

# Effects of enabling characteristics of budgetary control on the psychological capital of managers with budgetary responsibility

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## ABSTRACT

This study investigates the influence of enabling characteristics of budgetary control on the psychological capital of managers with budgetary responsibility. Within the budgetary context, the studies that analyze the effects of enabling characteristics of budgetary control on individuals' mental states at work are still in their infancy and that is a theoretical gap explored in this research. The research evaluates the interactive and multidimensional effects of enabling budgetary control on psychological capital. It advances the literature by indicating which characteristics exert the greatest influence on psychological capital and its dimensions. The results provide evidence of the enabling effects of enabling budgetary control on the psychological capacities of managers with budgetary responsibility, being positively reflected in their beliefs of self-efficacy, hope, optimism, and resilience for achieving their objectives and the desired organizational results, which tends to have an impact on the individuals' as well as the organization's performance. A survey was conducted in a publicly-traded company operating in Brazil, using a quantitative approach to the data (structural equation modeling). The sample analyzed included 85 middle-level managers from different areas of the organization. The possibility of adjusting budgetary reports and accessing detailed information on budgetary deviations (repair capacity), as well as of incurring expenses unforeseen in the budget and adjusting the original budgetary assumptions (budgetary flexibility), positively contributes to promoting managers' psychological capital. However, this does not occur with internal transparency and global transparency. Within the context studied, the benefit of repair capacity primarily takes the form of self-efficacy, resilience, and hope, while the benefit of flexibility primarily occurs in terms of optimism and hope. These results contribute to organizations designing their management control systems so as to develop the psychological capital of their collaborators and thus obtain the benefits expected from that development.

**Keywords:** budget, enabling control, psychological capital, management control, organizational performance.

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## 1. INTRODUCTION

The budget and its effects on individuals' behavior at work is a relevant topic for research in management accounting (Abernethy et al., 2020; Chapman & Kihn, 2009; Mucci et al., 2021), but it is barely studied from the perspective of the cognitive effects of enabling budgetary control (Degenhart et al., 2022), characterized by the positive enabling effects generated based on the design characteristics of the budgetary control (Mucci et al., 2021) on the attitudes, behaviors, and performance of individuals at work (Degenhart et al., 2022; Mucci et al., 2021; Wouters & Wilderom, 2008).

The characteristics of an enabling configuration include the repair capacity, internal transparency, global transparency, and flexibility of the budgetary control adopted, which enable managers to better understand the organization's budgetary processes (Henttu-Aho, 2016). Repair capacity is reflected in the possibility for adjustments provided in the control system (Adler & Borys, 1996; Coyte, 2019), which provide improvements in the budgetary practice used (Henttu-Aho, 2016). The internal and global transparency characteristics refer, respectively, to the clarity of the internal activities developed in the organization (Ahrens & Chapman, 2004) and to the overall understanding of the functioning of the budgetary control implemented (Henttu-Aho, 2016). In turn, flexibility is related to the managers' autonomy in the budget execution (Mucci et al., 2021).

Considering the occasional restrictions, a review of the forecasted budget is needed to align the new strategies or adapt the resources to the (re)defined organizational objectives and goals. Thus, as it is an enabling mechanism, enabling budgetary control enables managers to review the management practices adopted and to provide improvements in the pursuit of organizational objectives. According to Henttu-Aho (2016) and Mucci et al. (2021), when used from a flexible perspective, budgetary control enables managers to evaluate how their activities are structured and developed. Similarly, by providing this assessment, enabling budgetary control allows managers to find opportunities for improvement that can be beneficial if adequately adopted. For that reason, budgetary control consists of an enabling mechanism for the development of management activities at work (Henttu-Aho, 2016).

Despite this evidence, gaps remain regarding the effects of enabling characteristics of budgetary control as elements that promote the psychological capital of managers with budgetary responsibility. These characteristics are explored in this paper. Psychological capital refers to the positive

psychological state of psychic development that enables individuals to believe in their abilities to carry out their work activities and achieve desired objectives (Degenhart et al., 2022). The development of psychological capital is, therefore, an important aspect for individuals to increase their chances of achieving desired objectives, such as those established in the budgetary process.

Psychological capital includes four basic capacities: self-efficacy, optimism, hope, and resilience (Luthans et al., 2007). Self-efficacy beliefs are important cognitive mechanisms that exert an influence over individuals' attitudes at work (Bandura, 1977). They refer to individuals' perceptions and beliefs regarding their abilities to carry out tasks they are designated (Luthans et al., 2007). Individuals with such beliefs are more likely to expend more effort in carrying out their activities (Schlup et al., 2021). Optimism is related to the perception that the possibility of being successful at work derives from the perceived capacity to adequately carry out work assignments, resulting in better performance (Luthans et al., 2007; Page & Donohue, 2004).

Hope is another important psychological capacity needed for individuals' propensity to expend more effort to carry out their work activities (Degenhart et al., 2022), and it is related to self-determination geared toward the achievement of the desired results (Luthans et al., 2007; Page & Donohue, 2004). In turn, resilience consists of managers' capacity to deal with situations of tension and adversity, obtaining internal forces to mobilize themselves with a view to overcoming the adversities encountered, in order to achieve the desired results (Luthans et al., 2007; Venkatesh & Blaskovich, 2012).

Individuals' positive psychological capacities can be developed and managed in a company (Luthans et al., 2004), indicating the existence of antecedents that enhance managers' self-efficacy, optimism, hope, and resilience (Newman et al., 2014), such as the enabling characteristics of budgetary control. The enabling approach generates recognition of the organization's support and helps in the execution of their work, enabling adjustments to the initially established budgetary goals and facilitating decision making, which generates greater clarity and provides more information, obtained through better dialogue and established internal communication. These aspects provide greater autonomy for managers to be able to modify the management processes adopted and promote necessary improvements (Henttu-Aho, 2016; Mucci et al., 2021).

A company that stimulates communication in the organizational environment promotes the development of psychological capital (Machado et al., 2022), since individuals feel valued when they receive support in the execution of their tasks, enhancing their self-efficacy and optimism. When managers perceive the company's help, they feel encouraged to see difficulties as opportunities for adjustments and improvements. This also promotes hope, when those managers have the freedom to adjust goals and paths, and resilience, when the company focuses on providing resources and information that help individuals to obtain positive results in the work carried out (Luthans & Youssef, 2004). In light of that, it is believed that repair capacity, internal and global transparency, and budgetary flexibility can be predictors of positive psychological capacities, given that enabling budgetary control acts as a mechanism of support for managers to carry out their work assignments.

