Justice, motivation and performance of students in Graduate Degree Programs

Justiça, Motivação e Desempenho de Discentes em Programas de Pós-Graduação

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ABSTRACT

The aim of the study is to identify the relationship between students' perception of academic justice and their performance, mediated by motivation, in Graduate Degree Programs in accounting. After obtaining 110 responses, it was identified the presence of perceptions of procedural and interactional injustice, bringing up the discussion about the importance of determining clear criteria and processes for the attribution of grades or concepts to students. In addition, it was identified that motivation is a mediator only of the relationship between distributive justice and performance, indicating that the attribution of grades can affect the motivation and, consequently, the performance of students.

Keywords: Classroom justice. Accounting education. Graduate degree programs in accounting.

RESUMO

O objetivo do estudo consiste em identificar a relação existente entre a percepção de justiça acadêmica dos alunos e seu desempenho, mediado pela motivação, em Programas de Pós-graduação stricto sensu em contabilidade. A partir da obtenção de 110 respostas identificou-se a presença de percepções de injustiça processual e interacional, trazendo à tona a discussão sobre a importância de determinar critérios e processos claros para que as notas ou conceitos sejam atribuídos aos alunos. Ademais, identificou-se que a motivação se apresentou como mediadora apenas da relação entre justiça distributiva e desempenho, indicando que a atribuição de notas pode afetar a motivação e, consequentemente, o desempenho de estudantes.

Palavras-chave: Justiça acadêmica. Educação em contabilidade. Programas de pós-graduação em contabilidade.

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1 INTRODUCTION

Justice is a fundamental concept for understanding human behavior, whether in the organizational (COLQUITT *et al*., 2001) or academic (SIMIL, 2016) environment, as it is related to the satisfaction, commitment and performance of individuals with their tasks (COLQUITT *et al*., 2001). In the academic environment, the perception of justice can affect the expectations, behaviors, and positive and negative attitudes of both students and teachers (HOY; TARTER, 2004; ARGON; KEPEKCIOGLU, 2016).

The perception of justice in the educational environment is a critical (DUPLAGA; ASTANI, 2010) and important issue (BERTI; MOLINARI; SPELTINI, 2010; CHORY; HORAN; HOUSER, 2017). Perceptions of justice can lead to positive behaviors, while individuals with contrary perceptions can have negative attitudes, not only in the organizational environment but also in the academic environment (CHORY-ASSAD; PAULSEL, 2004B; ARGON; KEPEKCIOGLU, 2016).

Given the growing importance of justice for the educational environment, the term classroom justice was created, which, according to

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Chory-Assad and Paulsel (2004b, p. 254), concerns "the perception of justice and evaluations related to results or processes that occur in an instructional context." Chory and Offstein (2017) argue that students tend to evaluate fairness in the grades awarded, in the procedures used for such assignments, as well as in the communication conducted with them.

As mentioned by Simil (2016), studies have shown that the perception of justice in the educational environment can generate aspects such as inertia, passivity, aggressiveness, hostility, search for revenge, satisfaction, commitment, academic performance, and motivation, among others. Kaufmann and Tatum (2018) identified that the perception of procedural justice, for example, influences students' willingness to speak up in an online teaching environment, while Berti, Molinari and Speltini (2010) identified that the perception of unfairness affects motivation and dialogue in the instructional environment, influencing student behavior. In this sense, perceptions of injustice can influence the academic life of students, generating demotivation and, consequently, a reduction in their performance.

Thus, considering that perceptions of justice can affect behaviors in the academic environment, influencing students' motivation and, consequently, their performance, this study seeks to answer the following research question: what is the relationship between students' perception of academic justice and their performance, mediated by motivation, in *stricto sensu* Postgraduate Programs in accounting? To respond to the proposed problem, the objective is to identify the relationship between students' perception of academic justice and their performance, mediated by motivation, in *stricto sensu* Postgraduate Programs in accounting.

Kale (2013) argues that there is a gap in research related to perceptions of justice in the academic environment due to the fact that it is mostly conducted with a focus on teaching practice, abandoning the student perspective. Simil (2016) also highlights that perceptions of (in)justice can function as predictors of (un)desirable attitudes and behaviors in students. Therefore, research is needed that seeks to identify interactions in terms of (in)justice in strict sense sensu Postgraduate Programs and the consequences of such perceptions.

In this sense, this study seeks to verify student perceptions related to classroom justice, being able to provide insights for public and private universities, Postgraduate Programs, as well as for teachers, on how relationships occurring in the academic environment can affect students so that they seek to minimize their effects. Thus, the aim is to contribute to the understanding of the relationships between students and teachers and how these can impact the performance and motivation of the former, which can have an impact on their personal and professional decisions, for example.

2 CLASSROOM JUSTICE AND ITS IMPACTS

Justice became a topic of discussion from the moment it was realized that the attitudes and behaviors of individuals could be influenced by this feeling (SIMIL, 2016). Hartman, Yrle and Galle (1999, p. 337) argue that "both those who work in organizations and those who study them are aware that the concept of justice is central to understanding a wide range of human behaviors".

Thus, in 1987, the term organizational justice was coined by Jerald Greenberg, focusing on the role of justice in the workplace (MOORMAN, 1991); however, authors such as Homans (1961), Adams (1965), Leventhal (1976), Deutsch (1985), and Bies and Moag (1986) already discussed aspects of justice. In the academic environment, the topic gained prominence in the 2000s with the series of research conducted by Rebecca M. Chory, together with other authors, with the topic being treated as classroom justice.

