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Editor's Word

Dear readers,

I am honored to start this year as the editor of the Journal of Accounting Education and Research (REPeC). The hardest, in my opinion, is not merely to be the editor, but to succeed great editors and researchers like Prof. Orleans Martins, Prof. Valcemiro Nossa and so many others who have presided this renowned journal. I want to highlight that this scientific journal is supported by the Brazilian Academy of Accountancy (Abracicon) and published electronically on a quarterly basis.

My gratitude and welcome the new editorial team: Profs. Andson Braga, Bruna Avelino, José Elias, Márcia De Luca, Robson Zuccolotto and Vinícius Martins for accepting the work to be accomplished in the next two years.

An international scientific committee was created with four estimated researchers: Profs. Ervin Black, Greg Burton, Gary Hetch and Lúcia Lima Rodrigues.

I always urge the authors to read the instructions for submission, as several items have been changed and added, besides the layout and publication changes we have planned for the future.

What those changes are concerned, in this first issue, we are publishing an editorial by Prof. Giorgio Gotti and the researcher Patrice Hills, both from the University of Texas at El Paso, who discuss Ph.D. programs in the United States. REPeC has adopted this new policy in which international authors will participate through editorials.

Below is a brief description of the other articles published. I hope that these publications will satisfy and even exceed your expectations.

The second article after the editorial is entitled: **“Enade: are students motivated to take the exam?”** Written by Gilberto Miranda, Edvalda Leal, Mônica Gama and Aline Miranda, the aim of this study is to identify Accountancy students' levels of motivation to take the Enade, with and without the supply of extrinsic motivation mechanisms. As a main result, it was verified that the investigated students' levels of motivation to take the Enade in 2015 are statistically inferior to their motivation to take the Accountancy program.

The third article, “**The power of the scientific journal in the construction of the representation about scientific research**”, is an excellent qualitative-quantitative study by Iracema Neves, Gilberto Martins and Valdir Barzotto, about knowing the concept of scientific production represented by one of the most important journals in our area, the Journal of Accounting & Finance. The study evidences the social representation of scientific knowledge through the ideological strength of a journal's editors and reviewers, as well as through the authority constituted by Brazilian science.

In the fourth article, “**Self-efficacy, elements prioritized in public and private career prospecting and academic behavior: analysis of Accountancy students from public HEI**”, by Iago Lopes and Alison Meurer, we get to know the influence of self-efficacy beliefs on the elements prioritized in public and private career prospecting, mediated by Accountancy students' academic behavior, in the framework of the Social-Cognitive Theory (SCT). The authors concluded that the self-efficacy beliefs mainly influence the academic performance.

The title of the fifth article is: “**Accounting and Leasing: Brazilian and International Literature Review (2000-2018)**”. In this well-written and timely study by Eduardo Bona and Fernando Múrcia, the authors identify and characterize research about leasing in accounting between 2000 and 2018. It will certainly be of use for future research in the area.

The sixth article, “**Machiavellianism and its relation with counterproductive activities in Accounting students**”, was written by Ronilson Aves, Lorenza Costa, Eduardo Nascimento and Jacqueline Veneroso. The authors measured and classified the Machiavellian personality traits to associate them with counterproductive behavior in accounting students. The results appoint the preponderance of a moderate Machiavellian profile among the future accounting professionals, although there is no empirical evidence in this sample that can lead to the conclusion that Machiavellianism is related to the counterproductive behavior.

Finally, the article “**Relation between Locus of Control and Resilience according to the social characteristics of Accounting students**” was written by Juçara Haveroth, Alyne Ganz, Ângela Bilk and Marcia Silva. The article analyzes the relation between the internal and external locus of control and resilience in accordance with accounting students' social characteristics. Overall, the results demonstrate that accounting students possess high levels of resilience and of internal locus of control, characterizing them as determined, self-confident and persevering towards the difficulties that arise during the undergraduate education process in accounting.

As mentioned, I hope that you enjoy your reading and that it will be important for your research or your professional life.

Academic greetings,

Gerlando Lima, PhD.
Editor-in-chief

Accounting PhD Programs in the United States

Introduction

As Department Chairperson at The University of Texas at El Paso, I am often asked for advice regarding how to become an accounting professor. Recently, the University attained R1 designation in the Carnegie Classification of Institutions of Higher Education, which indicates top tier doctoral university status with very high research activity (“UTEP Attains National Research Top Tier Ranking”, 2019). This means UTEP is among 4.5%, 130 out of 2,883 universities, of four-year higher education institutions across the United States to earn this R1 distinction (“UTEP Attains National Research Top Tier Ranking”, 2019). The R1 distinction is also held by universities like Stanford, M.I.T., Michigan, Arizona, California-Berkeley and UT Austin (“UTEP Attains National Research Top Tier Ranking”, 2019). Leading up to this R1 designation, the Accounting program obtained reaffirmation of the AACSB Business Accreditation and AACSB Accounting Accreditation. This emphasis on research, UTEP’s mission surrounding Access and Excellence, and my own path to becoming an accounting professor were the catalyst behind an editorial geared towards international students interested in exploring a Ph.D. in the United States. I begin with my journey to an accounting Ph.D.

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Giorgio's Story

I was practicing public accounting in Milan, Italy when I decided to apply for a master's in accounting degree in the U.S. to learn U.S. GAAP. I really enjoyed the learning experience that exposed me to a different teaching style, and, in the final months of my master's, I applied for a Ph.D. at the same institution, University of Tennessee Knoxville. I met there a professor who became a mentor throughout my academic career, who was – at the time – involved in international accounting research as editor of the newly-founded *Journal of International Accounting Research* and as President of the International Accounting Section of the American Accounting Association (IAS-AAA), prof. Bruce Behn. Following Bruce's example, once I graduated from the Ph.D. program and started my academic career at the University of Massachusetts Boston, I focused my research and teaching to international accounting and my service to the same organization (IAS-AAA). I was elected President of the organization in 2015. My interest for international accounting brought me to Brazil many times, where, among other engagements, I was plenary speaker at the XVI USP International Conference in Accounting, and in the international organizing committee and presenter for the III PhD symposium during the XVII USP International Conference in Accounting.

When asked to write this editorial, I thought it would be beneficial to share the prospective of someone going through the process right now. Luckily, Patrice Hills, manager of my department, was going through the process and is willing to share her story.

Patrice's Story

In 2016, I became manager for the Accounting and Information Systems Department at the University of Texas at El Paso and began taking undergraduate accounting courses. After working in academia for about a year, I realized I was interested in becoming an accounting professor. With an undergraduate degree in biology, expertise in cancer pharmaceutical research, and management and administration experience in the legal industry, I did not know how I would make this dream possible. I enlisted guidance from Dr. Giorgio Gotti. He shared his story with me and advised me to consider demonstrating academic success in the accounting field by completing a Master of Accountancy. As I worked towards the master's degree and prepared to submit my application to Ph.D. programs, I had the unique opportunity to learn about the process and life of a Ph.D. from the vantage point of both a university staff member and aspiring Ph.D. student.

The editorial will draw on both of our experiences to provide some insight on the typical path for a student interested in pursuing a traditional accounting doctoral program and the application process. Additionally, we will touch base on other considerations, advice, and additional resources.

Traditional accounting doctoral program

A traditional accounting doctoral program is a full-time endeavor. Typically, the program takes 4 to 5 years to complete. The major areas of accounting research include financial accounting and reporting, management accounting, auditing, taxation, and information systems (Beyer, Herrmann, Meek, & Rapley, 2010). International accounting and accounting education are two additional areas, which can encompass the previously mentioned areas (Beyer et. al., 2010). Furthermore, there are four research methodologies: archival, behavioral, experimental, and analytical (Beyer et. al., 2010). The training provided in a doctoral program is an apprenticeship model focused on creating a new accounting researcher. When investigating a program, a candidate should determine which areas and methodologies appeal to their interest. As mentioned in Giorgio's story, finding a mentor and determining your areas of interest early on can help you find a program that is the right fit.

Initially, a doctoral student is brought on as a teaching assistant/research assistant and provided with a stipend, eliminating the payment of tuition out of pocket. During the first two years, a student will take coursework in doctoral-level seminars, where small group of students are reading and discussing current research topics in the field. Typically, core coursework includes introduction to econometrics, statistical analysis, and other accounting seminars that cover both behavioral and archival methods and, depending on school, capital markets, financial reporting, auditing, tax and related research subjects. In between the second and third year, a comprehensive exam is administered to determine if the student has the knowledge and the deep understanding of the subject that allow for the successful completion of the program. Once the student passes the comprehensive exam, the traditional coursework will come to an end. During the third year, juggling a multitude of responsibilities and time management become essential. A student's main goal is to focus on formulating ideas to develop into the proposal for his/her dissertation. However, this must be balanced with responsibilities of teaching undergraduate classes, meeting with the faculty advisor, and learning the typical behavior expected by faculty members. Towards the end of the third year, you will defend your dissertation proposal and your proposal dissertation committee will advise if you have one or two years remaining to complete the program. The last year is dedicated to finishing the dissertation that will be defended in front of a faculty committee and interviewing for a faculty job that will start the following year.

The application process

The necessary components of an application are relatively standard among all programs. The required components include a statement of purpose, resume, transcripts, writing samples/essays, letters of recommendation, and the Graduate Management Admission Test (GMAT) (Garven & Pennington, 2018).

Programs tend to take a holistic approach to evaluating candidates, however the GMAT is of great importance and a good score is essential. Studying for the GMAT using a test prep program, tutor, self-study, or some combination of all methods is highly recommended. In addition, beginning the study process early is important. Usually, starting six months prior to application submission date is prudent and provides ample time to receive the desired score. Also, keep in mind that a great score can set you apart.

Other tips to keep in mind. 1) Letters of recommendation should be from academic professors or someone that can speak to your academic success and potential. 2) The statement of purpose should be 1 to 2 pages long. 3) Some programs may require additional writing samples or essays. 4) Skype or telephone interviews may be a part of the process. Occasionally, campus visits occur too. 5) Some schools only accept students every other year, so be certain the program is accepting new students.

We will use UTEP's accounting Ph.D. program as an example. The application requirements are a GMAT score of 700 or better, two letters of recommendation, statement of purpose, resume and transcripts. The deadline for application submission is January 15, 2020 for an August 2020 start date and a skype interview is customary. The program accepts new students every year.

Other considerations, advice, and resources

Connect with a Faculty Member/Program Administrator/Current PhD Student

Consider the phrase; network is your net worth. When pursuing a Ph.D. it is to your advantage to connect with the people who know the program the best. The best connection would be reaching out to an accounting faculty member at the school you are interested in attending. Alternatively, ask professors from your university if they can introduce you to their colleagues at other universities. Other connections that can be beneficial are Ph.D. program directors, coordinators and current Ph.D. students. For example, in Patrice's story, she had the unique experience of connecting with all of the above. She was able to obtain mentorship from Dr. Gotti, help with the application process through working with other administrators, and ask current Ph.D. students what they would do differently if they had to do it all over again.

Stipends and Scholarships

As mentioned above, tuition is covered with stipends, fellowships, and/or scholarships. The stipend covering tuition can range from nineteen thousand dollars to forty thousand dollars. Occasionally, programs have additional funding opportunities that can provide support on your journey, but is important that you inquire about the opportunities. For example, our program has summer teaching as an option to offer an extra three to six thousand dollars to Ph.D. students. Occasionally, funds from fellowships or endowments are available to support student travel to major accounting conferences. Keep in mind that even though the Ph.D. stipend may be modest, once you complete your doctorate and obtain a full-time assistant professor position, the mean salary for a nine-month, is approximately \$143,700 (*2017-18 Staff Compensation & Demographics Survey: Executive Summary*, 2018).

Hasselback's List of Association to Advance Collegiate Schools of Business (AACSB)-Accredited Schools Offering Doctoral Degrees in the United States.

[SEE ATTACHEMENT 1 - HASSELBACK LISTING]

6-15-16	Schools Offering 1st Degree	Doctorates or Pre97	Concentrations in Accounting 97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	Thru 2015 Total	Doct Prog
Alabama		1953	119	1																		14	5
American	*	1956	12	1																		11	1
Arizona		1970	129	1																		114	1
Arizona St		1959	12																			12	1
Arkansas		1951	107																			106	1
Bentley		2008	0																			0	0
Boston U		1986	0																			0	0
Ca Berkeley		1929	812																			812	0
Ca Irvine		1984	36																			36	0
CUA		1962	1																			1	0
Carnegie Mel		1958	138																			138	0
Case Western		1952	1																			1	0
Central Fla		1991	1																			1	0
Chicago		1922	71																			71	0
Cincinnati		1970	1																			1	0
CUNY Baruch	*	1975	1																			1	0
Cleveland St	*	1994	1																			1	0
Colorado		1966	1																			1	0
Columbia		1955	1																			1	0
Connecticut		1955	1																			1	0
Cornell		1968	1																			1	0
Drexel		1985	1																			1	0
Duke		1986	1																			1	0
Emory		2007	1																			1	0
Florida		1956	1																			1	0
Florida Atl		1981	1																			1	0
Florida Int		1983	1																			1	0
Fla State		1970	1																			1	0
George Wash		1969	1																			1	0
Georgia		1970	1																			1	0
Georgia Tech		1966	1																			1	0
Georgia St		1966	1																			1	0
Harvard		1935	1																			1	0
Iowa		2005	1																			1	0
Houston		1973	1																			1	0
Illinois		1939	1																			1	0
Indiana		1950	1																			1	0
Iowa		1951	1																			1	0
Jackson St		2002	1																			1	0
Kansas		1970	1																			1	0
Kent State		1973	1																			1	0
Kentucky		1973	1																			1	0
Lehigh	*	1978	1																			1	0
Louisiana St		1943	1																			1	0
Louisiana Tech		1973	1																			1	0
Maryland		1969	1																			1	0
Massachusetts		1971	1																			1	0
Memphis		1982	1																			1	0
U Miami		1996	1																			1	0
Michigan		1939	1																			1	0
Mich State		1959	1																			1	0
Minnesota		1936	1																			1	0
Mississippi		1964	1																			1	0
Miss State		1964	1																			1	0
Missouri		1941	1																			1	0
Morgan State		2006	1																			1	0
Nebraska		1943	1																			1	0
New York U		1944	1																			1	0
North Carolina		1957	1																			1	0
North Texas		1969	1																			1	0
Orthodox		1969	1																			1	0
Ohio State		1950	1																			1	0
Oklahoma		1957	1																			1	0
Oklahoma State		1971	1																			1	0
Oregon		1964	1																			1	0
Pennsylvania		1973	1																			1	0
Penn State		1967	1																			1	0
Pittsburgh		1969	1																			1	0
Purdue		1969	1																			1	0
Pennselaer		1973	1																			1	0
Rice		1969	1																			1	0
Rochester		1972	1																			1	0
Rutgers	*	1992	1																			1	0
St Louis		1966	1																			1	0
Sania Clara	*	1972	1																			1	0
South Carolina		1976	1																			1	0
South Fla		1992	1																			1	0
Southern Calif		1963	1																			1	0
So Illinois		1988	1																			1	0
Stanford		1939	1																			1	0
UNY Bingham		1999	1																			1	0
UNY Buffalo		1997	1																			1	0
Syracuse		1970	1																			1	0
Temple		1951	1																			1	0
Tennessee		1976	1																			1	0
Tx Arlington		1960	1																			1	0
Texas Austin		1934	1																			1	0
Tx Dallas		2002	1																			1	0
Tx El Paso		2008	1																			1	0
Tx San Antonio		2008	1																			1	0
Texas A&M		1972	1																			1	0
Texas Tech	*	1969	1																			1	0
Ulaune		1976	1																			1	0
Union NY	*	1969	1																			1	0
Utah		1967	1																			1	0
Vanderbilt	*	1960	1																			1	0
Va Comm		1967	1																			1	0
Va Tech		1967	1																			1	0
U Washington		1956	1																			1	0
Wash Univ		1964	1																			1	0
Wash State		1969	1																			1	0
West Virginia		1964	1																			1	0
Wisconsin		1953	1																			1	0
Yale		1951	1			</																	

Tiers of Institution (for consideration after you finish your Ph.D.)
 [SEE ATTACHEMENT 2 - TABLE 1 FROM BEYER ET. AL.]

TABLE 1
Teaching and Research Expectations of Faculty
Adopted from Butler and Crack (2005)

	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
Examples	Chicago Stanford Rochester	Most Big 10 conference schools	Many Big 12 and SEC conference schools with a doctoral program	Carnegie Research Schools without a doctoral program in accounting	Regional Schools
Teaching Expectations (Per Year)	Two classes	Three classes	Four classes Usually two course preparations	Four to six classes Two or three course preparations	Six to eight classes Two to four course preparations
Research Expectations for Tenure	Demonstrate leading scholarship in your area of research. Multiple "A" level publications.	Two to four "A" level publications. Publications in "B" level journals carry significantly less weight.	At least one "A" level and multiple "B" level publications. "A" level publications receive greater weight, but "B" level publications are also valued.	An "A" level publication is usually not required. Emphasis is placed on both the quantity and quality of publications.	Evidence of active research including publications in refereed journals, conference proceedings, and research presentations.
Accounting Doctoral Program	Yes, students place at Tier 1 and Tier 2 schools.	Yes, strong placement record in Tiers 1 to 3.	Yes, but placement not as strong.	No	No

"A" = Publication in one of the three to five top accounting research journals. Based on Bonner et al. (2006), the top five research journals in accounting are *The Accounting Review (TAR)*, *Journal of Accounting Research (JAR)*, *Journal of Accounting and Economics (JAE)*, *Accounting, Organizations and Society (AOS)*, and *Contemporary Accounting Research (CAR)*.
 "B" = Publication in a high-quality journal, such as the AAA section journals, with an acceptance rate under 30 percent.

RESEARCH GUIDANCE

Research is the currency of academics. It is research, not teaching, that drives the rewards for faculty at most universities (Hermanson 2008). This is the case not only for universities with doctoral accounting programs, but also for many universities focusing solely on undergraduate or master's degrees in accounting. Hermanson (2008) provides several reasons why this is the case including the scarcity of research talent in comparison to teaching and that research is peer-reviewed, providing a better measure of quality. Regardless of the reasons, doctoral students need to be aware of the importance of research and place special emphasis in this area throughout their careers. In the following section, we provide a summary of research advice commonly provided to doctoral students through the mentoring process.

Conclusion

In conclusion, I believe the role of an accounting professor is comprised of: 1.) enriching the global business and accounting community through research contributions, 2.) facilitating career readiness to students seeking higher education, and 3.) serving as an ambassador and advocate for students, programs, profession, and research. We hope this editorial helpful and we encourage you to create your own success story.

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Enade: are the students motivated to take the test?

Abstract

Objective: Based on the assumptions of theoretical and sociocognitive approaches, this study aimed to identify the levels of motivation of Accountancy students to take the Enade (National Exam for the Assessment of Student Performance), with and without the provision of extrinsic motivation mechanisms. Descriptive research with a quantitative approach, performed through a survey of 1,082 students from 122 Brazilian institutions.

Method: This is a descriptive research with a quantitative approach, carried out by means of a survey. To test if there were significant differences in the levels of student motivation, with and without the provision of motivation mechanisms to take the Enade, the non-parametric Mann-Whitney and Wilcoxon tests were used.

Results: It was verified that the motivation levels of the students investigated to take the Enade 2015 are statistically inferior to their motivation to take the Accountancy program. The results pointed out that the supply of stimuli, whether the registration of the score on the degree; use of the score for admission to graduate studies; use of the score for public examinations or for the CFC professional qualification examination, as a reward for these students, positively affects the intention (motivation) to take the Enade.

Contributions: Considering that Enade has been consolidated as a large-scale assessment in Brazil, adjustments that help to make the system more accurate are important. The findings of this study suggest that the use of the students' Enade score in post-college stages may serve as a stimulus for them to focus more on the assessment, reducing the resistance, the "boycotts" and making the exam results more precise, especially in the Accountancy course, which ranks fourth in number of enrollments in Brazil, and because the students are subject to another evaluation for professional practice, the Proficiency Examination.

Key words: Sinaes, Enade, Accountancy, Motivation.

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1. Introduction

In the report *Education at a Glance 2015*, elaborated by the Organisation for Economic Co-operation and Development (2015), the important advances Brazilian education has achieved in recent years are evidenced. The higher percentage of the Gross Domestic Product (GDP) invested in the different teaching levels and modalities and the consequent increase in the number of places is one example. Nevertheless, the report also highlights relevant problems that need to be overcome. Among the countries analyzed, Brazil presents the highest percentage (76%) of youth between 20 and 24 years of age not on the school benches, with 20% of young people neither studying nor working.

In the same sense, in the most recent National Higher Education Census, published by the National Institute of Educational Studies and Research Anísio Teixeira (2016), significant advances are shown in the expansion of places offered in higher education in Brazil in the past decade. The number of enrollments in higher education jumped from 3,887,022 in 2003 to 8,033,574 in 2015, representing a growth by almost 107% in just over a decade. Among the most popular programs, in the “face-to-face” and “distance” modalities, we highlight Accountancy, which ranks fourth, following Law, Administration and Pedagogy, corresponding to 4.5% of the higher education enrollments registered in 2015.

The growth experienced in Brazilian higher education, although very important, still represents little compared to the country’s position when compared to other nations. In addition, in order to consolidate higher education within desirable parameters in Brazil, it is important that growth occurs with quality, in other words, more places are required, but also conditions to proceed with and complete the course. It is therefore necessary that the quantitative evolution be properly monitored by means of an evaluation system that is able to measure the experts from the Brazilian Education Department (MEC) highlight, such as: teaching, institutions and teachers.

To that end, some higher education assessment programs have been tried out since the 1990s in Brazil, such as: Provão (also known as ENC) and the National System for the Assessment of Higher Education (Sinaes). The current system is the Sinaes, whose purpose is to accurately assess students, teachers and institutions. Criticism against the system includes the fact that there are no stimuli that motivate the students to explore their full capacity during the evaluations, as their scores are neither disseminated nor used for other purposes.

The law regulating Sinaes sets some benefits for the better performing students, but these possible “awards” are not widely disseminated. In fact, they are unknown to most students and teachers. These weaknesses contribute to the fact that, in some cases, the grades obtained by the institutions do not accurately represent the students’ performance. In this respect, some studies show possibilities of students’ boycotts and lack of interest (Leitão, Moriconi, Abrão & Silva, 2010; Borges, Silva & Miranda, 2015). Boycotts do not necessarily represent extreme attitudes, such as not showing up for the test - as this could result in sanctions which students and higher education institutions are subject to - but the non-performance of the assessment with the necessary stimulus to measure the students’ true skills and knowledge.

Considering the importance of evaluation, the participants’ low levels of motivation could make the results of the exam less accurate, which would be detrimental to educational institutions and to Sinaes itself. In this context, the Accountancy program also stands out, but in a negative sense, as the course has been ranked in the final positions since the first edition, which took place in 2006, with average Enade scores (specific and general knowledge) around 37%.

In order to make assessments more accurate and, consequently, strengthen Sinaes, it is important to search for ways to motivate students to take the Enade. For this purpose, sociocognitive approaches, which root in behavioral theories, establish the existence of two motivational orientations that may contribute to the understand the mechanisms that possibly evidence the factors that stimulate students to carry out the evaluation in a motivated way: a) intrinsic motivation: when the students study because they likes the activity itself, they are not subject to pressure and their stimulus originates in needs inherent in themselves; b) Extrinsic motivation: when the students study to achieve something external or to avoid punishment, they aim to achieve desirable or avoid undesirable effects (Amabile, Hill, Hennessey & Tighe, 1994; Harackiewicks & Elliot, 1993; Mandelink & Harackiewicz, 1984). Studies on motivation in Accountancy programs in Brazil have shown that students are sensitive to extrinsic motivation mechanisms (Leal, Miranda & Carmo, 2013).

In view of the above, an important research gap is identified: **could the use of Enade results in later stages of the students' career alter the motivation levels to carry out the assessment?**

The general objective of the research is to identify the motivation levels of Accountancy students to take Enade with and without the supply of motivational stimuli. The specific objectives are: (a) to identify the students' motivation levels to take the Accountancy program; (b) identify the students' motivation levels to take the National Secondary Education Exam (Enem) (students who took the Exam) and to take Enade 2015; (c) identify the motivation levels through the supply of extrinsic motivation mechanisms to take Enade; (d) confront these motivation levels; (e) assess if, according to the investigated students, this research could affect their motivation levels to take Enade 2015.

2. Assessment Systems of Higher Education in Brazil

The evaluation process has existed in the educational system for some time and is part of several educational systems in different countries. Freitas and Cornacchione (2015) emphasize that the theme "evaluation" is present in the institutions either to measure the students' learning process or to verify the conditions of their teaching. For Dias Sobrinho (2010), the evaluation is an important tool to optimize the organization and implementation process of educational reforms. The author points out that the evaluation system produces "changes in curricula, teaching methods, education concepts and practices, management, power structures, institutional models, educational system configurations, research policies and priorities, notions of pertinence and social accountability" (p.195).