As it involves a multidimensional construct, psychological capital reflects a set of positive psychological capacities needed to promote proactive managerial attitudes that will in some way be reflected in the success achieved by managers in the execution of necessary initiatives associated with the budgetary process. Thus, psychological capacities need to be promoted so that managers are more committed to budgetary goals and act to achieve results established in the budgetary process, since when they recognize security and support in the

work environment and they feel more confident, they are more likely to exert more effort in pursuit of better results and the achievement of the outlined objectives and goals (Luthans et al., 2008). In light of the above, this study makes advancements by seeking to understand consequences of the budgetary control context for psychological capital (Degenhart et al., 2022), analyzing the effects of the enabling characteristics of the budget (Mucci et al., 2021) as elements that promote psychological capital. The following research question is examined: what is the influence of the enabling characteristics of budgetary control on the psychological capital of managers with budgetary responsibility?

The research was developed based on a survey of 85 middle-level managers from various areas of a publicly-traded company operating in Brazil. The study provides evidence that support the enabling effects of budgetary control as elements that promote managers' psychological capital. Thus, these results contribute by revealing the effects of the enabling characteristics of the budgetary control adopted and their reflections in managers' psychological capacities. The results also contribute to the accounting research by revealing effects of flexibility in budgetary control as an enabling element of budgetary management activities carried out in a company, indicating that its benefits, at an individual level, can extend to various managers with budgetary responsibility.

## 2. THEORETICAL FRAMEWORK AND RESEARCH HYPOTHESES

### 2.1 Enabling Characteristics of Budgetary Control

The budget is a widespread management practice in various companies (Abernethy et al., 2020). It performs numerous roles, such as planning, coordination of activities, resource allocation, performance assessment, and communication of strategies (Covaleski et al., 2007; Hansen & Van der Stede, 2004). The budget, in its controlling role, motivates employees in the execution of activities (Covaleski et al., 2007) and promotes learning and resilience, giving individuals the capacity to adapt in adverse situations (Abernethy et al., 2020). In particular, budgetary control can be separated into enabling and coercive (Henttu-Aho, 2016). Both configurations have been used by companies with different purposes. The enabling characteristic generates budget flexibility, enabling the manager to revise the established assumptions,

adapting them to the new reality, facilitating organizational learning, and improving the user experience (Adler & Borys, 1996). In contrast, the coercive characteristics seek to ensure the achievement of certain results, not overusing resources and limiting autonomy, creativity, and innovation (Adler & Borys, 1996).

Enabling and coercive controls were promoted when Adler and Borys (1996) developed a study characterizing the formalization of the workflow, interpreted as an organizational technology for identifying two types, enabling formalization and coercive formalization, which are concepts adapted for accounting by Ahrens and Chapman (2004). Enabling formalization promotes motivation and support for individuals by helping them in carrying out their job assignments, while coercive formalization forces compliance (Wouters & Wilderom, 2008). In the enabling approach users are seen as a source of learning and in the coercive one they are seen as a

source of problems (Adler & Borys, 1996). If a control is formalized as coercive or enabling, it depends on four design dimensions: repair, internal transparency, global transparency, and flexibility (Ahrens & Chapman, 2004), which can also characterize the budgetary control (Henttu-Aho, 2016).

In an enabling approach, repair capacity enables employees to repair and adjust so that flaws do not hinder the work process. In the coercive approach, in turn, any irregularity or defect in the process is seen as suspicious (Adler & Borys, 1996). In the enabling logic, repairs are opportunities for improvements and deviations are warnings to revise processes (Adler & Borys, 1996), generating a dialogue between managers about existing problems and providing resources for the user to resolve them (Ahrens & Chapman, 2004). In a coercive perception, in which users lack freedom, there are no reasons to have internal information and there is merely a list of duties that serve for punishments, which are characteristics that involve the internal transparency dimension (Adler & Borys, 1996). In an enabling approach, users have information and understanding about the processes and are able to deal with unforeseen events, as well as receiving feedback to evaluate their performance.

Global transparency refers to the users' understanding about the entire control system adopted (Mucci et al., 2021), whose coercive logic covers asymmetric transparency, since it is a risk to the company for the users to have global transparency (Adler & Borys, 1996). In contrast, in the enabling perspective, there is greater information sharing regarding all of the company's processes (Mucci et al., 2021), which helps managers in their interaction with the environment, understanding how their activities relate and contribute to the rest (Adler & Borys, 1996). The last dimension is flexibility, which involves the discretion individuals have to make modifications, whose coercive logic previously defines a script to be followed, unlike the enabling one, which values changes in response to risks and learning (Adler & Borys, 1996).

A control mechanism is useful when it provides repair capacity, internal transparency, global transparency, and flexibility for whoever uses it (Adler & Borys, 1996), which are characteristics that compose an enabling budgetary control (Henttu-Aho, 2016; Mucci et al., 2021), positively impacting individuals' attitudes by making the processes in the work environment more supported (Wouters & Wilderom, 2008) and generating efficacy and commitment in the execution of the work (Adler & Borys, 1996). This occurs when the managers use enabling budgetary control in the execution of their work assignments.

According to Adler and Borys (1996) and Souza and Beuren (2018), enabling controls are capable of generating positive attitudes in individuals, as well as improving job performance (Wouters & Wilderom, 2008) and providing help to deal with contingencies in the work environment (Coyte, 2019), improving the understanding about the local and global conditions of their activities and enabling more appropriate decision making about modifications and improvements (O'Grady, 2019).

An enabling perception of the budgetary controls is stimulated by high demands of the work environment and by the pressure for competitive advantage, motivating the search for better performance (Henttu-Aho, 2016). For Abernethy et al. (2020), individuals' growth mentality affects behavior and social interaction in a company and is related to the level to which the budget is used as an enabler, stimulating innovation, flexibility, and better information sharing. The choice of model and use of the budget are related to the management motivation and attitudes, which are represented by the feeling of utility when the budgetary control offers individuals the opportunity to be better, more flexible, and innovative managers, to be aware of their success, as well as to improve the production processes (Merchant, 2007). Thus, it is possible to verify that the way the company structures its budgetary control system and its procedures influences the collaborators' behavior and mindset (Souza & Beuren, 2018; Degenhart et al., 2022), developing their fundamental capacities to deal with unexpected situations (Beuren & Santos, 2019), such as the managers' psychological capital (Degenhart et al., 2022; Machado et al., 2022; Schlup et al., 2021).

