

The influence of the ethical climate on procedural justice and organizational commitment: the interaction of budgetary participation

Influência do clima ético na justiça procedimental e no comprometimento organizacional: interação da participação orçamentária

Januário José Monteiro^a, Daiane Antonini Bortoluzzi^a, Rogério João Lunkes^a, Fabricia Silva da Rosa^a

^a Universidade Federal de Santa Catarina - Brazil

Keywords

Ethical climate.
Procedural justice.
Budgetary participation.
Organizational commitment.

Abstract

The research aims to evaluate the influence of the ethical climate, procedural justice, and budgetary participation in organizational commitment. To achieve the objective, a questionnaire was applied with managers from 150 companies listed in Brazil, Bolsa, Balcão (B3). The data were analyzed using structural equation modeling (PLS-SEM) and Fuzzy set qualitative comparative analysis (FsQCA). The results show that the ethical climate positively influences the perception of procedural justice and organizational commitment. It is also evident that the high level of budgetary participation has a positive influence on organizational commitment. In addition, the study shows that the participation of managers in the budgeting process positively intensifies the relationship between perception of procedural justice and organizational commitment. The research contributes to the literature by suggesting that greater adoption of ethical practices in the exercise of tasks and the participation of managers in preparing the budget, accentuates the high level of perception of procedural justice and organizational commitment.

Palavras-chave

Clima ético.
Justiça procedimental.
Participação orçamentária.
Comprometimento organizacional.

Resumo

A pesquisa tem por objetivo avaliar a influência do clima ético, justiça procedimental e participação orçamentária no comprometimento organizacional. Para atingir o objetivo foi aplicado um questionário com gestores de 150 empresas listadas na Brasil, Bolsa, Balcão (B3). Os dados foram analisados por meio modelagem de equações estruturais (PLS-SEM) e Fuzzy set qualitative comparative analysis (FsQCA). Os resultados mostram que o clima ético influencia positivamente na percepção de justiça procedimental e no comprometimento organizacional. Evidencia-se também, que o alto nível de participação orçamentária exerce influência positiva no comprometimento organizacional. Além disso, o estudo mostra que a participação dos gestores no processo orçamentário intensifica positivamente a relação entre a percepção de justiça procedimental e o comprometimento organizacional. A pesquisa contribui com a literatura ao sugerir que uma maior adoção de práticas éticas no exercício das tarefas e a participação dos gestores na elaboração do orçamento, acentua o alto nível de percepção de justiça procedimental e o comprometimento organizacional.

Article information

Received: September 13, 2020
Approved: March 16, 2021
Published: June 17, 2021

Practical implications

The findings suggest that organizations should reinforce their governance with the implementation of tools that foster an ethical climate, procedural justice and greater commitment on the part of managers. We also suggest that managers be encouraged to participate in the elaboration of the budget because it strengthens their perception of procedural justice in their commitment to the organization.

Copyright © 2021 FEA-RP/USP. All rights reserved

Corresponding author: Tel. +55 (48) 3721-9000

E-mail: januariomonteiromonteiro@gmail.com (J. J. Monteiro); daianeantonini@gmail.com (D. A. Bortoluzzi); rogeriolunkes@hotmail.com (R. J. Lunkes); fabriciasrosa@hotmail.com (F. S. da Rosa)

Universidade Federal de Santa Catarina, Centro Sócio-Econômico, Departamento de Ciências Contábeis. Campus Universitário Reitor João David Ferreira Lima, Trindade - Florianópolis/SC - 88040970, Brazil.

1 INTRODUCTION

The organizational commitment of employees is fundamental to the achieving of company objectives. It is an emotional attachment that enables employees to commit themselves to the organization's values (Geisler, 2019), and has positive effects such as better performance, greater satisfaction, and lower turnover (Schwepker, 2001). Dedicated employees tend to have greater work satisfaction and, as a result, greater productivity. Studies have already demonstrated that greater organizational commitment may be related to a good ethical climate (Schwepker, 2001; Martin & Cullen, 2006) and participation in the company budget (Parker & Kyj, 2006; Chong & Johnson, 2007; Kohlmeyer et al., 2014).

Over the past few decades, researchers have become increasingly interested in understanding ethical issues in the work environment (Schwepker, 2001; Neubert et al., 2009; Shin et al., 2015; Goebel & Weißenberger, 2017; Mulki & Lassk, 2019). This is because the ethical climate is related to an organization's procedures, policies and practices (Naumann & Bennett, 2000; Martin & Cullen, 2006) translated into actions and decisions which can positively affect procedural justice and organizational commitment (Martin & Cullen, 2006; Luria & Yagil, 2008; Shin et al., 2015). Procedural justice assumes the organization's impartiality within the context of decision-making procedures (Luria & Yagil, 2008), and an organizational commitment to the congruence of individual and organizational interests (Meyer & Allen, 1991).

Along the same lines, the literature concerning managerial control suggests that participation in the budgetary process offers various benefits to the organization (Nouri & Parker, 1998; Lavarda & Almeida, 2013; Zonatto; Weber & Nascimento, 2019; Lunardi, Zonatto, & Nascimento, 2020; Rengel et al., 2020), among which stand out an increase in procedural justice and organizational commitment (Lau & Tan, 2006; Parker & Kyj, 2006; Chong & Johnson, 2007; Kohlmeyer et al., 2014; Rengel et al., 2020), and greater communication between the entities of the hierarchy (Chong, Eggleton & Leong, 2005; Lunardi, Zonatto, & Nascimento, 2020). Thus, it is argued that budgetary participation can increase managerial commitment by involving these individuals in budgetary decisions (Subramaniam et al., 2002). In participating in budgetary decisions, managers commit themselves to achieve organizational goals (Isgiyarta et al., 2019). Budgetary participation improves performance through an increase in organizational commitment (Mohd & Othman, 2012; Isgiyarta et al., 2019).

Even though there are indications of a relationship between an ethical climate, procedural justice, budgetary participation, and organizational commitment (Luria and Yagil, 2008; Özer & Yılmaz, 2011; Mohd & Othman, 2012; Shin et al., 2015), little is known about how these relationships occur in a symmetric manner, or how they combine based on an asymmetric approach. The literature points out that studies which seek to understand the role of ethics in the work environment are complex (ex.: Shin et al., 2015; Goebel & Weißenberger, 2017), and their effect on the behavior of managers and the organization are unclear. Studies suggest the need for more research which relates budgetary participation with other variables (Shields & Shields, 1998; Chong & Johnson, 2007; Lavarda & Almeida, 2013; Lunardi, Zonatto, & Nascimento, 2020). There have been findings that organizational commitment is a consequence of budgetary participation, but how this relationship occurs remains unclear (Parker & Kyj, 2006; Chong & Johnson, 2007).

Thus, this study seeks to broaden our knowledge of the interface between the ethical climate, procedural justice, and budgetary participation as antecedents of organizational commitment. Moreover, there is also a gap in studies that show the effect of the interaction of budgetary participation and procedural justice on organizational commitment. Thus, this study asks: What is the influence of the ethical climate, procedural justice, and budgetary participation on organizational commitment?