Classroom justice includes three dimensions of justice: distributive, procedural, and interactional. The first refers to the perception of justice regarding the results of a given transaction (DEUTSCH, 1985). In this sense, it deals with the returns received from the allocation of results, which, in the academic environment, are grades (CHORY-ASSAD, 2002). Therefore, in the allocation of grades to students, the judgment of distributive justice occurs when some individuals evaluate the grade they received in comparison with that of others (LEVENTHAL, 1976; CHORY-ASSAD, 2002) or with some standard previously defined by the student (ADAMS, 1965; CROPANZANO; GREENBERG, 1997). Therefore, when the perception of the distribution of grades is considered fair, distributive justice has been met in the academic environment (BERTI; MOLINARI; SPELTINI, 2010).

Procedural justice concerns the perception of justice related to the processes used in the academic environment to assign results, given that students can consider the processes and criteria established by teachers for the evaluation and attribution of grades as fair or unfair (BERTI; MOLINARI; SPELTINI, 2010; CHORY *et al*., 2014). When evaluating students, teachers can use objective and subjective criteria (tests, classroom participation, written assignments, seminars, among others) (CHORY, 2007; HORAN; CHORY; GOODBOY, 2010), which are processes used to decide the student's grade. Therefore, when students evaluate the fairness of how this decision is made, they are making judgments related to procedural justice (CHORY-ASSAD, 2002; CHORY, 2007). Therefore, students evaluate not only the fairness related to grades but also the process by which they were assigned (HORAN; CHORY; GOODBOY, 2010).

Interactional justice can be understood as the perception of justice or impartiality in the interpersonal relationship between individuals and, in the academic environment, between teachers and students (BIES; MOAG, 1986; BERTI; MOLINARI; SPELTINI, 2010). The keyword related to this dimension is communication, since the assessment of interactional justice is mainly linked to the way teachers communicate with students and how respectful, polite, and open the communication is (CHORY-ASSAD; PAULSEL, 2004a). In this sense, the perception of interactional justice can occur when the teacher respects the student and is open to their opinions (CHORY, 2007), while insensitive and rude behaviors on the part of teachers can be perceived as unfair from an interactional point of view. (HORAN; CHORY; GOODBOY, 2010).

Studies indicate that perceptions of injustice can negatively affect student behavior, motivation, and performance. Horan, Chory and

Goodboy (2010) identified that students respond to the perception of injustice with negative emotions such as anger, pain, frustration, and stress. Furthermore, they present feelings of distress, hurt, and feel deceived and disgusted (HORAN; CHORY; GOODBOY, 2010).

In the same sense, Chory-Assad (2002) identified that the perception of distributive and procedural justice in the classroom predicts students' motivation in the course as well as learning. Furthermore, Chory-Assad and Paulsel (2004b) identified that the perception of distributive and procedural injustice can predict behaviors of indirect aggression and hostility towards teachers and, furthermore, that the perception of procedural injustice can generate disappointment in students and make them act with revenge.

Also, with regard to the reactions caused by the perception of injustice in students, in a study with university students from three public universities in the United States, Chory *et al*. (2014) identified an association between the perception of injustice and feelings of hurt, dominance, negative emotions, and reduced emotional support. Therefore, students had their behaviors influenced by their relationships with teachers in the classroom environment.

Additionally, Vallade, Martin and Weber (2014) mention that students' perceptions regarding justice in the instructional environment influence their beliefs regarding this environment, themselves, and their skills in the classroom and may demotivate them. In this sense, motivation in the educational environment is seen as the stimulus that leads students to remain inspired, enthusiastic, fascinated, and involved with the course (CHORY-ASSAD, 2002) and can therefore influence their performance.

The experience of being treated with respect and justice contributes to the feeling of belonging to a group, reinforcing personal obligations towards it (BERTI; MOLINARI; SPELTINI, 2010), which can make the student, in the postgraduate environment, feel motivated to follow the rules imposed by the Program and its research groups, for example. Furthermore, it also contributes to increasing motivation levels (FEATHER, 1999; DALBERT; MAES, 2002) and to the development of their academic career (RESH; SABBAGH, 2009).

Motivation, in this sense, can be translated as "a person's impulse to act because they want to" and can also be influenced by the external environment because "if they are motivated, they make a positive choice to accomplish something because they see this act as significant for them" (WERTHER; DAVIS, 1983, p. 300), which may also encourage their performance. Therefore, motivation can be seen as the "result of the interaction between the individual and the situation that surrounds them" (CHIAVENATO, 2004, p. 476), which, in the educational environment, can be reflected by the student-teacher relationship.

In Brazil, research such as that of Sabino *et al*. (2019) and Santos *et al*. (2020) sought to identify aspects related to justice in the academic environment of the Accounting Sciences area, with an emphasis on these relationships in the environment of undergraduate courses.

Sabino *et al*. (2019), based on a survey of 534 undergraduate students in Accounting Sciences, identified that the teacher is at the center of the perception of justice in the sample studied. Despite identifying that performance does not influence students' perception of justice, the authors highlight that failure is a factor that can influence this perception, as students who had at least one failure had a greater perception of injustice in all three dimensions.

In a study with 451 undergraduate Accounting Sciences students, Santos *et al*. (2020) identified the relationship between justice and academic dishonesty. Thus, the authors realized that when students have a greater perception of injustice, whether distributive, procedural, or interactional, they tend to exhibit more dishonest behavior, using cheating as a means to confront perceived injustices.

Therefore, the perception of justice in the academic environment is present among Brazilian undergraduate courses in Accounting Sciences, affecting the behavior of students. It is understood that these reflexes can be expanded to the Postgraduate Programs in Accounting environment, where a space with higher levels of stress and dissatisfaction can be found, depending on the situations to which students are subjected (MEURER *et al*., 2020). Thus, the guiding hypothesis of this research is that the perception of classroom justice has a positive relationship with the performance of students in *stricto sensu* Postgraduate Programs in Accounting, through motivation.