From this perspective, it is believed that through its design characteristics, the enabling configuration of budgetary control is capable of positively influencing the factors that generate the psychological capital of managers with budgetary responsibility.

## 2.2 Enabling Characteristics of Budgetary Control and Psychological Capital

Psychological capital is characterized as individuals' positive mental state (Luthans et al., 2007; Venkatesh & Blaskovich, 2012), including the positive psychological capacities of self-efficacy, hope, optimism, and resilience (Luthans et al., 2007). Psychological capital has been indicated in the literature as an important factor influencing proactive managerial attitudes that affect management performance (Alessandri et al., 2018; Degenhart et al., 2022; Schlup et al., 2021) in line with the enabling

approach, which has an influence on behaviors and the motivation to seek better ways of favoring performance (Adler & Borys, 1996).

According to Newman et al. (2014), it is important for the organization to know the antecedents of psychological capital so that, through support mechanisms and leadership initiatives, it can develop plans to enhance positive psychological capacities, such as structuring an enabling budgetary control system and its repair, internal transparency, and global transparency characteristics. Self-efficacy is determined by the confidence and motivation that the employee has in their skills and abilities to successfully carry out the activities (Luthans et al., 2007), since to designate personal resources in the execution of tasks the individual needs to believe that they can organize and act in pursuit of high performance. Otherwise, the individual will put less energy into the activities (Bandura, 1977).

Hope refers to the effort the individual makes to achieve an objective, for the development and achievement of the work plan to obtain the desired results (Luthans & Youssef, 2004), encompassing objective, motivation, and direction to achieve them (Luthans et al., 2008). Optimism provides positive perceptions that increase the individual's self-esteem, leaving aside unfavorable situations in their lives (Luthans & Youssef, 2004). Resilience is the individual's capacity to deal with obstacles and conflict situations as well as positive events, such as increased responsibilities, this being considered an agent of proactivity (Luthans et al., 2007). It refers to the capacity the individual has to adapt to a situation of risks and uncertainties (Venkatesh & Blaskovich, 2012).

Enabling controls drive greater interactions of the individuals with the work and the company (Ahrens & Chapman, 2004), giving them the freedom to modify and correct the budgetary processes, offering greater internal clarity for executing their tasks and greater visualization of the influence and relationship of these, in the company as a whole, as well as providing greater flexibility (Adler & Borys, 1996). For Beuren et al. (2020), a company should promote greater dialogue, harmony, and flexibility, not only with its processes and actions, but with its employees. The characteristics of enabling control generate greater motivation in the workplace (Beuren et al., 2020), which could be a condition for the individual to feel more self-confident, optimistic, and hopeful to carry out their work activities and resilient to overcome unfavorable situations (Luthans et al., 2007; Newman et al., 2014).

Enabling budgetary control can make individuals feel that the company offers support and resources to

execute their tasks (Henttu-Aho, 2016; Mucci et al., 2021), improving their performance and satisfaction (Souza & Beuren, 2018), their capacity to deal with challenges (Beuren & Santos, 2019), as well as enriching their psychological capital. This evidence leads to the identification of the research opportunity to analyze the influence of the enabling characteristics of budgetary control (repair, internal and global transparency, and flexibility) on the psychological capital of managers with budgetary responsibility.

The repair characteristic refers to the provision of resources for individuals (Chapman & Kihn, 2009) so that when there are problems or opportunities for improving processes in the workplace they can interfere on their own, solving flaws and avoiding interruptions to the process (Coyte, 2019; Henttu-Aho, 2016; Wouters & Wilderom, 2008). The enabling control is designed with the perception that there will be unforeseen situations, since not everything is considered in advance, which means that employees have the freedom to define action plans at the unexpected moment (Chapman & Kihn, 2009) and make improvement adjustments (Ahrens & Chapman, 2004; Coyte, 2019), making them feel relevant, valued, capable of taking decisions alone, and motivated, enhancing confidence, hope, optimism, and resilience. In light of that, a greater repair capacity is expected to be associated with a higher level of psychological capital of middle-level managers with budgetary responsibility, which is the first hypothesis tested in the research.

H<sub>1</sub>: repair capacity in the budgetary control is positively related to managers' psychological capital.

Making internal processes transparent, providing visibility and information, relates to internal transparency (Coyte, 2019; Mucci et al., 2021), which enables individuals to understand the basis for processes, to capture information, and to understand the motives behind each control procedure and practice adopted (Wouters & Wilderom, 2008), increasing their commitment and trust and causing greater engagement in the work (Mishra et al., 2014). According to Mucci et al. (2021), in budgetary control, internal transparency depends on the extent to which budgetary variations and their influences on other processes are measured in significant groups. From an enabling control perspective, the budget clarifies tasks, unit objectives, and the functioning of the internal budget through information sharing (Henttu-Aho, 2016), combining experiences and offering feedback regarding the users' performance (Wouters & Wilderom, 2008).

With greater information sharing and, consequently, internal transparency, there is the stimulation of trust and dedication in the company workplace, facilitating cooperation (Mia & Patiar, 2002) and motivation (Beuren et al., 2020), which can develop individuals' psychological capital, since when there is an understanding about their activities and expected results, they feel more secure and have positive expectations (Degenhart et al., 2022; Newman et al., 2014). With that, it is assumed, in the second research hypothesis, that a higher level of internal transparency is associated with a higher level of psychological capital of middle-level managers with budgetary responsibility.

H<sub>2</sub>: internal transparency in the budgetary control is positively related to managers' psychological capital.

While greater clarity about the functioning of local conditions conveys internal transparency, an understanding of where and how those procedures are introduced into the company's processes, as a whole, embodies global transparency (Ahrens & Chapman, 2004; Chapman & Kihn, 2009). This relates to the employees' knowledge about the wider context in which their activities are carried out (Wouters & Wilderom, 2008), understanding the impact their tasks have on the organization (Jørgensen & Messner, 2009), on the company's objectives, strategies, and agenda (Chapman & Kihn, 2009), where the budget is a way of making the processes globally explicit (Ahrens & Chapman, 2004).

