accounting Research at 30 years: reflections on its context, creation, challenges, and contributions. *Journal of Management Accounting Research*, *32*(1), 1–10. https://doi.org/10.2308/jmar-19-038

Bloom, N., Brynjolfsson, E., Foster, L., Jarmin, R., Patnaik, M., Saporta-Eksten, I., … & Van Reenen, J. (2019). What drives differences in management practices? *American Economic Review*, *109*(5), 1648–1683. https://doi.org/10.1257/aer.20170491

Brayfield, A. H., & Crockett, W. H. (1955). Employee attitudes and employee performance. *Psychological bulletin*, *52*(5), 396. https://doi.org/10.1037/h0045899

Burney, L. L., Radtke, R. R., & Widener, S. K. (2017). The intersection of "bad apples," "bad barrels," and the enabling use of performance measurement systems. *Journal of Information Systems*, *31*(2), 25–48. https://doi.org/10.2308/isys-51624

Cabral, JR, Horz, V., & Lunardi, MA (2024). Sistema de medición del desempeño habilitador: efecto sobre la motivación, las actitudes gerenciales y el desempeño gerencial. (2024). *Estudios Gerenciales*, *40*(172), 258–270. https://doi.org/10.18046/j.estger.2024.172.6436

Cäker, M., Siverbo, S., & Åkesson, J. (2021). Performance measurement systems, hierarchical accountability and enabling control. *Accounting and Business Research*, *52*(7), 865–889. https://doi.org/10.1080/00014788.2021.1940076

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. (2nd ed.). Psychology Press.

Crano, W. D., & Prislin, R. (2006). Attitudes and persuasion. *Annual Review of Psychology*, *57*(10), 345–374. https://doi.org/10.1146/annurev.psych.57.102904.190034

Cruz, A. P. C., Frare, A. B., Accadrolli, M. C., & Horz, V. (2022). Effects of informal controls and psychological empowerment on job satisfaction. *Revista Contabilidade & Finanças*, *33*(88), 29–45. https://doi.org/10.1590/1808-057x202114660

Degenhart, L., Zonatto, V. C. D. 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

Della Giustina, K. A., Gasparetto, V., & Lunkes, R. J. (2020). Efeito dos Estilos de Liderança nos Sistemas de Controle Gerencial e no Desempenho Organizacional. *Revista Capital Científico*, *18*(1), 64-81. https://doi.org/10.5935/2177-4153.20200004

Derue, D. S., Nahrgang, J. D., Wellman, N. E., & Humphrey, S. E. (2011). Trait and behavioral theories of leadership: An integration and meta-analytic test of their relative validity. *Personnel psychology*, *64*(1), 7–52. https://doi.org/10.1111/j.1744-6570.2010.01201.x

Dias, M. A. M. J., & Borges, R. S. G. E. (2017). Performance and Leadership Style: When Do Leaders and Followers Disagree? *RAM – Revista de Administração Mackenzie*, *18*(2), 104–129. https://doi.org/10.1590/1678-69712016/administracao.v18n2p104-129

Ehmann, S., Kampkötter, P., Maier, P., & Yang, P. (2023). Performance management and work engagement – New evidence using longitudinal data. *Management Accounting Research*, *64*, 100867. https://doi.org/10.1016/j.mar.2023.100867

Ferreira, A., & Otley, D. (2009). The design and use of performance management systems: An extended framework for analysis. *Management Accounting Research*, *20*(4), 263–282. https://doi.org/10.1016/j.mar.2009.07.003

Fleishman, E. A. (1953). The description of supervisory behavior. *Journal of Applied Psychology*, *37*(1), 1–6. https://doi.org/10.1037/h0056314

Galeazzo, A., & Furlan, A. (2018). Lean bundles and configurations: A fsQCA approach. *International Journal of Operations & Production Management*, *38*(2), 513–533. https://doi.org/10.1108/IJOPM-11-2016-0657

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling* (PLS-SEM). Sage Publications.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Hartmann, F., Naranjo-Gil, D., & Perego, P. (2010). The effects of leadership styles and use of performance measures on managerial work-related attitudes. *European accounting review*, *19*(2), 275–310. https://doi.org/10.1080/09638180903384601