3 RESEARCH METHODOLOGY

The research was conducted through a survey with a quantitative and qualitative approach based on the application of questionnaires to students of *stricto sensu* Postgraduate Programs in Accounting in Brazil.

3.1 Population and sample

According to data from GEOCAPES - a georeferential data tool that presents data and statistical information according to geographic location -, students from 33 *stricto sensu* Postgraduate Programs in Accounting Sciences and/or Accounting and/or Controllership in Brazil were selected to compose the research population.

To contact the researched population, the Program secretariats were asked to assist in forwarding the questionnaire to the students. After data collection was completed and after two requests to send the questionnaire to students, which occurred between June 7, 2019, and August 20, 2019, a total of 114 responses to the questionnaire were obtained, 4 of which were eliminated because the respondents stated that they were not enrolled in a *stricto sensu* Postgraduate Program. Therefore, 110 valid responses were used for data analysis. It should be noted that the participants' rights were respected, including their anonymity, and there was no obligation to participate, with respondents being free to decline participation at any time. Furthermore, there was no offer of material or immaterial reward to the group of research interest.

In relation to the sample size, using the G*Power® software, as recommended by Ringle, Silva and Bido (2014), it was identified

that the minimum sample size is 85 participants. To this end, a power (1-β err prob) of 0.80, a median f² effect size of 0.15, and an α err prob of 0.05 of significance were used as parameters, in addition to considering the number of predictors of the variable that receives the largest number of arrows (4). Therefore, the sample obtained is considered sufficient.

3.2 Research Instrument

The instrument used was developed based on the theoretical framework, consisting of three blocks that comprise the perception of classroom justice, the motivation and perceived and real performance of students, as well as the characterization of the respondent.

Block 1 (Classroom Justice) consists of a scale called Revised Classroom Justice Scale (RCJS), constructed by Chory-Assad (2002), used by Chory-Assad and Paulsel (2004a, b), revised by Paulsel and Chory-Assad (2005) and Chory (2007), and then translated by Simil (2016). This block includes 9 statements related to procedural justice, 17 referring to distributive justice, and 8 to interactional justice. Each statement related to classroom justice was measured using a 5-point scale, with 1 being extremely unfair and 5 being extremely fair, maintaining the scale used in the original instrument. It is noteworthy that a request for authorization to use the instrument was made to the original author, Rebecca M. Chory, who agreed to its application in this research.

In Block 2 (Motivation and Performance), which contained four questions, respondents were asked about their perceived motivation in relation to the postgraduate course, their perceived and real performance, in addition to the possibility of withdrawing from the course. It should be noted that the question related to actual performance was measured on a 10-point scale, where respondents were asked to indicate their performance based on the concepts/grades obtained in their postgraduate program. To facilitate the participants' understanding, a 10-point scale was used; however, for the statistical treatment and alignment of the scales between the constructs, the responses were subsequently converted into a 5-point scale, enabling the use of the statistical method.

In Block 3 (Characterization of the Respondent), data were collected about the respondent and the execution of the course in the Postgraduate Program to which he belongs, including information about obtaining a research grant, among others.

It is noteworthy that before effective use, the scale was validated by four experts in the field, PhD students in Accounting, chosen because they were researchers and, at the same time, students of Postgraduate Programs and, therefore, able to verify the applicability and adjustments necessary for a better understanding of the instrument applied. After validation, improvements were made to the questionnaire statements.

3.3 Procedures for data collection and analysis

Data collection was conducted with the assistance of the Postgraduate Programs secretariats, as previously described. The data were tabulated in Microsoft Excel software spreadsheets and statistically analyzed using the software Smart PLS version 3.2.7. As a measure of reliability, after collecting the data, Cronbach's Alpha was calculated.

To identify the relationship between the perception of organizational justice and the students' real performance, as well as the mediating effect of perceived motivation, the statistical technique of Structural Equation Modeling (SEM) was used. Hair Jr. *et al*. (2009) argue that when there is a set of relationships between dependent and independent variables, the use of SEM becomes appropriate. For operationalization, the bootstrapping technique was used, which is a resampling technique used "to evaluate the significance (p-value) of correlations (measurement models) and regressions (structural model)" (RINGLE; SILVA; BIDO, 2014, p. 62).

At this point, therefore, the variables presented in Table 1 were used.

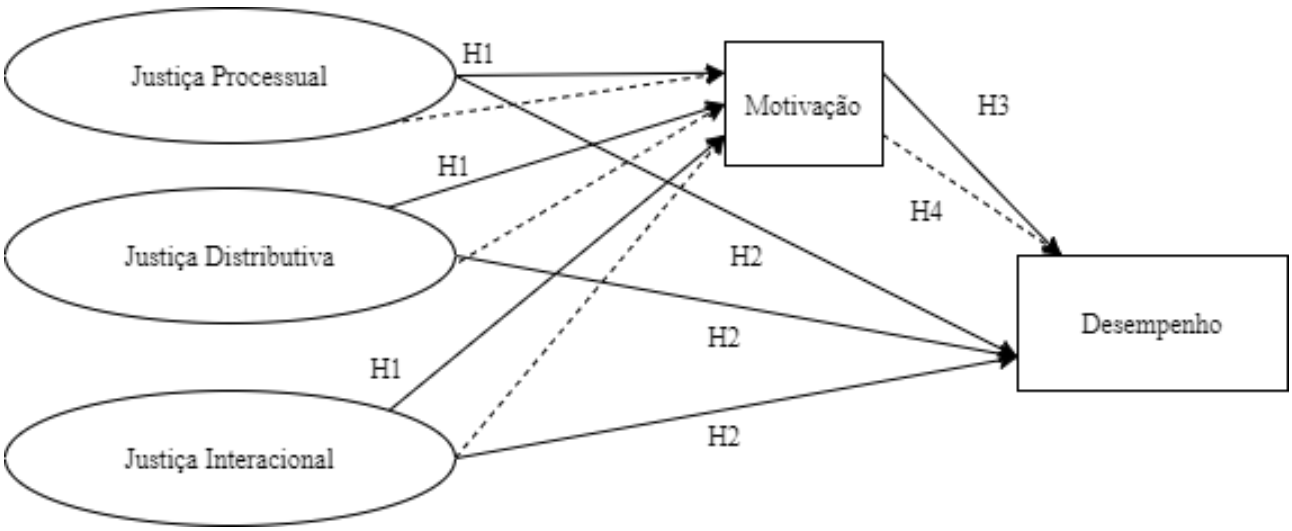
Table 1 - Variables used in the application of SEM