For Liu (2013), when an individual recognizes their supervisor's support, they have higher levels of psychological capital, improving their job performance. The same is observed based on the recognition of a favorable organizational climate (Luthans et al., 2008). The enabling approach promotes greater information sharing, which serves as a resource for solving problems and developing activities, thus improving performance (Coyte, 2019). That support can be achieved with transparency, both internal and global, since transparency enables a greater understanding of the tasks and their relationship in the company as a whole, ensuring adequate and precise information and a greater association of the individual with their attributions and the work environment (Sánchez et al., 2012). According to Luthans et al. (2008), when the company creates a supportive environment for the

employees, this is more likely to foster their positive psychological capacities, overcoming obstacles that arise in the execution of tasks, for which reason these professionals increase their optimism and seek new and better paths to obtain success. Thus, the third research hypothesis establishes that a higher level of global transparency is associated with a higher level of psychological capital of middle-level managers.

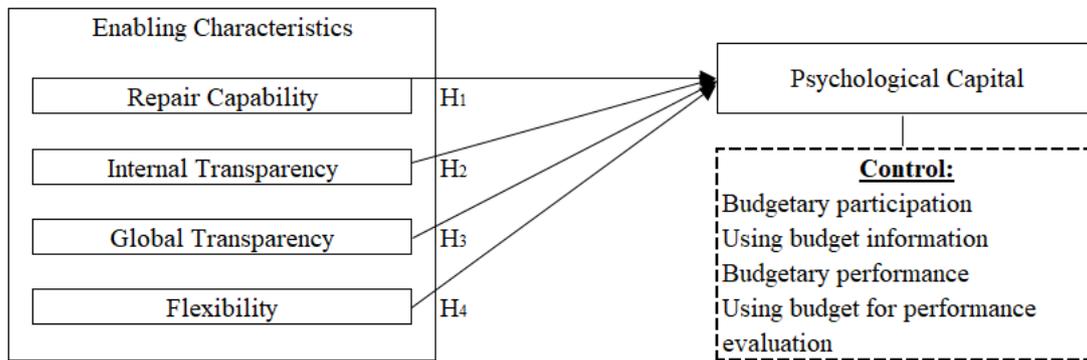
H<sub>3</sub>: global transparency in the budgetary control is positively related to managers' psychological capital.

Based on information shared in the enabling budgetary control, individuals can take decisions to meet the work demands, which includes flexibility (Wouters & Wilderom, 2008), meaning employee discretion in the use of control systems (Ahrens & Chapman, 2004). Within the context of the performance management system, transparency and flexibility mean performance measures are understood by individuals as something that provides practical experience and autonomy to make it achievable (Wouters & Wilderom, 2008). Thus, behavior cannot be previously guided by standards and rules to have flexibility (Jørgensen & Messner, 2009). Budgetary control is one of the management controls used to evaluate performance (Covaleski et al., 2007; Hansen & Van der Stede, 2004), so it tends to influence the attitudes, behaviors, and performance of managers with budgetary responsibility (Degenhart et al., 2020).

Within that context, it is believed that flexibility enables employees to have greater control over the path they will follow to achieve the goals they are designated, ensuring autonomy to overcome unforeseen situations (O'Grady, 2019), with them putting greater effort and confidence into the achievement of their work, believing they will have positive results. Thus, a greater level of flexibility is expected to be associated with a greater level of psychological capital of middle-level managers with budgetary responsibility, being positively reflected in their self-efficacy, hope, optimism, and resilience, which is the fourth hypothesis investigated in this research.

H<sub>4</sub>: flexibility in the budgetary control is positively related to managers' psychological capital.

Figure 1 presents a summary of the relationships investigated.



**Figure 1** Theoretical analysis model

Source: Elaborated by the authors.

It is believed that enabling budgetary control can promote information sharing and stimulate feedback and problem solving by the individuals themselves (Henttu-Aho, 2016; Mucci et al., 2021), supported by their psychological capacities and cognitive resources (Degenhart et al., 2022; Schlup et al., 2021). As well as promoting learning, enabling budgetary control offers ways of improving the development of the work carried

out by the employees (Wouters & Wilderom, 2008), who come to act with greater motivation toward the work and believe they have the skills to execute their tasks (Souza & Beuren, 2018). For that reason, it is believed that enabling budgetary control is able to enhance the positive psychological capacities of middle-level managers with budgetary responsibility, such as their psychological capital and its dimensions.

### 3. RESEARCH METHOD AND PROCEDURES

The survey was conducted with 85 middle-level managers of a publicly-traded American company. The company studied has operated in Brazil for decades in the industrial sector and has more than 10 thousand employees. The budget is an important management control instrument that is formally established and used there. Thus, it represents an adequate study environmental for the purposes of this research. This context is similar to the one used by Mucci et al. (2021) for their study of the effects of enabling characteristics of the budget. Studies in a single organization are relevant for understanding the interactions between management practices and behavioral aspects (Nouri & Parker, 1998), at an individual level of analysis (Nouri & Parker, 1998). Similarly, such studies can be an important research field for analyzing and understanding differences in the same institutional environment (Aguiar, 2018; Souza & Beuren, 2018).

The sample analyzed includes middle-level managers with budgetary responsibility, where the individuals represent the level of analysis (Degenhart et al., 2022; Mucci et al., 2021). Internationally obtained, it included managers who (i) actively participate in the organization's budgeting processes, (ii) use information from the budget in their work activities, (iii) answer for the budget in their unit of responsibility, and (iv) have their performance evaluated through the budgetary execution of their unit

of responsibility (considering budget objectives, goals, and actual variations) (Mucci et al., 2021). Middle-level managers are responsible for the communication between senior management and the operational level (Fauré & Rouleau, 2011; Schmid et al., 2010), as well as answering for the budget of their unit of responsibility. Managers from different departmental units may present different perceptions regarding the budget system used in the same organization (Kihn, 2011; Mucci et al., 2021), for which reason they are important for an analysis of the relationships proposed in this research.

In the company studied, from January to February of 2022, the data collection period, 186 managers were identified who fit such characteristics. Via a request to provide an online form to participate in the research, a voluntary answer was obtained from 85 participants, which represents a response rate of 45.70% of the potential participants in the research. Only one contact was established and there were no further requests made for participation in the research.