Based on this assertion, it is noticed that the evaluation not only analyzes the educational system, but also guides behaviors, whether of the educational institutions, so that they conform to the way in which they are evaluated; or of other agents involved in this process, such as course coordinators, teachers and students. In this sense, Melo, Nunes, and Michels (2012, p.857) highlight that "evaluation is viewed with resistance by the various segments of the academic community of Brazilian higher education institutions".

When analyzing the evolution of the evaluation systems of higher education in Brazil, it is noticed that this took place for the first time in 1970, when Capes assessed the Master's and doctorate courses. Somewhat later, some regulatory attempts took place in the undergraduate courses, such as: the University Reform Assessment Program (Paru) from 1983 to 1984; the Commission of Notables and Executive Group for the Reform of Higher Education (Geres), which existed between 1985 and 1986; there was an institutional "Self-assessment experience" between 1987 and 1992; and, in 1993, the Institutional Evaluation Program of the Brazilian Universities (Paiub) started (Polidori, Marinho-Araújo & Barreyro, 2006).

According to Santos (2012), the first effective evaluation instruments of undergraduate education in Brazil began in the government of Fernando Henrique Cardoso in 1995, with the creation of Law 9.131 / 1995, which was in force from 1995 to 2002. Through this law, the National Course Exam (ENC), better known as Provão was established. The law mandated that the ENC-Provão be applied annually and should cover the minimum contents, in order to verify competences, skills and essential contents the higher education graduates acquired, respecting the specificities of each knowledge area. It was the responsibility of the Ministry of Education (MEC) to disseminate the concept the student obtained in the media and to register it in the student's academic records (Santos, 2012).

The ENC-Provão was in force until 2003, when the government of former President Luiz Inácio Lula da Silva established the National System for the Evaluation of Higher Education (Sinaes) (Santos, 2012). The legal framework regulating Sinaes is determined in Law 10.861, dated April 14, 2004. According to this mechanism, students are assessed through the National Exam for the Assessment of Student Performance (Enade).

Law 10.681, from 2004, prescribes that this assessment takes the role of compulsory curricular component in undergraduate courses. In the student's academic history, only his or her regular status with respect to this "obligation" is recorded, certified by his or her actual participation or official dispensation by the Ministry of Education, in the manner established by regulation.

The head of the higher education institution is responsible for enrolling the students qualified to take the Enade of INEP. Failure to comply with this determination is subject to sanctions according to Law 10.681, article 10, paragraph 2, from 2004. The unsatisfactory results have to be submitted to a commitment protocol signed between the higher education institution and the Ministry of Education. Failure to comply with this protocol, fully or partially, may result in the following penalties mentioned in paragraph 2: I - temporary suspension of the opening of a selection process for undergraduate courses; II - cancellation of the higher education institution's authorization to operate or of the recognition of the courses the institution offers; III - warning, suspension or loss of mandate of the manager responsible for the action that was not executed, in the case of public higher education institutions.

The Law that regulates Sinaes, and therefore Enade, not only establishes sanctions and penalties, but also benefits for well-performing students. According to article 5, § 10, the Ministry of Education will grant incentives to the best performing students on Enade in the form of a scholarship, or specific aid, or some other form of distinction with a similar purpose, aimed at favoring the excellence and continuity of the education, at the undergraduate or graduate level, as established by regulation.

It should be noted that Enade has undergone changes over the years, compared to the way it was originally created. For example, in 2009, the examination became population-based instead of sampling-based (as it was initially) and, in 2011, it was no longer applied to students and was only applied to graduates (Brito, 2015).

The literature on evaluation systems in Brazil appoints some considerations in this respect. For Polidoro, Marinho-Araújo and Barreyro (2006), it is a complex system, considering the diversity of courses evaluated and the territorial extension of Brazil. In this sense, the challenge is to align regulatory needs with the institutions' evaluation culture. For Dias Sobrinho (2008):

In a context of quantitative explosion of higher education systems and multiple social demands, different actors dispute the roles that higher education would play in relation to the state, society, the market, the educational community, "customers", the productive sector, as well as the various types of service the institutions should offer. (Dias Sobrinho, 2008, p.1)

For the author, Sinaes "is no longer a production of meanings, questioning the pertinence and the scientific and social relevance of education and knowledge, and is reduced to measuring and controlling" (Dias Sobrinho, 2008, p.5). In other words, the system would diminish to indices. Sharing this view, Brito (2008) states that, in most cases, these indicators are used to allocate resources and to publicize an image of the institution, but they do not effectively contribute to the improvement of HEI.

Dias Sobrinho (2008) also points out that the system is expressed through the analysis of student performance (measured through Enade), which results in classifications and rankings among institutions, but the quality analysis of courses and institutions is much more than that. Furthermore, according to the author, “there is no educational theory that argues that a student’s performance on a test fully guarantees learning, or that the result of a group of students on an exam is equal to the quality of a course” (p. 6), especially when the students do not have motivations to perform these exams.

Further criticism presented by Dias Sobrinho (2008) concerns teaching and research activities:

INEP asks, for example, if there is a course plan, but does not question the meanings of this course plan, if it is appropriate to the institutional mission, if it is well developed, corresponds to the needs of society and what ethical-political conception it fits into, what type of training is appropriate, etc. The existence of laboratories is another question, but without distinguishing the relative importance and the pertinence of a laboratory for each particular course (for example, engineering and philosophy require different inputs) (Dias Sobrinho, 2008, p.822).

All this generates a reversal of roles, so that the teachers and researchers no longer determine the educational policies within the institution, but rather the agents external to the reality of the institution, through the evaluation systems (Dias Sobrinho, 2008).

Despite criticism, Enade seems to be a valid indicator because, according to Hanushek (2002), the application of standardized tests is one of the most used means to measure the quality of teaching. According to Leitão *et al.* (2010), however, students and institutions sometimes challenge the exam. The authors affirm that, at various moments, the media reports on students claiming that the weight the student receives in the accomplishment of the exam is unfair, as the final objective is to evaluate the course and not the student actually. They also point out that countless institutions complain that students are not encouraged to commit to Enade, which ends up affecting the results of courses and institutions. It should be highlighted that the Enade test does not only evaluate general and specific knowledge related to the training area. Its socioeconomic questionnaire also covers aspects related to the institution, such as infrastructure, pedagogical organization, teacher training, among other factors that also act as determinants of academic performance.

For Leitão *et al.* (2010), the application of exams nationally generates discussions about the students’ probable lack of involvement and resistance in the evaluation process. The authors present two different categories of boycott: the first involves those students who glue stickers or produce any type of explicit register against the examination. The other category includes those students who do not answer any question in the test but deliver the evaluation blank. In both cases, students attend the test but do not perform as expected.

The absence on the day of the test could be considered a possibility of boycott. When analyzing the compulsory nature and the punishment the students are subject to when they do not attend (non-issuance of the degree), this kind of boycott would not be feasible. In addition, it would be difficult to segregate the cause of the absence, if it would be a boycott or if the student really could not attend the assessment due to other reasons (Leitão *et al.*, 2010). Leitão *et al.* (2010) also found that the “boycotting” students tend to present a higher family income, parents with a higher education level and took most of their secondary education at private schools. In addition, they tend to assess institutional aspects (physical structure and pedagogical aspects) negatively, which can indicate that, sometimes, the students boycott Enade to demonstrate their dissatisfaction with the course or the institution. Pederneiras, Lopes, Ribeiro Filho and Feitosa (2011) analyze the students’ participation in Enade from another perspective. The authors raise the hypothesis that three factors can influence the result of this test: sensitization, motivation and commitment. In this study, the authors found that the interviewees (leaders and managers) reported that the students are not motivated to take the Enade and only attend because they are obliged to participate as, if they do not, they do not get their degree. The interviewees also highlighted that there should exist incentives for the student to take the test. Based on the studies cited, it is noticed that the students’ lack of motivation to take the test can affect the performance achieved, as the discouraged students can lose their commitment to the exam, whether through the boycott or the lack of effort to properly solve all issues. Anyway, this commitment can interfere in the result of the institutional and course assessment.

3. Self-determination theory

According to Robbins (2005), “motivation is the result of the individual’s interaction with the situation” (p.132), as people have different basic motivational tendencies caused by the situation. Conceptually, motivation is “the process responsible for the intensity, sense and persistence of a person’s efforts to achieve a certain goal” (p.132). In the same line of understanding, Lens, Matos and Vansteenkiste (2008) understand that motivation is “a psychological process in which personality characteristics (e.g. motives, reasons, abilities, interests, expectations, future perspective) interact with the perceived environmental characteristics” (p.17). Nakamura, Fortunato, Rosa, Marçal, Pereira and Barbosa (2005) understand that motivation is considered an impulse that makes people work to achieve their goals and persist until reaching them. That is, it is a factor that incites the person towards some goal and provokes a new mood; the person begins to act to achieve this goal and also to visualize new horizons, new achievements.

Motivation is considered to be multifaceted, as it varies according to the needs, motives and incentives of each human being. In the educational field, motivation is an extremely important element that can signal a student’s success or not. Guimarães and Boruchovitch (2004) affirm that motivated students are characterized by: being actively involved in the learning process; persistently engaging in challenging tasks; using the relevant strategies; seeking to increase and / or create new skills of understanding and mastery; being enthusiastic and proud (in the sense of honor) through the results of their performance. The positive results achieved are stimuli to continue working towards constant improvement, personally and of the context they figure in. On the other hand, Guimarães (2009) affirms that discouraged students will passively position themselves in the teaching-learning process, showing little effort and low persistence to reach their goals, resulting in dissatisfaction in performing tasks that are imposed and presenting results below expected.

The sociocognitive approaches highlight the existence of two motivational orientations: the intrinsic and the extrinsic (Amabile *et al.*, 1994; Harackiewicz & Elliot, 1993; Mandelink & Harackiewicz, 1984). According to Guimarães (2009), intrinsic motivation is manifested in individuals when they perform a task with an end in itself, out of interest and pleasure, that is, the activity is carried out on their own initiative, the incentive already resides in the actual execution of the activity, which is then called autotelic. Unlike intrinsic motivation, the extrinsic type denotes the fulfillment of a given task for a reason external to it, such as: receiving material or social rewards, avoiding punishments, or feeling forced or pressured to develop something. For the extrinsically motivated students, the achievement of a certain task becomes their goal when they want to obtain external rewards (Guimarães, 2009).

The extrinsically motivated students need external stimuli to perform a task, either by formal requirements such as grades, or by awards, rewards or even to avoid reprimands (Guimarães & Bzuneck, 2008). The intrinsically motivated students, on the other hand, take pleasure in studying, in fulfilling the proposals, without resistance and face each new stage as a challenge, regardless of external stimuli or rewards. In the words of Guimaraes and Bzuneck (2008), it is the perfect style of self-determination and brings together its three elements: i) internal locus (behavior has origin and personal regulation); ii) psychological freedom (people adopt a certain behavior because it is consistent with their interests, preferences and needs); iii) perception of choice (flexibility in decisions about what to do, how or even the possibility of not doing).

The deepening of the studies on intrinsic and extrinsic motivation gave rise to the Self-determination theory proposed by Ryan and Deci (1985). This theory originated in the 1970s after the results of three different investigations carried out in laboratories in different parts of the world. In the perspective of the Self-determination theory, the predisposition to achieve a healthy development and self-regulation is inherent in the human being. In the preliminary studies by Ryan and Deci (1985), motivation was considered a unitary construct, presenting variations only in number. With the evolution and maturation of the authors’ studies, in relation to the quality of motivation, a distinction was made between motivational levels. For the authors, motivation depends on a set of variables internal and external to the individual.

Thus, intrinsic and extrinsic motivation are part of the same construct; they are neither static nor mutually exclusive; they are interdependent, manifest in individuals according to their predispositions or stimuli; they are not two opposite hubs. Ryan and Deci (1985) demonstrate the configuration of the different motivational levels, classified in three groups: intrinsic motivation, extrinsic motivation and demotivation. These elements are integrated, composing a continuum that underlies the Self-determination theory, in accordance with Figure 1.

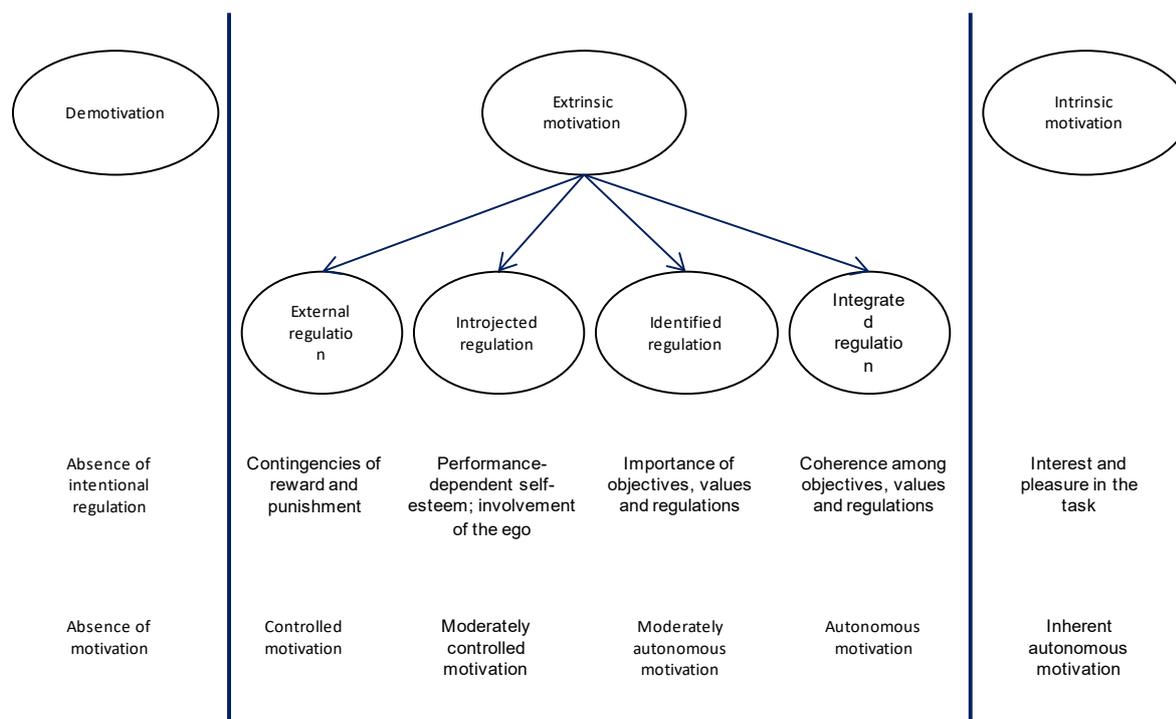


Figure 1. Self-determination Continuum

Source: adapted from Gagné and Deci (2005, p. 336).

Extrinsic motivation is subdivided into four levels of regulation, ranging from a purely external form to an integrated regulation, close to intrinsic motivation. The authors also affirm that intrinsic motivation and self-regulated forms of extrinsic motivation depend on the satisfaction of the three basic needs: competence, autonomy and relationship.

Leal, Miranda and Carmo (2013) analyzed Accountancy students in relation to motivation in the light of the Self-determination theory. The investigated students presented a self-determined motivation profile, with the highest average for intrinsic motivation; secondly, the extrinsic motivation by external regulation. The motivation averages of new students (first year of the course) and graduating students (last year of the course) were analyzed. The results indicated that, at the beginning of the course, students have higher levels of autonomous (intrinsic, integrated and identified) motivation and, over time, the situation reverses, that is, the types of non-autonomous motivation (introjected, external and unmotivated) score higher in the last years of the course. The authors reported that the Accountancy students present signs of motivation that drive them to get the degree and the possibilities it offers, such as employment, better remuneration, quality of life, prestige, etc.

Also based on the self-determination theory, Coura, Batista, Albuquerque, Carvalho and Oliveira (2015) investigated the types of motivation of Accountancy and Business Administration students at the Federal University of Campina Grande. The results showed that the students of the two investigated courses are motivated both intrinsically and extrinsically, presenting greater alignment with the “Intrinsic to Know” motivation, followed by the “Extrinsic Regulation-external” motivation. The authors did not identify significant differences between the courses, nor an evident relation with the academic performance or stage of completion of the course.

Lopes, Pinheiro, Silva and Abreu (2015) analyzed the intrinsic and extrinsic motivational factors characteristic of the Accountancy students in public and private institutions of Bahia, as well as the variables proposed by the Self-determination theory. There were no statistically significant differences between the students’ motivation at public and private HEI, but they found that, on average, women were more extrinsically motivated by introjection and intrinsically motivated than men. The new students, on the other hand, are more motivated by introjection and less demotivated than the graduating students.

4. Methodological Aspects

The objective of this research is to analyze the motivation of the Accountancy students to take Enade in 2015. It is a descriptive research with a quantitative approach, carried out by means of a survey.

The research instrument consisted of two blocks of questions. The first addressed with questions related to the characterization of the respondents, such as: gender, current period and semester, age group, occupation and whether they were participating or had participated in academic activities (examples: scientific initiation, PET, monitoring, junior company, etc.).

The second block of the questionnaire consisted of questions related to student motivation: a) to take the Accountancy course; b) to participate in Enem (those who participated in the evaluation); c) to take Enade in 2015; d) to take Enade under the hypothesis of using the score (for admission to graduate studies, for public examinations, for proficiency exams, for registration in the degree). In this block, for each question, students should inform their level of motivation on a scale from zero to ten points. The scale was continuous and scores could be given with decimal or centesimal variations for example. Thus, zero means that the student is totally demotivated, while 10 represents the totally motivated student, and five, half of the scale, implies that the student is neither motivated nor demotivated, that is, indifferent as to whether to take the test.

A pre-test was carried out with ten professors from the areas of Business Administration, Accountancy and Education, all of them researchers in Education and/or Business. After several contributions from participants, the instrument was finalized and implemented.

Through the E-Mec Platform, the electronic addresses of the Brazilian Accountancy courses were obtained. With these contacts, the questionnaires were sent to the course coordinators and/or directors, with the request that they be sent to the students. Three submissions were made at one-week intervals, with different calls for student participation, as suggested by Gall, Gall & Borg (2007). As the objective of the research is to analyze the Accountancy students’ motivation to take Enade in 2015, the data were collected during the months before the test - September, October and November 2015 - concluded on the day before the application of Enade, that is, November 21st. In total, 1,149 answers were obtained, 67 of which were excluded because they were incomplete or because the respondents did not accept to participate in the research, or because they referred to students from other courses. The final, non-probabilistic sample consisted of 1,082 answers.

The Kolmogorov-Smirnov test revealed that the data had no normal distribution. Thus, in order to evaluate the existence of statistical differences in the Accountancy students’ motivation to take Enade, with and without the provision of extrinsic motivation mechanisms, the non-parametric Mann-Whitney and Wilcoxon tests were used, whose premises were complied with.

The Wilcoxon test is used to compare population means in paired samples to support the level of significance of possible paired differences (groups) for the variables tested, considering the population median (Fávero, Belfiore, Silva & Chan, 2009). Thus, the test was used to ascertain the difference in the students' levels of motivation to take Enem and Enade (Table 3), as well as to verify the level of motivation for Enade, with and without the possibilities of using the score in graduate studies, public exams, Proficiency Exams and registration of the degree (Table 6). Table 1 shows the variables used in the tests.

Table 1

Description of the variables used in the tests of means

Variable	Description	Measuring
ENEM	Refers to the student's level of motivation to participate in Enem.	Continuous, from zero to ten
Course	Refers to the student's level of motivation to take the Accountancy course.	Continuous, from zero to ten
ENADE 2015	Refers to the student's level of motivation to participate in the Enade 2015.	Continuous, from zero to ten
ORG-ACAD	Refers to the academic organization of the institution the research participant is affiliated with.	Binary, in which 1 corresponds to the public institution and 0 to the private institution
CAT-ADM	Refers to the administrative category of the institution the research participant is affiliated with.	Binary, in which 1 corresponds to the university and 0 to schools and university centers.
Region	Refers to the region where the institution the research participant is affiliated with is located.	Binary, in which 1 corresponds to the South and Southeast and 0 to the North, Northeast and Central-West
Graduate Admission	Refers to the student's motivation level to participate in Enade if the score were used to be admitted to a graduate program.	Continuous, from zero to ten
Public Exams	Refers to the student's motivation level to participate in Enade if the score were used in public exams.	Continuous, from zero to ten
Cfc Exam	Refers to the student's motivation level to participate in Enade if the score were used in the Proficiency Exam promoted by the Federal Accounting Council (CFC).	Continuous, from zero to ten
Degree	Refers to the student's motivation level to participate in Enade if the score were registered at the back of the degree.	Continuous, from zero to ten

Source: research data.

The Mann-Whitney test was used to test two independent samples, involving the academic organization (public and private); the administrative category (university versus schools/university centers) and the region (South and Southeast versus North, Northeast and Central-West). In other words, as a complement, the test permitted checking for significant differences among the students' motivation levels to take Enade.

The statistical hypotheses formulated to be tested were:

- Null hypothesis (H0): there is no significant difference among the Accountancy students' motivation for the research variables and groups.
- Alternative hypothesis (H1): a significant difference exists among the Accountancy students' motivation for the research variables and groups.

5. Analysis and Discussion of the Results

The sample of 1,082 responses consisted of students from 122 Brazilian educational institutions, being 45.3% of HEI students from the Southeast; 29.2% South; 9.7% Northeast; 9.2% Central-West and 5% North. Seventy-three percent of the students studied at public institutions and 74.1% were affiliated with universities.

It was also observed that 61.2% of respondents were female; 60.2% were up to 25 years of age; 84.5% attended from the fifth to the tenth grade; 79.6% studied in the evening period; 79.2% were active in the job market; 23.8% had already participated or participated in academic activities (scientific initiation, tutorial teaching program, monitoring or junior company); and 70.8% had taken the Enem, even if it had not been used for course admission purposes.

In summary, the predominant profile of the sample was: students with up to 25 years of age, linked to the job market, attending the second half of the course, in the evening period, in public universities in the South and Southeast and who participated in Enem.

Table 2 shows the measures of central trend, mean, median, mode and standard deviation related to the respondents' level of motivation to take the Enem, to take the Accountancy course and to take Enade in 2015.

Table 2

Central trend measures – Motivation for the course, Enem and Enade 2015

	N	Mean	Median	Mode	Standard Deviation
ENEM	815	7.31	8	8	2.863
Course	1065	7.710	8	8	2.066
ENADE 2015	1074	5.818	7	8	3.081

Obs.: research data

According to Table 2, the students' average motivation to take the course was about 7.7 points (scale from zero to 10 points), slightly higher than their mean motivation to take the Enem (7.2 points). The data also reveal that both the mean and the median motivation to take Enade are lower than the motivation for Enem. This is an important observation as, when they took Enem, they could be motivated to perform well in order to compete for a place in higher education at a public institution or to grants/funding at private institutions. To assess whether the difference is significant, however, the Wilcoxon test was applied, displayed in Table 3.

Table 3

Test of medians – Enem versus Enade 2015

Variable (Motivation)	N	Mean ranks	Z statistics	P-Value
ENADE 2015 < ENEM	404	280.41		
ENADE 2015 > ENEM	146	261.92	-10.081	0
ENADE 2015 = ENEM	263	-		

Obs.: research data

The test confirms that, in fact, the students' motivation levels to take Enade are lower than their motivation to take Enem (p -value = 0.000). In this case, the null hypothesis was rejected, that is, a difference exists between the Accountancy students' motivation for the Enem and Enade variables. The findings strengthen the report by Guimarães and Bzuneck (2008), who affirm that extrinsically motivated students need external stimuli to perform a task, such as scores, awards and rewards. In this respect, Leitão *et al.* (2010) already appointed the students' lack of incentives to take Enade, that is, the use of rewards could increase the students' motivation, in line with the Ministry of Education's expectations (Cameron, 2001).

In Table 4, Mann-Whitney's non-parametric test is presented for the students' motivation to take Enade 2015, considering the variables ORG-ACAD (academic organization), CAT-ADM (administrative category) and region.

Table 4

Test of medians: analysis by institutions

Variables	N	Mean ranks	P-Value
ORG-ACAD			
Public HEI	784	513,53	0,004
Private HEI	284	575,18	
CAT-ADM			
Universities	795	584,17	0,001
Schools and University Centers	263	511,42	
REGION			
South and Southeast	801	516,60	0,015
North, Northeast and Central-West	257	569,71	

Obs.: research data.

The test results were significant at 5% for all groups tested, rejecting the null hypothesis, that is, for the investigated groups, there is a significant difference among the motivation levels of the Accountancy students to take the Enade.