This study offers contributions to this field in terms of theory and practice. First, it provides evidence that the ethical climate is indispensable for organizations which seek to encourage greater commitment on the part of their managers (Schwepker, 2001; Martin & Cullen, 2006). Thus, it has been suggested that managers apply ethical, policy and guideline codes so that employees will consider their decisions just. Second, it broadens the understanding of the interface between the ethical climate and procedural justice, suggesting that a greater adoption of ethical practices in the performance of tasks accentuates the perceived level of procedural justice.

Third, this study suggests that budgetary participation is fundamental to encouraging managerial commitment to an organization. In this way, it contributes to the flow of studies which point to organizational commitment as a consequence of budgetary participation (Parker & Kyj, 2006; Chong & Johnson, 2007). This study builds on previous works (Lavarda & Almeida, 2013; Lunardi, Zonatto, & Nascimento, 2020; Monteiro et al., 2020) by demonstrating that managerial participation in the budgetary elaboration process intensifies the relationship between procedural justice and organizational commitment. This is because the perception of procedural justice encompasses participation in the budgetary elaboration process, the discussion of performance measures, and the establishment of goals. Thus, greater managerial participation in the budgetary preparation process is suggested.

In order for organizations to achieve success in their operations, in addition to an ethical climate, they need to encourage their managers to participate in the decisions related to the allocation of resources and the coordination of units which are inherent in the budgetary system. Using an asymmetric approach, this study suggests that the combination of an ethical climate, procedural justice and budgetary participation lead to a high level of organizational commitment on the part of managers.

2 THEORETICAL BACKGROUND AND THE DEVELOPMENT OF THE HYPOTHESES

2.1 Ethical climate and procedural justice

The ethical climate represents a work situation which demonstrates the moral climate and the ethical standards practiced by an organization (Mulki & Lassk, 2019). Various types of climate are related to various forms of behavior among employees, such as, for example, a climate based on principles which are associated with ethical behavior, while an egocentric climate is associated with self-interest (Haldorai et al., 2020). Thus, an ethical climate consists of perceptions of trust, responsibility, and moral standards (Luria & Yagil, 2008), which determine the criteria which members use to understand and resolve organizational situations (Martin & Cullen, 2006). Through this process, organizational values are translated into actions that later are reflected in the results of work (Martin & Cullen, 2006; Luria & Yagil, 2008).

An organization's ethical climate fosters a climate in which judgements and actions related to tasks are based on the rules of justice. In other words, when employees perceive a high level of ethics, they tend to emphasize procedural justice and transparency in the making of decisions (Naumann & Bennett, 2000). Procedural justice refers to perceived justice in the decisions taken by an organization (Luria & Yagil, 2008). Decisions considered to be just are characterized by formal decision making which is representative, consistent, impartial, precise and may be appealed (Luria & Yagil, 2008).

Previous studies have indicated that the perception of an ethical climate has a positive effect on work satisfaction (Martin & Cullen, 2006, Naiyananont & Smuthranond, 2017) and the significance of work as perceived by employees, and as a result, this reduces turnover (Mulki & Lassk, 2019). In addition, the perception of an ethical climate also influences organizational commitment and the psychological well-being of employees (Martin & Cullen, 2006). An ethical climate also has a positive effect on the perception of procedural justice (Luria & Yagil, 2008; Özer & Yılmaz, 2011; Shin et al., 2015). This is because morality and ethical principles endorsed and followed by an organization's employees can affect shared perceptions in regard to the company's procedural justice (Shin et al., 2015). Thus, an organization's employees tend to perceive decision making processes as just when they consider that activities are performed based on moral and ethical principles (Shin et al., 2015). Given this, we would like to postulate the following hypothesis:

H₁: A more ethical climate is positively related to an increase in procedural justice.

2.2 Ethical climate and organizational commitment

Organizational commitment refers to the extent to which individuals identify with and are involved in an organization. Thus, it can be defined as emotional attachment based on the individual's personal values and those of the organization (Geisler, 2019). Employees who are dedicated to an organization tend to identify with its goals and objectives and intend to remain employed there (Aguiar-Quintana et al., 2020). Martin and Cullen (2006) explain that employee commitment to an organization consists of three elements: (i) support for the organization's mission and purpose, (ii) a willingness to sacrifice oneself to support the organization's mission and purpose, and (iii) interest in remaining a member of the organization.

Within this context, low levels of organizational commitment can be dysfunctional for the individual as well as the organization, while high levels can have positive effects such as better performance, greater satisfaction and less turnover (Schwepker, 2001). Previous studies have pointed out that organizational commitment is positively influenced by ethics, organizational support (Medeiros, 2003), engagement at work (Hakanen, 2008), organizational justice and work satisfaction (López-Cabarcos et al., 2015), budgetary participation (Kohlmeyer et al., 2014) and the ethical climate (Schwepker, 2001; Martin & Cullen, 2006).

Evidence indicates that elements of this climate in an organization are significantly related to organizational commitment. Hayati and Caniogo (2012) reveal that the perception of an ethical climate positively influences the intrinsic motivation, work satisfaction, organizational commitment, and work performance of employees. In the same way, Schwegker (2001) has verified that the creation of an ethical climate, through the application of a code of ethics, policies, and guidelines, positively influences organizational commitment. Therefore, employees who perceive an ethical climate in an organization tend to have greater organizational commitment. Bearing this evidence in mind, we propose the following research hypothesis:

H₂: A more ethical climate is positively related to an increase in organizational commitment.

2.3 Budgetary participation and organizational commitment

The managerial control literature demonstrates that the budget has various purposes, among which its influence on the behavior of individuals stands out (Shields & Shields, 1998; Covaleski et al., 2003; Chong, Eggleon & Leong, 2006; Zonatto, Weber & Nascimento, 2019). Thus, budgetary participation assists the ascent of behavior that is in line with the organization's objectives (Covaleski et al., 2003; Chong, Eggleon & Leong, 2006; Zonatto, Weber & Nascimento, 2019). The involvement of managers in the determination of the organizational budget signifies participation in the elaboration of the budget (Subramaniam et al., 2002). Budgetary participation makes an exchange of information between managers and their subordinates possible, which helps decision making and instigates a permanent dialogue (Chong, Eggleton & Leong, 2005; Agbejule & Saarikoski, 2006; Lunardi, Zonatto & Nascimento, 2020).

Allowing subordinates to participate in the budgetary process increases the sharing of information which results in more precise budgets (Nouri & Parker, 1998). The objectives which are planned and approved with the participation and consent of individuals lead to a greater internalization of the company's goals and increases the sense of personal responsibility in achieving them through engagement in the budgetary process (Isgiyarta et al., 2019). To accomplish this, the budget encompasses the planning and control processes for which managers define organizational goals, and it is also considered a relevant variable in improving work related results such as organizational commitment (Subramaniam et al., 2002).