The context studied is characterized by a participative budgetary environment that, to some extent, enables interaction between senior managers and subordinates. Budgetary discussions occur periodically, with the purpose of aligning the established goals and objectives, considering the availability of resources and needs to apply them. The

budget is used as a performance evaluation mechanism in which managers with budgetary responsibility are answerable for the budget of their unit of responsibility, as well as using the budget in their work activities and explaining its variations.

With relation to the profile of the respondents, 70.59% are of the male sex, with the predominant age varying from 31 to 50 years old (60 respondents), and only seven managers being under 30 years old. Of the total respondents, 77 have completed higher education, with only eight having taken a master's degree. The time working in their company and the time working in their current role vary, respectively, from six to 20 years (including from 66 to 78 managers). All in all, 70 managers have had budgetary responsibility for more than five years. Considering a 7 point scale, where 1 represents the lowest level and 7 is the highest level, these managers indicated that they generally consider the following to be high: (i) the hierarchical level of their position (mean of 5.80), (ii) the level of usage of the budget for evaluating their performance (mean of 5.78), (iii) their level of budgetary knowledge (mean of 6.56), and (iv) their level of knowledge of budgetary routines and processes of the organization they work for (mean of 6.52).

For the data collection, a request was initially made for authorization to use the data collection instrument related to psychological capital of the copyright holding company, Mind Garden, Inc. ([www.mindgarden.com](http://www.mindgarden.com)). Next, the research instrument was elaborated and it was processed by the research ethics committee of the institution the authors are affiliated with, which was approved on November 11<sup>th</sup> of 2021, under opinion n. 5,101,241. The collection instrument used is composed of two constructs that measure, respectively, the enabling characteristics of budgetary control (repair capacity, internal transparency, global transparency, and

flexibility), as proposed by Chapman and Kihn (2009), and psychological capital (based on the dimensions of self-efficacy, hope, resilience, and optimism), as proposed by Luthans et al. (2007).

The data collection instrument used to evaluate the characteristics of the enabling budgetary configuration (EBC) is composed of 14 questions, with the use of a 7 point Likert scale. In turn, the one used to evaluate the managers' psychological capital (PC) is composed of 24 questions, with the use of a 6 point Likert scale. Both instruments were structured based on their original scales proposed by the authors, with objective, multiple choice questions that measure the research participants' level of agreement in relation to each statement presented. The following are examples of questions applied:

EBC – the budgetary process helps to clarify the activities that compose my business unit; it helps to communicate the business unit's strategy; I have easy access to highly detailed information to investigate budgetary deviations.

PC – I feel confident when analyzing a long-term problem to be able to seek a solution; when representing my area in meetings with management; when contributing to discussions about the organization's strategy.

The data were analyzed based on the procedures used in the study of Mucci et al. (2021): descriptive statistical analysis (minimum, maximum, mean, and standard deviation), factor analysis, reliability analysis of the measurement constructs [average variance extracted (AVE) > 0.5; composite reliability (CR) > 0.7; Cronbach's alpha > 0.7], the method bias test (< 0.5), and discriminant validity. The hypotheses were tested through structural equation modeling (with the use of the SmartPLS software 3.0), analyzing the evaluation criteria according to the parameters indicated by Hair et al. (2013). The results found are presented below.

## 4. RESEARCH RESULTS

### 4.1 Validation of the Measurement Constructs

The results of the factor analysis carried out indicated the exclusion of three indicators from the measurement constructs, one being an indicator of the global transparency construct (GT3), one for resilience (RE1), and the other for optimism (OP6), as they presented low factor loadings (< 0.5). The other constructs had their original composition confirmed, with all the indicators

obtaining factor loadings no lower than 0.665 (the lowest value found). As proposed by Podsakoff et al. (2012), the method bias test conducted (Harman's test) indicated the composition of eight components, with the first factor presenting a total variance extracted of only 38.088%, which suggests the non-existence of problems of common method bias. Table 1 presents a summary of the results of the descriptive statistics, of the discriminant validity test, and of the reliability indicators.

**Table 1**  
*Descriptive statistics, discriminant validity, and reliability*

Research variables	RI	Mean	SD	RC	IT	GT	FL	PC	AVE	CR	Q <sup>2</sup>	f <sup>2</sup>
RC	1-7	6.12	1.29	0.808					0.653	0.790	-	0.027
TI	1-7	6.11	1.31	0.757	0.759				0.576	0.844	-	0.284
TG	1-7	6.00	1.36	0.631	0.640	0.802			0.643	0.899	-	0.455
FL	1-7	5.00	1.43	0.587	0.605	0.796	0.903		0.816	0.899	-	0.407
CP	1-6	5.00	1.13	0.672	0.607	0.582	0.602	0.686	0.500	0.950	0.198	0.385

**Note:** R<sup>2</sup> = 0.523.

AVE = average variance extracted; CR = composite reliability; f<sup>2</sup> = size effect; FL = flexibility; GT = global transparency; IT = internal transparency; PC = psychological capital; Q<sup>2</sup> = predictive relevance; RI = real interval; RC = repair capacity; SD = standard deviation.

**Source:** Elaborated by the authors.

The research constructs have CR values no lower than 0.7 and AVE values no lower than 0.5, thus fulfilling the validation criteria proposed by Hair et al. (2013). The structural model evaluated presents discriminant validity, according to the Fornell and Larcker (1981) criterion. The structural model presents predictive relevance (Q<sup>2</sup>) for explaining psychological capital of 0.198 and a high coefficient of variation (R<sup>2</sup> = 0.523) for social sciences, as proposed by Cohen (1988). The same is observed in relation to the size of the effect (f<sup>2</sup>) of the investigated variables on the managers' psychological capital, considered to be high (0.385), according to Cohen (1988). Thus, it is possible to test the theoretical relationships investigated in the research, based on the proposed structural analysis model.

## 4.2 Results of the Hypotheses Test

Table 2 presents the results of the hypotheses test from the analysis of the effects of the enabling characteristics of budgetary control on psychological capital. To carry out that analysis, four structural models were tested. The first evaluated the direct relationships between the control variables (budgetary participation, use of information from the budget in the work activities, performance of the budget of the unit of responsibility, and use of the budget for performance evaluation) and psychological capital. The second evaluated the direct relationships between the enabling characteristics (repair capacity, internal and global transparency, and flexibility) and psychological capital. Based on the control variables that present some level of statistical significance, the next step was to evaluate the final model, which contemplates budgetary participation as a single significant control variable.