Isa, F. M. B., & Syah, T. Y. R. (2021). The Effect of Transformational Leadership Style on Employee Performance with Motivation Moderation. *Journal of Multidisciplinary Academics*, *5*(3), 265–271. http://kemalapublisher.com/index.php/JoMA/article/download/595/582

Kennedy, F. A., & Widener, S. K. (2019). Socialization mechanisms and goal congruence. *Accounting Organizations and Society*, *76*, 32-49. https://doi.org/10.1016/j.aos.2019.01.004

Kieling, D. L., Zonatto, V. C. S., Degenhart, L., Machado, F. S., & Bianchi, M. (2023). Efeitos Cognitivos Mediadores do Compartilhamento de Informação Vertical na Relação entre Participação Orçamentária, Atitudes Gerenciais e Desempenho. *BASE - Revista de Administração e Contabilidade da Unisinos*, *20*(4). https://doi.org/10.4013/base.2023.204.02

MacKenzie, S. B., & Podsakoff, P. M. (2012). Common method bias in marketing: Causes, mechanisms, and procedural remedies. *Journal of Retailing*, *88*(4), 542–555. https://doi.org/10.1016/j.jretai.2012.08.001

Mahoney, T. A., Jerdee, T. H., & Carroll, S. J. (1963). Development of managerial performance: a research approach. Cincinnati: South-Western.

Mahoney, T. A., Jerdee, T. H., & Carroll, S. J. (1965). The job(s) of management. *Industrial Relations, 4*(2), 97–110. https:// doi.org/10.1111/j.1468-232X.1965.tb00922.x

Martyn, P., Sweeney, B., & Lillis, A. M. (2024). Using emphasis frames to embed values in the interpretation of multiple performance criteria. *Management Accounting Research*, *66*, 100914. https://doi.org/10.1016/j.mar.2024.100914

Merchant, K. A. (2006). O modelo do sistema de orçamento corporativo: influências no comportamento e no desempenho gerencial. *Revista de contabilidade e organizações*, *1*(1), 107–124. https://doi.org/10.11606/rco.v1i1.34700

Merchant, K. A., & Van der Stede, W. A. (2007). *Management control system: performance measurement, evaluation and incentives* (3rd ed.). Pearson education.

Mia, L. (1988). Managerial attitude, motivation and the effectiveness of budget participation. *Accounting, Organizations and Society*, *13*(5), 465–475. https://doi.org/10.1016/0361-3682(88)90017-7

Monteiro, J., Malagueño, R., Lunkes, R. J., & Santos, E. A. (2022). The effectiveness of value-and calculation-based management controls in hotels. *International Journal of Hospitality Management*, *102*, 1–11. https://doi.org/10.1016/j.ijhm.2022.103156

Muñoz-Pascual, L., Curado, C., & Galende, J. (2019). The triple bottom line on sustainable product innovation performance in SMEs: A mixed methods approach. *Sustainability*, *11*(6), 1689. https://doi.org/10.3390/su11061689

Nani, D. A., & Safitri, V. A. D. (2021). Exploring the relationship between formal management control systems, organisational performance and innovation: The role of leadership characteristics. *Asian Journal of Business and Accounting*, *14*(1), 207–224. https://doi.org/10.22452/ajba.vol14no1.8

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, *12*(4), 531–544. https://doi.org/10.1177/014920638601200408

Ragin, C. C. (2008). *Redesigning social inquiry: Fuzzy sets and beyond*. University of Chicago Press.

Ragin, C. C. (2009). Qualitative Comparative Analysis using Fuzzy Sets (fsQCA). In B. Rihoux, C. C. Ragin (Eds.). *Configurational Comparative Methods: Qualitative Comparative Analysis (QCA) and Related Techniques* (pp. 87–121). Sage Publications.