Nouri and Parker (1998) have verified that budgetary participation leads to a very appropriate budget which, in turn, increases work performance in a direct and indirect manner through organizational commitment. Brownell (2015) shows that employee participation in an organization's budget process increases work satisfaction and, as a result, organizational performance. Subramaniam et al. (2002) point out that the organizational commitment of managers can be improved through the incentive of budgetary participation. Chong and Johnson (2007) found a positive association between budgetary participation and commitment, especially budgetary goals. In the same manner, Mohd and Othman (2012) point out that budgetary participation has a significant effect on managerial performance, increasing organizational commitment. Isgiyarta et al. (2019) also verify that there is a positive effect on organizational commitment from budgetary participation. This evidence suggests that high levels of participation in the preparation of the budget can result in great managerial commitment to an organization. Thus, we will propose the following hypothesis:

H₃: A high level of budgetary participation is positively related to organizational commitment.

2.4 Procedural justice, budgetary participation, and organizational commitment

Organizational commitment is derived from a satisfactory relationship between an organization and its members and perceived justice in the eyes of the members in terms of the organization's posture (Jang et al., 2019). Thus, individuals are satisfied with an organization when they perceive that remuneration, participation and opportunities are supplied in an appropriate manner (McFarlin & Sweeny, 1992; Jang et al., 2019). When individuals do not perceive that decision making processes are just, that is, based on moral and ethical principles (Shin et al., 2015), they get a negative perception of the organization and become passive (Jang et al., 2019). Thus, when the organization's members do not participate in the budgetary planning process, they tend to feel less committed to the company (Subramaniam et al., 2002; Isgiyarta et al., 2019).

Given this, it may be argued that the combination of budgetary participation and procedural justice should intensify the employees' commitment to the organization. Previous studies such as Jang et al. (2019) have demonstrated that strategies related to procedural justice are necessary to increase organizational commitment. Ridaryanto (2020) has verified that perceptions of procedural justice tend to encourage greater commitment on the part of individuals.

Studies by Nouri and Parker (1998), Subramaniam et al. (2002) and Mohd and Othman (2012) have pointed out that budgetary participation has a positive effect on organizational commitment. Other studies, meanwhile, suggest that budgetary participation can make a greater perception of impartiality in organizational processes viable (McFarlin & Sweeny, 1992; Lau & Tan, 2006). In this manner, it is expected that budgetary participation interacts with procedural justice, increasing the commitment of the organization’s managers. This indicates that a great perception of procedural justice does not necessarily lead to an increase in commitment if the managers do not actively participate in the budget preparation. This is because for the individuals within the hierarchy, the sense of procedural justice comes from their participation in the budgetary process, the discussion of performance measures and the establishment of goals. Given these arguments, we propose the following hypothesis:

H₄: The interaction between procedural justice and budgetary participation is positively related to organizational commitment.

Now that we have presented the study’s hypotheses, we present the theoretical research model for the paths represented by these hypotheses in Figure 1.

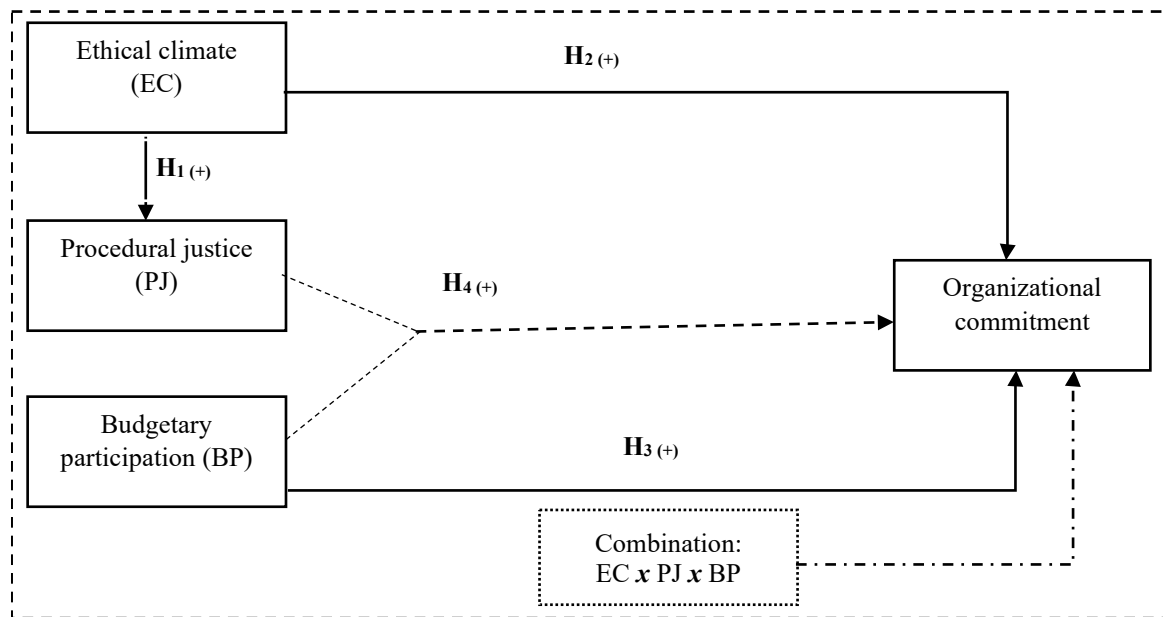


Figure 1. Theoretical model
Source: elaborated by the authors.

3 METHODOLOGICAL PROCEDURES

3.1 Data collection and the elaboration of the research instrument

The data was collected through a survey of large companies listed on the Brazilian stock market (Brasil, Bolsa, Balcão-B3). In the B3 category, 423 active companies were selected for the study sample.

For the data collection, we applied a survey based on the ethical climate (Qualls & Puto, 1989; Schwepker, Ferrell & Ingram, 1997; Schwepker, 2001), budgetary participation (Milani, 1975), procedural justice (Niehoff & Moorman, 1993) and organizational commitment (Allen & Meyer, 1990; Zettler, Friedrich & Hilbig, 2011) literature. The survey was validated with graduate students in Management to confirm the clarity of the research instrument.

The pre-test was conducted with management professionals who work at companies which were not part of the sample. A marketing company that specializes in academic studies was hired to apply the survey. This firm called the companies listed on the B3 asking that an upper-level or mid-level manager participate in the survey, specifically CEOs, directors, managers, coordinators, and supervisors. Once the invitation was accepted, we sent a link with an objective presentation of the study and the survey.

The data collection period was May and June 2020. We obtained 150 valid responses from companies in the following sectors: industrial goods, communications, cyclical and non-cyclical consumption, basic materials, petroleum, gas and biofuels, health, information technology, and public utilities, which correspond to approximately 36% of the study's company population.

3.2 Measurement of the variables and the analysis procedures

The variables were measured based on the ethical climate, budgetary participation, procedural justice, and organizational commitment literature. The ethical climate, procedural justice and organizational commitment questions were evaluated using a seven-point Likert scale (1-Very low to 7-Very high), and budgetary participation was measured on a seven-point Likert scale (1- Strongly disagree to 7-Strongly agree). The questions for each construct are described in Table 1.