**Table 2**  
*Standardized coefficients and significances of the relationships of the structural models tested*

Structural paths	1 <sup>st</sup> SEM tested			2 <sup>nd</sup> SEM tested			3 <sup>rd</sup> SEM tested			4 <sup>th</sup> SEM tested		
	Std. coef.	t-value	p-value									
H <sub>1</sub> . RC → PC				0.401	2.165	0.031*	0.348	2.091	0.037*	0.346	2.024	0.044*
H <sub>2</sub> . IT → PC				0.116	0.797	0.426	0.080	0.517	0.606	0.110	0.794	0.428
H <sub>3</sub> . GT → PC				0.052	0.265	0.791	0.098	0.547	0.584	0.098	0.546	0.585
H <sub>4</sub> . FL → PC				0.254	2.699	0.007*	0.205	1.973	0.049*	0.200	1.882	0.060**
PB → PC	0.348	2.705	0.007*				0.176	2.164	0.031*	0.186	2.200	0.028*
UBI → PC	0.332	1.920	0.055**				0.051	0.458	0.647			
BP → PC	-0.060	0.519	0.604									
UBPE → PC	-0.047	0.303	0.762									

BP = budgetary participation; DO = performance of the budget of the unit of responsibility; FL = flexibility; GT = global transparency; IT = internal transparency; PC = psychological capital; RC = repair capacity; SEM = structural equation modeling; Std. coef. = standardized coefficients; UBI = use of budget information in the work activities; UBPE = use of the budget for performance evaluation.

\* = p < 0.05; \*\* = p < 0.10.

**Source:** Elaborated by the authors.

It is possible to observe in Table 2 that only hypotheses H<sub>1</sub> (repair capacity → psychological capital) and H<sub>4</sub> (flexibility → psychological capital) can be supported. A positive and significant link was observed between repair capacity and psychological capital, which confirms the first research hypothesis. Thus, it is possible to state that an enabling budgetary control, designed so it can be remodeled and adjusted by whoever will use it, through repair capacity, enhances the psychological capital of middle-level managers with budgetary responsibility.

Within the context investigated, internal transparency and global transparency in the budgetary control did not present a significant influence on psychological capital, thus rejecting the second and third research hypotheses. The generation of information and clarity of the internal processes of the budget, such as the visibility that the budgetary control offers regarding the interaction of the areas and procedures and a general overview of the company (Henttu-Aho, 2016), do not have a significant relationship with the dimensions that form psychological capital, that is, the self-efficacy, hope, optimism, and resilience of the managers participating in the research (Table 3). Despite that, it is perceived that the relationship found is positive, which suggests that, in conditions of higher levels of psychological capital, there is more likelihood of observing higher levels of internal and global transparency, since, according to Machado et al. (2022), when there are higher levels of information sharing in the company, self-efficacy, hope, optimism, and resilience are enhanced.

The results of the test of the fourth research hypothesis confirm the positive and significant influence of the flexibility of the budgetary control on the psychological capital of middle-level managers with budgetary responsibility, thus supporting H<sub>4</sub>. When the objectives and directions to achieve them are not clearly defined, budgetary flexibility enables greater employee involvement in the decision-making processes (Jørgensen & Messner, 2009), resulting in greater autonomy for the individual, not only in terms of delegation and decentralized power, but as a way of developing the individual's creativity capacity (Ahrens & Chapman, 2004) and positive psychological capacities. Flexibility enables the manager to develop various action plans in the budgetary control, depending on the situations that arise (Henttu-Aho, 2016), characterizing decision-making freedom and stronger psychological capital.

Thus, together with repair capacity, budgetary flexibility enables managers to exert an influence on the courses of their actions, as well as to adjust the initially outlined plans, with the aim of ensuring the achievement of better results in relation to the objectives

and goals set. These conditions reinforce the positive psychological capacities that compose the managers' psychological capital, being positively reflected in their beliefs of self-efficacy, hope, resilience, and optimism for the achievement of such results. Managers who promote their self-efficacy beliefs become more confident and motivated and believe they have the abilities needed to carry out their work assignments (Degenhart et al., 2022; Luthans et al., 2007; Venkatesh & Blaskovich, 2012). These managers are more likely to exert more effort to achieve such results, becoming more hopeful and optimistic regarding the possibility of obtaining success in their work activities (Luthans & Youssef, 2004; Luthans et al., 2008). Given these promoted psychological capacities, those managers also become more resilient to face and overcome the adversities of the work (Degenhart et al., 2022; Schlup et al., 2021).

In the case outlined, budgetary participation is a relevant aspect for these effects to occur. According to Lunardi et al. (2020), the participative budgetary configuration promotes the interaction of budget managers, favoring the communication and alignment of objectives, goals, and forecasted budgetary plans. This contributes to the managers committing to the established budgetary goals (Degenhart et al., 2022), hence their greater propensity to focus on achieving them.

In light of these findings, it can be inferred that individuals who perceive the enabling characteristics of budgetary control are more confident, optimistic, and hopeful regarding the achievement of the budgetary objectives, as well as being more resilient managers. For that reason, it can be concluded that, within the budgetary context studied, through repair capacity and budgetary flexibility, due to the enabling characteristics of the budgetary control present in that environment, the organization acts to promote the psychological capital of middle-level managers with budgetary responsibility.

#### 4.3 Enabling Characteristics and Dimensions of Psychological Capital

Although psychological capital is an indivisible construct composed of four psychological capacities indicated by Luthans et al. (2007), an additional analysis was carried out with the aim of better understanding the possible interactions between the characteristics of enabling budgetary control and the dimensions of psychological capital. For this, the possible effects of budgetary participation as a control variable were also observed. The results of this analysis are presented in Table 3.