The students of the private institutions have higher levels of motivation for Enade than the students of public institutions. As emphasized by Brito (2008), in most cases, the indicators calculated based on Enade are used to allocate resources and to promote the institution's image. This may explain the fact that private colleges have more actions to raise their students' awareness and motivate them (Silva, Miranda & Freitas, 2017), a factor that justifies the students' higher average motivation at private than at public institutions.

Universities also presented higher averages than university centers and schools. It is important to emphasize that university students also presented higher scores than the other institutions in previous editions of Enade, according to studies by Santos (2012) and Ferreira (2015). It was also interesting to note that students from the North, Northeast and Central-West were more motivated than those from the South and Southeast for the Enade. In the previous editions of Enade, however, the South and Southeast presented higher average scores than the other regions (Santos, 2012; Ferreira, 2015).

The differences presented in Table 4 are supported by the words of Martinelli and Bartholomeu (2007), which establish that motivation is a multifaceted phenomenon that varies according to the needs, motives and incentives of each human being.

On the other hand, Dias Sobrinho (2010) understands that this exam not only evaluates the higher education system, but also ends up dictating behaviors of the agents involved. In this sense, to verify if the supply of stimuli would increase the motivation to perform Enade, the central trend measures for the students' perceptions are presented in Table 5 in view of the investigated possibilities.

Table 5

Central trend measures - use of Enade in the student's career

Use of Enade score in:	N	Mean	Median	Mode	Standard deviation
Graduate Admission	1073	8.325	9	10	2.357
Public Exams	1074	8.919	10	10	2.002
Cfc Exam	1075	8.751	10	10	2.080
Degree	1072	8.100	9	10	2.630

Obs.: research data.

It can be observed that the means and medians related to the use of the Enade (graduate admission, public exams, CFC exam and degree - Table 5) were all numerically higher than the motivation for Enade 2015 (Table 2). The averages rose from 5,818 to values superior to 8 points; the median rose from 7 to 9 in two situations and 10 in two others. The results corroborate Leitão *et al.* (2010) and Pederneiras *et al.* (2011), in that the students do not feel encouraged/motivated to take Enade. In this sense, the increase of external stimuli ends up having a positive influence on the students' level of motivation.

In Table 6, using the Wilcoxon test, the significance of these differences is shown.

Table 6

Test of medians - Motivation ENADE with and without possibilities to use to score

Variable (Motivation)	N	Mean ranks	Z statistics	P-Value
Graduate admission < ENADE 2015	68	259,64		
Graduate admission > ENADE 2015	782	439,92	-22,849	0,000
Graduate admission = ENADE 2015	218	-		
Public exams < ENADE 2015	48	306,18		
Public exams > ENADE 2015	855	460,19	-24,206	0,000
Public exams = ENADE 2015	166	-		
CFC exam < ENADE 2015	47	250,32		
CFC exam > ENADE 2015	843	456,38	-24,364	0,000
CFC exam = ENADE 2015	180	-		
Degree < ENADE 2015	78	310,69		
Degree > ENADE 2015	752	426,37	-21,505	0,000
Degree = ENADE 2015	237	-		

Obs.: research data.

In Table 6, it is clear that all possibilities of using the Enade score significantly raise students' motivation level (p -value = 0.000). These results permit rejecting the null hypothesis proposed for the statistical tests, in view of a significant difference between the level of motivation for the variables proposed in taking Enade, involving the use or not of the score for graduate admission, public exams, the CFC exam and registration in the degree.

It should also be recalled that the increase in motivation can also entail positive effects for the performance of students seeking external rewards (Cameron, 2001; Guimarães, 2009). Cameron (2001) argues that students should receive incentives to perform tasks they take little interest in. Thus, it is possible that introducing the use of the Enade score for graduate admission and its registration in the degree - as the Minister of Education proposed in 2015 (Cazarré, 2015) - can encourage the students and, consequently, increase the mean scores in general.

Table 7 presents the synthesis of the non-parametric Mann-Whitney test related to student motivation by: academic organization; administrative category and region in the event of registration of the Enade score on the degree and its use for graduate admission, in public exams and in the CFC exam.

Table 7

test of medians – P-Value of motivations for the use of the Enade score

Variables	Graduate education	Public exams	CFC exam	Degree
Academic Organization				
Public HEI	0,021	0,534	0,264	0,178
Private HEI				
Administrative Category				
Universities	0,008	0,701	0,036	0,127
Schools/Univ.C.				
Region				
South and Southeast	0,021	0,512	0,554	0,676
NO, NE and CW				

Source: research data.

It is important to recall that the students' motivation levels to take Enade 2015 were statistically different by academic organization, by administrative category and by region (Table 4). Given the possibilities of using the score in future situations, however, this difference tends to disappear, that is, the motivation ceases to be a variable that differs by academic organization, administrative category or region. In other words, the differences appear consistently only regarding the use of the score for admission to graduate programs, which is reasonable as only a small percentage of students move on to graduate education.

This means that the use of these motivational stimuli would contribute to make the results of the Enade more accurate, because the students would be more interested in taking the test. In other words, the variable motivation would affect the students' performance differences less. The Accountancy students' level of motivation to take Enade with the stimulus of rewards, if put in practice, may influence their posture when taking the test and, consequently, actively engage them in the learning process, taking the form of results that are more reliable and closer to the concrete reality, reducing the possibilities of "boycotts" (Guimarães & Boruchovith, 2004).

Finally, the students were asked if participation in this research could somehow influence their levels of motivation to take Enade 2015. It was verified that 23.1% of the participants did not answer this question. Of the valid answers, 30.7% answered positively, because the research revealed possibilities they had not imagined.

6. Final Considerations

The objective of this study was to identify the Accountancy students' levels of motivation to take the Enade with and without the supply of extrinsic motivation mechanisms.

The results showed that the students' levels of motivation to take Enade 2015 are statistically inferior to their motivation to take the Accountancy course, and also inferior to their motivation when they took the Enem. The motivation is even lower at public institutions in the South and Southeast.

The results also pointed out that the supply of stimuli as a reward for these students, whether in the form of the registration of the score on the degree, use of the degree for admission to graduate education, use of the degree for public examinations or for the CFC examination positively affects the intention (motivation) to take Enade.

These results reaffirm that the use of incentives and/or rewards can enhance motivation and performance when offered under appropriate conditions (Cameron, 2001). Nevertheless, it is important to recognize the importance of intrinsic motivation in the learning process, as suggested in the cognitive assessment theory. Rewards are offered as incentives for behaviors that do not arise spontaneously. In this

case, these rewards are perceived as behavioral control and can affect and/or diminish intrinsic motivation. The adoption of incentives should be carefully considered, not restricting student motivation to rewards, but promoting educational situations that stimulate intrinsic motivation (Guimarães, 2009).

The announcement by the Minister of Education at the end of the year 2015, referring to the inclusion of the Enade score in the student's curriculum and its use for admission to graduate courses, according to the results found in this research, could increase the students' levels of extrinsic motivation. Consequently, the levels of motivation could become more homogenous among different regions and public/private educational institutions or universities/schools and university centers. By homogenizing the levels of motivation for the test, there could also be an increase in the average scores of institutions due to the absence of boycotts. In short, the assessment system would also become more accurate in terms of evaluation purposes.

Therefore, the results of this research indicate new possibilities for improvement of the current evaluation system (Sinaes), considering that any and all assessment tools need to adapt and follow the complex and dynamic evolution of society. This possibility of "enhancement" of Enade, one of the evaluation axes of Sinaes, can not only present a model that reflects more reliable results of the Brazilian higher education reality, but also contribute to the quality of teaching, as there will be a concrete stimulus not only to take Enade. It could also arouse the students' concern to do their course well, to take a good test and achieve what motivated them (curriculum, graduate education, etc.). These stimuli can create a "cascade effect", in the sense that, when they feel motivated by an end, they raise several positive points in the course of this trajectory.

The contributions of this study include the disclosure of undergraduate Accountancy students' level of extrinsic motivation to take a student performance assessment exam with the supply of incentives. These results serve as an alert to public managers related to education concerning the relevance of including reinforcements and external motivational factors that may contribute to the students' involvement in the learning process. In addition, the students participating in the research may also benefit, as this survey preceded the exam and almost one-third of the respondents admitted that their participation in the research could positively change their motivation to take ENADE 2015.

It is important to emphasize that, in this study, the non-probabilistic sample was used, exclusively with Accountancy students, which does not permit generalizations of the results, therefore constituting a limitation. This aspect does not restrict the relevance of the findings evidenced in the research though, which can be compared with other studies. For future research, the level of motivation of the students participating in the research could be compared with the performance of the HEIs these students are affiliated with, as well as the replication of the study in other areas.

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The power of the scientific journal in the construction of the representation about scientific research

Abstract

Objective: Know the conception of scientific production represented through the policy of the Revista Contabilidade e Finanças (RC&F).

Method: A qualitative and quantitative approach was adopted. For the descriptive work, Bardin's content analysis (2016) and the software UCINET 6 were applied. For the inferences, basic statistics (percentages) were calculated.

Results: The associate editors of RC&F are board members with considerable ideological strength in the journal. The attributes "quality", "relevance" and "uniqueness" support RC&F's conception of scientific production; this conception is influenced by the University of São Paulo and other Brazilian and international technical, educational and research institutions. Nevertheless, the subjectivity of the meaning of these attributes in the text of RC&F's editorial policy, concerning material for publication, contributes to replications tied to the texts this journal publishes – which can turn into a critical factor for the innovation and development of the written culture in the area.

Contributions: The attributes that guide the conception of science disseminated by RC&F can cause communication noise because of the subjectivity they express. This fact can entail the reproduction of themes, methods and theories due to the search for a "relevant" scientific production model, although the editorial policy expresses the ideology of uniqueness and "ontological and epistemological plurality". This investigation ratifies the journal's power by granting scientific authority to experts who, according to Social Representation Theory, create parameters and value systems disseminated from the reified to the consensual universe.

Key words: Accounting journal; social representations; scientific production.

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1. Introduction

Studies published through scientific journals are able to persuade and form opinions. This fact stems from the assumption that these studies are scientific.

Science influences humanity, creating and changing beliefs, as well as continuously expanding the frontiers of knowledge (Targino, 2000). In this sense, it can be affirmed that the scientific journal introduces and/or establishes ideologies resulting from the world conception of the subjects who produce and disseminate research in article format. The publication of the article ratifies that it is in line with the concept of relevance and scientificity of a journal's editorial board.

In this research, the article published and the editorial of the scientific journals are conceived as formers of social representation because they bring about the emergence of the world conception of subjects as researchers - a conception constituted by experiences and socially established relationships. It is the diffusion of scientific thought as a generator of common sense, in line with Moscovici's (1978/1961) Social Representation Theory (SRT). It is knowledge constructed through the understanding reached by an individual, which resembles pronouncements of groups of individuals, evidencing that they think the same way on the same subject. Hence, the conception of scientific production evidenced in the discourse of the editorial policy and the article published originates mainstream - despite discarding the possibility of "recipe" to guarantee the validity of the quality and/or relevance of the publishable material.

In seeking a scientific journal to convey the results of his research, the author makes public his adherence to the way of conceiving and building science as manifested by that journal's editorial policy. This ideological complicity is one of the elements that ensure the submission and allows the beginning of the evaluation process that can culminate in the approval and, consequently, publication of the scientific text. According to Frezatti, Nascimento, and Junqueira (2009: 7), "... the publication system works within the paradigms established by the journals, which makes innovation a risk when the theoretical and methodological construct eludes the established mainstream".

Without ignoring the existence of research foci and areas of interest of a journal, Frezatti, Nascimento, and Junqueira (2009) argue that the standards and perspectives a journal establishes can both favor a given universe of research and limit the advancement of knowledge and exploration of emerging research - regardless of its quality and social significance.

The scientific journal is a preferred vehicle for the dissemination of science, with an intellectual network of dialogue between scientists and researchers (Meadows, 1999; Gruszynski, Colin & Castedo, 2008; Rodrigues, Quartiero & Neubert, 2015). Aware of the relevance of the scientific journal as a vehicle for the dissemination of knowledge, as well as its being impregnated by ideologies that constitute social representation of how intellectuals think in a given area of knowledge, we aimed to **discover the conception of scientific production represented through the policy of the Revista Contabilidade & Finanças (RC&F)**. In order to achieve this general objective, the specific objectives are: to verify the composition of the RC&F editorial team; identify the entities RC&F's board members take or took part in and interpret the tone of the discourse that composes their editorial policy.

This is a descriptive study with a fundamentally qualitative approach, based on Bardin's content analysis (2016). Specifically, the technique of thematic or categorial analysis was used, which is based on the discovery of cores of meaning in the communication. This technique, in which how frequently a term occurs is representative for the purpose of the research, consists of three stages: pre-analysis, material exploration and treatment of the results obtained - these steps are detailed in the "Methods" section. The quantitative approach was due to the need to analyze the composition of the editorial team and the identification of the entities this team took/takes part in. To describe the RC&F editorial staff, information was collected based on the curriculum of its members (lattes for Brazilians and vitae for foreigners). After obtaining the descriptive information, networks were created, plotted using the software UCINET 6, which were interpreted by means of relative values.

This research is justified by the relevance of the journal in the dissemination of scientific knowledge to the global scientific community and to contemporary society. In addition, the scientific journal is a decisive element in the ideological formation process. Furthermore, the editorial policy of RC&F - a journal that potentially exerts significant ideological influence because it has the largest impact factor of the accounting area in Brazil, serves as the research corpus. This statement rests on a study about the resonance of the accounting research carried out by Aragão, Oliveira, and Lima (2013). In addition, RC&F is linked to the country's oldest Graduate Program in Controllership and Accounting (PGCC) - according to Cunha, Cornachione Júnior, and Martins (2008), created in 1978 - which grants it Brazilian and international recognition for its research tradition in the accounting area.

The results show that the cognitive mechanisms involved in the process of representing the scientific discourse, the quality conception and the structure of the scientific production of RC&F fundamentally result from the FEA/USP community. This fact, coupled with the significant Impact Factor of this journal, makes it an instrument of scientific power and authority with the ability to dialectically influence daily knowledge. According to the Social Representation Theory (SRT), the interaction between the reified universe and the consensual universe generates the practices that are taken to social groups, constituting the value system of the subjects that compose them. The subjectivity of terms such as "quality" and "relevance", however, when dealing with the publishable material, contributes to the replications based on the texts disseminated by this journal - and can become a critical factor for the innovation and the development of the written culture of the area.

This article is divided into five sections. The first is this Introduction, which presents the problem, the justification and the objectives of the study. The second contains the theoretical framework explored, which discusses the social representation theory and scientific thinking, about the scientific journal as a vehicle of communication and power, also discussing the composition of the editorial board and its role in the elaboration of a scientific journal's editorial policy. The third is the method and information about the research problem; in the fourth, the results are analyzed; and in the fifth, final section, the conclusions are presented.

2. The Social Representation Theory and Scientific Thinking

A group's thinking about "scientific rigor" represents the form that this group adopts to systematize science in a historical time point, that is, it constitutes an ideological formation disseminated inter and intra-groups. Wurman (1992) argues that the individual is a result of what he reads and is judged by the information he uses, as this ingested information shapes his personality, contributes to the ideas formulated and builds his worldview.

For Santos Filho (2016: 108), "scientific ideas often camouflage their extra-scientific origins, usually characteristic of ideologies". In turn, Targino (2010) states that science receives impacts from society that dynamically and interactively (re)orient it through confrontation and cooperation. The relationship between scientific knowledge and common sense, as explained by these authors, is the basis of discussion in Moscovici's Social Representation Theory (SRT) (1978/1961). In this theory, the scientific and the common sense resort to each other by elaborating social practices. Moscovici (2001) clarifies that social representations emerge from scientific discourse, which common sense appropriates through individuals who show interest in the subject and take it to the social group they are part of.

Moscovici did not elaborate a concept throughout the development of his theory. His works present a series of notes on elements that characterize the social representations (Sá, 1993). These social representations are intangible entities that "(...) intersect and crystallize continuously through speech, gesture, encounter in the everyday universe. Most social relations established, objects produced and consumed, communications exchanged are impregnated with them" (Moscovici, 2012/1989).

The concept of Social Representations is elaborated by Jodelet (2001, p. 22) who considers it as a “form of knowledge, socially elaborated and shared, with a practical objective, and which contributes to the construction of reality for a social set” - in this investigation, we consider that the editorial policy of RC&F originates knowledge about the research design, disseminated in the knowledge area of Accounting and constituting itself as social representation.

Moscovici inquired on the cognitive mechanisms involved in a specific community’s process of representing scientific discourse, who positioned it dialectically as a reflection of everyday knowledge - a type of knowledge represented in a group that accompanies the process of knowledge change and transformation (Paula & Kodato, 2016; Jodelet, 1986). Still on scientific knowledge, Lane (1984, p.15) criticizes the idea of the neutrality of science in the tendency of social psychology and warns that “if positivism, in facing the contradiction between objectivity and subjectivity, has lost the human being, product, and producer of history, it became necessary to retrieve subjectivism. “The construction of the Social Representation (SR) takes place through the interaction between the reified universe and the consensual universe: in the first, we find science and its theories (scholarly thought, objectivity, and methodological rigor); in the second, there is social interaction - conversation that generates common-sense theories (Sá, 1993). The reified universe is an environment in which the consensual universe finds elements to transform the scientific into common sense - this interweaving between the scholar and the conversation, cognitive activity, occurs through two SRT processes: objectification and anchoring.

Objectification and anchoring are processes that occur concurrently. In the objectification process, the abstract concept is embodied in reality and materializes, transposing the limits of thought as part of the real world (Moscovici, 2012/1989). According to the same author, the anchoring process is based on the classification of facts, people and objects, categorizing them based on previous conceptions and concepts - at which point they are named or renamed, integrating the subjects’ value systems.

Silva (2017, p. 41) assures us that from the “movement between scholarly knowledge and common sense knowledge, social representations present themselves as a relevant field for understanding the elaboration of these knowledge types within social interactions”. This research appropriated the Social Representation theory as an articulator among author, text, reader, and society for the construction of a concept and practice of scientific production in the format of an article, through one of the factors essential in the elaboration of social representations - intra and intergroup communication.

2.1 The scientific journal as a vehicle of communication and power

The primary motivation for a scientific investigation stems from the researcher’s personal interest. This initial interest is natural and expected as it originates in the cultural values, accumulated knowledge and social relations established by the researcher - the basis of a conception of the world (ideology) based on social and historical context. According to Meadows (1999), there are two groups of motivations for research: psychological - linked to the behavior and yearnings of the researcher - and social motivations - which stem from the influence of the social groups the researcher interacts with.

One can argue that psychological motivation is a driving force, but it is not a justification for considering the relevance of the research or the creation of a scientific journal. Therefore, the scientific authority cannot neglect the interrelationship between science and society, as the former is not an autonomous corpus. According to Targino (2016), the social changes impact, or at least should impact science, being oriented to the pursuit of new paths that enable it to respond to emerging demands and meet recent priorities - science needs to be socially useful.

Targino (2010) points out that the scientific demarcation does not always follow the parameters of universality in function of unexpressed external criteria, which influence the evaluation, such as the emphasis on the dominant opinion of researchers in a given area based on scientific authority - the articles published in journals evidence and disseminate that dominant opinion. Rodrigues *et al.* (2015) emphasize that scientific journals differ in format, composition, regularity, and subjects discussed, but share the objective of disseminating the productions in the knowledge areas.

According to Gomes (2010), scientific journals occupy a prominent position in the exchange between the scientific and academic communities, as well as between them and society. From creation to proliferation, as a vehicle for communicating the results of scientific studies in various areas of knowledge, these journals have served as instruments of political changes in the very internal structure of these communities - they have become instruments of scientific authority. Castedo and Gruszynski (2011) affirm that the scientific communication conveyed through journals is one of the main means to grant visibility to researchers through the accumulation of scientific capital.

One should not lose sight of the fact that the contemporary context of Brazilian scientific research has been marked by a series of charges surrounding the academic/researcher/scientist, towards the dissemination of his research results, ensuring the feedback of the scientific communication cycle (Targino, 2010 and Targino, 2016) - a healthy fact in considering research as a social devolution and a useful means of bringing a country to development. Nevertheless, the same author calls attention to the fact that the pressure for accelerated scientific production, required by Brazilian and international administrators and agencies, even before consolidating assumptions and theories inherent to research, has contributed to the dissemination of inconsistent, superficial and fragmented texts.

The frailty of scientific texts compromises the development of the written culture of the area and turns into a dangerous fact as, in addition to being a vehicle for communication and dissemination of knowledge produced in certain areas, the scientific journal has become an instrument of power and authority in the relationships established, triangularly, between the scientific society, the academic community and society in general. The power and authority of a journal stems from the capacity for argument and persuasion of the discourse contained in the text of its editorial policy and therefore in the published texts. These texts reflect the conception of the world and the dominant way of conceiving science in the journal, which is perpetuated among its peers and builds the social fabric - one of the ways to introduce and establish emerging ideologies, mainly on the themes of interest and the research approach.

NBR 6021 (2003) clarifies that the editorial board of the journal consists of a group of people who establish the political-philosophical profile of the journal and that it is the responsibility of the (technical or editorial) scientific committee to select texts to be published that fit the policy established by the board. Authors such as Belkin (1980), Fiorin (1993), Morin (2005) and Modesto (2014) discuss the intentionality of the text; the ideological formation present in unsuspected productions - as in the case of science and the media - as well as texts' domination power by disseminating information. Aragão (2016) explores, based on the analysis of a corpus in a doctoral dissertation, that the scientific texts reflect solidified or altered positions, in function of socially established relationships.

The scientific journal is the place for disseminating a prescriptive discourse, a prescription materialized in the "... options that result in choices of what is said and what is not said, what is published and what is not published ..." (Cordeiro, 2008, p.1). This prescription expresses legitimate and appropriate forms of scientific production: favorite topics, basic theories, authors and research foci, for example. According to this author, the conventions presented tend to demarcate specific territories, both in the broader and in the narrow intellectual fields.

It is known that the editor of the journal has the final word related to the publication process, but the influence of editorial team members in the ideological construction of science cannot be denied, as they help in the construction of the journal's policy, in addition to the selection and opinion on articles submitted for review. In Chauí (2001), domination and power are conceptions linked to language and are inseparable from social life - in this sense, editorial policies reflect an ideological conception of science.

It should be noted that the existence of a political-ideological conception about the material submitted, as well as all stages of the editorial process, do not annihilate the scientific nature of the journal. This scientific character results from a systematic and judicious process based on which the studies are elaborated.

2.2 Editorial structure and skills of the sub-teams of a scientific journal

The editorial team of the scientific journal consists of a group of researchers responsible for forming dominant ideas and trends about scientific production, as well as for the elaboration of the stages of the evaluation process of this production. The evaluation process of the material, generally in the form of an article, judges the scientific consistency, usefulness and social relevance that determine the quality required for publication - all of this material is part of the journal's editorial policy.

Trzesniak (2009) reports on risks and potential damages resulting from the action of a single researcher as responsible for a scientific journal, as the editor already controls the access to the journal (gatekeeper). If there is no editorial policy built on the opinion of the members of its board, the journal becomes the imposition of a thought model based on an individual's opinion and his way of conceiving science, generating bias and scientific stereotypes - the structuring of an editorial team are considered to mitigate or refrain such risks.

Miranda and Pereira (1996) and Sandes-Guimarães and Diniz (2014) show the role of the editor as a central representation in the scientific communication process, being responsible for the first evaluation of the material that will be part of the evaluation process. The same authors highlight, however, that the editor is not a free entrepreneur and needs to be advised by his peers as members of the editorial board.

Tobochnik (2008) points out how crucial the role of the editor of a journal is, as all content available to the public depends, as a matter of priority, on the desk review. In this conception, the editor becomes the guide keeper of the editorial process - even before evaluating reviewers, the editor can judge and exclude the submitted material. Generally, the editor weights the originality and relevance of the article to the journal's activity area, language quality, instructions to authors and other aspects of the editorial policy.

The role of the scientific editor is prominent and goes beyond bureaucratic-administrative acts; its function is academic-scientific. The examination of the critiques and observations underlying the reviewers' opinions and their own opinion about the submitted manuscript are essential to the scientific editorial process (Vasconcelos, 2017). The editorial team, in turn, is composed of individuals who are willing to contribute to the progress of the human knowledge collection, guaranteeing the scientific flow (Rodrigues *et al.*, 2015).

The National Association of Postgraduation and Research in Administration (Anpad, 2010) and NBR 6021 (2003) present the editorial structure of the scientific journal, generally consisting of: editor/editor-in-chief/general editor - the journal's main representative; editorial board/board or editorial policy committee - responsible for the journal's political situation; editorial, technical or scientific committee - responsible for the selection of the texts that fit the editorial policy.

The specifics of the editorial sub-teams elucidate the functioning and delimit the power exercised by the members, evidencing the responsibilities assigned to each group. The editorial team members may perform different roles in the journal (Trzesniak, 2009); the segregation of functions is considered to enhance the quality of the team's work, in terms of technical-scientific analysis as well as ethical issues.