Table 1. Constructs of the study

Ethical climate	(i) The organization applies policies related to ethical behaviour, (ii) unethical behaviour is not tolerated, and (iii) the organization has formalized the code of ethics.	Qualls and Puto (1989); Schwepker, Ferrell and Ingram (1997); Schwepker (2001)
Procedural justice	(i) Work-related management decisions are clarified if requested (ii) work-related decisions are applied to everyone (iii) employees' concerns are heard (iv) accurate and complete work-related information is collected (v) employees may contest or appeal work-related decisions (vi) Work-related decisions are made impartially.	Moorman (1991); Niehoff and Moorman (1993)
Budgetary participation	(i) Involvement in the preparation of the unit's budget (ii) provision of information about the unit's budget (iii) autonomy to express an opinion during the preparation of the budget (iv) a great influence on the unit's budget (v) great contribution to the budget (vi) exchange of information with the supervisor on the budget being prepared.	Milani (1975)
Organizational commitment	(i) I wish to spend the rest of my career in this organization. (ii) pride in being part of the organization (iii) the organization has personal meaning for the manager (iv) personal values congruent to those held by the organization (v) emotionally attached to the organization (vi) Sense of belonging to the organization.	Allen and Meyer (1990); Zettler, Friedrich and Hilbig (2011)
Control variable	Gender; manager's age and position; size	Gomez-Conde et al. (2019)

Source: elaborated by the authors.

The data analysis was performed using structural equation modeling based on Partial Least Squares (PLS). This method is recommended due to the fact that this study analyzes the path relationships of a complex structural model with a relatively small sample which does not require normality in the data distribution (Hair Jr. et al., 2017).

To evaluate the combinations which determine organizational commitment, the fuzzy set Qualitative Comparative Analysis (fsQCA) technique was used. This covers the calibration steps and necessary and sufficient conditions (Ragin, 2009). The fsQCA is appropriate for our research objective given its complementary power in structural equation modeling (Kaya et al., 2020). It has also recently been adopted with more and more frequency in business studies (Kaya et al., 2020; Lunkes et al., 2020).

4 ANALYSIS OF THE RESULTS

4.1 Measurement model

To evaluate our measurement model, we performed the PLS algorithm technique. In this step we verify the validity of the constructs. Table 2 presents the results of the research measurement model.

Table 2. Measurement model

Panel A-Reliability and convergent validity				
Construct	CC	AVE	VIF	R²
Organizational commitment	0.708	0.459	1.187	0.174
Ethical climate	0.856	0.749		
Budgetary participation	0.903	0.651		
Procedural justice	0.795	0.585	1.129	0.142
Panel B- Discriminant validity				
Construct	1	2	3	4
1. Organizational commitment	0.678	0.276	0.415	0.263
2. Ethical climate	0.143	0.866	0.117	0.435
3. Budgetary participation	0.305	-0.012	0.807	0.133
4. Procedural justice	-0.115	0.32	-0.023	0.765

Source: elaborated by the authors.

Note: Composite Reliability (CR); Average Variance Extracted (AVE); Variance Inflation Factor (VIF) <5,00. In painel B there are Fornell-Larcker criteria and Otherwise Heterotrait-Monotrait ratio (HTMT). Q²= Organizational commitment (0,039); Procedural justice (0,052). SRMR= 0,078.

It may be perceived that the presented constructs have composite reliability above the 0.70 threshold (Hair Jr et al., 2017). Budgetary participation stands out as having the greatest reliability. In terms of validity, it may be perceived that the constructs presented an AVE above 0.50, with the exception of organizational commitment which presented an AVE of 0.46, however it remained in the model due to the importance of the items, as suggested by Hair Jr et al. (2017). The Fornell-Larcker criterion and the HTMT were used to reaffirm viability, as suggested by Hair Jr et al. (2017). Thus, convergent and discriminant validity were confirmed. The VIF indicated that the model is free from multicollinearity and the SRMR suggests that the model has a good fit, and thus we can proceed to the structural model.

Other additional tests were performed to evaluate possible biases. The first was the Harman one-factor test for common method bias. We found that the cumulative variance of the first factor was 26.66%, which thus indicates an absence of this bias given that the value was less than 50% (Podsakoff et al., 2003). We also evaluated non-response bias and compared the first 10% of the respondents with the last 10% of the respondents and did not find significant differences at the 5% level, and thus the model is free from non-response bias (Af Wählberg & Poom, 2015).

4.2 Structural model

In the structural model, we evaluate hypotheses proposed in the theoretical model. Thus, we consider the 5,000 subsamples with corrected intervals for the execution of the bootstrapping technique (Hair Jr et al., 2017). The relationships between the variables are presented in Table 3.

Table 3. Relationship between variables

Independent variable	Dependent variable			
	Procedural justice β (T-value)	IC [10%; 90%]	Organizational commitment β (T-value)	IC [10%; 90%]
Ethical climate	0.305 (2.924)***	[0.206;0.477]	0.211 (1.595)*	[0.081;0.427]
Budgetary participation			0.344 (3.495)***	[0.241;0.459]
Procedural justice			-0.168 (1.666)**	[-0.301;-0.053]
Procedural justice x Budgetary participation			0.151 (1.449)*	[0.008;0.254]
Gender	-0.164 (1.874)**	[-0.275;-0.049]	-0.003 (0.028)	[-0.136; 0.115]
Age	-0.087 (1.022)	[-0.191; 0.028]	-0.030 (0.354)	[-0.139; 0.083]
Position	-0.129 (1.458)*	[-0.243;-0.016]	0.096 (1.092)	[-0.016; 0.208]
Size			0.062 (0.998)	[-0.012; 0.136]

Source: elaborated by the authors.

Note: Significant level of * $p < 0,10$; ** $p < 0,05$; *** $p < 0,01$. CI=Confidence interval.

This study's first hypothesis suggests that the ethical climate is positively related to procedural justice. The results indicate a positive relationship with a level of significance of 1% ($\beta = 0.305$; $p < 0.01$), which indicates that scenarios with very ethical climates have a greater perception of procedural justice. In relation to the second hypothesis, the study postulates that a company's ethical climate is positively related to organizational commitment. The findings demonstrate that an ethical climate is positively related to managerial commitment ($\beta = 0.211$; $p < 0.10$). This evidence indicates that in work environments that encourage ethical behavior, managers have greater organizational commitment.

The third hypothesis proposes that a high level of budgetary participation is positively related to organizational commitment. The findings demonstrate a positive relationship with a 1% level of significance ($\beta = 0.344$; $p < 0.01$). The fourth hypothesis indicates that the interaction between procedural justice and budgetary participation is positively related to organizational commitment ($\beta = 0.151$; $p < 0.10$). Figure 2 presents a graph which illustrates this moderating effect.