**Table 3***Results of the relationship between enabling characteristics and dimensions of psychological capital*

Paths	Std. coef.	t-value	p-value
Repair capacity → Self-efficacy	0.350	1.686	0.092**
Internal transparency → Self-efficacy	0.114	0.645	0.519
Global transparency → Self-efficacy	0.119	0.580	0.562
Flexibility → Self-efficacy	0.042	0.326	0.745
Budgetary participation → Self-efficacy	0.241	2.359	0.019*
Repair capacity → Hope	0.362	1.928	0.054**
Internal transparency → Hope	0.059	0.389	0.698
Global transparency → Hope	0.168	1.088	0.277
Flexibility → Hope	0.140	1.165	0.245
Budgetary participation → Hope	0.181	2.081	0.038*
Repair capacity → Resilience	0.349	1.708	0.088**
Internal transparency → Resilience	0.100	0.571	0.568
Global transparency → Resilience	-0.012	0.056	0.955
Flexibility → Resilience	0.112	0.670	0.503
Budgetary participation → Resilience	0.150	1.233	0.218
Repair capacity → Optimism	0.223	1.358	0.175
Internal transparency → Optimism	0.072	0.408	0.684
Global transparency → Optimism	0.037	0.239	0.811
Flexibility → Optimism	0.416	3.223	0.001*
Budgetary participation → Optimism	0.067	0.610	0.542

*Std. coef.* = standardized coefficients.

\* =  $p < 0.05$ ; \*\* =  $p < 0.10$ .

**Source:** *Elaborated by the authors.*

The evidence found in this stage of the research provide indications that suggest that repair capacity is positively related with the managers' individual resilience and their self-efficacy beliefs and hope to achieve the expected results. Repair capacity implies giving individuals the freedom to fix flaws in the work processes (Jørgensen & Messner, 2009), creating opportunities for them to take correction or improvement decisions, which enhances their courage to deal with flaws, their confidence that they are capable of assuming attitudes and taking decisions needed to carry out their work activities, and their determination to be successful in relation to the objectives set.

According to Avey et al. (2011), individuals who have developed psychological capital believe they have the skills and abilities to be successful in the work performed. These professionals also expect favorable situations to occur at work and to be able to overcome the adversities faced, which is consistent with the understanding that the enabling control logic stimulates dealing with unexpected situations (Adler & Borys, 1996). Therefore, it can be inferred that using budgetary control in an enabling

way means managers are always prepared to face adverse situations (Ahrens & Chapman, 2004).

When the company believes that the employees can take decisions and enables that to occur, this makes these professionals feel valued and important, increasing their confidence in their work and in their abilities. This means that these individuals are willing to put more effort into the objectives to be achieved. For that reason, enabling budgetary control promotes managers' self-efficacy, which according to Luthans and Youssef (2004) involves a mental state in which the individual believes they have sufficient ability to instigate their motivation, their cognitive resources, and their actions to obtain success in the activities to be carried out. The enabling approach of budgetary control results in fewer possibilities of generating resistance in the individuals (Chapman & Kihn, 2009) and less insecurity and fear about having the capacities needed to carry out their work activities, which also contributes to promoting their resilience for the work (Degenhart et al., 2022; Schlup et al., 2021).

The evidence found also suggests that the flexibility of the budget promotes the managers' optimism in the face

of the adversities encountered in the work environment, in pursuit of achieving the expected results. The flexibility characteristic is an opportunity for learning, since the use of the control system does not occur based on manuals and rules; on the contrary, there is the possibility of modification, according to the needs of whoever uses it (Adler & Borys, 1996), whose enabled autonomy is conducive to the development of individuals' hope and optimism at work, influencing favorable evaluations of their potentialities. The inclusion of budgetary participation as a control variable in the tested structural model also reveals that this is a determinant for the promotion of managers' self-efficacy beliefs and the hope that drives them in pursuit of those objectives.

Therefore, it is possible to state that repair capacity and flexibility, together with budgetary participation, are elements that promote important positive psychological capacities that directly impact individuals' behavior in the workplace. According to Venkatesh and Blaskovich (2012), a company that provides the opportunity for employees to participate in budgetary processes and take decisions when necessary is capable of developing their level of hope, meaning that those professionals feel they have control over their tasks and their future performance, as well as control of the organization itself. They will thus be more committed to the established budgetary goals and will endeavor more to achieve the expected results (Degenhart et al., 2022).

In light of the above, this stage of the research highlights that, within the context studied, the benefit of repair capacity is primarily in terms of self-efficacy, resilience, and hope, but not in terms of optimism. In turn, flexibility promotes managers' psychological capacities, primarily in terms of optimism, which reinforces the evidence of the interactive and complementary effects of the enabling characteristics of budgetary control on the psychological capital of middle-level managers with budgetary responsibility.

#### 4.4 Discussion of the Results

The research findings provide evidence that the characteristics of enabling budgetary control that allow for repair and flexibility are positively linked to managers' psychological capital. According to Adler and Borys (1996) and Souza and Beuren (2018), an enabling management control system is capable of stimulating interaction between the individuals in a company, allowing them to make adjustments and to be able to structure a more flexible control system that helps the employees with regard to the work demands. Repair includes the capacity managers

have to deal with unexpected deviations, regulating the work activities so as not to halt the processes (Adler & Borys, 1996; Ahrens & Chapman, 2004). When that occurs, it promotes greater involvement and knowledge of the individuals in the work carried out and they feel more active (Adler & Borys, 1996) and committed to their assignments, which is positively reflected in their confidence to expend greater effort in search of success, in their determination to pursue the goals, and in their confrontation of any problems and adversities experienced (Luthans et al., 2007).

Flexibility in the budgetary control seeks a quicker reaction to situations that arise (Chapman & Kihn, 2009), through the deployment of resources or by taking advantage of opportunities based on new strategies (Mucci et al., 2021), giving support in achieving the goals and in overcoming obstacles and challenges, which favors optimism and confidence, enhancing the managers' psychological capital. When individuals have a high efficacy level, they put more energy into performing the work activities and have optimistic expectations and perseverance to deal with adversities (Avey et al., 2011). Flexibility generates a feeling of satisfaction and motivation (Adler & Borys, 1996) given the autonomy the managers have to reallocate resources in the face of contingencies (Mucci et al., 2021). On the other hand, a lack of flexibility generates pre-defined budgetary goals and directions (Mucci et al., 2021), causing tension among managers as they lack freedom regarding their action plans (Jordan & Messner, 2012).