The constitution of the editorial board, editorial policy board or editorial policy committee is intended to converge forces/potentialities capable of solidifying and perpetuating the activities of a scientific journal (Trzesniak, 2009). In addition to complying with regulatory obligations, this board represents the ordering of the views and experiences responsible for the ideological essence of the journal. According to the same author, the editorial board should consist of researchers who represent: back-end entities, professional areas, research institutions, development agencies and others that are convenient. It is imperative that the journal has a back end that provides intellectual support to maintain its activities, not only by nominal or financial influence - intellectual support generates criticality for the perception of useful research.

In relation to the associated editors, Trzesniak (2009) considers that these board members preferably belong to institutions other than the one the scientific journal is linked to. It is a group of board members who collaborate through editorial activities, participating in the process of evaluating the articles, indicating evaluators and verifying the final text. This group is also involved in the process of accepting the article and therefore its publication. The designation of the associated editor is based on the research focus.

The editorial board is a multi-institutional panel composed of experts linked to the areas of knowledge the journal is dedicated to, distributed both scientifically and geographically (Anpad, 2010 and Trzesniak, 2009). It is important to emphasize that the editorial board does not directly influence the production of knowledge, its members serve as advisors to the editor and offer their share of contribution in an individualized way when consulted - people who have the power to influence according to the editor.

3. Methods

According to the research approach, this is fundamentally qualitative research, based on Bardin's content analysis (2016), which departed from basic statistics (percentages) for interpretations in content analysis and used UCINET 6 for network constructions.

The qualitative approach is characterized by understanding, describing and explaining social phenomena in different ways through the analysis of individual and group experiences, examination of interactions and communications, and document research (Flick, 2009). By means of qualitative research, one seeks, in the depth of social relationships, what is implicit. Content analysis, then, consists of systematic techniques to analyze communications, aiming to describe the content of the messages to obtain inferences on the production conditions - this inference uses indicators (whether quantitative or not) and is executed in three stages: pre-analysis, exploration of the material and treatment of the results obtained (Bardin, 2016).

The pre-analysis, the first stage, constitutes the organization phase, intended to operationalize and systematize the ideas and conduct a precise scheme of the development of successive operations - choosing the documents to be analyzed; formulation of hypotheses and objectives and elaboration of indicators that support the final interpretation - in this research, no hypotheses were formulated.

The following tasks are performed in the pre-analysis: skimming, choice of documents, formulation of objectives, selection of the corpus under analysis and elaboration of indicators. Skimming was applied to the journal website: *Revista Contabilidade e Finanças* (RC&F), linked to the Postgraduation Program in Controllership and Accounting of the University of São Paulo (PPGCC/USP). This journal is considered to exert significant ideological influence because it has the biggest impact factor of the accounting area in Brazil, according to Aragão, Oliveira, and Lima (2013). The authors chose to examine RC&F's editorial policy, taking the mission, objectives, scope, and research foci of this journal as the corpus. The choice of the corpus was based on its representativeness to delimit the characteristics of the material to be submitted to RC&F.

The exploitation of the material consists of procedures applied manually or through the computer in order to obtain the necessary information for the treatment and interpretation of the results obtained (Bardin, 2016). In this investigation, this second stage - exploration - started by clipping the statement to be analyzed. The semantic clipping was determined according to the registration unit of nouns, which refer to the scientific production submitted to the journal's review process, namely: "scientific production", "knowledge", "themes", "research", "articles" "works", "reviews", "thoughts", "bibliographical notes" and "documents". Then, the registration unit adjectives, or adjectival words, was semantically cut out. These units refer to the nouns previously detected in order to quantify and interpret them - exploitation of the material by decomposition and enumeration; the same was accomplished with the verbs.

Bardin (2016) argues that raw data are treated so as to construct meanings. In this investigation, the percentage was used to quantify the number of registration units (nouns and adjectives) that appear in the text, as well as the number of nouns used as synonyms when referring to the material to be submitted to the journal. The stages of content analysis, previously described, reveal the systematization of the categorical analysis process of RC&F's editorial policy.

The quantitative approach reveals the use of statistics as support for the interpretation - as previously described - of word frequencies as well as for the analysis of the editorial staff composition and the identification of the entities the team takes/took part in.

The RC&F editorial team was described by obtaining information based on the curriculum of its members (lattes for Brazilians and vitae for foreigners) and the information available on the RC&F website, namely: identification of the members and respective functions in the journal; affiliation of the members with USP; affiliation of the members with other Brazilian HEIs and the country of international HEI, when there was a link. This information was processed in Excel 2007 and then imported into UCINET 6 for Windows. After the processing, a network was constructed in the same software UCINET 6, showing the relationship between the categories: "researchers", "functions in the journal" and "HEI of affiliation", interpreted by means of relative values.

Finally, the members' curricula (lattes when Brazilian and vitae when foreign) were analyzed to identify current or previous affiliations with entities of education, research, and technical activities. We consider that these affiliations influence the way of conceiving science and are thus reflected in the ideologies of RC&F.

3.1 Revista Contabilidade e Finanças: research environment

The *Revista Contabilidade & Finanças* (RC&F) is a journal of the Accounting and Actuarial Department at the University of São Paulo School of Economics, Business Administration and Accounting (FEA/USP), which receives funding from the Foundation for the Improvement of Higher Education Personnel (Capes), the National Council for Scientific and Technological Development (CNPq), the Foundation for Accounting, Actuarial and Financial Research (Fipecafi) and the USP Support Program for Periodical Scientific Publications (SIBi). RC&F has been favoring discussions and the exchange of experiences between Brazilian and international researchers of several research foci and areas of knowledge.

Quarterly and free, RC&F was inspired by a French journal and initially named *Caderno de Estudos*. The journal is currently indexed in the following databases: Scientific Electronic Library Online (SciELO), EBSCO Publishing, ProQuest, *Base Atena*, Gale - Cengage Learning, Network of Scientific Journals from Latin America, Caribbean, Spain and Portugal (Redalyc), Scientific Periodicals Electronic Library (SPELL) and *Sumários de Revistas Brasileiras (Sumários)* (RC&F, 2015). The indexing in these databases favors the resonance of the scientific content RC&F publishes, turning it into a meaningful medium in the conduction and dissemination of accounting studies and, therefore, in the way of doing and thinking research, mainly in Brazil.

Data collected on the Capes website in 2015 confirmed that, in the 2013 Capes Triennial Evaluation, RC&F received the concept A2. The journal's website states that this concept is the result of an effort started 25 years earlier, but that the grade of the regulator is not its central concern, but the disclosure of relevant knowledge. To attract researchers, RC&F maintains: formalized rules and a strong governance structure; ontological and epistemological pluralism; publication in Portuguese and English or Spanish and English; payment of translation costs for accepted papers; efficient indexing, encouraging greater opportunity for citation; funding sources in addition to Fipecafi, the University Libraries System (SIBI) and the National Council for Scientific and Technological Development (CNPq); encouraging research that is related to the scope of the journal; professionalisation of the internal and external support structure and timely communication with authors, readers and reviewers.

4. Analysis of Results

In this section, we present the obtained information, which reflects the result of the study. We aimed to know the conception of scientific production represented through the policy of the *Revista Contabilidade & Finanças* (RC&F). That information is arranged in this section to ensure coherence and clarity in the discussion presented.

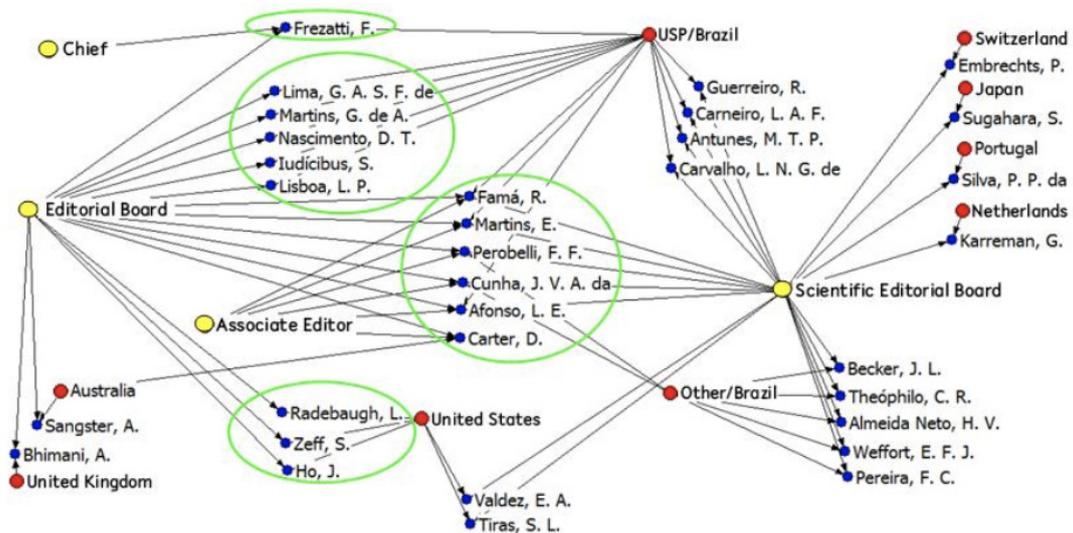
4.1 Composition of the editorial team

The editorial staff of RC&F consists of the editor-in-chief, editorial board, associate editors and the scientific editorial board - structure presented on the journal's website and in accordance with ABNT (2003) and Anpad (2010). In Trzesniak (2009), the editorial team, which includes 20-35 members and between two and four associate editors, manages a contingent of 100 submissions annually. Information on the RC&F website shows that, in 2014, 50 submissions were accepted, and the editorial team was composed of 34 members - more than considered ideal in the literature.

Figure 1 reveals that RC&F has 32 members, six of whom are associated editors. 53% of the editorial board members are affiliated with USP. Twenty-nine percent of these team members are exclusive to the editorial board - all from USP - and 47% of the editorial board. Based on the percentage of 29% linked to the discussion in the previous section, we can infer that: the decisions represent a deliberation of the group. Conversely, the scientific editorial board works individually, when consulted. Both groups represent a minority in terms of ideological influence. This is the case because it is considered that, in any of the situations, the "exclusive" members of each of these groups have less participative force: the 29% because their participation is diluted; and the 47% because of their sporadic participation. Therefore, the profile of these directors will not be commented on any further.

The profile of the board members with significant participative force and, consequently, ideological influence in the journal was verified, as well as the institutional relations they established. According to Koch (1999:19), "as a being endowed with reason and will, man constantly evaluates, judges, criticizes, that is, forms a value judgment".

We believe that this influences the scientific production disseminated directly and/or indirectly, as the dominant ideology is constituted by the opinion of this group.



Source: research data (2015).

Figure 1. Editorial Team of RC&F/2015: researchers, their functions and country of affiliated HEIs

According to Figure 1, it is estimated that approximately 22% of the members of RC & F’s Editorial Team perform two or more functions. The researchers Famá, R.; Martins, E.; Perobelli, F. F.; Cunha, J. V. A. da; Afonso, L. E. and Carter, D. stand out in the context for being part of the group that acts directly on the editorial policy and on the scientific production under evaluation, exercising the functions of editorial board and associate editor, respectively. This reveals their potential interference (power of ideological influence) in the journal in terms of their competencies - whether in terms of editorial policy, the production itself or in specific situations when called upon to act as a scientific board. It should be noted, however, that this influence is not hierarchically superior to the decision-making power of the editor-in-chief Frezatti, F.

When considering the countries of origin of the HEIs the members of the editorial team of RC&F are affiliated with (Figure 1), we observe that, among the 17 editorial board members, there is a prevalence of Brazilians from USP (53%), besides foreigners affiliated with institutions based in the United States (18%). It is inferred that RC&F’s Editorial Policies tend to be representative of these centers with respect to the conception of science - in the ontology established through the research foci as well as in the themes, theories, methods and way of exposing reflections and critiques.

The prevalence of FEA/USP researchers in the RC&F Editorial Board (53%) does not surprise in any way. After all, this journal is linked to the Accounting and Actuarial Department of FEA/USP and chaired by the department head. In the light of the SRT, discussed in the theoretical framework, it can be inferred that the cognitive mechanisms involved in the representation process of scientific discourse, the conception of quality and structure of the scientific production of the FEA/USP community, become dominant in the knowledge production and transformation process, dialectically influencing everyday knowledge - interaction between the reified universe and the consensual universe that integrate the subjects’ value systems.

The Editorial Board elaborates the core principles of the journal (mission, objectives, target audience...), its structure and its editorial line, as well as its submission guidelines and ethical aspects observed, attributing a “scientific personality” to RC&F. Trzesniak (2009) argues that a journal’s institutional affiliations can ensure the continuity of its activities - a significant factor to consolidate links and to narrow the communication between the academy and society.

In turn, the associate editors of RC&F have undergraduate degrees in Accounting, Administration and Economics, related areas, as well as Law and Production Engineering. These members are dedicated exclusively to one research focus and, according to each member's Curriculum Vitae (CV), have academic and technical experience in these areas. Regarding the academic background of these researchers, USP, the University of Illinois and Harvard Business School are institutions cited in at least two CVs, whether in undergraduate, postdoctoral or complementary education. It should be noted that, although there is no inconsistency in the composition of the associate editors, the configuration of RC&F does not follow what Trzesniak (2009) establishes as preferential - advisors who belong to another institution beyond RC&F's affiliated institutions.

It is important to note that, according to the curricula, both the associate editors and the editor-in-chief (with technical and scientific responsibilities) participate or have participated in leading and influential entities in the Brazilian accounting scenario - in some cases, this participation took the form of the presidency and board functions. At the Brazilian level, examples are the Brazilian Securities Commission (CVM), the National Council for Scientific and Technological Development (CNPq), the Coordination for the Improvement of Higher Education Personnel (Capes), the Federal Accounting Council (CFC), Brazilian Society of Finance (SBFin), Central Bank of Brazil (Bacen), Accounting Pronouncements Committee (CPC), Institute of Independent Auditors of Brazil (Ibracon), National Association of Finance, Administration and Accounting Executives (ANEFAC), National Association of Postgraduation and Research in Administration (Anpad), Foundation Institute of Actuarial and Financial Accounting Research (Fipecafi), among others. At the international level, the American Accounting Association (AAA), the European Accounting Association (EAA), the International Association for Accounting Education and Research (IAAER) and the International Actuarial Association (IAA) are examples.

Besides the educational role, the experience and relations of the board members with entities linked to education, research and technical activity promote the integration between the academy and society, permitting the establishment of dialogues between Brazilian and international researchers - this fact ends up mirroring the scientific outlines which, according to Targino (2016), do not follow universal parameters in function of influences from unspecified external criteria, which impact the evaluation and dominant opinion based on scientific authority. Thus, we consider that those institutions significantly influence the way the RC&F board members perceive the potential utility, relevance and contributions of the scientific articles submitted. Trzesniak (2009) already highlighted the positive nature of this aspect for the continuity of the journal - Capes, CNPq and Fipecafi, for example, sponsor RC&F.

4.1 Analysis of the editorial policy: mission and objectives of *Revista Contabilidade & Finanças*

The mission and objectives of the journal picture the interests of the journal. In the case of RC&F, the mission and objectives presented next comply with the guidelines in the Anpad Manual of Best Practices in Research (2010):

Mission	Objectives	Editorial Team
The mission of <i>Revista Contabilidade & Finanças</i> (RC&F) is to disseminate original and relevant scientific production in Accounting, Controllership, Actuarial Science and Finance, produced by faculty members, researchers, students and professionals from Brazil and abroad, exclusively selected based on quality and actual contribution to the development of scientific knowledge in these fields.	<ul style="list-style-type: none"> Disseminate relevant knowledge in Accounting, Controllership and Finance; Incite and provoke reflections on relevant themes for the area, the academic community and society; Gain Brazilian and international acknowledgement as a research communication medium. 	<ul style="list-style-type: none"> Editor-in-Chief; Editorial Board; Associated Editors; Scientific-Editorial Board.

Picture 1. Mission, objectives and composition of the editorial team of *Revista Contabilidade e Finanças*

Source: RC&F (2015).

The discourse in RC&F's mission expresses interest in publishing original and relevant production that effectively contributes to scientific development in the accounting area, written by "faculty, researchers, students, and professionals". According to the text, the journal aims for productions by individuals that fit both in the technical or academic context, also considering that the description intends to show the journal's openness to different audiences in order to approach their potential authors. In the typology used to refer to the potential authors of the journal, however, there is evidence of the distance between those interested in the production of the area, as the terms "faculty", "researchers" and "professionals" are used with different semantic intentions. We conceive the idea that a *faculty member* cannot be a *researcher*, as well as a *faculty member* and *researcher* who cannot be a *technical professional*; the opposite is true for both cases. In addition to the obvious gap that exists when referring to the academy and society, albeit unconsciously, we also perceive that the text hides the term *technical* to refer to the *professional* who is not affiliated with the academy - the term is added to this analysis occurs because it seems that this would be the intention of the discourse.

Another noteworthy aspect is the expression "from Brazil and abroad" to refer to the potential authors of the journal. As the possibility of international studies addressing topics of specific interest in Brazil, one can understand that the journal is also interested in issues of global interest - this fact reveals one of the elements observed when expressing interest in "unpublished and relevant production". If, on the one hand, we consider that opening up international production is an attempt to approximate other realities that may favor learning and the maturation of discussions, on the other hand, this openness requires greater attention when selecting articles for the review process. We believe that the establishment of scientific dialogue is productive if papers present discussions on issues and problems that at least touch upon the problems accounting faces in a developing country such as Brazil. This care is clear when, in the text of the mission, the expression "selected exclusively based on quality and effective contribution to the development of scientific knowledge..." is used.

In addition, we consider that the qualification "relevant" plays a central role. This term is repeated in the objectives by means of the lexical item "relevant" and by means of a word of the same semantic field "relevance". It can even be inferred that RC&F's mission appropriates the term "relevance" as equivalent to the term "effective contribution" and the word "quality", these being *exclusive* criteria and validators of acceptances granted by that journal. While the term "effective contribution" refers to the concrete idea of the research's utility, the "quality" judgment cannot achieve the same success due to the multiple meanings it can generate - there is no mention of what this quality research means.

It should also be noted that, although the terms "relevant" and "relevance" appear in two of the three objectives, and despite the definition of "relevant", it is up to the journal's reviewers. What is more important is "being relevant", a feature that is difficult to define, also because this relevance (which can be perceived by the resonance of the research, for example) will only materialize in fact after publishing the article produced, and not at the time of the selection. Thus, as all articles published in RC & F possess the attribute "relevance", there is a tendency for researchers to take them as a parameter for new productions, establishing a "propaganda" effect - the discourse is both influenced by the social context and has the power to influence it. Thus, articles published by RC&F have the power to capture, modify and propose reality - in this case, the replication of articles is the materialization of this discursive influence. As explained in the theoretical framework, the scientific journal is a medium for the dissemination of a prescriptive discourse.

The propaganda effect of the journal can be perceived by the use of the verbs to *disclose* and to *disseminate*. In addition to the choice of these two verbs, we should also observe the transformation of the phrase "Disclosure of relevant scientific production" to "Disseminate relevant knowledge", in which the original nature of the knowledge to be disclosed disappears. Even if one argues that the word "unpublished" is elliptical, the appearance of the third objective not directly related to production, but rather related to the geographical scope of the intended dissemination, is enough to soften this argument.

Pointing to disclosure and relevance at the same time, it is not surprising that replications are triggered. As “the world of research involves the manipulation and power of the mainstream” (Frezatti *et al.*, 2009, p. 7), we consider that, sometimes, the replications are elaborated as a strategy towards acceptance and, consequently, publication of the article, maintaining a dangerous cycle of inertia and/or atrophy of the scientific knowledge produced, deriving from the production of the group of individuals who follow the instructions for authors for productive ends. Another noteworthy aspect is the expression “Brazilian and international acknowledgment” cited in the third objective, leading to a mismatch with the discussion on knowledge production, as it refers to the intended geographical range - a concern with the achievement of status beyond the Brazilian borders. That suggests that the themes will be chosen to respond to a foreign audience as well, and can sometimes present discussions of questionable “relevance” to the Brazilian organizations and society in general.

4.3 Analysis of the text concerning the scope and research foci of RC&F

When considering what is expressed in the scope and research foci of RC&F, the articles submitted to this scientific journal should observe the content of Picture 2 below:

Scope	Research areas
RC&F publishes original articles presenting theoretical developments and theoretical-empirical studies in Accounting, Controllership, Actuarial Science and Finance . The journal accepts studies based on different paradigms and methods, provided that they are consistent and relevant to the development of the areas. Besides articles, the main focus of the journal, reviews, notices, bibliographic notes, thoughts and documents are published that can contribute to the communication of new knowledge to the community.	<ul style="list-style-type: none"> • Controllership and management accounting; • Accounting for external users; • Markets: financial, credit and capital; • Accounting education and research, controllership, actuarial science and finance; • Actuarial science; • Emerging themes in Accounting, Finance and Actuarial Science.

Picture 2. Scope and research foci of Revista Contabilidade e Finanças

Source: RC&F (2015).

The vocabulary used to describe the scope of RC&F presents, in the first sentence, the attribute “original”, referring to the term “articles”; followed by the conjunction “and”, which joins the expressions “original articles presenting theoretical development” with the expression “theoretical-empirical studies”. That said, we consider that the articles need to be *original* and *theoretical*; the studies require the *theoretical-empirical* attribute although, in practice, RC&F considers *originality* as a necessary condition for the publication of an article. The meaning of the phrase reveals the disbelief that studies involving pragmatic aspects cannot be original. In addition, there is subjectivity concerning the format of the theoretical-empirical studies susceptible to presentation, as the term “studies” is general. This interpretation is confirmed when, in the second sentence of the paragraph, the words “accept studies based on different paradigms and methods” are used.

Another noteworthy fact is the use of the phrase “provided that they are consistent and relevant to the development of the areas”. We consider that the word “consistent” is able to delimit meaning and refers to the scientific nature of the studies. On the other hand, the term “relevant” once again reveals a situation of subjectivity, linked to the study selection process, and which strongly impacts the knowledge area - it is a criterion that will determine the essence of the scientific interest of the knowledge areas the journal covers (Accounting, Controllership, Actuarial Science, and Finance). The last sentence of the paragraph states that reviews, notices, bibliographical notes, thoughts, and documents may be published, provided that RC&F considers that they contribute “new knowledge to the community”. The term “new” belongs to the same semantic field as the term “unpublished” used in the first sentence of the scope paragraph. While, in the first sentence, it referred to “articles”, in the latter, it refers to the “knowledge” transmitted by the other types of studies the journal also accepts. Thus, both the articles considered as the “main focus of the journal” and the other studies cited above have to be original.

According to RC&F (2015), this journal publishes, per year, one article per author - be it an individual or group production - in consideration of best practices in research. Also, according to the standards of this journal, when the investigation deals with measuring, information and support systems for institutions' planning and control process, it is classified in the focus area "Controllership and Management Accounting". If the discussion is about aspects of identification, measurement, and disclosure of accounting information, a study with the focus "accounting for external users" is carried out. If it addresses conceptual and/or empirical aspects of markets, as well as the application of resources from the perspective of past and/or projected business performance, linked to Accounting, the study is classified in the focus area of "financial, credit, and capital markets".

When the article presents aspects related to the teaching-learning process and accounting research, the study belongs to the focus "education and research in accounting, controllership, actuarial science, and finance". If the theme is about models, methods, techniques, and instruments and the construction of scientific papers linked to Actuarial Sciences, a study in the focus area "actuarial science" is carried out. The RC&F (2015) website includes a new research focus called "Emerging Issues in Accounting, Finance, and Actuarial Science", which covers so-called innovative issues.

5. Conclusions

The objective of this research was to know the conception of scientific research represented by the editorial policy and team of the *Revista Contabilidade & Finanças* (RC&F).

It was identified that RC&F has generously expanded its capacity to disseminate research carried out by Brazilian (students, technical professionals, and faculty members) and international researchers with the aim of strengthening the links between the academy and society, as well as promoting dialogue with peers - this interaction consolidated what the magazine considers as productions that offer "effective contribution". According to RC&F's ideological conception of scientific research, this effective contribution is linked to "quality" and is a requirement for scientific production to be considered "relevant".

The attributes "quality" and "effective contribution" are weighted by the *Ad Hoc* Consultants' reviews, but the details to be considered in the evaluation process derive from the details in the conception of scientific research of the persons who most strongly influence the knowledge disseminated by the journal: the editor and the associate editors.

The editor and associate editors of RC&F are influenced by the worldview of the educational and research institutions which they take or have taken part in, and of the technical knowledge built up from the work they perform, highlighting USP's conceptions of science, not only because the journal belongs to the Accounting Department of FEA/USP, but because 53% of the Editorial Team is affiliated with or graduated from USP. It is also worth noting that 18% of the members of this team represent the ideological-scientific influence of the United States - in this last percentage, the Brazilian members who have an educational background in American HEIs are disregarded.