Sarstedt, M., Hair, J. F., Cheah, J. H., Becker, J. M., & Ringle, C. M. (2019). How to specify, estimate, and validate higher-order constructs in PLS-SEM. *Australasian Marketing Journal, 27*(3), 197–211. https://doi.org/10.1016/j.ausmj.2019.05.003

Simons, R., & Dávila, A. (2021). How top managers use the entrepreneurial gap to drive strategic change. *European Accounting Review*, *30*(4), 583–609. https://doi.org/10.1080/09638180.2020.1792959

Souza, G. E. D., & Beuren, I. M. (2018). Impact of an enabling performance measurement system on task performance and job satisfaction. *Revista Contabilidade & Finanças*, *29*, 194–212. https://doi.org/10.1590/1808-057x201805850

Van der Hauwaert, E., Hoozée, S., Maussen, S., & Bruggeman, W. (2022). The impact of enabling performance measurement on managers' autonomous work motivation and performance. *Management Accounting Research*, *55*, 100780. https://doi.org/10.1016/j.mar.2021.100780

Weber, E. U., Blais, A. R., and Betz, N. E. (2002), "A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors". *Journal of behavioral decision making*, *15*(4), 263–290. https://doi.org/10.1002/bdm.414

Wouters, M., & Wilderom, C. (2008). Developing performance-measurement systems as enabling formalization: A longitudinal field study of a logistics department. *Accounting, Organizations and Society*, *33*(4–5), 488–516. https://doi.org/10.1016/j.aos.2007.05.002

Zonatto, V. C. D. S., Nascimento, J. C., Lunardi, M. A., & Degenhart, L. (2020). Efeitos da participação orçamentária em atitudes gerenciais, satisfação e desempenho gerencial. *Revista de Administração Contemporânea*, *24*(6), 532–549. https://doi.org/10.1590/1982-7849rac2020200047

Jobson Ribeiro Cabral
ORCID: https://orcid.org/0000-0002-5311-0962
PhD candidate in Accounting and Administration from the Postgraduate Program in Accounting and Administration of the Regional University of Blumenau (FURB), Blumenau – SC, Brazil. Email: jcabral@furb.br

Micheli Aparecida Lunardi
ORCID: https://orcid.org/0000-0003-0622-928X
PhD from the Regional University of Blumenau (FURB), Blumenau – SC, Brazil; adjunct professor at the Regional University of Blumenau (FURB), Blumenau – SC, Brazil. Email: malunardi@furb.br

Vagner Horz
ORCID: https://orcid.org/0000-0002-7420-9750
Doctor in Accounting and Administration from the Postgraduate Program in Accounting and Administration of the Federal University of Rio Grande (FURG), Rio Grande – RS, Brazil. Email: vagnerhorz@gmail.com

Pedro Henrique da Silva Melo Pereira
ORCID: https://orcid.org/0000-0002-1443-7225
PhD student in Accounting Sciences at the Postgraduate Program in Accounting at the Federal University of Paraná (UFPR), Curitiba – PR, Brazil. Email: pedrohsilvamp@gmail.com

AUTHORS' CONTRIBUTION

Jobson Ribeiro Cabral: Conceptualization (Lead); Project administration (Equal); Methodology (Lead); Data curation (Equal); Software (Equal); Validation (Equal); Writing – original draft (Lead); Writing – review & editing (Equal).

Micheli Aparecida Lunardi: Conceptualization (Lead); Project administration (Equal); Project administration (Supporting); Methodology (Support); Validation (Supporting); Visualization (Supporting); Writing – review & editing (Supporting).

Vagner Horz: Methodology (Supporting); Software (Supporting); Validation (Supporting); Visualization (Supporting); Writing – review & editing (Supporting).

Pedro Henrique da Silva Melo Pereira: Validation (Supporting); Visualization (Supporting); Writing – review & editing (Supporting).

DATA AVAILABILITY

The entire dataset supporting the results of this study is available upon request to the corresponding author, Jobson Ribeiro Cabral. The dataset is not publicly available due to the lack of a dedicated repository for storing and making the data available.

EDITOR-IN-CHIEF

Hélio Arthur Reis Irigaray (Fundação Getulio Vargas, Rio de Janeiro / RJ – Brazil). ORCID: https://orcid.org/0000-0001-9580-7859

ASSOCIATE EDITOR

Fabricio Stocker (Fundação Getulio Vargas, Rio de Janeiro / RJ – Brazil). ORCID: https://orcid.org/0000-0001-6340-9127

REVIEWERS

Julio Araujo Carneiro da Cunha (Universidade Nove de Julho, São Paulo / SP – Brazil). ORCID: https://orcid.org/0000-0002-1435-055X

Two of the reviewers did not authorize the disclosure of their identity.