VARIABLE	MEASURE	NO. OF STATEMENTS	SCALE
Procedural Justice	Revised Classroom Justice Scale	9	5 points
Distributive Justice	Revised Classroom Justice Scale	17	5 points
Interactional Justice	Revised Classroom Justice Scale	8	5 points
Motivation	Perceived motivation	1	5 points
Performance	Real performance	1	10 points, converted to 5 points

Source: Elaborated by the authors (2020).

To achieve the objective, the drawing that highlights the relationship between the hypotheses and variables used is represented in Figure 1.

Figure 1 - Research methodological model



Source: Elaborated by the authors (2020).

Therefore, the following hypotheses are stated to be assessed:

H1: There is a significant positive relationship between the dimensions of classroom justice and the motivation of students in *stricto sensu* Postgraduate Programs in Accounting.

H2: There is a significant positive relationship between the dimensions of classroom justice and the performance of students in *stricto sensu* Postgraduate Programs in Accounting.

H3: There is a significant positive relationship between the motivation of students in *stricto sensu* Postgraduate Programs in Accounting and their performance.

H4: Motivation mediates the relationship between the perception of classroom justice and the performance of students in *stricto sensu* Postgraduate Programs in Accounting.

Regarding the use of the SEM technique, the analyzes were based on the analysis protocol shown in Table 2.

Before starting this protocol, the factor loadings that make up the constructs were analyzed, with values above 0.5 as parameters, with no need to change the proposed model.

Table 2 - Analysis protocol

PROCEDURE	OBJETIVE	REFERENCE VALUE	AUTHOR
Cronbach's alpha (AC)	Assess the internal consistency of the construct	Equal or higher to 0,6	(HAIR JR. *et al.*, 2009)
Composite Reliability (CR)	Identify the degree to which items are manifestations of the latent construct	Equal or higher to 0,7	(HAIR JR. *et al.*, 2009)
Convergent validity (AVE)	Identify whether the items that form the factor are explained by the factor itself	Equal or higher to 0,5	(HAIR JR. *et al.*, 2009)
Discriminant validity (DV)	Evaluate whether the items that form a factor are not correlated with other factors	Value of the square root of the AVE greater than the correlation coefficient between the latent variables	(HAIR JR. *et al.*, 2009)

Source: Elaborated by the authors (2020).

4 DATA ANALYSIS

4.1 Respondents' profile

From the data obtained, it was found that the majority of respondents are female (58%), while the others are male. In terms of the level of course attended by the students, the majority are undertaking an academic master's degree (70%), while 23% are doctoral students and the others (7%) are studying for a professional master's degree. It is noteworthy that none of the respondents selected professional doctorates as a course. This percentage is considered to be in line with the current situation of Postgraduate Accounting Programs in Brazil, where the largest number of vacancies still concentrates at the academic master's level.

Among the respondents who have not completed the program's compulsory credits (51% of the total), the majority (82%) are only taking the credits, while the remaining respondents are in the qualification or post-qualification phase. As for those who have completed the credits required by their program (49% of the total), 69% are in the qualification or post-qualification phase, while another 26% are in the process of defending their thesis or dissertation. In addition, 5% of the respondents who have completed the compulsory credits required are only taking courses.

It is important to note that the majority of respondents (64%) do not receive scholarships for their *stricto sensu* postgraduate course.

4.2 Perception of classroom justice, motivation and performance

After questioning the respondents directly, it was found that approximately 54% of them had felt unjustly treated at some point in their postgraduate program. Among them, they were asked, if they felt comfortable, to report the causes of the injustice and the reports dealt mainly with the relationship with the teachers and their behavior, and the way grades were assigned, leading to an idea of a breakdown in the perception of procedural and interactional justice.

This perception of unfairness can be identified in the following report, for example, in which the respondent says that "a good or bad presentation is subject to exactly the same criticism, it suggests that the parameters for this analysis are not being fair or convincing" or "even though I achieved equivalent performance in class discussions and assessments, some professors evaluated better the students considered 'home-grown', who have been at the institution since graduation". These situations can also be observed in reports that say:

> *teachers who, although they demand a lot during the course of the subject [...], in the end decide, by some criterion of their own, to "handle" the grades of students who did badly so that they don't get bad marks. I understand that it's bad for everyone when someone fails, but using this concept of "justice," it's not fair that those who didn't dedicate themselves get the same final grade as those who did.*

Despite the reports received, in terms of their perceptions related to the constructs of classroom justice, both procedural justice and distributive and interactional justice, the answers to the statements showed frequencies that indicate a greater perception of justice in the academic environment, as can be seen in Table 3.