In addition to the ideological influences cited above, RC&F's conception of science also revealed the influence of entities such as Capes, Fipecafi, CFC, CVM, Anpad, AAA, IAAER, CNPq, Bacen, Ibracon, among others, which play significant representative roles in the scope of research, education and production of Brazilian and international technical knowledge, due to the editorial board members' participation in those entities.

The editorial policy of the journal also announces an ideology of "openness to ontological and epistemological pluralism", salutary aspects that permit the insertion of research based on different ways of conceiving and constructing scientific knowledge. We believe that this formalizes the opening of space for discussions based on different views on themes in the area, despite the researchers' usually "tacit agreement" on the way of doing science - we consider that the subjectivity of the terms "relevant" and "quality" may lead other researchers to mirror the studies published.

The aforementioned “agreement” can lead to the reproduction and atrophy of some discussions because, as a result, researchers in the accounting area can produce science guided by methods and theories or themes that, sometimes, are no longer able to provide the desired “effective contributions” - there is concern about the acceptance of their ideas in the academic community and about not provoking intellectual annoyance/counterpoint to their peers. The dissemination of internationally relevant research, an ideology that also stems from the RC&F policy, will become ineffective if these are not capable of materializing effective contributions to the written culture and to the technical development of the Brazilian accounting area.

The ideology of RC&F is scientific production based on the attributes of relevance, that is, that offers quality and “effective contribution”, strongly influenced by the conception of science of USP and the aforementioned Brazilian and international entities and US HEIs. These attributes that guide the conception of science promoted by RC&F can generate communication noises because of their subjectivity though. These can lead to a process of reproduction of thematic, methodological, and structural theories as a result of the search for a relevant scientific production model by researchers who wish to publish in RC&F, a fact explained through the SRT, despite the propagation of the ideology of “ontological and epistemological plurality”.

When considering the fundamentals of the Social Representation Theory, one can understand that the study is limited by the fact that the *Ad Hoc* consultants are not analyzed, in a way complementary to the analysis about the editorial board members, because this analysis could ratify the ideological influences already evidenced and/or indicate others. For future investigations, it is considered significant to evaluate the editorial policy of other accounting journals, as well as to examine the profile of the *Ad Hoc* Consultants, in order to obtain information about the relations established and, therefore, to identify the conceptions that emerge from the scientific discourse produced by Brazilian accounting.

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Self-efficacy, elements prioritized in public and private career prospecting and academic behavior: analysis of Accountancy students from public HEI

Abstract

Objective: The article aims to verify, in the light of the Social Cognitive Theory (SCT), the influence of self-efficacy beliefs on the elements prioritized in public and private career prospecting mediated by the academic behavior of Accountancy students.

Method: The sample consisted of 309 participations by Accountancy students from public Higher Education Institutions (HEI) in Brazil. For the data treatment, Structural Equations Modeling was used.

Results: The results reveal that the self-efficacy beliefs influence the academic performance. It was also verified that the academic behavior is an antecedent of the elements prioritized in the career prospecting and mediates the relation between self-efficacy and the elements prioritized in private career prospecting, based on the personal domain dimension.

Contribution: The study presents that the subject's social history and past experiences lead to the prioritization of elements concerning the public or private career prospecting. Based on the investigated behavioral elements, which were significant in the conduction of the public and private careers, initiatives can be developed at university, whether involving research, teaching or extension, which encourage in the students the desire for careers guided by reliable experiences deriving from the university environment.

Key words: Self-efficacy Beliefs; Public and Private Career Prospecting; Academic Behavior; Social Cognitive Theory.

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1. Introduction

Individuals hold different beliefs about their career expectations. These are closely related to human agency, that is, “Individuals are agents who proactively engage in their own development and can make certain results happen through their actions” (Pajares, 2018, [n.p.]). These actions are manifested through basic characteristics of intentionality for the development of competences in the long term. In that sense, Lent and Brown (2013) alert to the need to consider the social cognitive process in the development of one’s professional career.

Career self-management has been studied under varying approaches and theories. Bastos (1997) discusses the choice and commitment with the career in Business Administration. Tonin (2014) analyzes how the choices regarding the career and the activity area influence the relationships of commitment and entrenchment of administrators registered in the Rio Grande do Sul Regional Business Administration Council (CRA-RS). Encouraged by this research area, Santos and Almeida (2018) adopt the Theory of Planned Behavior (TPB) to identify the intention of Accountancy students to pursue a career in Accounting. Thus, career self-management and interest in professional development are constant. Lamas (2017) exposes the relevance of psychological approaches in explaining those phenomena. Therefore, the investigation of career self-management is due based on “basic mechanisms that govern human functioning” (Bandura, Azzi & Polydoro, 2008, p.72). Thus, the elements prioritized in public and private career prospecting are the focus of this study.

The term career prospecting refers to the preferences considered in career choices. Examples of the elements prioritized in prospecting are remuneration, stability, and challenges. The characteristics of these elements differ between public and private careers. The public area is characterized by stability, higher remunerations at the beginning of the career and predefined activities. In turn, performing professional activities in the private sector involves greater flexibility, a higher level of challenges and opportunities for professional growth (Santos, Brandão & Maia, 2015).

Thus, the Social Cognitive Theory (SCT) presents itself as a lens to analyze career prospecting, exploring human behavior in the forms of learning, expectations, and propensity to make decisions (Oliveira, Trassi, Inácio & Santos, 2016). According to Dias (2009, p 564), “social modeling imposes itself as a source of questions and problematizations that lead to proofs that justify and give substance to the determinants and mechanisms of action.” In this context, self-efficacy and academic behavior can figure as antecedent variables to the elements linked to career prospecting.

Among the main SCT concepts, Bandura (2005; 1994) highlights the construct of self-efficacy, which consists of people’s beliefs about their ability to produce designated levels of performance that exert influence on events that affect their lives. Thus, self-efficacy beliefs are the main factor influencing human behavior (Ambiel & Noronha, 2012).

Additionally, in this study, academic behavior consists of two dimensions: citizenship behavior and counterproductive behavior. The first is characterized by attitudes performed voluntarily (Organ, 1988), and which contribute to well-being in the university. The second comprises attitudes of hostility, authority, impulsivity, social insensitivity, and feelings of alienation that predispose people to defy rules, ignore social expectations, avoid compromising with others, disengagement, and academic cheating (Hogan & Hogan, 1989;).

Therefore, the behavior practiced in the university environment can be linked to the self-efficacy beliefs and affect career prospecting. For example, low levels of self-efficacy may indicate preference for jobs that have higher levels of job stability. These theoretical questions are extended to Accountancy students because “it is known that ample career opportunities exist for the Accountancy graduate, especially for those who, as a result of the regulation of the profession, with a corporatist bias, specify an exclusive niche of professional practice”.

Thus, the following problem question emerges: **What is the influence of the self-efficacy beliefs in the elements prioritized in public and private career prospecting mediated by the academic behavior of Accountancy students?** Thus, the objective of the study is to verify the influence of self-efficacy beliefs in the elements prioritized in the public and private career prospecting mediated by the academic behavior of Accountancy students.

Moreira, Ambiel, and Nunes (2018) and Ambiel and Noronha (2012) emphasize that the theme of self-efficacy still lacks empirical development, that is, how this characteristic influences the professional domains of the individual. Thus, research on this subject is possible, as this kind of research in Accounting Education can provide elements that indicate advantages and disadvantages in the relationship between self-efficacy and aspects considered in career prospecting. From another perspective, this research is relevant because it encompasses Bachelor students in Accountancy of the public HEIs from different regions of Brazil, a fact that can provide evidence about students' expectations of the accounting career coming from different realities within the country.

For the research areas in Accounting education, we hope to encourage the discussion about individual academic performance in higher education, as it is clarified in this study that, in addition to performance, other individual elements are closely related to the position the individual takes within the university and to the professional challenges with regard to public or private career prospecting, that is, academic behavior. Thus, discussing academic behavior as an actor in the relationship between self-efficacy and career prospecting shows researchers that the individual's psychological elements and social history should be considered in the construction of the teaching-learning process.

This proposal corroborates the studies by Santos and Almeida (2018), advancing in the discussion about career related to Accounting students. The professional approach Accountancy students in Brazil desire, in terms of advantages and conditions, are direct contributions of the study, as its compatibility with the academic behavior and the self-efficacy beliefs are investigated.

2. Theoretical Framework and Research Hypotheses

2.1 Social Cognitive Theory

The Social Cognitive Theory (SCT) comes from the works of Bandura (1977, 1982) and focuses on the fact that the subject is responsible for his own development and interacts with the everyday situations of his life from an intentional perspective. Two aspects characterize the SCT: it acknowledges that individuals possess agency and develops the concept of self-efficacy beliefs. SCT argues that the subjects' ability to adapt and change is in the cognitive, vicarious, self-regulating and self-reflexive processes. From this perspective, the human being is observed as the product of the interactions between personal, behavioral and environmental influences (Bandura, 1986; Pajares, 2018, [n.p.]).

SCT provides different perspectives to researchers seeking to understand and verify the learning and decision-making process. In this context, the self-efficacy beliefs have been observed in different scopes and stages of the life course (Fontes & Azzi, 2012). In Table 1, the components that permeate SCT are elucidated.

Table 1

Elements of Social Cognitive Theory.

Elements	Description
1 Human Agency	"Individuals are agents who proactively engage in their own development and can make certain results happen through their actions" (Pajares. 2018. [n.p.]).
1.1 Intentionality	Ability to make plans and envisage action strategies to execute them (Bandura. 2008).
1.2 Anticipation	The individual raises objectives for himself, predicts the probable outcome of his actions, targets and motivates his efforts (Bandura. 2008).
1.3 Self-regulation	The ability of the organism to produce discrepancies in relation to an expected standard and to create a reactive system that permits reducing those discrepancies (Bandura. 2006).
1.4 Reflection	Ability through which the individual reflects on the value and meaning of his actions, adjusting when necessary (Bandura. 2008).
2 Self-efficacy beliefs	Individuals' beliefs in their own ability to organize and execute a certain course of action to achieve a certain result (Bandura. 1977; 1997).
2.1 Vicarious learning/Social modeling	The observation of others acting as successful models allows the individual to identify knowledge and skills to cope with the requirements of the context (Bandura. 2004).
2.2 Social persuasion/Verbal persuasion	When people are persuaded to be successful, they trust more in their ability and take distance from situations in which they might fail; in addition, they do not engage in thoughts that intensify the doubts on their own ability (Bandura. 2004).
2.3 Emotional conditions (Positive/Negative)	People also judge their abilities in function of their emotional conditions, reading their tension, anxiety and depression as signs of their personal limitations.
2.4 Personal mastery/dominion experiences	The experience of mastery in relation to the practice of an activity or skill presented as the most effective resource to strength self-efficacy beliefs.

Source: elaborated based on Fontes and Azzi (2012, p. 106-107) and Pajares (2018[n.p.]).

Based on Table 1, we observe that Human Agency is embodied in the power of individuals to engage in making their own choices, whether through intentionality, anticipation, self-regulation or reflection. The self-efficacy beliefs, focus of this study, are embodied by the vicarious learning/social modeling accomplished through social observation; social persuasion/verbal persuasion in which the individual relies on his own ability to succeed; emotional conditions, which encompass the individual's emotions at the moment of decision making; and the personal mastery/dominion experiences that relate to successful experiences that propel self-efficacy (Fontes & Azzi, 2012; Pajares, 2018).

Some investigations have adopted SCT in order to test the ability to mediate self-efficacy beliefs in the relationships between environmental and behavioral factors and human learning (Bandura, 1997; Duffy, Douglass & Autin, 2015). Thus, Pajares (2018) argues that the environment and social systems influence human behavior. The SCT argues that factors such as economic conditions, socioeconomic status, and educational and family structures do not directly affect human behavior. Instead, they interfere with human behavior as they influence self-efficacy beliefs. Thus, self-efficacy beliefs are also likely to relate to academic behavior (Zimmerman, 2000; Bong & Skaalvik, 2003; Oliveira & Soares, 2011) and students' career prospecting (Chung, 2002).

2.2 Relationship of self-efficacy beliefs with academic behavior

Ambiel and Noronha (2012) argue that the self-efficacy beliefs are relevant in the orientation of human behavior, being a guiding factor in the development of the plans and activities to be performed in order to achieve the goals and objectives set. Zimmerman (2000) describes the role of self-efficacy in behavior in terms of motivation and learning, in that “these self-efficacy beliefs provide the basis for motivation, well-being and personal accomplishment in all areas of life. Thus, more motivated young people are optimistic, more persevering, which means that they have better academic performances” (Santos, 2017, p. 29).

Self-efficacy beliefs are considered to be related to the behavior adopted in the academic environment, as Cretu and Burcas (2014) emphasize that levels of self-efficacy are negatively and significantly related to counterproductive behaviors, and Isac, Maslowski, Creemers, and Van Der Werf (2013) argue that personal characteristics, such as self-efficacy, are tied to students’ citizenships behavior. Guided by these arguments, we raised the first research hypothesis:

H₁: Self-efficacy beliefs influence academic citizenship behavior positively and the counterproductive behavior of the accountancy students in the sample negatively.

2.3 Relationship between academic behavior and career prospecting

The literature on performance and academic behavior has acknowledged the importance of considering the psychological elements to achieve satisfactory results (Zimmerman, 2000). On the other hand, Bardagi, Lassance, and Paradiso (2003) argue that information about the characteristics, behaviors, and needs of Brazilian university students is scarce.

Bardagi, Lassance, and Paradiso (2003) investigated the academic trajectories, satisfaction with the professional choice and professional expectations of Brazilian university students. The research results indicate that the students’ engagement in academic activities plays a relevant role in satisfaction with the professional choice. In addition, “academic activities, a training or job experience that allow the performance of tasks related to the chosen field can facilitate decision making and the crystallization of the choice” (Bardagi, Lassance & Paradiso, 2003, p. 161).

Duffy, Douglass, and Autin (2015) examined the relationship between four components of professional adaptability - concern, control, curiosity and confidence - and academic satisfaction. The results of the survey of 412 undergraduate students reveal that self-efficacy and violation of work serve as mediating variables of the relationship between professional adaptability and academic satisfaction.

Thus, when evaluating students’ career interests, academic behavior needs to be considered, as the activities related to professional choice represent a set of skills, knowledge, and behaviors that are observed in the university environment and reflected in the professional context (Meriac, 2012). Starting from these arguments, the second research hypothesis was formulated:

H₂: Academic behavior is significantly related to the elements prioritized in the professional career prospecting of the Accountancy students in the sample.

Academic behavior is not the only antecedent that can influence career prospecting though, as it is also subscribed to self-efficacy beliefs (Zimmerman, 2000; Bong & Skaalvik, 2003; Oliveira & Soares, 2011). Thus, the fact that the subject holds strong self-efficacy beliefs and satisfactory academic behavior can influence his career prospecting in Accounting. In this case, one needs to investigate the possible mediating position the academic behavior occupies in the relation between the self-efficacy beliefs and the elements prioritized in career prospecting.

2.4 Relationship between self-efficacy beliefs and career prospecting mediated by academic behavior

The commitment and implementation of career plans are related to the subject's self-efficacy beliefs in decision making (Chung, 2002). Thus, "there is particular interest in knowing how these beliefs could act as facilitators and mitigators of the various pressures resulting from the environment. some of them hostile and disadvantageous to adaptation" (Fontes & Azzi, 2012, p.106). such as uncertainty with a career. highlighted by the University of California, Berkeley (2014) as the first item to cause distress and depression among students.

The different characteristics of the public and private sectors can be prioritized based on self-efficacy beliefs. Sales, Xavier Filho and Damascena (2017) cite aptitudes that guide the individual's career choice. According to the authors, some direct their choices by technical, management aptitudes, the autonomy of the activity area or security/stability, while others prioritize creativity, challenges, lifestyle or dedication to a cause. In this context, the public and private areas differ with respect to these elements. For example, the public area tends to offer greater stability/security, while the private area poses greater challenges (Santos, Brandão & Maia, 2015). Self-efficacy can interfere with these prioritized elements (Chung, 2002).

Betz and Hackett (1981) admit that self-efficacy beliefs are related to educational and occupational abilities, the nature and extent of the desired career. Betz and Voyten (1997) conducted a survey of 350 psychology students to explore how self-efficacy and expected career outcomes contribute to understanding professional indecision. The results show that self-efficacy is a predictor of professional indecision. Thus, the research implications show the need to consider the components of self-efficacy beliefs in the development of learning. Coimbra (2010, 64) points out that "self-efficacy beliefs seem to be determinant for the goals that are set and the choices that are made ... for the strategies undertaken ... and for the interpretation of the results and their impact [...]". Thus, academic behavior and the elements prioritized in career prospecting are shown to be consequences of self-efficacy.

Chung (2002) surveyed 165 university students in Baton Rouge and found a positive correlation between self-efficacy and career commitment. Students with higher levels of self-efficacy exhibited a greater commitment to professional aspects. The results of the study reinforce the importance of self-efficacy in decision making and aspects considered in the choice of the profession. Thus, self-efficacy may possibly act as an antecedent element in the relationships analyzed in this research, as there are studies (Betz & Luzzo, 1996; Multon, Brown & Lent, 1991) that strongly support the role of self-efficacy as a predictor of academic behavior and of the intentions and aspects considered in the career decision and/or prospecting. Thus, acknowledging the individual as a result of the dynamics of personal and environmental influences, the third research hypothesis is presented:

H3: Academic behavior mediates the relationship between the self-efficacy beliefs and the elements the Accountancy students in the sample prioritized in career prospecting.

Based on the hypotheses raised. Figure 1 illustrates the proposed theoretical model.

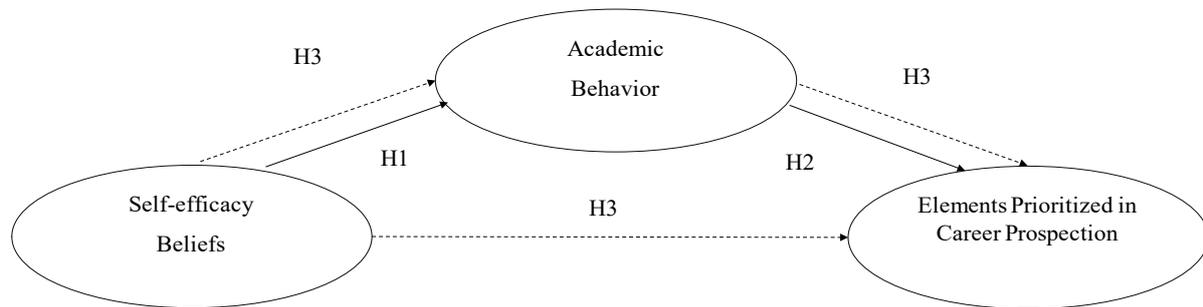


Figure 1. Theoretical research model

Source: Elaborated by the authors.

Figure 1 reveals that the academic behavior mediates the relationship between the self-efficacy beliefs and the elements prioritized in the career prospecting of the Accountancy students at public HEIs. Thus, we assume that the academic behavior serves as a relevant actor in the conduction of the elements that students from public HEI will prioritize in the construction of a public or private career, to the extent that their social history is also taken into consideration, as self-efficacy represents a social construction process of the individual.

3. Methodological Procedures

This descriptive research has a quantitative approach and was executed by means of a survey, using the students enrolled in the 142 public HEIs listed on the Ministry of Education (MEC) portal and offering the Accountancy program. The data were collected through a questionnaire made available to the respondents on November 7 and closed off on December 18, 2017. Answers were provided through an online platform, and the invitation was sent by e-mail to the Accountancy program coordinators and centers of those HEIs, asking them to forward the questionnaire to the students enrolled in the last two years of the Accountancy program.

The instrument constructed consists of three blocks (Appendix A). The first one, related to the elements prioritized in career prospecting, is based on the studies by Gabris and Simo (1995) and Santos, Brandão, and Maia (2015). Regarding the study by Gabris and Simo (1995), the adaptation derived from public and private career characteristics. The study by Santos, Brandão, and Maia (2015) was chosen because the authors investigated the public and private career choice based on a theory from the area of finance. In this block, the respondent should indicate the degree of importance assigned to the following elements inherent in career prospecting: security and stability; autonomy; fixed remuneration; flexibility; perform predefined and routine tasks; existence of a high level of challenges; existence of a high level of charge by supervisors; and opportunity for professional growth.

The second block refers to academic behavior. The questions in this block were formulated in the light of the studies by Hakstian, Farrell, and Tweed (2002), Mophew and Hartley (2006), Schmitt, Oswald, Friede, Imus and Merritt, S. (2008), Okafor (2011) and Meriac (2012). Academic behavior is contemplated in two second-round constructs little used in Accounting studies, called “citizenship behavior” and “counterproductive behavior”. The third block consists of assertions regarding self-efficacy beliefs in career management. These were elaborated based on the discussions by Lent, Ireland, Penn, Morris, Sappington (2017) and measure the five dimensions of the construct: personal mastery, verbal persuasion, vicarious learning, positive affect, and negative affect. Table 2 shows the research constructs.

Table 2

Research constructs

Question Block		Elements	Dimensions*
1 st	Elements inherent in career prospecting	Autonomy	Private
		Flexibility	
		Existence of high level of challenges	
		Professional growth opportunity	
		Security and stability	Public
		Fixed remuneration	
		Execute predefined and routine tasks	
		Existence of high level of charge by supervisors	
Question Block		Second-Round Constructs	
2 nd	Academic behavior	Citizenship Behavior	
		Counterproductive Behavior	
Question Block		Dimensions	
3 rd	Self-efficacy beliefs in professional career management	Personal mastery	
		Verbal persuasion	
		Vicarious learning	
		Positive affect	
		Negative affect	

* The dimensions of the elements inherent in career prospecting are consolidated in two procedures the researchers adopted. First, in one question in the research instrument, the respondent's interest in the public or private career was surveyed. Second, after the data collection, the items were processed through exploratory factor analysis. Based on these procedures, the alignment between the respondent's interest in one of the careers and his respective characteristics was observed, as completed in the research instrument.

Source: elaborated by the authors.

The questionnaire underwent a cyclical validation process involving five experts. The first evaluator, holding a doctorate in Accounting and active as an educational researcher adopted the subject's assertive voice as a premise in her evaluation. For example: *ex ante* (i) - I help new students feel welcome at the university. *ex post* (i) I help new students feel welcome at the university. The second and third - evaluators, post-graduate teachers in accounting and researchers in the area of education - observed mechanistic aspects, proposing specific modifications inherent to the structure of the instrument. The fourth evaluator - a professional psychologist - assessed the content, reaction, and behavior, based on cognitive concepts, cultural elements, automatic and nuclear thoughts that involve the respondent's possible beliefs concerning the instrument. Finally, the fifth evaluator, specialist and M.Sc. in Accounting with more than five years of teaching experience, performed the face validation, in which all the assertions were read in the presence of the researchers and discussed as to their purpose and understanding.

The blocks were measured based on a seven-point numerical scale. By means of a filter question, the participation of respondents with a different profile than desired - students who did not attend the last two years of the undergraduate course - were excluded. The survey resulted in 309 completed and valid questionnaires for the study, the sample being characterized as non-probabilistic. Table 3 shows the respondents' characteristics.

Table 3

Profile of Respondents

Gender	%	Region of the Country	%
Female	59.22	Central-West	6.47
Male	40.78	Northeast	5.18
		North	6.80
		Southeast	16.83
		South	64.72
Age	%	Do you currently work in accounting?	
Up to 21 years	32.36	No	40.13
Between 22 and 24 years	23.30	Yes	59.87
Between 25 and 29 years	20.39		
Between 30 and 52 years	23.95		
Professional activity area			%
Private	65.05	Public	34.95
Do you intend to work or continue working in any professional area?			%
Private	32.04	Public	38.83
Service Sector	0.65	Undecided and others	28.48

Source: Research data.

After the data collection, the Exploratory Factor Analysis technique was used to constitute the dimensions of the constructs of the elements prioritized in career prospecting. Thus, the first dimension grouped the items referring to security and stability; fixed remuneration; perform predefined and routine tasks; and the existence of a high level of charge by the supervisors, which are pointed out in the literature as characteristics of the public area. The second dimension substantiates the items autonomy; flexibility; existence of a high level of challenges; and opportunity for professional growth, aligned with the characteristics of the private area. The first dimension of the first-round construct "Elements Prioritized in Career Prospecting" was named "Public Career" and the second dimension "Private Career", both grouping their respective items.

Next, the Structural Equation Modeling (SEM) technique was employed, which "involves the simultaneous evaluation of multiple variables and their relationships" (Hair Jr, Gabriel & Patel, 2014, p.45). For the statistical analysis of the data, R Studio® software version 1.0.153 was used.