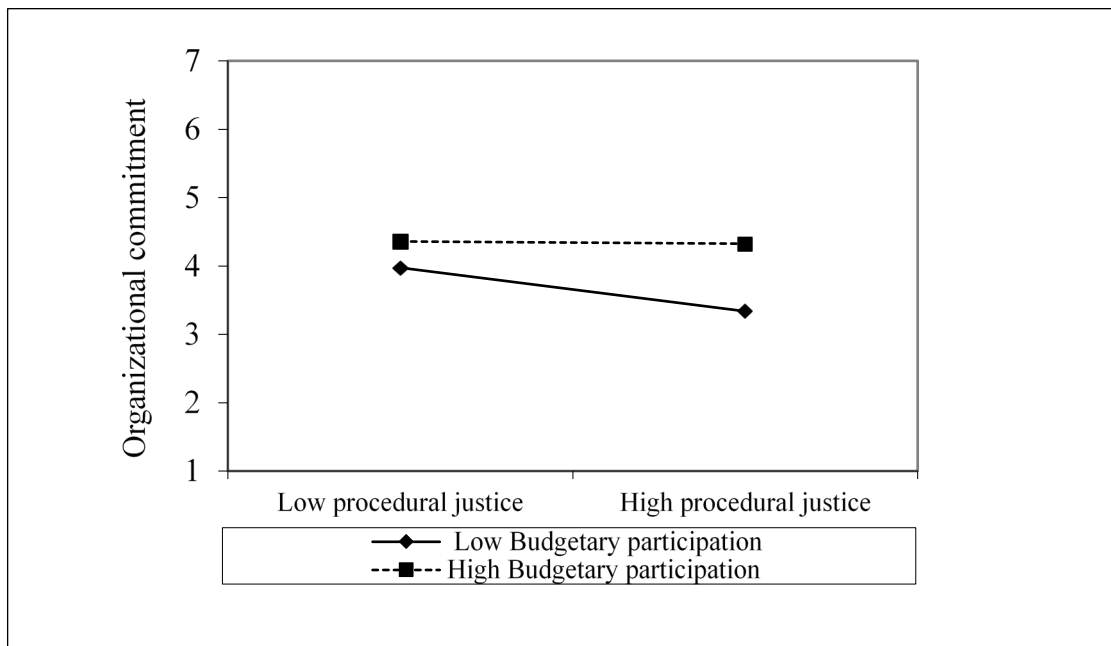


Figure 2. Effect of procedural justice and budgetary participation interaction on organizational commitment

Source: elaborated by the authors.

Figure 2 demonstrates that the moderating effect of budgetary participation makes it possible to intensify the effect of procedural justice on organizational commitment. Thus, in order for managers to achieve high levels of organizational commitment, participation in the elaboration of the budget is indispensable.

4.3 Fuzzy set qualitative comparative analysis (FsQCA)

The complementary analysis adopted fsQCA. This technique is appropriate for evaluating possible configurations for predicting high organizational commitment. The first step for the execution of fsQCA is calibration (Ragin, 2009). In the calibration process, the constructs are rescaled in intervals from 0 to 1. Considering a seven-point Likert type scale, the minimum (non-membership) point was two (2), the crossover point was four (4) and the maximum (full-membership) point was six (6). These parameters used to calibrate the constructs were based on a study by Ordanini, Parasuraman and Rubera (2013).

In the second step, we evaluated the necessary conditions and the truth table. We adopted the intermediary conditions as suggested by Woodside & Zhang (2012) and the theoretical limit of the cutoff was 0.90 (Ragin, 2009; Elbaz, Haddoud & Shehawy, 2018). The sufficient conditions which predict high levels of organizational commitment are presented in Table 4.

Table 4. Configurations of conditions for high organizational commitment

Solution	Ethical climate	Budgetary participation	Procedural Justice	Unique coverage	Raw coverage	Consistency
1	●		●	0.04	0.95	0.96
2		●	●	0.01	0.92	0.98
3	●	●		0.04	0.95	0.97
Overall solution coverage			0.99			
Overall solution consistency			0.96			

Source: elaborated by the authors.

Note: black circles (●) indicate the presence of a condition and blank space mean "no significant".

The findings indicate that three conditions are effective in achieving a high level of organizational commitment. The first solution, shared by 95% of organizations, suggests that the presence of an ethical climate and procedural justice are sufficient to achieve a high level of commitment. The second, meanwhile, shared by 92% of organizations, demonstrates that the combination of budgetary participation and procedural justice leads to a high level of organizational commitment. In the third solution, it may be perceived that the combination of an ethical climate and budgetary participation are equally sufficient to predict a high level of organizational commitment (95%).

The consistency and coverage of the solutions presented indices above 0.80, which demonstrates the great explanatory power and consistency of solutions. Similar results have been verified in other studies (ex.: Elbaz, Haddoud & Shehawy, 2018; Tran, Pham & Le, 2019).

5 DISCUSSION OF THE RESULTS

This study's findings support our proposed hypotheses and provide new knowledge in relation to the investigation of the effects of an ethical climate, procedural justice and budgetary participation on organizational commitment. Thus, a summary of the findings is presented in Figure 3.

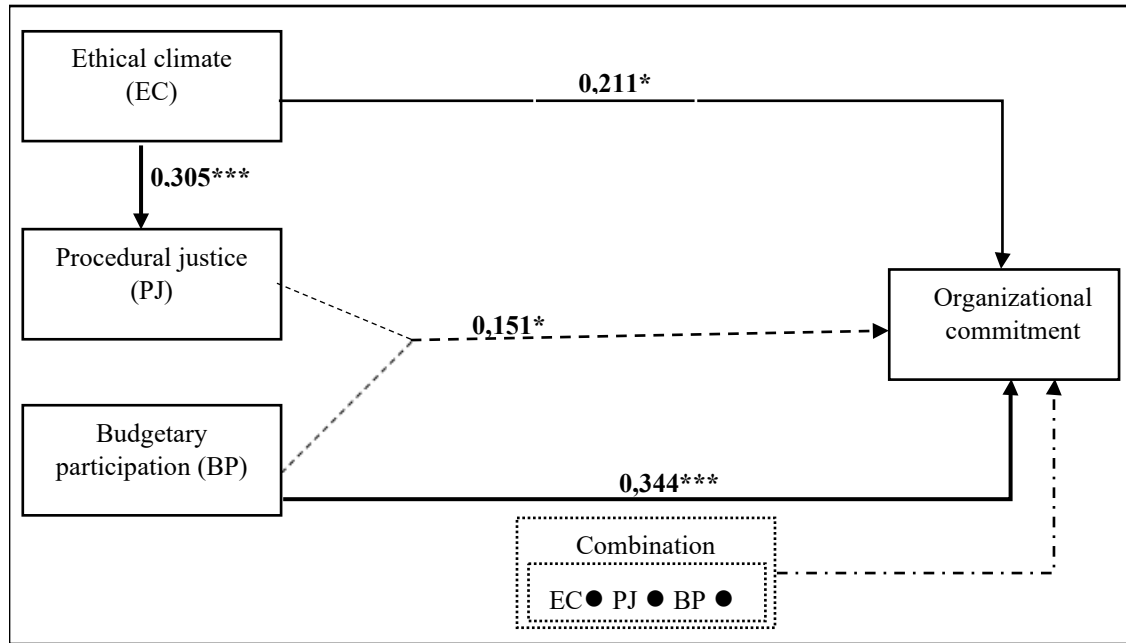


Figure 3. Results of the study

Source: elaborated by the authors.