PEER REVIEW REPORT

The peer review report is available at this link: https://periodicos.fgv.br/cadernosebape/article/view/94673

APÊNDICE

Survey instrument and factor loadings of items

Leadership style of consideration	CF
Please indicate to what extent you disagree or agree with the following statements. The degree of agreement ranges from (1) strongly disagree to (7) strongly agree.	
1. Tries out his/her ideas in the group.	-0,140
2. Puts suggestions made by the business unit managers into operation.	0,849
3. Makes his/her attitudes clear to the group.	0,899
4. Treats all business unit managers as his/her equal.	0,902
5. Gives advance notice of changes.	0,910
6. Looks out for the personal welfare of business unit managers.	0,831
Leadership style of initiating structure	**CF**
Please indicate to what extent you disagree or agree with the following statements. The degree of agreement ranges from (1) strongly disagree to (7) strongly agree.	
1. Lets the business unit managers know what is expected of them.	0,840
2. Encourages the use of uniform procedures.	0,910
3. Assigns business unit managers to particular tasks.	0,893
4. Schedules the work to be done.	0,697
5. Maintains definite standards of performance.	0,892
6. Asks that business unit managers follow standard rules and regulations.	0,833
Enabling PMS	**CF**
Please indicate to what extent you disagree or agree with the following statements. The degree of agreement ranges from (1) strongly disagree to (7) strongly agree.	
Repiar	**CF**
1. Performance measures help me to initiate improvement actions.	0,909
2. The performance measurement system allows me to react in time and therefore avoid problems.	0,922
3. The performance measurement system allows me to propose measures that can serve as an alarm.	0,926
Internal transparency	**CF**
1. I understand the performance measures in my domain.	0,749
2. I understand why certain performance measures are included in my domain.	0,782
3. There is information available about the current condition of the performance measures in my domain.	0,886
4. The performance measurement system gives me an indication of how I carry out my work.	0,886
Global Transparency	**CF**
1. The link between my own tasks and the organization's objectives is clear.	0,927
2. The performance measurement system enables communication with the organization's stakeholders.	0,929
Flexibility	**CF**
1. I can make decisions based on the performance information provided by the performance measurement system.	0,861
2. Performance measures can be added to the performance measurement system to meet specific work needs.	0,879
3. Suggestions on which I can make decisions arise from the performance measurement system.	0,922

(Continue)

Management Attitude	CF
Please indicate to what extent you disagree or agree with the following statements. The degree of agreement ranges from (1) strongly disagree to (7) strongly agree.	
1. I believe that the performance measurement system allows me to be a better manager.	0,856
2. I believe that the performance measurement system allows me to be more flexible.	0,769
3. I believe that the performance measurement system allows me to be more innovative.	0,547
4. I believe that the performance measurement system allows me to be aware of my successes as a manager.	0,919
5. I believe that the performance measurement system allows me to improve my production methods.	0,944
Management Performance	CF
Please indicate to what extent you disagree or agree with the following statements. The degree of agreement ranges from (1) strongly disagree to (7) strongly agree.	
1. I determine goals, policies and align actions (e.g. work scheduling, budgeting, programming).	0,652
2. I collect and prepare information, usually in the form of records, reports and accounts (e.g. measuring production, record-keeping, job analysis).	0,722
3. I exchange information with people in the organization who are not my subordinates in order to liaise and adjust programs (e.g. dispatching, liaising with other managers, organizing meetings).	0,096
4. I evaluate and appreciate proposals or observed reports/performance (e.g. employee evaluations, judging output records, product inspection).	0,745
5. I guide, lead the development of my subordinates.	0,667
6. I maintain my unit's workforce (e.g. selecting and promoting employees).	0,781
7. I purchase, sell or contract goods and services (e.g. tax negotiations, contracting suppliers, collective bargaining, advertising).	0,782
8. I advance the general interests of my organization through lectures, consultations or contact with other people outside the organization.	0,808
9. I evaluate my overall performance.	0,830

Nota: FL = factor loading; PMS = performance measurement system.

Source: Elaborated by the authors.