So, there seems to be a dichotomy between the reports received from those who felt unfairly treated at some point in their Postgraduate Program and the answers provided in the constructs. This may be related to isolated cases of injustice, which may be linked to certain teachers but not to the postgraduate program as a whole, or even to a process of naturalization of behavior that is considered socially inappropriate but which, in this environment, becomes commonplace and is no longer perceived as unfair.

As for motivation, it was found that 71% of respondents feel motivated or very motivated. Despite this, almost half of the respondents had considered giving up their current postgraduate course. This finding may indicate that despite the problems and difficulties faced by the respondents, which may lead to a desire to withdraw from the course, they remain motivated to finish it.

In terms of performance, around 81% of respondents indicate that this tends to be very satisfactory in relation to the activities developed in the Postgraduate Program. Furthermore, when asked about the average grades obtained in their program, most respondents (almost 95%) indicated that they were above 7.0. It is noteworthy that approximately 45% of students indicated that they obtained the highest grades in the subjects they took in their Postgraduate Program.

4.3 Assessment of the measurement model

The application of SEM allows the analysis of the relationships between variables (dependent and independent), and it consists of two assessment models: the measurement model (analysis of the variables that represent the constructs) and the structural model (analysis of the association between the constructs) (HAIR JR. *et al*., 2009). Thus, the analysis begins by assessing the validity of the measurement model based on the quality of the adjustment of the model and the validity of the construct, as recommended by Hair Jr. *et al*. (2009).

For the internal reliability of the constructs related to classroom justice, it was used Cronbach's alpha, which indicates the degree of convergence of the answers to each of the statements (HAIR JR. *et al*., 2009), obtaining values of 0.929 for procedural justice, 0.938 for distributive justice and 0.958 for interactional justice.

Table 3 - Distribution of frequency of the classroom justice construct in %

TYPES OF JUSTICE		1	2	3	4	5	TOTAL
PROCEDURAL JUSTICE	*In overall terms, your grades or concepts in the subjects you have already taken during your current course,*						
	compared to the grades of other colleagues, were	4	7	15	36	38	100
	compared to the grades you expected to achieve, were	3	11	19	34	34	100
	compared to the grades you deserved, were	3	11	16	36	34	100
	compared to the effort you invested in studying for the assessments, were	5	11	14	35	35	100
	The grades or concepts you are likely to receive in the subjects you have not taken yet,						
	compared to the final grades that other colleagues are likely to receive, will be	2	6	15	43	35	100
	compared to the final grades you thought you would get, will be	3	3	20	45	30	100
	compared to the final grades you believe you deserve to receive, will be	2	7	17	42	32	100
	compared to the effort you put in, will be	3	9	19	37	32	100
	compared to the grades that most of your colleagues would receive if they were subjected to the same assessments as you, will be	3	4	22	39	33	100
DISTRIBUTIVE JUSTICE	*In overall terms, in relation to your postgraduate course,*						
	the policies in case of missing/losing assessments are	7	15	16	38	24	100
	the attendance policies are	4	8	17	41	30	100
	the forms of assessment correction used by teachers are	6	15	31	36	12	100
	the ways in which points are distributed in the subjects are	4	10	32	38	16	100
	the general course timetable is	5	12	24	37	23	100
	the assessment schedule is	5	8	27	40	20	100
	the way teachers conduct classroom discussions is	4	10	22	39	25	100
	the way teachers approach students in class is	7	12	17	39	25	100
	the way teachers conduct lessons is	4	9	24	42	22	100
	the program of the course is	5	11	14	44	27	100
	teachers' expectations in relation to students are	8	9	29	39	15	100
	the types of assessments are	4	10	27	45	15	100
	the number of assessments is	6	9	35	30	20	100
	the level of difficulty of the subject content is	3	6	22	40	29	100
	the amount of work required to get a good grade in the subject is	11	13	24	35	18	100
	the amount of time I need to dedicate to the course to get good grades is	14	15	25	25	20	100
	the deadline for homework and other written work is	18	18	27	21	15	100
INTERACTIONAL JUSTICE	*In overall terms, with regard to your postgraduate course,*						
	the way teachers treat the students is good	7	10	25	33	25	100
	teachers' communication with students is good	4	12	24	41	20	100
	the interpersonal relationship between teachers and students is	8	7	24	31	30	100
	the way teachers listen to students is	6	10	26	32	25	100
	he way teachers deal with students is	5	14	27	27	27	100
	the way teachers talk to students is	5	14	24	35	24	100
	how teachers consider students' opinions is	5	14	31	36	14	100
	how teachers deal with students who disagree with them is	16	20	23	26	15	100

Source: Research data.

As for composite reliability (CC), the values obtained for each of the classroom justice constructs remained above 0.9. According to Ringle, Silva and Bido (2014), convergent validity can be obtained from the Average Variance Extracted (AVEs). Thus, it is understood that the proposed model converges to a satisfactory result, as the AVEs remained above 0.5 for each of the constructs to be analyzed.

The data relating to the analysis of Cronbach's alpha, composite reliability, and convergent validity can be seen in Table 4.

Table 4 - Reliability and validity indices of classroom justice constructs

RELIABILITY INDICES	CRONBACH'S ALPHA	COMPOSITE RELIABILITY	AVERAGE VARIANCE EXTRACTED
Procedural Justice	0.929	0.941	0.642
Distributive Justice	0.938	0.945	0.503
Interactional Justice	0.958	0.964	0.773

Source: Research data.