Note: * $p < 0,10$; ** $p < 0,05$; *** $p < 0,01$. ● = Presence at least in one of the solutions (see table 4).

The results demonstrate that an ethical climate is positively related with procedural justice. These findings corroborate previous studies by Luria and Yagil (2008), Özer and Yılmaz (2011) and Shin et al. (2015). Thus, the moral and ethical principles of an organization tend to affect the perceptions of employees regarding procedural justice (Shin et al., 2015). The perception of the ethical climate can improve company performance through procedural justice if it increases the dedication of managers in everyday tasks and collective efforts to achieve organizational goals (Luria & Yagil, 2008). Therefore, managers should recognize that ethical initiatives should be considered as a management agenda and, therefore, should make an effort to promote an ethical climate as a way to improve the perception of procedural justice within an organization. They also demonstrate that male mid-level managers perceive the work environment as being procedurally just.

The findings also indicate that the ethical climate is positively related to organizational commitment, which is congruent with previous studies (ex.: Schwepker, 2001; Martin & Cullen, 2006). The creation of an ethical climate through the application of codes of ethics, policies, and guidelines, discourage, monitor and correct the anti-ethical behavior of employees and also lead to greater organizational commitment. In addition, in creating an ethical climate, organizations may be capable of reducing employee turnover due to greater organizational commitment (Schwepker, 2001; Mulki & Lask, 2019). It may be perceived in the examined organizations that the managers' preferences are aligned with the company's goals and objectives, and for this reason they are committed to it.

Another result of this study is that the high level of budgetary participation is positively related to organizational commitment. These findings are in line with previous studies such as, for example, Subramaniam et al. (2002) and Isgiyarta et al. (2019), in revealing that the greater the level of participation in the budget preparation process, the greater the organizational commitment. The degree to which managers have greater responsibility and participate in the establishment of budgetary goals increases their commitment to the organization. Therefore, this result suggests that budgetary participation plays a critical role in the generation of organizational commitment.

Finally, our findings indicate that the interaction between budgetary participation and procedural justice is positively related to organizational commitment, which also corroborates previous studies (ex.: Subramaniam et al., 2002; Isgiyarta et al., 2019; Jang et al., 2019). The combination of budgetary participation and procedural justice intensifies the commitment that employees feel towards an organization. This occurs because budgetary participation assumes a greater sharing of information between managers and the perception of the utility of their opinions during the elaboration of the budget. Therefore, the degree to which managers participate in the budget elaboration process and perceive decision making processes as just, the more predisposed they will be to work.

The fsQCA approach reinforces the findings which support our hypotheses by suggesting that organizations need to adopt ethics as a fundamental principle, because the combination of a great perception of procedural justice and/or budgetary participation will generate a high level of organizational commitment. In the same manner, the combination of budgetary participation and procedural justice leads to a high level of commitment on the part of an organization's managers. It may be inferred that the adoption of governance mechanisms which make a work environment more ethical, just, and transparent, can obtain greater commitment from managers, improving the company's reputation among interested parties as well as the company's performance.

6 CONCLUSIONS

The results reveal that the ethical climate is positively related to procedural justice, which makes it possible to have a more just work environment which will increase managerial commitment. It has also been demonstrated that a high level of budgetary participation is positively related to organizational commitment, and that the interaction between budgetary participation and procedural justice determines the high level of commitment that managers feel toward an organization.

This study generates theoretical implications by broadening the understanding of the antecedents of organizational commitment, suggesting that an ethical climate and budgetary participation generate benefits for the organization such as a reduction in turnover, greater aptitude in the exercise of tasks, and employee identification with the organization, which are elements of adherence to organizational commitment. In focusing on ethical behavior, organizations also encourage work environments which are procedurally just. This study also represents an advance in the literature by demonstrating the potential of budgetary participation as a moderating variable.

In terms of practical implications, it may be pointed out that the evidence of benefits due to the ethical climate may suggest to managers efforts which are consistent with promoting a just and transparent work environment. Thus, there need to be governance mechanisms that foster an ethical climate and prioritize them, improving satisfaction and increasing commitment on the part of the employees, which as a result leads to a reduction in turnover. Organizational commitment can also be stimulated through a combination of budgetary participation and the perception of procedural justice. It is suggested that organizations encourage managers to participate in the elaboration of the budget, because they commit themselves to achieving the organization's objectives and goals.

This study has some limitations which may serve as a base for future studies. First, it is limited to the applied period, thus a certain caution must be exercised in relation to generalizing the results. Second, it is limited to variables which influence organizational commitment, and in this manner, future studies can analyze others, such as the structure of centralized and decentralized organizations and the perceptions of the leadership and ethics of the top managers. Third, three items of commitment and procedural justice and one item of ethics did not load properly, and thus future studies should pay attention to these constructs in the pre-test phase. Parsimony is also suggested in generalizing the findings, given that the bias of social desirability was not evaluated. In relation to the method, future studies could adopt other approaches such as artificial neural networks, given that this could increase our understanding of managerial commitment to an organization.

REFERENCES

- Af Wählberg, A.E., & Poom, L. (2015). An empirical test of nonresponse bias in internet surveys. *Basic and Applied Social Psychology*, 37(6), 336-347. DOI: <https://doi.org/10.1080/01973533.2015.1111212>
- Agbejule, A., & Saarikoski, L. (2006). The effect of cost management knowledge on the relationship between budgetary participation and managerial performance. *The British Accounting Review*, 38(4), 427-440. DOI: <https://doi.org/10.1016/j.bar.2006.06.003>
- Aguiar-Quintana, T., Araujo-Cabrera, Y., & Park, S. (2020). The sequential relationships of hotel employees' perceived justice, commitment, and organizational citizenship behaviour in a high unemployment context. *Tourism Management Perspectives*, 100676. doi.org/10.1016/j.tmp.2020.100676
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of occupational psychology*, 63(1), 1-18. DOI: <https://doi.org/10.1111/j.2044-8325.1990.tb00506.x>
- Brownell, P. (2015). Budgetary Participation. *Wiley Encyclopedia of Management*, 1-2. DOI: <https://doi.org/10.1002/9781118785317.weom010028>