The recommendations of Hair Jr, Hult, Ringle, and Sarstedt (2014) infer that, for a model with five structural pathways (greater number of arrows linked to a variable), with $\alpha = 0.01$ significance and a minimum R^2 of 0.10, a sample size of 205 respondents is needed. At this point, we believe that the survey sample with 309 valid answers meets the assumptions for the analysis using Partial Least Squares (PLS). In addition, Ringle, Silva, and Bido (2014) recommend that, in order to use SEM modeling, the sample size can also be estimated using G*Power 3.1 software. Thus, based on a power coefficient ($1 - \beta$ err prob) of 0.95, effect size f^2 median = 0.10 and with α err prob = 0.01 significance, the minimum sample is 266 participations. Thus, the study sample is suitable for the analysis through the PLS, via bootstrapping, according to the recommendations of Hair Jr *et al.* (2014) and Ringle, Silva, and Bido (2014).

As for the procedures adopted in this research for the mediation analysis, Vieira (2009) states that mediation can be verified in three ways, namely: (i) step-by-step analysis of the pathways; (ii) difference between coefficients; and (iii) product of the coefficients. We chose the step-by-step analysis of the pathways, based on the conditions established by Baron and Kenny (1986) and used by Santos and Beuren (2017).

4. Analysis and Discussion of Results

4.1 Measurement model and descriptive statistics

The analysis of the measurement model starts by verifying the reliability of the individual indicators, followed by the evaluation of the convergent validity; and finally, the discriminant validity (Hair Jr *et al.*, 2014). To evaluate the reliability in terms of internal consistency, Sanchez (2013) indicates the analysis of Dillon-Goldstein's DG. Rho and the verification of the first eigenvalue of the correlation matrix and the second eigenvalue. Thus, the recommendations point out that DG. Rho values higher than 0.70 are necessary. For the evaluation of the first and second eigenvalues, it is recommended that the former be superior to 1 and the second inferior to 1 (Sanchez, 2013). The convergent validity analyzes the Average Variance Extracted (AVE), which should be superior to 0.50 (AVE > 0.50) (Ringle, Silva & Bido, 2014). Table 4 presents the correlations between the constructs and the internal reliability data of the measurement model proposed for this research.

Table 4

Measuring model and descriptive statistics

Variables	1	2	3	4	5	6	7	8	9
1	1.000								
2	0.685	1.000							
3	0.440	0.573	1.000						
4	0.676	0.551	0.444	1.000					
5	-0.125	0.004	0.110	-0.250	1.000				
6	0.400	0.365	0.296	0.382	-0.109	1.000			
7	-0.171	0.098	0.059	-0.155	0.213	-0.020	1.000		
8	0.348	0.258	0.235	0.219	0.093	0.248	0.079	1.000	
9	0.529	0.422	0.358	0.427	-0.042	0.357	-0.025	0.503	1.000
DG. Rho > 0.70	0.939	0.957	0.916	0.951	0.879	0.873	0.788	0.810	0.828
1 nd Eigenvalue > 1.00	3.17	3.39	2.93	3.32	2.12	3.25	2.14	2.09	2.19
2 nd Eigenvalue < 1.00	0.334	0.281	0.575	0.291	0.514	0.886	0.943	0.960	0.740
AVE > 0.50	0.793	0.846	0.733	0.829	0.685	0.530	0.423	0.521	0.545

1 = Personal mastery; 2 = Verbal persuasion; 3 = Vicarious Learning; 4 = Positive affect; 5 = Negative affect; 6 = Citizenship Behavior; 7 = Counterproductive Behavior; 8 = Public Career; 9 = Private Career.

Source: Research data.

Based on Table 4, the Pearson correlations between the constructs can be observed. The variable citizenship behavior (6) was directly proportional to the self-efficacy beliefs in the domains personal mastery ($r=0.400$), verbal persuasion ($r=0.365$), vicarious learning ($r=0.296$) and positive affect ($r=0.382$). Negative affect (5) was associated negatively with the public career ($r=-0.042$), with citizen behavior ($r=-0.109$), personal mastery ($r=-0.125$) and positive affect ($r=-0.250$).

The variable counterproductive behavior (7) was positively associated with the self-efficacy beliefs in the dimensions verbal persuasion ($r=0.098$), vicarious learning ($r=0.059$), negative affect ($r=0.213$), and career prospecting ($r=0.079$). The inversely proportional relations for this variable are registered in the self-efficacy beliefs in the dimensions of personal mastery ($r=-0.171$) and positive affect ($r=-0.115$). As for citizenship behavior (6), there is an inversely proportional relationship with the negative affect dimension ($r=-0.109$) of self-efficacy beliefs and counterproductive behavior ($r=-0.020$).

To close off the analysis of the model fit, the discriminant validity is verified. This item can be observed using the criteria by Fornell and Larcker (1981), in which "the square roots of the AVEs have to be higher than the correlations between the constructs" (Ringle, Silva & Bido, 2014, p.65) and based on the

criteria of the Crossloadings Matrix. in which the loadings of the indicators should be higher with their own latent variables (Sanchez. 2013). Thus. Table 5 is presented. which describes the minimum and maximum of the Crossloadings Matrix. or the factor crossloadings.

Table 5

Discriminant Validity – Crossloading Matrix

Discriminant Validity	1	2	3	4	5	6	7	8	9
Crossloadings (Minimal)	-0.170	-0.110	0.010	-0.264	-0.332	-0.136	-0.206	-0.009	-0.066
Crossloadings (Maximal)	0.655	0.659	0.510	0.664	0.223	0.380	0.180	0.438	0.417
Associated Construct (Minimal)	0.875	0.894	0.748	0.892	0.724	0.609	0.540	0.544	0.708
Associated Construct (Maximal)	0.909	0.940	0.893	0.937	0.934	0.858	0.745	0.812	0.772

1 = Personal mastery; 2 = Verbal persuasion; 3 = Vicarious Learning; 4 = Positive affect; 5 = Negative affect; 6 = Citizenship Behavior; 7 = Counterproductive Behavior; 8 = Public Career; 9 = Private Career.

Source: Research data.

The crossloading coefficients were in line with Chin's recommendations (1998). that is. the factor loadings of the associated constructs are superior to 0.70 and higher than the minima and maxima of the crossed constructs. Thus. complying with the recommendations in terms of fitness parameters of the measuring model. we can proceed with the analysis.

4.2 Assessment of the structural model and hypothesis evaluation

The second stage in the application of Structural Equations Modeling is the assessment of the measuring model. Therefore. in Table 6. the pathway coefficients and the significance ratios of the relationships are displayed. based on the data obtained through the bootstrapping method.

Table 6

Pathway coefficients and significance of relationships

	Hypotheses	Coefficient	Error	t-value	p-value	Decision
H1	Per. Mas. > Cit. Beh.	0.177	0.080	0.000	0.028**	Rejected
	Pers. > Cit. Beh.	0.107	0.077	0.000	0.167	
	Vic. Lear. > Cit. Beh.	0.100	0.065	0.000	0.124	
	Pos. Aff. > Cit. Beh.	0.142	0.074	0.000	0.057*	
	Neg. Aff. > Cit. Beh.	-0.062	0.055	0.000	0.259	
	Per. Mas. > Cou. Beh.	-0.140	0.086	0.000	0.105	
	Pers. > Cou. Beh.	-0.065	0.083	0.000	0.436	
	Vic. Lear. > Cou. Beh.	0.166	0.069	0.000	0.017**	
	Pos. Aff. > Cou. Beh.	-0.057	0.080	0.000	0.476	
	Neg. Aff. > Cou. Beh.	0.162	0.058	0.000	0.006***	
H2	Cit. Beh. > Pub. C.	0.130	0.058	0.000	0.027**	Accepted
	Cit. Beh. > Priv. C.	0.146	0.053	0.000	0.000***	
	Cou. Beh. > Pub. C.	0.105	0.054	0.000	0.055*	
	Cou. Beh. > Priv. C.	0.044	0.049	0.000	0.000***	

Obs.: Per. Mas. = Personal mastery; Cit. Beh. = Citizenship Behavior; Pers. = Verbal Persuasion; Vic. Lear. = Vicarious Learning; Pos. Aff. = Positive affect; Neg. Aff. = Negative affect; Cou. Beh. = Counterproductive Behavior; Pub. C. = Public Career; Priv. C. = Private Career;

*p < .10; ** p < .05; *** p < .01.

Source: research data.

Based on Table 6, the research hypotheses are analyzed and, consequently, decisions are made. H1 predicts that self-efficacy beliefs influence the academic citizenship behavior of the Accountancy students in the sample positively and the counterproductive behavior negatively. The nature of this relationship suggests a positive and direct effect of personal mastery ($\beta=0.177$; p -value <0.05) and positive affect ($\beta=0.142$; p -value <0.10) in citizenship behavior. The positive and significant effect of vicarious learning ($\beta = 0.166$, p -value <0.05) and negative affect ($\beta = 0.162$; p -value <0.01) on the counterproductive behavior is also inferred. Thus, H1 is rejected, as some dimensions of self-efficacy are positively related to counterproductive behavior.

The analysis of the direct effects that characterize H1 indicates that the dimensions of the self-efficacy beliefs should be considered in the sample students' behavior in function of their ability to shape the citizenship and counterproductive behavior in the dimensions related to personal mastery, positive and negative affects, and vicarious learning.

It seems that the self-efficacy beliefs, in the personal mastery, positive and negative affect and vicarious learning dimensions, can be considered predictors of the academic behavior of Accountancy students. Thus, the individual's ability to coordinate and follow his or her own goals and plans can lead to desired and satisfactory academic behavior. Hence, self-effective students participate more readily, work harder, persist longer, and have fewer adverse emotional reactions when they encounter difficulties than those who doubt their abilities (Bandura, 1997).

Under the lens of the SCT, the partially significant and positive effect relationship of self-efficacy beliefs with the students' academic behavior in the Accountancy sample illustrates that subjects with negative affect and/or who develop their learning from a vicarious posture instead of an active stance tend to manifest counterproductive behaviors. This evidence differs from Cretu and Burcas (2014) and leads to the rejection of H1, as self-efficacy can be positively related to counterproductive behaviors. In this sense, it is relevant to approach the construct of self-efficacy in a multidimensional way, as the different forms of self-efficacy have specifications and can indicate domains to be explored in university actions in order to interfere in the students' postures in the academic sphere.

H2 proposes that the academic behavior positively influences the elements the sample students prioritized in career prospecting. The results of Table 4 indicate that citizenship behavior influences the elements aligned to public ($\beta=0.130$; p -value <0.05) and private career prospecting ($\beta=0.146$; p -value <0.01). It is also inferred that the academic behavior construct called counterproductive behavior was significantly related to the public ($\beta=0.105$; p -value <0.10) and private career choice ($\beta=0.044$; p -value <0.01). Thus, H2 is accepted. Hence, academic behavior is observed by students and public HEIs as a determinant in the elements considered in students' career prospecting.

The acceptance of H2 corroborates the literature that investigates academic behavior in Accounting, opening new gaps to understand the elements that influence career prospecting, considering academic behavior. The gaps deriving from the acceptance of H2 are substantiated in discussing the students' antecedents in career prospecting. Does the entire framework already discussed in terms of the students' history (family, income, parental education, etc.) corroborate the career prospecting? These and other questions should be addressed in future studies, based on the evidence presented in this research.

Bardagi, Lassance, and Paradiso (2003) emphasize that the academic involvement of the 319 university students of the Federal University of Rio Grande do Sul (UFRGS) with academic activities contributed to the decision making regarding the professional choice. In this sense, those discussions are aligned with the findings of this research, as it is acknowledged that the citizenship behavior and the counterproductive behavior developed in the university environment influence the elements prioritized in career prospecting. Citizenship behavior is related to participation in student associations, receptiveness of new students, commitment and involvement in civil actions involving the external community, among other actions the student can engage in that have been shown to influence the public and private career prospecting.

The finding that academic behavior influences career prospecting should be commonly visualized in a field not purely focused on professional education, but also aimed at the construction of character and human behavior itself, as recommended by SCT. The fact that both behaviors significantly influen-

ce career prospects shows that it may be possible to link attitudes addressed in the university context to the characteristics of the public or private sphere. According to Santos, Brandão, and Maia (2015), these differ mutually in terms of taking on challenges, prioritizing professional stability, having autonomy for decision-making and getting opportunities for professional growth.

The citizenship behavior showed a stronger relationship with the elements that characterize the private professional career. The counterproductive behavior, on the other hand, was more strongly related to the elements of the public career. Against that background, students who are more engaged and who manifest citizenship actions more intensely can prioritize a private career because it offers challenges, flexibility, autonomy, and opportunities to take risks and grow in the professional field. Students who seek shortcuts to reach their academic goals based on counterproductive behaviors can prioritize stability and more routine activities to minimize career risks.

On the other hand, surveys in Accounting have sometimes measured academic behavior in a purely objective sense. Thus, the findings of this study collaborate to strengthen alternative theoretical approaches, which can also influence the career prospects, in this case, those of the Accountancy students in the sample.

H3 proposes that academic behavior mediates the relationship between the self-efficacy beliefs and the career prospecting of the Accountancy students in the sample. Thus, in Table 7, comparative models are presented.

Table 7

Comparison between the models – Model without Mediation and Model with Mediation considering Academic Behavior

Hypothesis	Model without Med.		Model with Mediation considering Academic Behavior					Decision
	Effect		Direct Effect	Indirect Effect	Total Effect	Med. Effect		
	Coef.	Coef.	%****	Coef.	%	Coef.	%	
Per. Mas. > Pub. C.	0.3371*	0.3424*	97.66	0.0082	2.34	0.3506**	NO	Partially accepted
Per. Mas. > Priv. C.	0.3886*	0.3713*	94.99	0.0196	5.01	0.3909**	+ 5.01	
Pers. > Pub. C.	-0.0139*	-0.0320	128.51	0.0071	-28.51	-0.0249		
Pers. > Priv. C.	0.0351*	0.0180*	58.44	0.0128	41.56	0.0308		
Vic. Lear. > Pub. C.	0.0777*	0.0562	64.75	0.0306	35.25	0.0868		
Vic. Lear. > Priv. C.	0.1319*	0.1035*	82.40	0.0221	17.60	0.1256		
Pos. Aff. > Pub. C.	-0.0032*	-0.0240	208.70	0.0125	-108.70	-0.0115		
Pos. Aff. > Priv. C.	0.0877*	0.0756*	80.60	0.0182	19.40	0.0938		
Neg. Aff. > Pub. C.	0.1344*	0.1159**	92.72	0.0091	7.28	0.1250		
Neg. Aff. > Priv. C.	0.1718*	0.0183*	110.84	-0.0017	-10.84	0.0165		

Construct	R ² - Model without Mediation	R ² - Model with Mediation
Citizenship Behavior	None	0.201**
Counterproductive Behavior	None	0.083**
Public Career	0.146**	0.170**
Private Career	0.305**	0.323**
Goodness-of-Fit	0.4001	

Obs.: Per. Mas. = Personal mastery; Pub. C. = Public Career; Priv. C. = Private Career; Pers. = Verbal persuasion; Vic. Lear. = Vicarious Learning; Pos. Aff. = Positive affect; Neg. Aff. = Negative affect; NO = Not observed.

*p < .10; ** p < .05; *** p < .01. **** Proportion in relation to Total Effect.

Source: research data.

Based on Table 7, one can observe the regression model without the presence of academic behavior mediating the relationships, the direct, indirect and total effects of the pathway relation. Considering the discussions by Sanchez (2013), Hair Jr. et al. (2014) and Santos and Beuren (2017), the results show that aca-

ademic behavior is a mediator of the relationship between self-efficacy beliefs and the elements prioritized in private career prospecting in the personal mastery dimension. Thus, H3 is partially accepted. The non-rejection of H3 opens up opportunities for further investigation as it provides a new role for academic behavior in the relationship between self-efficacy beliefs and the perception of the private career elements they prospect.

The study by Betz and Hackett (1981) indicates that self-efficacy beliefs are related to the educational abilities and the achievement of the desired career. Thus, the decision on H3 is partially aligned with that evidence. As for the studies by Betz and Luzzo (1996) and Multon, Brown, and Lent (1991), there is partial alignment with our findings, as self-efficacy beliefs show partial influence on academic behavior, recognizing the Accountancy students in the research sample as a dynamic result of their behavioral and environmental influences. It is inferred that self-efficacy beliefs and academic behavior influence the importance attributed to the elements aligned to career prospecting in the private area, being the last variable driving this prospecting.

The advancement of the research results relates to the position that academic behavior occupies in the relationship between self-efficacy beliefs and career prospecting. The field of research advances on the studies by Duffy, Douglass, and Autin (2015) and Glaser and Bardagi (2011), as they treated the self-efficacy beliefs as a mediating variable. Furthermore, Ambiel and Noronha (2012, pp. 172-173) recognize that “self-efficacy beliefs are the main factor influencing human behavior, as they will guide the choice of activities to be performed and strategies to achieve the goals set”, which sometimes characterizes self-efficacy beliefs as an independent variable.

From the perspective of the Social Cognitive Theory, it seems that the self-efficacy beliefs may occupy a prominent position in the relations between motivational and human behavior aspects inherent in a given goal (Martinelli & Sassi, 2010), as Bandura (1977) considers that this social-cognitive approach mediates the relations between the past experiences of the individual in terms of success or failure and his ability to do and/or prospect something (Bandura, 1997; Coimbra, 2010).

Therefore, the position of the academic behavior in the relationship between self-efficacy beliefs and career prospecting in the area is still an open question, as this study presents indications of this relationship. In response, we hope that these results will stimulate the debate about the evolution and range of the role of academic behavior and self-efficacy beliefs in the elements considered in career prospecting, especially in the private sector, in view of the plural background the SCT can offer to the empirical field.

5. Conclusion

This study rests on the Social Cognitive Theory (SCT) to explain the mediating role of students' academic behavior in the relation of self-efficacy beliefs with the elements prioritized in public and private career prospecting. Overall, the results elucidate the precedents of career prospects, evidencing that self-efficacy beliefs and academic behavior positively support the development of positive career prospecting.

Self-efficacy was able to influence the students' academic behavior, especially in personal mastery and positive affect for the citizenship dimension, and vicarious learning and negative affect for the counterproductive dimension. Therefore, students who accumulate success in their achievements and/or who present more positive emotional conditions manifest citizenship behaviors more intensely. On the other hand, those who mirror third parties to perform their actions and/or have negative emotional conditions tend to manifest counterproductive attitudes. These findings show the importance of promoting environments that favor well-being and positive emotions in terms of interpersonal interaction and university support, also indicating the need to promote student autonomy as, when prioritizing vicarious learning, counterproductive behaviors are elucidated more frequently.

Citizenship and counterproductive behaviors showed a positive and significant relationship with the elements prioritized in the public and private career. The coefficients indicate that the citizenship dimension is related more strongly to the elements of the private field, while the counterproductive dimension indicates a stronger relationship with the public field. This finding can originate in the different profiles sought in both careers. While, on the one hand, in the private career, priority is given to greater

challenges, flexibility, and opportunities for growth, in the public career, professional security, predefined and routine tasks that show lesser risks are prioritized. Thus, students who practice counterproductive behavior can do so in order to minimize their chances of failure and prioritize the elements of the public career for the same reason.

Academic behavior is a mediator of a specific relationship in the process of elements considered in career prospecting, in the personal mastery in relation to the private career. Thus, citizenship behavior measures 5.01% of the elements prioritized in private career prospecting. Hence, in the direct relationship, self-affective beliefs of personal mastery can influence the elements considered in private career prospecting more strongly, which is triggered when the student develops a behavior that transcends the behavior demanded in the academic environment and that promotes well-being in the university community (Organ, 1988).

Based on the results, three opportunities for the research area are highlighted. First, there is a sign of substantial contributions to the area of Accounting Education. Self-efficacy beliefs in the personal mastery dimension drive the citizenship behavior of the students in the sample, as students with high success experiences tend to be more participatory and willing to develop attitudes towards the well-being of the university environment. The university environment should serve as a propeller of the development of self-efficacy beliefs, through strategies that can increase them, by setting attractive and challenging goals and defining common goals, which encourages the experience with other people. Thus, the perception of self-efficacy beliefs in their personal mastery dimension influences the students' level of commitment and perseverance in the face of obstacles and is related to the academic behavior discussed in this research (Bandura, 1977).

The second opportunity is evidenced when exploring the academic behavior as a precedent of the elements prioritized in career prospecting, contributing to a deeper understanding of the performance of public HEI in the professional work environment. The Accountancy students in the sample who develop citizenship behaviors in the university environment tend to prioritize the characteristics related to careers in the private area, that is, they are students who seek autonomy, flexibility, challenge, and opportunities for growth. Furthermore, on the measure of behavior used in this study, the promotion of integrative actions between students and university can expand teamwork actions as well as citizenship behavior, and influence the students' level of commitment to the institution.

Finally, the third opportunity concerns the independent role of self-efficacy beliefs in the relationships studied, contributing to the SCT approach by arguing that this variable mediates aspects related to motivations and behavior and the achievement of goals and objectives. The fact that SCT is a purely predictive theory of human behavior, based on self-efficacy beliefs, shows openness to new contributions over time, as human behavior, especially that of Accounting students, is changeable.

The validation of the measures related to the public and private career characteristics are also shown as contributing elements in the education area. The study contributes to answering the following question: What profile should the graduate from the Public HEI possess? Based on the investigated behavioral elements, which have shown their significance in the conduct of the public and private careers, initiatives can be taken at the university, whether in research, teaching or extension, that foster in the student the desire for careers driven by reliable experiences of the university environment. As an example, there is support for student associations, since they sometimes contribute to welcoming; representativeness of students; and leadership profile development.

For the research area in Accounting, new paths are opened. There is a need to advance discussions in terms of performance and academic behavior. The social history of the individual and the construction of the social within the university are effective in the research, as the students' experiences in terms of academic behavior and self-efficacy beliefs demonstrated their significance in the conduction of the career. In response to this, discussions are expected that evidence the background of academic performance metrics and that embody behavioral aspects in their analyses.

Despite considering the theoretical and technical caution the researchers adopted in the elaboration of this research, it is not exempt from limitations, among which the non-probabilistic research sample stands out. The temporal aspect is another limiting factor in the research. In other spatial and temporal contexts, the answers can represent different perceptions of the Accountancy students in Brazil, as the period analyzed comprises the end of the school year, so that participation rates may be higher in other periods. The non-stratification of the sample by region of the country is another limitation. The percentage of student participation in the South of Brazil is a limitation, a fact that illustrates the need to seek equal participation from different Brazilian regions.

As a suggestion for future studies, we initially recommend improving the composition criteria of the research sample, which can provide contributions to a wider group. Finally, the adoption of longitudinal perspectives in Accounting education studies is also suggested, based on career prospecting. During the undergraduate course, different perceptions can be gained in terms of career prospecting, security and professional challenges.

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Appendix A – Questionnaire

Analyze the elements below and mark their degree of importance. in the professional context of your career choice prospecting in accounting. Award scores from 1 to 7. with 1 = Hardly important and 7 = Very important.

Assertion	1	2	3	4	5	6	7
Security and stability.	1	2	3	4	5	6	7
Autonomy.	1	2	3	4	5	6	7
Fixed remuneration.	1	2	3	4	5	6	7
Flexibility.	1	2	3	4	5	6	7
Perform predefined and routine tasks.	1	2	3	4	5	6	7
Existence of a high level of challenges.	1	2	3	4	5	6	7
Existence of a high level of charge by the supervisors.	1	2	3	4	5	6	7
Low level of routine activities in the organization.	1	2	3	4	5	6	7
Professional growth opportunity.	1	2	3	4	5	6	7

Analyze your behavior and involvement in the actions at university. and then mark your level of agreement with each assertion below. in which 1 indicates “I do not agree” and 7 “I agree”.

Assertion	1	2	3	4	5	6	7
I help new students to feel welcomed at my university.	1	2	3	4	5	6	7
I defend my university when others criticize it.	1	2	3	4	5	6	7
I participate in the academic center. association or other groups that try to make my university into a better place.	1	2	3	4	5	6	7
I commit to and engage in events promoted by the university that are linked to the external community.	1	2	3	4	5	6	7
I commit to and engage in events promoted by the university that are linked to the external community. because they are important for my university's public image.	1	2	3	4	5	6	7
I am frequently praised for my involvement in events promoted by the university that are linked to the external community.	1	2	3	4	5	6	7
During an assessment (exam/test). I provide or get answers from a colleague.	1	2	3	4	5	6	7
I the elaboration of academic papers. I change the layout (e.g.: increase the margins. font or size) to add more pages to the paper.	1	2	3	4	5	6	7
I write the name of absent colleagues on the attendance list or ask them to write my name on the list when I don't attend class.	1	2	3	4	5	6	7
I notice that. sometimes. I do not prepare properly for the evaluations. and the main responsible for this is my lack of effort and dedication to studying.	1	2	3	4	5	6	7
Sometimes. when I do not attend class or lose something important. I try to justify myself to the teacher using not completely true arguments.	1	2	3	4	5	6	7
Sometimes. I leave early or arrive late to class without a plausible justification.	1	2	3	4	5	6	7

According to your perception, mark your level of agreement with the statements below about the management of your professional career. Award a score from 1 to 7, with 1 = extremely low and 7 = extremely high.