For the analysis of discriminant validity, which indicates the distinction between the constructs (HAIR JR. *et al*., 2009), the square roots of the AVEs of each construct were compared with the correlations between them (RINGLE; SILVA; BIDO, 2014), based on the criteria of Fornell and Larcker (1981). Thus, it is considered that the constructs analyzed meet the requirement of discriminant validity, as the values of the square roots of the AVEs are greater than the correlations between the constructs, as can be seen in Table 5.

Table 5 - Discriminant validity of classroom justice constructs

DISCRIMINANT VALIDITY	PROCEDURAL JUSTICE	DISTRIBUTIVE JUSTICE	INTERACTIONAL JUSTICE
Procedural Justice	0.801		
Distributive Justice	0.542	0.709	
Interactional Justice	0.423	0.735	0.879

Source: Research data.

After the constructs have been validated and the suitability of the proposed model for the application of structural equation modeling has been identified, the validation of the model is complete, and the structural model is analyzed. According to Hair Jr. *et al*. (2009), the analysis of the measurement model is a critical stage in the development of structural equation modeling, so, considering this stage finished and the application of SEM is appropriate, the analysis of the identification of whether motivation proves to be an intensifier of the relationship between classroom justice and the performance of students in Postgraduate Programs is started via bootstrapping.

4.4 Assessment of the structural model

The assessment of the structural model, according to Hair Jr. *et al*. (2009), consists of analyzing the relationships between the constructs used in the proposed model. For this, the paths between the proposed constructs and variables are analyzed, both in terms of direct and indirect relationships, which compose the mediation to be assessed (HAIR JR. *et al*., 2009).

Therefore, the direct effects of the proposed model are presented in Table 6.

Table 6 - Direct effects of the proposed model

DIRECT EFFECTS	COEFFICIENT	STATISTICS T	p-VALUE	HYPOTHESIS
Procedural Justice -> Motivation	0.093	1.197	0.232	H1
Distributive Justice -> Motivation	0.495	4.177	0.000***	
Interactional Justice -> Motivation	0.029	0.429	0.668	
Procedural Justice -> Performance	0.211	2.192	0.029**	H2
Distributive Justice -> Performance	0.117	1.202	0.230	
Interactional Justice -> Performance	-0.143	1.424	0.155	
Motivation -> Performance	0.386	3.587	0.000***	H3

Note: ***Significance level of 1%; **Significance level of 5%.
Source: Research data.

Upon analyzing the relationships presented, it can be seen that the direct effect of the mediating variable is significant, which allows it to play such a role in the proposed model. In addition, the direct effect is significant for distributive justice in relation to motivation and for procedural justice in relation to performance.

With regard to the path coefficients, it is possible to identify that only the relationship between distributive justice and motivation has an effect close to large (β = 0.495; p-value = 0.000), while the other relationships have a medium or small effect (β = 0.386 and p-value = 0.000 for the relationship between motivation and performance and β = 0.211 and p-value = 0.029 for the relationship between procedural justice and performance). Thus, based on the results, hypotheses 1 and 2 cannot be fully accepted, and hypothesis 3 can be accepted.

Therefore, the results seem to indicate that student motivation is affected by the perception of distributive justice, i.e., by the returns obtained in the academic environment, which are translated into the grades or concepts attributed by teachers. This result is similar to that found by Chory-Assad (2002), who identified that one of the predictors of student motivation was distributive justice.

In addition, the perception of procedural justice, i.e., the criteria used to assign grades, seems to influence students' performance in their graduate programs, since the perception of different criteria for assigning grades to students can lead them to not dedicate themselves intensely since they perceive that the criteria used to assign their grades will not be equitable in relation to their colleagues. This result is in line with the findings previously described based on the students' reports, which indicate a perception of injustice in relation to the way teachers assign grades to students. Chory-Assad (2002) also identified that procedural justice can influence students' learning and can therefore lead to changes in their academic performance. In the same direction, Vallade, Martin and Weber (2014) identified that such perceptions can influence both students' motivation and performance, as they affect their beliefs about themselves and their abilities.

The results also show that motivation seems to be a predictor of student performance in the postgraduate programs surveyed; therefore, the more motivated the student is, the higher their performance tends to be based on the grades assigned by their teachers.

It can be observed that, as already identified in the literature, the perception of justice in the academic environment can influence the behavior of students, whether in terms of performance or motivation, especially when it comes to the attribution of grades and the criteria used for this. In order to verify the mediating effect of motivation, an analysis of the indirect effects of the proposed model is conducted. Table 7 shows the coefficients of the indirect effects.

Table 7 - Indirect effects of the proposed model

INDIRECT EFFECTS	COEFFICIENT	STATISTICS T	p-VALUE	HYPOTHESIS
Procedural Justice -> Motivation Performance	0.036	0.824	0.410	H4
Distributive Justice -> Motivation Performance	0.191	2.476	0.013**	
Interactional Justice -> Motivation Performance	0.011	0.257	0.798	

Note: **Significance level of 5%.
Source: Research data.

Baron and Kenny (1986) recommend that in order to confirm a mediating variable, it is necessary for it to intervene in the relationship between the dependent and independent variables, reducing or eliminating significant direct effects. Thus, from the structural model resulting from the bootstrapping process, it can be seen that only the relationship between distributive justice and performance, mediated by motivation, is significant, but with an effect size considered small (β = 0.191; p-value = 0.013).

In this sense, based on the model with mediation (indirect effects), hypothesis 4, considered the guiding principle of this research, that motivation mediates the relationship between the perception of classroom justice and the performance of students in *stricto sensu* graduate programs in Accounting, cannot be fully accepted, given that the indirect effects are less significant than the direct effects. Despite this, there is significance in the relationship presented, which may provide an opportunity for future research in this area.