- Chong, V. K., Eggleton, I. R., & Leong, M. K. (2005). The effects of value attainment and cognitive roles of budgetary participation on job performance. *Advances in Accounting Behavioral Research*, 8, 213-233. DOI: [https://doi.org/10.1016/S1475-1488\(04\)08009-3](https://doi.org/10.1016/S1475-1488(04)08009-3)
- Chong, V. K.; Eggleton, I. R. C.; Leong, M. K. C. (2006). The multiple roles of participative budgeting on job performance. *Advances in Accounting*, 22, 67- 95. DOI: [https://doi.org/10.1016/S0882-6110\(06\)22004-2](https://doi.org/10.1016/S0882-6110(06)22004-2)
- Chong, V. K., & Johnson, D. M. (2007). Testing a model of the antecedents and consequences of budgetary participation on job performance. *Accounting and Business Research*, 37(1), 3-19. DOI: <https://doi.org/10.1080/00014788.2007.9730055>
- Covaleski, M. A., Evans III, J. H., Luft, J. L., & Shields, M. D. (2003). Budgeting research: three theoretical perspectives and criteria for selective integration. *Journal of Management Accounting Research*, 15(1), 3-49.
- Elbaz, A. M., Haddoud, M. Y., & Shehawy, Y. M. (2018). Nepotism, employees' competencies and firm performance in the tourism sector: a dual multivariate and qualitative comparative analysis approach. *Tourism Management*, 67, 3-16. DOI: <https://doi.org/10.1016/j.tourman.2018.01.002>
- Geisler, M., Berthelsen, H., & Muhonen, T. (2019). Retaining social workers: The role of quality of work and psychosocial safety climate for work engagement, job satisfaction, and organizational commitment. *Human Service Organizations: Management, Leadership & Governance*, 43(1), 1-15. DOI: <https://doi.org/10.1080/23303131.2019.1569574>
- Goebel, S., & Weißenberger, B. E. (2017). The relationship between informal controls, ethical work climates, and organizational performance. *Journal of Business Ethics*, 141(3), 505-528. DOI: <https://doi.org/10.1007/s10551-015-2700-7>
- Gomez-Conde, J., Lunkes, R.J. and Rosa, F.S. (2019). Environmental innovation practices and operational performance: The joint effects of management accounting and control systems and environmental training. *Accounting, Auditing & Accountability Journal*, 32 (5),1325-1357. DOI: <https://doi.org/10.1108/AAAJ-01-2018-3327>
- Hair Jr, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). Advanced issues in partial least squares structural equation modeling. Sage publications.
- Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008). The Job Demands-Resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work & Stress*, 22(3), 224-241. DOI: <https://doi.org/10.1080/02678370802379432>
- Haldorai, K., Kim, W. G., Chang, H. S., & Li, J. J. (2020). Workplace spirituality as a mediator between ethical climate and workplace deviant behavior. *International Journal of Hospitality Management*, 86, 102372. DOI: <https://doi.org/10.1016/j.ijhm.2019.102372>
- Hayati, K., & Caniago, I. (2012). Islamic work ethic: The role of intrinsic motivation, job satisfaction, organizational commitment and job performance. *Procedia-Social and Behavioral Sciences*, 65, 1102-1106. DOI: <https://doi.org/10.1016/j.sbspro.2012.11.122>
- Isgiyarta, J., Nugroho, D. A., Ratmono, D., Helmina, M. R. A., & Pamungkas, I. D. (2019). Budgetary Participation on Managerial Performance: Commitment Organization, Innovation Perception, and Job Relevant Information as Mediating Variable. *Calitatea*, 20(173), 48-53.
- Jang, J., Lee, D. W., & Kwon, G. (2019). An Analysis of the Influence of Organizational Justice on Organizational Commitment. *International Journal of Public Administration*, 1-9. DOI: <https://doi.org/10.1080/01900692.2019.1672185>
- Kaya, B.; Abubakar, A.M.; Behravesh, E.; Yildiz, H.; Mert, I.S. Antecedents of innovative performance: Findings from PLS-SEM and fuzzy sets (fsQCA). *Journal Business Research*, 114, 278-289. DOI: <https://doi.org/10.1016/j.jbusres.2020.04.016>.
- Kelley, S. W., & Dorsch, M. J. (1991). Ethical climate, organizational commitment, and indebtedness among purchasing executives. *Journal of Personal Selling & Sales Management*, 11(4), 55-66.
- Kohlmeyer, J. M., Mahenthiran, S., Parker, R. J., & Sincich, T. (2014). Leadership, budget participation, budgetary fairness, and organizational commitment. *In Advances in accounting behavioral research*. DOI: <https://doi.org/10.1108/S1475-148820140000017003>

- Lau, C. M.; Tan, S. L. C. (2006). The effects of procedural fairness and interpersonal trust on job tension in budgeting. *Management Accounting Research*, 17(2), 171-186. DOI: <https://doi.org/10.1016/j.mar.2005.10.001>
- Lavarda, C. E. F., & Almeida, D. M. (2013). Budget participation and informational asymmetry: a study in a multinational company. *Brazilian Business Review*, 10(2), 72-94. DOI: <https://doi.org/10.15728/bbr.2013.10.2.4>
- Lunardi, M. A., Zonatto, V. C. D. S., & Nascimento, J. C. (2020). Efeitos cognitivos mediadores do compartilhamento de informação na relação entre participação orçamentária e desempenho gerencial. *Revista Contabilidade & Finanças*, 31(82), 14-32. DOI: <https://doi.org/10.1590/1808-057x201908610>
- Luria, G., & Yagil, D. (2008). Procedural justice, ethical climate and service outcomes in restaurants. *International Journal of Hospitality Management*, 27(2), 276-283. DOI: <https://doi.org/10.1016/j.ijhm.2007.07.022>
- López-Cabarcos, M. Á., Machado-Lopes-Sampaio-de Pinho, A. I., & Vázquez-Rodríguez, P. (2015). The influence of organizational justice and job satisfaction on organizational commitment in Portugal's hotel industry. *Cornell Hospitality Quarterly*, 56(3), 258-272. DOI: <http://doi.org/10.1177/1938965514545680>
- Lunkes, R. J., Rosa, F. S. D., Monteiro, J. J., & Bortoluzzi, D. A. (2020). Interactions among Environmental Training, Environmental Strategic Planning and Personnel Controls in Radical Environmental Innovation. *Sustainability*, 12(20), 8748. DOI: <https://doi.org/10.3390/su12208748>
- Martin, K. D., & Cullen, J. B. (2006). Continuities and extensions of ethical climate theory: A meta-analytic review. *Journal of business ethics*, 69(2), 175-194. DOI: <https://doi.org/10.1007/s10551-006-9084-7>
- Medeiros, C. A. F., Albuquerque, L. G. D., Siqueira, M., & Marques, G. M. (2003). Comprometimento organizacional: o estado da arte da pesquisa no Brasil. *Revista de Administração Contemporânea*, 7(4), 187-209. DOI: <http://dx.doi.org/10.1590/S1415-65552003000400010>
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1(1), 61-89. DOI: [https://doi.org/10.1016/1053-4822\(91\)90011-Z](https://doi.org/10.1016/1053-4822(91)90011-Z)
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of vocational behavior*, 61(1), 20-52. DOI: <https://doi.org/10.1006/jvbe.2001.1842>
- Mohd Noor, I. H., & Othman, R. (2012). Budgetary participation: How it affects performance and commitment. *Accountancy Business and the Public Interest*. Available at SSRN: <https://ssrn.com/abstract=2161688>
- Monteiro, J. J., Rengel, R., Lunkes, R. J., & Lavarda, C. E. F. (2020). Efeito da participação orçamentária no desempenho gerencial mediado pela satisfação no trabalho e justiça procedimental. *Advances in Scientific and Applied Accounting*, 13(3), 206-226. <https://doi.org/10.14392/asaa.2020130311>
- Moorman, R. H. (1991). Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship?. *Journal of Applied Psychology*, 76(6), 845. DOI: <https://doi.org/10.1037/0021-9010.76.6.845>
- Mulki, J., & Lassk, F. G. (2019). Joint impact of ethical climate and external work locus of control on job meaningfulness. *Journal of Business Research*, 99, 46-56. DOI: <https://doi.org/10.1016/j.jbusres.2019.02.007>
- Naiyananont, P., & Smuthranond, T. (2017). Relationships between ethical climate, political behavior, ethical leadership, and job satisfaction of operational officers in a wholesale company, Bangkok Metropolitan region. *Kasetsart Journal of Social Sciences*, 38(3), 345-351. DOI: <https://doi.org/10.1016/j.kjss.2016.07.005>
- Naumann, S. E., & Bennett, N. (2000). A case for procedural justice climate: Development and test of a multilevel model. *Academy of Management Journal*, 43(5), 881-889. DOI: <https://doi.org/10.5465/1556416>
- Neubert, M. J., Carlson, D. S., Kacmar, K. M., Roberts, J. A., & Chonko, L. B. (2009). The virtuous influence of ethical leadership behavior: Evidence from the field. *Journal of Business Ethics*, 90(2), 157-170. DOI: <https://doi.org/10.1007/s10551-009-0037-9>
- Niehoff, B. P., & Moorman, R. H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. *Academy of Management journal*, 36(3), 527-556. DOI: <https://doi.org/10.5465/256591>