Since not everything can be foreseen, repair capacity enables managers to define adjustments or improvements in the face of unforeseen situations (Chapman & Kihn, 2009), such as modifications in the budgetary planning carried out in advance (Mucci et al., 2021), and flexibility, based on the individuals' autonomy to take decisions according to their needs (Wouters & Wilderom, 2008), such as in the redistribution of budgeted resources between departments (Mucci et al., 2021). Based on these adaptations, it is believed that individuals feel valued and they have freedom in the budgetary processes, which leads to greater security and confidence in their capacity to perform tasks, this being reflected in higher levels of energy and self-determination in their execution. This contributes to these professionals not giving up in the face of any adversities faced and they act to overcome the obstacles of the work carried out. Consequently, it can be inferred that these managers are the ones whose positive psychological capacities are developed (Schlup et al., 2021). As Newman et al. (2014) explain, when their psychological capital is developed, individuals have

positive perceptions about their objectives and greater confidence that they have the necessary capacities to perform their work activities. Thus, they act to overcome the barriers that appear in their path, which is reflected in their performance in the budgetary activities (Degenhart et al., 2022).

In contrast, the research findings did not find a significant relationship of internal transparency and of global transparency with psychological capital. Internal transparency in the budgetary process makes the activities of every unit clear, increasing the users' knowledge about the operations, the increase in revenue and costs of their departments, as well as their knowledge about the functioning of the organization as a whole (Chapman & Kihn, 2009). It is a form of giving support to the employees in their management and decision-making experience. However, it must be considered that different factors affect an organization's production processes, which can in some way be reflected in the decisions taken by those outlining the budgetary control system adopted. Although positive, this non-significant relationship suggests that, in this context and at this point, the internal clarity does not have a direct effect on the managers' psychological capital and does not contribute to the promotion of that favorable mental state.

Global transparency is achieved when the budgetary process contributes to increasing the managers' understanding about the organization's strategies (Chapman & Kihn, 2009). Thus, it enables it to be more clearly visualized whether the budgetary control is aligned with the company's vision (Jordan & Messner, 2012), as well as providing a large amount of relevant information about the budgetary control (Mucci et al., 2021). These

aspects are also not determinants, in this context and at this point, for the development of the managers' psychological capital. Global transparency is a way of having greater visibility and more questioning regarding deficiencies (Jordan & Messner, 2012), helping managers to understand and accept the control systems adopted (Adler & Borys, 1996; Ahrens & Chapman, 2004). However, this knowledge of the impact of local decisions on the wider perspectives of the organization does not exert a significant positive impact on the analysis dimensions of psychological capital (individuals' self-efficacy, hope, optimism, and resilience).

In general, it is perceived that a budgetary process that helps in understanding the activities and operations of a work unit under a manager's responsibility, as well as in understanding the general context in which the work is carried out, through flows of strategic information for operational managers, can have a positive and significant effect on managers' conviction that they have the capacity to perform the tasks and achieve positive results, as well as over their perseverance in pursuit of the goals and capacity to deal with adversities. A company that provides support in the work environment will more easily obtain more self-efficient, hopeful, optimistic, and resilient managers (Luthans et al., 2008).

However, the same is not perceived at a global (organizational) level. In summary, given the findings of this research, and of Luthans and Youssef (2004), which understand psychological capital as a capacity that can be developed and improved, it can be concluded that the characteristics of repair and flexibility of enabling budgetary control are capable of enhancing the psychological capital of the middle-level managers with budgetary responsibility who participated in the research.

## 5. CONCLUDING REMARKS

Considering that budgetary control can be structured in an enabling or coercive way, and it is capable of influencing the attitudes, behaviors, and mindset of individuals at work, this research sought to analyze the influence of the enabling characteristics of budgetary control on the psychological capital of managers with budgetary responsibility. The results found enable it to be inferred that the characteristics of repair and budgetary flexibility have a positive and significant relationship with psychological capital.

This study contributes to evidence found in the literature about the enabling-coercive structure of Adler and Borys (1996), showing that the enabling characteristics of budgetary control can have a positive effect on the mental and cognitive state of individuals with budgetary

responsibility. The results show an understanding of the influence of factors that exist in the budgetary context on psychological capital, portraying which characteristics of EBC are positively reflected in beliefs of self-efficacy, hope, optimism, and resilience for the achievement of the desired organizational objectives and results, which, in a way, tends to impact the performance of individuals at work and organizational performance.

The findings also provide support for companies to place emphasis on the enabling effects of EBC, outlining organizational resources and a budgetary control structure that aim to improve the management practices adopted and the positive mental states of managers, which will generate benefits for the organization. These positive effects of the enabling controls (repair capacity and flexibility)

over psychological capital are even more relevant for organizations due to the benefits associated with the development of psychological capital that have been identified, as well as a lower level of absenteeism, lower level of cynicism among collaborators, greater job satisfaction, and greater commitment to results (Abdallah, 2015).

This study presents some limitations. One of the possible advantages of developing a single-entity study is obtaining information from the organizational context that is specific to the organization studied and that enables the relationships examined to be contextualized. Unfortunately, the organization examined did not allow us to delve deeper into the characteristics of the budgetary process developed, restricting our access in terms of contact with the managers participating in the study. In addition, the covid-19 pandemic may have influenced the positive psychological capacities of the respondent managers in their work environment, since, in times of uncertainty and tension, with health concerns and pressures regarding working conditions, their self-efficacy, hope, optimism, and resilience at work may have been affected. Also, the quantitative approach used does not enable the identification of other variables that may influence the psychological capital of individuals with budgetary responsibility. Consideration should also be given to the existence of other variables that were ignored and could have been incorporated into the analyses conducted to explain these relationships, such as the respondents' area of activity and the reflections of these interactions on the individuals' attitudes and behaviors

at work, which represents a research opportunity for carrying out new studies on the topic. However, the methodological procedures adopted were rigorous enough to enable inferences about the elements of analysis covered in this study.

The research represents an advancement in the production of new knowledge about the topic and innovates by evaluating the interactive and multidimensional effects of enabling budgetary control (repair, internal transparency, global transparency, and resilience), advancing the literature by indicating which characteristics exert the greatest influence on psychological capital and its analysis dimensions, which contributes to reducing the gap that exists in the literature on the effects of these characteristics as elements that promote the psychological capital of middle-level managers with budgetary responsibility. Similarly, it stimulates the execution of new research. We suggest carrying out other surveys in other companies, in order to conduct a study that enables comparisons between organizations, as well as sectors, in addition to producing solid literature on the topic. We also recommend investigations that use other analysis elements, such as contextual factors (e.g. environmental uncertainty), which may contribute to understanding conditioners of the adoption and use of enabling budgetary control. In addition, we suggest carrying out new research with the aim of evaluating the consequent effects of the interaction between these control mechanisms and the managerial attitudes of professionals with budgetary responsibility.

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