Assertion							
My professional career decisions, taken based on the choice of the Accounting course, were correct.	1	2	3	4	5	6	7
I did a good job when I assessed the positive and negative aspects of different options when I have to make professional career decisions.	1	2	3	4	5	6	7
I managed to put my career-related decisions into action.	1	2	3	4	5	6	7
I efficiently joined information on aspects of the professional career I intend to pursue when I choose my higher education course.	1	2	3	4	5	6	7
I try to be acknowledged as an effective person in terms of joining the necessary information to make professional career decisions.	1	2	3	4	5	6	7
I try to be acknowledged as a person who considers positive and negative aspects when making professional career decisions.	1	2	3	4	5	6	7
I try to be acknowledged as a person who is good at assessing the best options in professional career decision making.	1	2	3	4	5	6	7
I try to be acknowledged as a person who is good at managing the challenges related to professional career choices.	1	2	3	4	5	6	7
I know people who are good at making important decisions in their professional career, and I mirror them.	1	2	3	4	5	6	7
I normally observe people whom I admire and who are efficient at joining information they need for making decisions related to their professional career.	1	2	3	4	5	6	7
I mirror people who know well how their interests and skills fit into different professional career options.	1	2	3	4	5	6	7
The people whom I mirror explained how they choose the academic course or the professional career option.	1	2	3	4	5	6	7
In recent times, I feel determined about my choices inherent in my professional career.	1	2	3	4	5	6	7
In recent times, I feel motivated with regard to my professional career.	1	2	3	4	5	6	7
In recent times, I feel that I am actively building my professional career.	1	2	3	4	5	6	7
In recent times, I feel satisfied with my professional career choices.	1	2	3	4	5	6	7
In recent times, I feel nervous/anxious about my professional career.	1	2	3	4	5	6	7
In recent times, I feel fearful/insecure about my professional career.	1	2	3	4	5	6	7
In recent times, I feel burdened/pressured with regard to my professional career.	1	2	3	4	5	6	7

What is your intended career in accounting?

- Public;
 Private;
 I don't know. I haven't decided.

What course period are you enrolled in?

- 1st year
 2nd year
 3rd year
 4th year
 5th year
 Graduated

Accounting and Leasing: Brazilian and International Literature Review (2000-2018)

Abstract

Objective: Identify and characterize accounting research on leasing undertaken between 2000 and 2018.

Method: Three types of literature review: descriptive; scoping and narrative (Paré, Trudel, Jaana & Kitsiou, 2015); in a sample of 86 articles (29 Brazilian; 57 international) about leasing published between 2000 and July/2018.

Results: The production accompanied the evolution of the international standardization process, particularly as from 2006, when the theme entered the IASB agenda. The following thematic groups were identified: (i) Management Decisions/ Actions (38%); (ii) Risk Assessment based on FSS (36%); (iii) Standardization of leasing (26%). Despite thematic similarities, differences are observed in the methodological approaches used. Analytic research stood out in the international context, whereas documentary research predominated in the Brazilian scenario.

Contributions: Besides the methodological contribution resulting from the three review types, other contributions are: (i) the descriptive and scoping reviews, by systematizing the presentation of the studies, showing what research on leasing is about, the themes, methods and techniques, as well as indications of gaps; (ii) the narrative review, by describing the studies to verify whether those studies have demonstrated knowledge advances.

Key words: Leasing; Literature Review; Standardization; IASB/ FASB.

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1. Introduction

The literature on commercial leasing permeates discussions in different areas, such as Administration, Economy, Law, and Transport (Matos, 2013). It also represents a fortuitous field of research in accounting, mainly due to the need for regulation on the theme (Lipe, 2001; Matos & Niyama, 2018; Spencer & Webb, 2015).

The accounting standardization of leasing started in the United States in the 1940s and has been constantly updated since. Already in 1998, the users and accounting information preparers considered the leasing standards as a source of disgust (Reither, 1998). Wolk, Dodd, and Rozycki (2008) affirm that these accounting standards have been the most modified in the different Brazilian and international scenarios. In addition, the topic figures among the themes with the largest number of amendments, interpretations and technical bulletins issued by regulators (Monson, 2001).

As can be observed, in the first two paragraphs, the nomenclatures “*arrendamento mercantil*” and “leasing” are used as synonyms in this paper. The Portuguese translation is criticized, claiming that this contract, in the Brazilian scenario, is more similar to a form of financing than operational maintenance for the companies. This is the translation used by the CPC and the current legislation though, which is why we use the two languages interchangeably. In addition, as a result of the lack of separation between the types of contracts due to IFRS 16, it is expected that this difference will become increasingly subtle.

Returning to the accounting aspects of leasing, there are several sources of criticism against the accounting treatment of leasing, the main source being the structuring of operations resulting from the classification of the lease as operational or financial, which can generate information off-balance or recognized in the balance sheet of the lessees (Biondi, Bloomfield, Glover, Jamal, Ohlson, Penman & Jeffrey, 2011). This issue affects different fronts, such as the assessment of company risks, the negotiation of financing agreements, the remuneration of executives, etc.

Mainly as a result of this criticism, the topic returned to the international standardizers' agendas, who launched studies to demonstrate the need for updated lease accounting criteria in tune with the market realities (McGregor, 1996; Nailor & Lennard, 2000). These studies were decisive for the entry of the theme onto the (initially) joint agenda of the IASB and the FASB in 2006. After launching several documents, the organizations did not fully agree, demonstrating the difficulty and the still current controversy on the subject. As a result, both organizations issued different standards in 2016: IFRS 16 by the IASB and Topic 842 by the FASB. In spite of this, in short, the standards propose the end of the differentiated classification for the lessees, diminishing the criticism against the essence over the form deriving from this procedure.

At the same time as there were several regulatory updates, scientific studies were developed that were focused on leasing as a research theme/problem, that is, the subject was not only important for practical and regulatory issues, but it was also a fruitful academic topic. In addition to the older and seminal studies that already questioned and sought to verify the effects of the accounting treatment of leasing (Ang & Peterson, 1984; Beattie, Edwards & Goodacre, 1998; Bowman 1980; Ely 1995; Imhoff & Thomas, 1988; Imhoff Jr., Lipe & Wright, 1991), in 2001, when the topic was also on the radar of regulatory modification, the academy was summoned to assist with studies that demonstrated conceptual and empirical aspects that related accounting and commercial leasing (Largay III, 2001).

Considering the continuing and contemporary relevance of the theme for the area, in this study, we aim to identify and characterize Accounting research on commercial leasing from 2000 to 2018. To do so, we aim to summarize existing knowledge by means of descriptive, scoping and narrative literature reviews, in line with Paré, Trudel, Jaana, and Kitsiou (2015) (see section 2), discussing the main themes, methods, research areas, contributions, and research possibilities. We hope to contribute to the identification of relationships, agreements, disagreements and the main gaps in this literature, both in Brazil and internationally.

International literature reviews on leasing have already been executed in Accounting, but all of them are narrative and focus on specific points of the theme, such as the decision to buy versus lease (Morais, 2013), accounting for operational versus financial leasing (Barone, Birt & Moya, 2014; Lipe, 2001) and research on anticipation of accounting changes (Spencer & Webb, 2015).

Therefore, the differentials of this study include the junction of three types of literature review (descriptive, scoping and narrative) on a broad theme and in a recent period, based on an article selection measure that is at the same time selective, representative and comprehensive of the research population on leasing. In addition, unlike the studies cited, in this article, we do not make a cut of studies that analyze only aspects related to the lessees. Although these are still scarce, studies that analyze the lessors are also taken into consideration.

Different contributions can be discussed according to each literature review method employed. The descriptive and scoping reviews contribute to systematize the presentation of the studies, showing what leasing research is about, how the main themes, methods, and techniques are presented, as well as indications of gaps. In the narrative review, the studies are described in order to verify if they have demonstrated true advances in the already existing knowledge in the area (Massaro, Dumay & Guthrie, 2016).

The results showed a concentration in three different thematic research groups: Standardization of Leasing; Risk Assessment based on the Financial Statements (Classification of Leasing); and Management Decisions/Actions. These groups are dismembered into ten subgroups. Based on these, the narrative review is carried out, showing, within each group, the main contributions and advances already made and possible research gaps. Differences between Brazilian and international surveys are also appointed and presented where relevant.

As a result of the different reviews proposed, and considering that the research results are exactly these reviews, we chose a differentiated structure for this paper. After this introduction, a discussion of the methodological procedures is presented, followed by the descriptive and scoping literature reviews. It is only after the identification of the main thematic proposals that the narrative review is presented: in this part, the thematic proposals identified will be discussed. Finally, the final considerations of the work are presented.

2. Methodological Procedures

In order to reach the research objective and to contribute to the discussion about the theme leasing, the methodological premise that characterizes this study is the model of literature review types developed by Paré et al. (2015). Although Paré et al. (2015) is a paper from the field of information science, the authors develop a theoretical-conceptual framework applicable to a wide range of areas. Thus, in this article, we have chosen to join three literature reviews, as all of them depart from the common objective of summarizing existing knowledge on a given topic, using both conceptual and empirical literature.

Based on the study cited, the following reviews were developed: descriptive, scoping and narrative. Similar characteristics of these types are the nature of research, which tends to address broad issues, without a specific discussion design, and the lack of intention in these reviews to assess the quality of the literature discussed (Paré et al. 2015).

Mirroring the individual characteristics of each type, the first two reviews (descriptive and scoping) require an explicit presentation of how the papers were selected, that is, they require some standardization, in order to obtain a representative and comprehensive sample of the population. Both are characterized by results analysis and synthesis methods based on content, frequency and thematic analyses (Paré et al., 2015). In Brazil, similar reviews have already been developed about fair value (Matos, Araújo, Guerra & Murcia, 2017) and social and environmental disclosure (Nascimento, Santos, Salotti & Murcia, 2009). The narrative review, as its name suggests, is presented through a narrative summary of existing research and seeks to be somewhat selective in the analysis of articles, i.e. it does not seek to analyze all the studies, but rather those considered more relevant to describe the state of the art of a certain theme (Paré et al., 2015).

Furthermore, about the sample, the articles published in the period from 2000 until (July) 2018 were chosen. This period is mainly due to the flourishing of the discussions on the subject, motivated by the initial research conducted by the group of regulators “G4+1” (group of regulators from Australia, Canada, New Zealand, United Kingdom and United States, plus the IASC, currently IASB, as a guest) for a possible change in international standardization. In addition, previous literature had already been discussed in the study by Lipe (2001), which also served as a theoretical basis for the thematic classification of recent research.

For the analysis of the articles, a classification into thematic groups and subgroups was developed, according to Figure 2. The articles could be quantified by the similarity of objectives (fulfilling requirements of descriptive and scoping literature reviews), which permits a synthesis based on the similarity of the papers (narrative review).

Grupo	Subgrupo
Standardization of Leasing	Effects/Impacts and(or) Description/Criticism of regulatory changes
	Analysis of regulatory process
	Comparison of standards
	Rules versus principles
"Risk Assessment based on FSs (Classification of Leasings)"	<i>Users, risk and effects of (non) recognition of leasing</i>
	Quality of disclosure/auditing
	<i>Accounting indicators and/or contábeis e/ou covenants</i>
Management Decisions/Actions	Tax effects
	Earnings/information management
	Determinants. Decision between leasing or purchase/sale

Figure 2. Thematic Groups and Subgroups used for classification

Source: elaborated by the authors

Earlier narrative literature reviews (Barone et al., 2014, Lipe, 2001, Morais, 2013, Spencer & Webb, 2015) served as the base and theoretical support for the creation and consequent classification of the thematic groups/subgroups. Each article was classified in only one thematic subgroup. In many cases, the articles could eventually be classified in more than one subgroup, but for the sake of comparability, we chose the single classification, always based on the main objective of the research analyzed.

In addition, classifications were developed based on the methods used in the studies, areas of concentration, analytic focus (lessor or lessee) and types of production. For this detailing, we chose to explain both the thematic groups/subgroups and the other points analyzed, in the review sections of the actual literature as a form of simplification and systematization of reading. Thus, as the results are discussed, the measures that led to those analyses and classifications are also presented. This section, therefore, serves more as a guide for the work done and its theoretical justifications.

3. Descriptive and Scoping Review of the Literature

We intend to start the discussion with the general characteristics of the publications, such as the main journals, years of production, authors, areas, and methods. At the end, we will describe the thematic groups/subgroups, which will provide support for the narrative literature review.

Initially, we present initially the evolution of the number of studies published in the period, separated, according to Figure 3, between Brazilian and international publications.

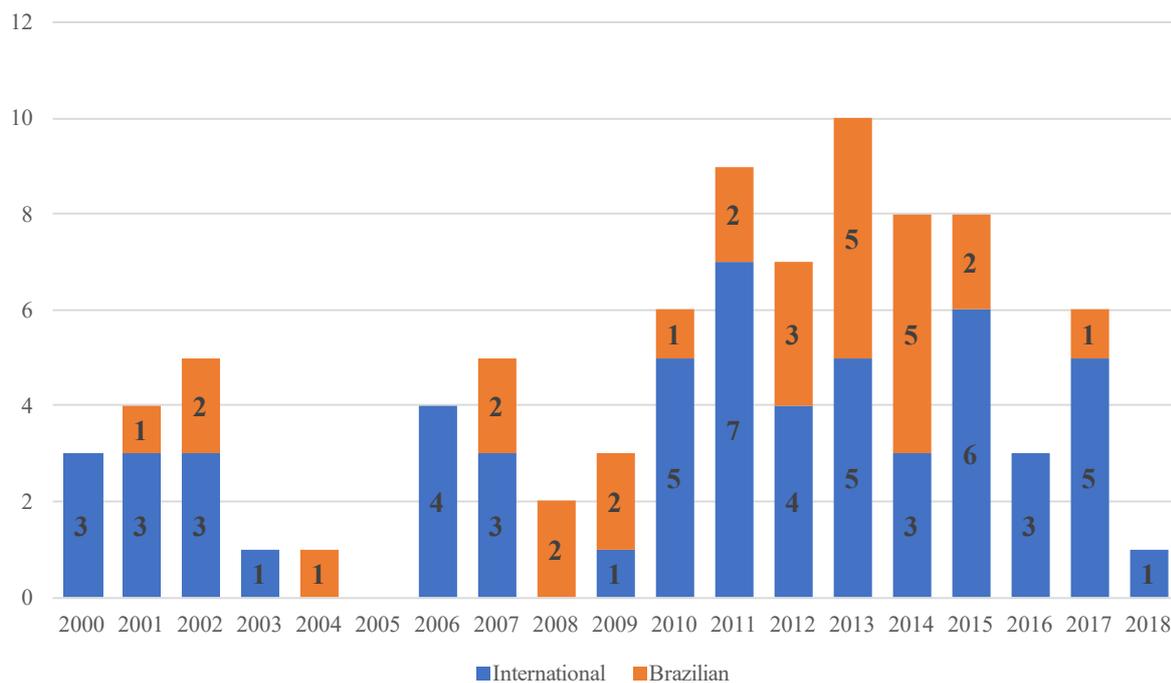


Figure 3. Number of Brazilian and international articles published per year

Source: elaborated by the authors

There are different reflections of the number of articles published that can be justified based on the evolution in the regulatory process of leasing conducted by the FASB and IASB.

The first movement occurs from 2000 to 2002, mainly internationally. This period occurred soon after the G4+1 issued one of its studies. This group published two studies on leasing: the first on conceptual points that could be criticized in the standardization in force until then (McGregor, 1996); and the second on practical proposals for changes, including accounting entries and impacts on the financial statements (Nailor & Lennard, 2000). After these studies, Accounting Horizons launched a call for articles to analyze these proposals, which was yet a further incentive to increase research.

The second movement, both in Brazil and internationally, occurred in 2006, with a more pronounced growth after 2010. It is observed that the international legal process on leasing entered the agenda in 2006, with the launch of a discussion paper in 2009, exposure drafts in 2010 and 2013 and final standards in 2016. Thus, the debate flourished, with different regulatory proposals that were used as bases for studies. It is now expected that a third moment of increasing studies will occur after 2019 - the year when IFRS 16 commences - as there will be real empirical data to analyze its actual impacts.

Therefore, it is inferred that the discussion by the regulators enhances the scientific relevance of the subject, which is naturally mirrored by the academic production, that is, the scientific production on the subject may have reflected the discussions about regulation, which would lead to research behaving as a catalyst for the effects of the regulatory decisions. Likewise, the academic study also serves as input for regulatory entities. In fact, this ends up being one of the objectives of the research in the area of Financial Accounting, that is, to present a scientific and critical view on the subject, contributing to the regulatory accounting process.

Besides the timeliness of the production, the main journals with publications in this period should be analyzed, as can be observed in Table 1.

Table 1

Main Brazilian and international scientific journals with publications about leasing

Journals	Fin Acc	Tax	Eco / Adm	Reg	Aud	Man	Hist	Total	% Vertical
Panel A - International									
<i>Accounting Horizons</i>	10	-	1	1	1	-	-	13	23%
<i>Journal of State Taxation</i>	-	10	-	-	-	-	-	10	18%
<i>The Accounting Review</i>	4	-	-	-	1	1	-	6	11%
<i>Issues in Accounting Education</i>	3	1	-	-	1	-	-	5	9%
<i>Journal of Business Finance & Accounting</i>	4	-	-	-	-	-	-	4	7%
<i>European Accounting Review</i>	-	-	-	-	1	-	1	2	4%
<i>Journal of Accounting and Public Policy</i>	1	1	-	-	-	-	-	2	4%
<i>Journal of Accounting Research</i>	1	-	-	-	1	-	-	2	4%
<i>Research in Accounting Regulation</i>	1	-	-	1	-	-	-	2	4%
Others with 1 publication each	7	-	-	1	-	1	2	11	19%
Total Internacional	31	12	1	3	5	2	3	57	100%
% Horizontal (International)	54%	21%	2%	5%	9%	4%	5%	100%	
Panel B - Brazilian									
Enfoque: Reflexão Contábil	3	-	-	1	-	-	-	4	14%
Revista de Contabilidade do Mestrado em Ciências Contábeis da UERJ	2	1	-	-	-	-	-	3	10%
Organizações Rurais & Agroindustriais	-	-	2	-	-	-	-	2	7%
Pensar Contábil	2	-	-	-	-	-	-	2	7%
Revista Contabilidade Vista & Revista	1	-	-	1	-	-	-	2	7%
Revista de Finanças Aplicadas	2	-	-	-	-	-	-	2	7%
Others with 1 publication each	7	-	4	2	-	1	-	14	48%
Total Nacional	17	1	6	4	0	1	0	29	100%
% Horizontal (Brazilian)	59%	3%	21%	14%	0%	3%	0%	100%	
Panel C - Total International and Brazilian									
Grand Total	48	13	7	7	5	3	3	86	
% Horizontal (General)	56%	15%	8%	8%	6%	3%	3%	100%	

Legend: FinAcc (Financial Accounting/Accounting Theory); Tax (Tax Accounting); Eco/Adm (Economics/Administration); Reg (Regulation); Aud (Auditing); Man (Management); Hist (History).

Source: elaborated by the authors

Of the 30 international journals in the sample, 20 contained some selected publications, as well as the Brazilian journals. One can verify a difference in the behavior of the publications by nationality, something that is further explained by the way scientific publication works in the scenarios analyzed. International journals present more clearly defined publication scopes that demonstrate their main interests. One can see, for example, the predominance of *Accounting Horizons* and *The Accounting Review* in publications about leasing with a bias for financial accounting and use of quantitative techniques, while the *Journal of State Taxation* is a more technical journal with publications focused on tax issues. The analysis of tax points once again reinforces the relevance of the theme for the area, as leasing is still used in many cases due to the different tax advantages this operation can bring.

In Brazil, no assertions can be made on the existence of concentration, and the publications are still mixed among the journals, with a small highlight for “*Enfoque: Reflexão Contábil*”, but not to the extent of making the journal a reference on the subject. This can be explained by the lack of orientation of the publications in this scenario, something that may happen, as well as in the international context, as the quality and the development of the scientific production increases.

In the same logic, *Issues in Accounting Education*, whose scope is more focused on teaching aspects, presented five publications in the period analyzed (9% of the international sample). The publication in this journal demonstrates the relevance of the theme, due to the criticism, controversy, and the recognition difficulties, among other factors. Leasing is an interesting subject for discussion in the classroom, a fact that can be triangulated with the existence of teaching cases and specific literature reviews on the subject, as shown in Table 2.

Table 2

Relation among research methods, “quantitative x qualitative” approach and origin of the production.

Method	International			Brazilian			Total		
	Quali	Quant	Total	Quali	Quant	Total	Quali	Quant	Total
Teaching case	4	-	4	-	-	-	4	-	4
Experiment	-	8	8	-	-	-	-	8	8
Framework	1	1	2	1	-	1	2	1	3
Modeling	1	-	1	-	1	1	1	1	2
Analytic Research	-	17	17	-	7	7	-	24	24
Pesquisa de Campo/Estudo de caso	4	-	4	-	-	-	4	-	4
Documentary research/survey	1	-	1	14	-	14	15	-	1
Survey	1	-	1	2	-	2	3	-	3
Technical	10	-	10	-	-	-	10	-	10
Theoretical/Review	9	-	9	4	-	4	13	-	13
Grand Total	31	26	57	21	8	29	52	34	86

Source: elaborated by the authors

To define the methodological approaches, the studies by Nascimento et al. (2009) and Smith (2003) were used for support. Some studies could be classified as multi-methods but, for the sake of consistency in the classification, we opted for the classification based on the main tool used to solve the main research objective related to leasing, as well as the classification in the “qualitative versus quantitative” approach. The same criterion was used for the thematic classification of the studies.

In combination with the above, the presence of four teaching cases is observed, all published in *Issues of Accounting Education*. Unlike the current mainstream, there is a larger number of qualitative studies in both scenarios. Internationally, this fact can be explained by the 10 technical publications, which are triggered by analyses of tax proposals. After removing these publications, at least in the international context, the studies are mostly quantitative.

Another point to highlight is the greater diversity of methods in international research. While all the methods listed have at least one application in the international scenario, the Brazilian research is concentrated in six methods, among which qualitative documentary research stands out. Methods such as case study, experiments, and teaching cases were not used in Brazilian surveys, which obviously does not result from the impossibility to apply those methods.

The relevance of theoretical studies is also observed, in Brazil as well as internationally, which demonstrates that there exists no consensus on the subject yet in the academy, granting argumentative and theoretical studies publication space by demonstrating criticism and proposals, mainly concerning the standardization on the subject.

Strictly concerning the methods, there are differences, as already seen, between the applications in the Brazilian and international scenarios. While analytical studies, which use quantitative models for the exploration of the research problem, are the majority in international research, documentary research is the most present in the Brazilian scenario. This is clearly evidenced in Table 3. Although the information in the panels of this table is similar, in the first, the groups are contrasted with the origin of the study and, in the second, the groups with the application focus.

Table 3
Thematic Groups and Subgroups per origin of the publication and research problem analyzed

Panel A - Thematic Groups per origin of publication						
Groups/Subgroups	Int	%	Bra	%	Total	%
Effects/Impacts and(or) Description/Criticism of regulatory changes	6	0%	3	10%	9	10%
Analysis of regulatory process	2	4%	3	10%	5	6%
Comparison of standards	-	0%	2	7%	2	2%
Rules versus principles	5	9%	1	3%	6	7%
Standardization of Leasing	13	23%	9	31%	22	26%
Users, risk and effects of (non) recognition of leasing	13	23%	1	3%	14	16%
Quality of disclosure/auditing	5	9%	5	17%	10	12%
Accounting indicators and/or covenants	2	4%	5	17%	7	8%
Risk Assessment based on FSs	20	35%	11	38%	31	36%
(Classification of Leasings)						
Tax effects	9	16%	1	3%	10	12%
Earnings/information management	3	5%	-	0%	3	3%
Determinants. Decision between leasing or purchase/sale	12	21%	8	28%	20	23%
Management Decisions/Actions	24	42%	9	31%	33	38%
Total	57	100%	29	100%	86	100%
Panel B - Thematic groups per research problem analyzed						
Groups/Subgroups	%		%		%	
	Lessee		Lessor		Both	
Effects/Impacts and(or) Description/Criticism of regulatory changes	7	12%	-	0%	2	15%
Analysis of regulatory process	2	3%	-	0%	3	23%
Comparison of standards	2	3%	-	0%	-	0%
Rules versus principles	5	8%	-	0%	1	8%
<i>Standardization of Leasing</i>	16	27%	-	0%	6	46%
Users, risk and effects of (non) recognition of leasing	13	22%	1	8%	-	0%
Quality of disclosure/auditing	8	13%	2	15%	-	0%
Accounting indicators and/or covenants	6	10%	1	8%	-	0%
Risk Assessment based on FSs (Classification of Leasings)	27	45%	4	31%	-	0%
Tax effects	2	3%	5	38%	3	23%
Earnings/information management	3	5%	-	0%	-	0%
Determinants. Decision between leasing or purchase/sale	12	20%	4	31%	4	31%
Management Decisions/Actions	17	28%	9	69%	7	54%
Grand Total	60	100%	13	100%	13	100%

Source: elaborated by the authors

Most international surveys are classified in the subgroup “Users, risks and effects of the (non) recognition of leasing”, which seeks to assess the risks in the FSs. Overall, this theme considers the capitalization of leasing information that is off-balance sheet (operating lease) and the consequent comparison of capitalized versus non-capitalized balances to verify possible capital market behaviors. In order to respond to this research problem, analytical models need to be applied. On the other hand, in Brazilian research, the most present categories explore the problem with a more qualitative approach, such as the subgroup “Quality of disclosure/auditing”, in which a majority of studies is observed that analyze, in an exploratory way, if the companies followed all the disclosure requirements required by the standard. The subgroup “Accounting and/or covenants” was also explored in order to calculate indicators, but without the necessary analytical techniques to respond to the research problem. The same occurs in the subgroup “Determinants”. The decision between “lease or buy/sell”. This difference between the scenarios is considered to be something healthy, as there are several research fronts that have hardly been explored and can still be examined.