- Nouri, H., & Parker, R. J. (1998). The relationship between budget participation and job performance: the roles of budget adequacy and organizational commitment. *Accounting, Organizations and Society*, 23(5-6), 467-483. DOI: [https://doi.org/10.1016/S0361-3682\(97\)00036-6](https://doi.org/10.1016/S0361-3682(97)00036-6)
- Ordanini, A., Parasuraman, A., & Rubera, G. (2013). When the recipe is more important than the ingredients: A qualitative comparative analysis (QCA) of service innovation configurations. *Journal of Service Research*, 17(2), 134-149. <https://doi.org/10.1177/1094670513513337>
- Özer, G., & Yilmaz, E. (2011). Effects of procedural justice perception, budgetary control effectiveness and ethical work climate on propensity to create budgetary slack. *Business and Economics Research Journal*, 2(4), 1-18.
- Parker, R. J., & Kyj, L. (2006). Vertical information sharing in the budgeting process. *Accounting, Organizations and Society*, 31(1), 27-45. DOI: <https://doi.org/10.1016/j.aos.2004.07.005>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J-Y, & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903. DOI: <https://doi.org/10.1037/0021-9010.88.5.879>
- Ragin, C. C. (2009). Qualitative comparative analysis using fuzzy sets (fsQCA). In: *Configurational comparative methods: Qualitative comparative analysis (QCA) and related techniques*, 51, 87-121.
- Rengel, R., Monteiro, J. J., Lunkes, R. J., Lavarda, C. E. F., & Schnorrenberger, D. (2020). Effect of Manager's Characteristics on Budget Participation mediated by Perception of Procedural Justice. *Journal of Accounting, Management and Governance*, 23(2), 256-275. DOI: http://dx.doi.org/10.21714/1984-3925_2020v23n2a7
- Ridaryanto (2020). Organizational Commitments in Financial Service Audit with Antecedents of Organizational Justice and Job Satisfaction. *International Journal of Financial Research*, 11(4), 2020.
- Schwepeker Jr, C. H. (2001). Ethical climate's relationship to job satisfaction, organizational commitment, and turnover intention in the salesforce. *Journal of Business Research*, 54(1), 39-52. DOI: [https://doi.org/10.1016/S0148-2963\(00\)00125-9](https://doi.org/10.1016/S0148-2963(00)00125-9)
- Shields, J. F.; Shields, M. D. (1998). Antecedents of participative budgeting. *Accounting, Organizations and Society*, 23(1), 49-76. DOI: [https://doi.org/10.1016/S0361-3682\(97\)00014-7](https://doi.org/10.1016/S0361-3682(97)00014-7)
- Shin, Y., Sung, S. Y., Choi, J. N., & Kim, M. S. (2015). Top management ethical leadership and firm performance: Mediating role of ethical and procedural justice climate. *Journal of Business Ethics*, 129(1), 43-57. DOI: <https://doi.org/10.1007/s10551-014-2144-5>
- Subramaniam, N., McManus, L., & Mia, L. (2002). Enhancing hotel managers' organisational commitment: an investigation of the impact of structure, need for achievement and participative budgeting. *International Journal of Hospitality Management*, 21(4), 303-320. DOI: [https://doi.org/10.1016/S0278-4319\(02\)00010-5](https://doi.org/10.1016/S0278-4319(02)00010-5)
- Tran, L. T. T., Pham, L. M. T., & Le, L. T. (2019). E-satisfaction and continuance intention: The moderator role of online ratings. *International Journal of Hospitality Management*, 77, 311-322. DOI: <https://doi.org/10.1016/j.ijhm.2018.07.011>
- Woodside, A. G., & Zhang, M. (2012). Identifying x-consumers using causal recipes: "Whales" and "jumbo shrimps" casino gamblers. *Journal of Gambling Studies*, 28(1), 13-26. DOI 10.1007/s10899-011-9241-5
- Zettler, I., Friedrich, N. and Hilbig, B.E. (2011), "Dissecting work commitment: the role of Machiavellianism", *Career Development International*, 16 (1) 20-35. DOI: <https://doi.org/10.1108/13620431111107793>
- Zonatto, V. C. S., Weber, A., & Nascimento, J. C. (2019). Efeitos da Participação Orçamentária na Assimetria Informacional, Estresse Ocupacional e Desempenho Gerencial. *Revista de Administração Contemporânea*, 23(1), 67-91. DOI: <http://dx.doi.org/10.1590/1982-7849rac2019170327>.

How to cite this paper

Monteiro, J. J.; Bortoluzzi, D. A.; Lunkes, R. J.; & Rosa, F. S. da. (2021). The influence of the ethical climate on procedural justice and organizational commitment: the interaction of budgetary participation. *Revista de Contabilidade e Organizações*, 15:e174754. DOI: <http://dx.doi.org/10.11606/issn.1982-6486.rco.2021.174754>