This result indicates the ability of motivation to mediate the relationship between performance and distributive justice, which determines, therefore, that when students have a greater perception of fairness in the grades they have been attributed, they tend to be more motivated and, as a result, obtain higher grades, generating a positive effect in the long term since the more they perceive their grades as fair, the more motivated they will feel and the better their performance will be.

5 CONCLUSION

The present study aimed to identify the relationship between students' perception of academic justice and their performance, mediated by motivation, in *stricto sensu* Postgraduate Programs in accounting. Thus, based on the perception of 110 postgraduate accounting students, it was identified that motivation was presented as a mediator only of the relationship between distributive justice and performance, indicating that the attribution of grades can affect the motivation of postgraduate students and, consequently, this will influence their performance based on the grades received during the course.

Based on the reports of students who felt unfairly treated at some point during their master's or doctorate, it was possible to

identify perceptions of procedural and interactional injustice, which brings up the discussion about the importance of determining clear criteria and processes so that grades or concepts are attributed to students, reducing subjectivity when possible. Furthermore, the discussion about the relationship between student and teacher seems to be important because, as Wubbels and Brekelmans (2005) argue, the relationship between teachers and students impacts the learning, behavior, and motivation of students, which can generate aggressive and hostile behavior and resistance to teachers' requests (PAULSEL; CHORY-ASSAD, 2005). Moreover, it should be noted that Sabino *et al*. (2019) identified that the teacher is a central element in the perception of justice, reinforcing the importance of such a discussion.

In terms of the relationships analyzed, it is clear that the perception of the grades awarded to students affects their motivation, while the perception of the criteria used to assign these results affects performance, corroborating, to a certain degree, the understanding that the effects of perceptions of justice in the academic environment can influence the lives and learning processes of students (BERTI; MOLINARI; SPELTINI, 2010).

In this sense, this study helps to understand the factors related to the academic environment that can affect student behaviors, as stated by Hoy and Tarter (2004). Still in this context, it contributes to the discussion raised by Chory (2007) that teachers should seek to reduce perceptions of injustice that occur in the academic environment and avoid negative relationships with students, encouraging positive behaviors and results, as well as building interpersonal relationships suitable for the learning environment.

When assessing the results of this research, some limitations should be considered. Such limitations may indicate gaps for future research on the topic. Therefore, it is suggested that, in future investigations, precedents and other factors that may be influenced by perceptions of justice in the Brazilian academic environment in accounting be researched, such as aggression and resistance (CHORY-ASSAD; PAULSEL, 2004b), credibility of the teacher (CHORY, 2007), psychological involvement (BERTI; MOLINARI; SPELTINI, 2010), among others.

REFERENCES

ADAMS, John Stacy. Inequity in social exchange. In: **Advances in experimental social psychology**. Academic Press, 1965. p. 267-299.

ARGON, Turkan; KEPEKCIOGLU, Emine Selin. The Relationship between University Students' Instructors' Credibility and Perceptions of Justice in the Classroom. **The Anthropologist**, v. 24, n. 1, p. 347-353, 2016.

BARON, Reuben; KENNY, David. The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. **Journal of Personality and Social Psychology,** v. 51, n. 6, p. 1173-1182, 1986.

BERTI, Chiara; MOLINARI, Luisa; SPELTINI, Giuseppina. Classroom justice and psychological engagement: Students' and teachers' representations. **Social psychology of education,** v. 13, n. 4, p. 541-556, 2010.

BIES, Robert J.; MOAG Joseph. Interactional justice: Communication criteria of fairness. **Research on negotiation in organizations**, v. 1, p. 43-55, 1986. CHIAVENATO, Idalberto . **Administração nos novos tempos.** Rio de Janeiro: Campus, 2004.

CHORY, Rebecca M. Enhancing student perceptions of fairness: The relationship between instructor credibility and classroom justice. **Communication Education**, v. 56, n. 1, p. 89-105, 2007.

CHORY, Rebecca M.; HORAN, Sean M.; CARTON, Shannon T.; HOUSER, Marian L. Toward a further understanding of students' emotional responses to classroom injustice. **Communication Education**, v. 63, n. 1, p. 41-62, 2014.

CHORY, Rebecca M.; HORAN, Sean M.; HOUSER, Marian L. Justice in the higher education classroom: Students' perceptions of unfairness and responses to instructors. **Innovative Higher Education**, v. 42, n. 4, p. 321-336, 2017.

CHORY, Rebecca M.; OFFSTEIN, Evan H. Outside the classroom walls: Perceptions of professor inappropriate out-of-class conduct and student classroom incivility among American business students. **Journal of Academic Ethics**, v. 15, n. 3, p. 197-214, 2017.

CHORY-ASSAD, Rebecca M. Classroom justice: Perceptions of fairness as a predictor of student motivation, learning, and aggression. **Communication Quarterly**, v. 50, n. 1, p. 58-77, 2002.

CHORY-ASSAD, Rebecca M.; PAULSEL, Michelle L. Antisocial classroom communication: Instructor influence and interactional justice as predictors of student aggression. **Communication Quarterly**, v. 52, n. 2, p. 98-114, 2004a.

CHORY-ASSAD, Rebecca M.; PAULSEL, Michelle L. Classroom justice: Student aggression and resistance as reactions to perceived unfairness. **Communication Education**, v. 53, n. 3, p. 253-273, 2004b.

COLQUITT, Jason A.; CONLON, Donald E.; WESSON, Michael J.; PORTER, Christopher O.; NG, K. Yee. Justice at the millennium: a meta-analytic review of 25 years of organizational justice research. **Journal of applied psychology**, v. 86, n. 3, p. 425, 2001.

CROPANZANO, Russell; GREENBERG, Jerald. Progress in organizational justice: Tunneling through the maze. **International review of industrial and organizational psychology**, v. 12, p. 317-372, 1997.

DALBERT, Claudia; MAES, Jürgen. Belief in a Just World as a Personal Resource in School. In: ROSS, M.; MILLER, D. T. (Eds.). **The Justice Motive in Everyday Life.** Cambridge: Cambridge University Press, 2002.

DEUTSCH, Morton. **Distributive justice:** A social-psychological perspective. New Haven: Yale University Press, 1985.

DUPLAGA, Edward A.; ASTANI, Marzie. An exploratory study of student perceptions of which classroom policies are fairest. **Decision Sciences Journal of Innovative Education**, v. 8, n. 1, p. 9-33, 2010.

FEATHER, Norman T. **Values, achievement, and justice:** Studies in the psychology of deservingness. New York: Kluwer Academic Publishers, 1999.

FORNELL, Claes; LARCKER, David F. Evaluating structural equation models with unobservable variables and measurement error. **Journal of marketing research**, v. 18, n. 1, p. 39-50, 1981.

GEOCAPES. GEOCAPES - Sistema de Informações Georreferenciadas | CAPES. Disponível em: <https://geocapes.capes.gov.br/geocapes/>. Acesso em: 02 mai. 2019.

HAIR JR., Joseph F.; BLACK, William C.; BABIN, Barry J.; ANDERSON, Rolph E.;TATHAM, Ronald L. (2009). **Análise multivariada de dados**. Porto Alegre: Bookman.

HARTMAN, Sandra J.; YRLE, Augusta C.; GALLE, William P. Procedural and distributive justice: Examining equity in a university setting. **Journal of Business Ethics**, v. 20, n. 4, p. 337-352, 1999.

HOMANS, George C. **Social behavior: its elementary forms.** New York: Harcourt Brace Jovanovich, 1961.

HORAN, Sean M.; CHORY, Rebecca M.; GOODBOY, Alan K. Understanding students' classroom justice experiences and responses. **Communication Education**, v. 59, n. 4, p. 453-474, 2010.

HOY, Wayne K.; TARTER, C. John. Organizational justice in schools: No justice without trust. **International Journal of Educational Management**, v. 18, n. 4, p. 250-259, 2004.

KALE, Mustafa. Perceptions of college of education students in Turkey towards organizational justice, trust in administrators, and instructors. **Higher Education**, v. 66, n. 5, p. 521-533, 2013.

KAUFMANN, Renee; TATUM, Nicholas T. Examining direct and indirect effects of classroom procedural justice on online students' willingness to talk. **Distance Education**, v. 39, n. 3, p. 373-389, 2018.

LEVENTHAL, Gerald S. (1976). The distribution of rewards and resources in groups and organizations. In: L. BERKOWITZ, L.; WALSTER, E. (Eds.), **Advances in experimental social psychology**. New York: Academic Press, 1976.

MEURER, Alison Martins; LOPES, Iago França; ANTONELLI, Ricardo Adriano; COLAUTO, Romualdo Douglas. Experiências na Pós-Graduação, Comportamento nas Redes Sociais e Bem-Estar. **Educação & Realidade**, v. 45, n. 1, 2020.

MOORMAN, Robert H. Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship? **Journal of applied psychology**, v. 76, n. 6, p. 845, 1991.

PAULSEL, Michelle L.; CHORY-ASSAD, Rebecca M. Perceptions of instructor interactional justice as a predictor of student resistance. **Communication Research Reports**, v. 22, n. 4, p. 283-291, 2005.

RESH, Nura; SABBAGH, Clara Justice in Teaching. In: SAHA, L. J.; DWORKIN, A. G. (Eds.). **International Handbook of Research on Teachers and Teaching**. Dordrecht: Springer US, 2009.

RINGLE, Christian; SILVA, Dirceu; BIDO, Diógenes de Souza. Modelagem de Equações Estruturais com Utilização do SmartPLS. **Revista Brasileira de Marketing**, São Paulo, v. 13, n. 2, p. 56-73, 2014.

SABINO, Karla Luisa Costa; CUNHA, Jaqueline Veneroso Alves da; COLAUTO; Romualdo Douglas; FRANCISCO, José Roberto de Souza. Influência do desempenho acadêmico na percepção de justiça no ambiente de aprendizagem. **Revista de Educação e Pesquisa em Contabilidade (REPeC)**, v. 13, n. 4, 2019.

SANTOS, Débora; AVELINO, Bruna Camargos; CUNHA, Jaqueline Veneroso Alves da; COLAUTO, Romualdo Douglas. Justiça e desonestidade acadêmica: um estudo com estudantes do curso de ciências contábeis. **Revista Contemporânea de Contabilidade**, v. 17, n. 44, p. 71-86, 2020.

SIMIL, A. S. **A confiança como fator de influência da percepção de justiça no ambiente de aprendizagem**. Dissertação (Mestrado em Ciências Contábeis). Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brasil, 2016.

VALLADE, Jessalyn I.; MARTIN, Matthew M.; WEBER, Keith. Academic entitlement, grade orientation, and classroom justice as predictors of instructional beliefs and learning outcomes. **Communication Quarterly**, v. 62, n. 5, p. 497-517, 2014.

WERTHER, W. B.; DAVIS, K. **Administração de pessoal e recursos humanos**. São Paulo: McGraw-Hill, 1983.

WUBBELS, Theo; BREKELMANS, Mieke. Two decades of research on teacher–student relationships in class. **International Journal of Educational Research**, v. 43, n. 1-2, p. 6-24, 2005.