Another point is that, proportionally, Brazilian surveys have a more equitable division among the thematic groups, while the “Management Decisions/Actions” group is more representative in the international scenario, followed by “Risk Assessment based on the FSs (Classification of Leasing)”. This difference can be explained by the greater existence of tax studies in the international journals, reinforcing the possible production gap, as this production is hardly representative in Brazil.

Panel B contains a larger number of studies focused on lessees (60 papers), while only 13 articles analyze lessors only. Therefore, there is a lack of studies for lessors, as already argued (Bauman & Francis, 2011). This does not mean that this is not possible. For example, there was no study with an exclusive focus on the lessor in the “Standardization of Leasing” group, which is curious when considering that this standardization process was controversial. In all the regulatory proposals by the IASB and FASB, there was a relevant change for lessors, being widely criticized. In spite of several proposals, IFRS 16 does not bring any modification to the lessors, which seems somewhat inconsistent, considering that the need for symmetry of accounting between lessors and lessees used to be argued (Biondi et al., 2011). This fact may lead to studies that seek to understand what has made the regulators’ decisions change throughout the process, which may be focused on lobbying, interest groups, theoretical and documentary studies.

When considering the lessees, however, it is predictable that most studies will be classified in the group “Risk Assessment based on the FSs (Classification of Leases)”, as the main criticism for these companies derives from the possible structuring of operations and “makeup” of the risk when classifying lease transactions.

In addition, the question of whether the leasing transactions are truly advantageous when compared to the purchase of goods is of interest, a fact that becomes highly relevant today, as the norm no longer permits off-balance operations, that is, a large part of the companies that were attracted by the lease because of the accounting possibility not to recognize the debts in their balance sheets will no longer have this benefit. Therefore, the question remains: will the accounting standardization influence the companies’ decision to lease or buy? Will there be an effect on the marketing of these contracts?

Considering that the studies focused on lessors and/or lessees showed several possibilities of research, Table 4 shows a comparison of these foci with the application areas of the studies.

Table 4

Relation between research area and focus of the research problem

Research Area	Lessee	Lessor	Lessee / Lessor	Total	%
Financial Accounting / Accounting Theory	39	4	5	48	56%
Tax	4	6	3	13	15%
Economics / Management	6	1	-	7	8%
Regulation	3	1	3	7	8%
Auditing	5	-	-	5	6%
Management	2	1	-	3	3%
History	1	-	2	3	3%
Grand Total	60	13	13	86	100%
%	70%	15%	15%	100%	

Source: elaborated by the authors

Studies on the lessees are found in all of the areas analyzed, predominantly in Financial Accounting/Accounting Theory, which is truly the major conceptual discussion on the subject. No studies on the lessors, although representing only 15% of the studies in the sample, are found in the area of auditing and history only. This, in addition to demonstrating the lack of studies in these areas, also leads to the understanding that studies can be done in the other areas. All groups/subgroups identified in this survey, as well as the concentration areas of accounting, may have studies focused on both lessors and lessees, without exception.

There are, also, possibilities of joining the exact categories that do not have any study in the sample. For example, the subgroup “rules versus principles” can be analyzed in the area of internal audit and control: how do the leasing companies select and how do the auditors validate the classification of the lease (financial or operational) in order to ensure the comparability of these operations? It should be kept in mind that the international standard has guiding principles and that the American standard has rules that determine this classification. Can internal controls ensure the correct application of these principles or rules? This issue, for example, is still relevant, as the standard for lessors maintains the classification between financial and operational.

Based on the diversity presented, the final analysis refers to the possible specialization of authors in the production. This analysis can be developed based on each author’s number of publications on the subject. Thus, it is expected that authors with greater production on the subject actually have a research area focused on the theme.

As can be observed in Table 5, panel A, 228 authorships were identified (here the total number of authors is counted, regardless of whether the author appeared more than once) in the 86 papers: an average of 2.65 authors per paper. When analyzing panel B, we have a total of 212 different authors (13 authors produced more than 1 article on the topic and 199 produced 1 paper).

Table 5

Authorship and author data

Panel A – Man authorships			
Origin	Sample	Authorships	Mean authors per paper
International	57	140	2.46
Brazilian	29	88	3.03
Total/Mean	86	228	2.65

Panel B – Authors with more than 1 publication								
Authors	Fin	Tax	Eco /	Reg	Aud	Man	Hist	Total
	Acc		Adm					
Jorge Katsumi Niyama	4			1				5
Brazilian authors (3) with 2 publications each	2		2			2		6
International authors (9) with 2 publications each	15			1	2			18
Other (199) authors with 1 publication	117	20	19	18	13	6	6	199
Total	138	20	21	20	15	8	6	228

Source: elaborated by the authors

Of the authors with more than one publication, four are Brazilian and, of these, only one (Jorge Katsumi Niyama) with more than two articles. This demonstrates that it is an area of low specialization. When analyzing the author who published the most, it is verified that he has worked on the theme since his Master's thesis, which studies accounting issues of the lessors in Brazil, in 1982. The author has research groups on accounting standardization, which justifies his production in the areas of Financial Accounting and Regulation. In total, five articles were produced in this period, which represents 17% of Brazilian articles (5/29).

4. Narrative Literature Review

4.1 Standardization of leasing

There are four subgroups in the “**Standardization of leasing**” group. Most studies are naturally related to standardization, as standards are used to evaluate some accounting criterion, but not all studies can fit into this group. The group consists of those studies that aim to analyze regulatory components, such as: premises of accounting choices, the process itself, or criticisms against changes in the standards.

In the first sub-group “**Effects/Impacts and (or) Description/Criticism against regulatory changes**”, some studies analyze aspects of the regulatory proposals on the subject, with the capitalization of the lease as the main topic (Biondi et al., 2011; Lipe, 2001; Monson, 2001; Ryan, Herz, Iannaconi, Maines, Palepu, Schipper & Vicente, 2001; Spencer & Webb, 2015). In these studies, there is a consensus on the need for changes in the international standards, in defense of the need for a single capitalization model for the lessees.

To support the arguments, some main criticisms against the regulatory proposals are formulated, such as: bright-line tests; arbitrariness; structuring of transactions; low comparability and high complexity; opportunistic behavior of managers; off-balance sheet presentation and non-recognition of liabilities; lack of symmetry and accounting gaps (Biondi et al., 2011; Franzen, Cornaggia & Simin, 2009; Jamal & Tan, 2010; Lipe, 2001).

Although there seems to exist an academic consensus about the end of the classification of the lease, generating the capitalization of all contracts by the lessees and meeting the definitions of assets and liabilities in the conceptual structure, there is still no consensus in these studies on the accounting treatment of contractual options, such as: guaranteed residual value and contingent rent, these being fertile topics for conceptual research, which can contribute to the academic and professional debate.

Nevertheless, in practice, this reality becomes different. Comiran and Graham (2016), already classified in the subgroup “**Analysis of the regulatory process**”, show that, in the analysis of user participation in the regulatory process of IFRS 16, more than 25% of the respondents are in favor of the capitalization of the lease, but 75% are against changes in the standards. The findings are contradictory and the users' position towards the changes is not certain. Further research can be undertaken to try to understand this paradoxical behavior and possible biases which the users consider problematic for regulatory changes.

The other studies in this subgroup follow the same line of research, focused on topics about lobbying and user participation in the regulatory process. There are studies that analyze the Discussion Paper (Carmo, Ribeiro & Carvalho, 2014), Exposure Draft (Matos, 2013) or the process in general (Comiran & Graham, 2016; Larson & Herz, 2011). In all studies, it is observed that user participation can influence the regulators' conceptual decision.

The subgroup "**Comparison of standards**" contained only Brazilian studies. The comparison, in this case, was between fiscal and accounting standards. Through documentary research, aspects were raised in which the standards contrasted.

Finally, the studies on "**Rules versus principles**" constitute a subgroup in which leasing is the main research focus and not a subject in itself. This is because the lease standard is one of the best known to compare the rules x principles, as the North American standard has rule-based criteria (bright-line tests) for the classification of leases, while international standard is based on principles, being an interesting experimental environment for research (Cohen, Krishnamoorthy, Peytcheva & Wright, 2013). This theme is therefore explored in both Financial Accounting and Auditing, also using experimental, theoretical and analytical methods.

Among the research, there is evidence on the management's opportunistic use of the rules versus principles duality (Jamal & Tan, 2010), which modifies the auditors' behavior (Cohen et al., 2013), as well as distinguished classification trends of (similar) leases in standards with different principles versus rules perspectives (Collins, Pasewark & Riley, 2012). These findings, however, are not consensual, as Henderson and O'Brien (2017) did not find differences in the classification of the leases.

No studies on regulatory costs have been found, but these studies can be developed, as the criticism against this standard includes the fact that its cost-benefit is not compensatory, mainly due to the need to review all contracts and the acquisition of specific control systems for leases. On the other hand, the possible benefit may not be so obvious, as the market tends to adjust the off-balance information and the regulatory change may not affect the market valuation (Bratten, Choudhary & Schipper, 2013).

Therefore, although there are studies in several methods, areas, and subgroups on standardization and leasing, this remains a fertile group for research, especially when considering that the process has recently ended and that studies can analyze the entire process. Another relevant condition is the fact that the FASB and the IASB have introduced different final standards, with different recognition and measurement characteristics as well, such as the recognition form of expenses by the lessees. This fact may be the subject of both comparative research and studies on the possible impact of these differences and even of aspects related to lobbying and interest groups.

4.2 Risk assessment based on the FSs (classification of leases)

Most of the studies focused on leasing have some direct or indirect relation with the possible classification of the lease as operational or financial (Spencer & Webb, 2015). In this group, however, the studies are classified that relate the classification of the lease with accounting information and market participants. Its overall objectives are to understand the effects and risks derived from the classification models.

The first subgroup, "Users, risk and effects of (non) recognition of leasing", consists of a majority of studies that attempt to verify how market participants understand and respond to information presented in situations of operational leasing (off-balance) and how this influences decision making, i.e. how market participants assess corporate risk based on the classification of leases (Kusano, 2018).

These surveys are mainly applied to lessees and, by their nature, are mostly analytical, but can be performed using several methods, such as surveys, experiments, and modeling, among others. As a main methodological basis, there are studies that propose lease capitalization methods, such as Beattie, Goodacre, and Thomson (1998), Ely (1995) and Imhoff Jr. et al. (1991). So far, this method has become necessary in order to quantify the effects of possible capitalizations.

The application of this category has also been found in different scenarios, such as the United States (Bratten et al., 2013), Australia (Xu, Davidson & Cheong, 2017), Brazil (Martins, Machado & Machado, 2013), United Kingdom (Beattie, Goodacre & Thomson, 2000) and Japan (Kusano, 2018), and the findings are still not consensual. This may open the door to interpretations, such as failure to estimate models or actual differences between countries, but one fact is real: there is still room for studies on this subject, especially when considering that the main criticism against current standards is the possible non-relevance of off-balance sheet information for accounting purposes.

Another point that can be investigated in order to advance the production in the area is the creation of new and more modern capitalization models that converge with the recent proposals. These models can be contrasted, as from 2019, with the effective application by companies, contributing to the areas of Financial Accounting and Auditing. Being a new proposal, evaluation frameworks of this information can also contribute to the risk assessment in the market.

Also in relation to the market evaluation of leasing information, some authors show, mainly in the American scenario, that sophisticated users are able to extract the off-balance information and take these points into consideration in their risk assessment of the companies. Therefore, it would not be necessary to change the standardization, as capitalizing the leasing information or not would not modify the opinion of more sophisticated investors (Bratten et al., 2013). Research proposals can be formulated by contrasting this argument with the alleged social function of Accounting though. Should Accounting be concerned with information that is already adjusted by the users? Is there a difference in (social or economic) gain among users who have the resources to make these adjustments?

The studies in the subgroup “**Quality of disclosure/auditing**” also use the accounting difference deriving from the classification models, but contributing to the debate on disclosure and risks, with the financial as well as with the audit bias. The main research area aims to verify that the information is seen as complete, that is, if the financial statements provide all the necessary data for the users’ correct judgment. These surveys tend to evaluate the explanatory notes of lessees (Zechman, 2010), lessors (Bauman & Francis, 2011) and specific points of the standard, such as renovation options (Hales, Venkataraman & Wilks, 2012).

In these studies, the authors found, through exploratory survey techniques, the non-completeness of the information requested in the standards. This leads to a debate about regulation that can be contrasted with that of the previous subgroup. The question is raised, if the information is not complete, how the market and the investors can correctly measure its effects? Is the regulation asking for information beyond what is necessary for the market assessment? Or do the preparers and auditors not consider the information to be materially relevant, to the extent of being fully disclosed?

The final subgroup in this section is “**Accounting and/or covenants**”, which is also directly related with the users’ behavior in the risk assessment of entities, but it is assumed that unrecognized obligations are relevant in the calculation of accounting indicators and, consequently, in interest rates and covenants.

With regard to the covenants, the only survey of the sample that evaluates this point concludes that creditors already take into account off-balance information in the determination of these contracts, that is, despite the changes, this information would not lead to the breach of contracts (Paik, van der Laan Smith, Lee, & Yoon, 2015). Nevertheless, this research is carried out based on the sophisticated North American scenario. For a correct prediction of this phenomenon, there is room for this study in other, even less sophisticated scenarios, contributing to the debate about convergence and its effects.

Finally, studies on the comparison of indicators tend to use specific sectors in their analyses because, often, the subjectivity of these indicators varies between sectors. Therefore, examples of business valuation can be seen in analyses of the aviation and transportation industry, and financial institutions. Nevertheless, no studies were found that focus on the analysis of financial indicators, specifically looking at sectors that also have a significant impact on operating leases, such as services, hotels, and retailing.

4.3 Management Decisions/Actions

In the last group (“Management Decisions/ Actions”), studies were classified that depart from analyses that impact the effects internal to the entities more directly, mainly those that depend on the actions of the management itself.

The first subgroup - “**Tax effects**” - presents a larger number of technical studies, as already discussed. The only research that does not have this origin is Roza, Alberton, and Limongi (2008), which is focused on collection points of a local tax due to the leasing operations. This lack of academic studies on tax effects can be justified by the difficulty to obtain data; but this difficulty also creates room for studies of other kinds, such as case studies or more exploratory research.

About “**Earnings/information management**”, these studies are aimed at verifying the management internal to the entity, that is, moments when the entity chooses to determine the optimal levels of information to be provided to the market. Research is more exploratory and usually focused on individual case studies. As a result of the difficulty in obtaining the data, these studies represent a small effect on what is researched about leasing, but of great value for the area. The main logic is to analyze how information manipulation is done to limit the potential impacts of a regulation (Bátiz-Lazo & Billings, 2012).

Finally, the subgroup “**Determinants. Decision between lease or purchase/sale**” has already been the subject of a literature review in the international context (Morais, 2013). In this category, studies have been applied in different scenarios, such as tobacco, manufacturing, land and financial, among others, with a greater focus on lessee decisions. There are no generalized findings. It is considered that, until then, the decision to lease, as well as its determinants, varies according to the company, institutional setting, tax advantages, and several other factors, which makes comparative studies with large samples difficult.

Based on the analysis of this thematic group, a question that permeates many of the studies relates to the debate about the proactivity of Accounting. In this case, should accounting be proactive in modifications that may influence contract negotiation models? If Accounting anticipates the standardization, it could influence the negotiation model, would that be its goal? The studies do not answer that question, but it makes a link among several areas of accounting, representing an interesting research topic.

5. Final Considerations

The objective of this research was to carry out a literature review based on the different methodological assumptions of Paré et al. (2015) - aiming to identify and characterize the scientific production on commercial leasing in the area of Accounting between 2000 and 2018. In the development of this analysis, a sample of 86 articles was selected and classified according to their thematic application. Three thematic groups were created, subdivided into ten subgroups that served as guides for the narrative review of the literature.

As different studies were analyzed in this paper, it is emphasized that all the readings carried out were not intended to criticize or qualify the international versus Brazilian research as competitors, but rather to show several research fronts that Brazilian researchers can still explore. Finally, it is emphasized that in the body of the paper, points and possibilities of future research questions have been raised, as these research possibilities derive from the gaps found in each category.

The summarization of research shows that most studies focus on the analysis of accounting criteria of leasing related to the classification into financial or operating. The fact that there are different accounting conditions for each classification leads to a production that involves several fronts of analysis, such as disclosure, accounting indicators, quality of information, risk analysis, determinants and decisions to buy or lease.

One of the expected milestones for these studies is the issuing of the new international standard on the subject (IFRS 16), which, in addition to extinguishing this classification, requires the same accounting treatment for all lessees, which is to recognize all lease transactions as assets and liabilities. Thus, possible advantages of some category have been extinguished and companies will have to reorganize themselves to evaluate the impacts on the risks and on the business itself, but not only the Regulation and the Financial Accounting are explored on the subject. There are studies that also analyze points of interest for auditing, tax and management effects, which demonstrate the continuing relevance of the theme and its importance for different research fronts.

One highlight is the lack of studies focused on the lessors. The “Standardization of Leasing” group did not present any study with these entities as the main focus. This research front can be promising, especially if one considers the several possible landmarks of the standardization for the lessors. This process was marked by changes in the regulatory proposals of the FASB and the IASB, to the extent of being the target of disagreements between the organizations and being considered a polemic point in the standardization. In this sense, several fronts can be analyzed, ranging from theoretical discussions about the advantages/disadvantages, cost/benefit to empirical views on the participation of users, lobbying, interest groups and impacts of the different proposals, among others.

There is no clear definition of differences between Brazilian and international surveys regarding the results found, but the institutional scenario is clearly of great effect in the analyses, as each environment offers different advantages for the leasing operations. This fact makes it more difficult to implement empirical research in international environments (comparison among different markets), but it does not limit the condition of research, which may eventually contribute to the identification of additional international research aspects.

The differences and gaps between groups/subgroups in the classification of Brazilian and international research should not be seen as contradictions, but rather as possibilities of extension of the literature. Examples include tax studies, which are more present in the US environment but can be explored in a range of settings. Corroborating the previous argument, this is an area of study that can be explored in the various institutional scenarios, so as to contribute to convergence analysis as the tax effects influence the implementation of various accounting standards.

With regard to the standardization, one of the points of concern on the subject derives exactly from that change. As most of the research on leasing was based on the accounting dichotomy generated by the different accounting models, now that that fact no longer exists, will research on the subject become irrelevant? One can say that, in principle, no. After the implementation of IFRS 16, it is expected that the surveys can actually analyze whether the forecasts of earlier studies actually occurred, that is, if the problems raised in the literature were actually extinguished after the accounting regulation. Another debate comes about here, which is related to the function of accounting itself. In this sense, accounting changes can influence the way leasing contracts are traded, i.e., Accounting would have a proactive effect in the negotiation of this type of transaction. Is this the goal of the area? Or should the area restrict itself to trying to be reactive and mirror the market needs? Will accounting standardization influence the decision of companies to lease or buy? Will the marketing of these contracts be affected?

In addition to these questions, the need for studies on points of analysis on which consensus is still lacking is highlighted, such as accounting for contractual options, guaranteed residual value and contingent rents. Another point of academic and practical interest, but not explored with application in the leasing standard, refers to the regulatory costs that this standard entails. Much is discussed about the cost/benefit of information, but the empirical studies that analyze this situation are restricted. In addition, questions were identified regarding the social function of accounting. Leasing being a subject of international relevance and interest of a wide range of constituents, there is no consensus on the amount of information to be given and whether the market actually needs this information to assess the risk of the companies. In this sense, when deciding on the information to be given, does accounting privilege the most qualified users? If the information is not complete, how can the market and investors properly verify its effects? Is the regulation asking for information beyond what is necessary for the market assessment? Or do the preparers and auditors not consider the information relevant enough to the extent of being disclosed completely?

Finally, the quality criteria of the publications affected the analysis but were not explored in the paper. We consider that the selection of the most relevant journals in the area is already a pre-judgment on the quality. But something that was noticed is that, when analyzing the Brazilian and international articles, there seemed to exist a difference in the theoretical backgrounds that justify them, that is, they did not seem to use the same theories or baseline studies. Many are based on the nature of classification (operating and financial) for its analyses. Therefore, in principle, there would be no motive for the great difference in the use of references, which is one of the contradictions found and which can be explored in future research.

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Machiavellianism and its relation with counterproductive activities in Accounting students

Abstract

Objective: To measure and classify Machiavellian personality traits to associate them with counterproductive behavior in future accounting professionals.

Method: The study sample consisted of 137 students enrolled in four Higher Education Institutions: two public ones, one located in the State of Minas Gerais and the other in Espírito Santo, and two private institutions, both located in the State of Minas Gerais. Regarding the data collection procedures, questionnaires were applied to students with current or past professional experience. Descriptive and quantitative analysis was applied to the data, in order to verify if the presence of Machiavellian personality traits could be related to the probability of these students presenting counterproductive behaviors at work.

Results: The Machiavellian profile may be associated with strategic calculation, leadership, desire for status, amoral manipulation and dishonesty; the profile of a counterproductive person, then, is related to the violation of standards and principles of the organization the offender is inserted in, as a result, for example, of thefts, accounting fraud or even low productivity. The results point to the preponderance of a moderate Machiavellian profile among future accounting professionals, however, there is no empirical evidence in this sample that could lead to the conclusion that Machiavellianism is related to counterproductive behavior. Most of the interviewees self-declared a low profile of organizational and interpersonal counterproductivity and there is a strong association between these two variables. The results still allow us to infer that the Machiavellian trait, on average, is more evident in men than in women.

Contribution: To understand that the moderate Machiavellian profile does not necessarily present counterproductive behavior. The results contribute to the area of human resources in its selective processes and periodic evaluations.

Keywords: Machiavellianism, Counterproductive Behavior, Accounting Science Students

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1. Introduction

Professional behavior inspires research in the various areas of knowledge, including accountancy (Lopes, Cardoso, Reina & Reina, 2016, Milan, 2014, Ferreira, 2013 and Wakefield, 2008). Identifying the behavioral profile of future accounting professionals contributes to understanding the reason why some decisions are made or whether the profile would influence whether the individual is more willing to take risks to gain or avoid losses (Weller & Thulin, 2012). Thus, anticipating the analysis of personality traits would allow a better adaptation of the professional to the organizational scenario.

Essentially, it is necessary to emphasize that personality trait evaluations are able to point out the most striking psychological characteristics of a particular person, as well as to categorize their behavior on different occasions. Therefore, there is a great variety of personality tests, one of which allows us to identify the degree of Machiavellianism in an individual (Noronha, 2002, Dalbosco & da Silva Consul, 2011, Godoy & Noronha, 2005, Rocha, Pinto & da Silva, 2015).

First of all, however, it is emphasized that Machiavellianism is not considered a personality disorder (Furnham, Richards, Rangel & Jones, 2014). According to these authors, Machiavellianism is the only part of the triad (Machiavellianism/narcissism/psychopathy) that is not seen as such, but merely as a personality trait.

Machiavellianism has been defined over time as a personality trait or disposition [...] sometimes as a strategy of social conduct [...], which involves manipulating others for personal gain. Overall, ... Machiavellian individuals tend to have a relative lack of affection in interpersonal relationships, they are not concerned with conventional morality, although they are not necessarily immoral and demonstrate low ideological commitment. In addition, they consider that highly Machiavellian individuals outnumber those less Machiavellian when they interact in face-to-face situations, when there is room for improvisation, and in situations involving affective details that are considered irrelevant to victory. [...] Machiavellians should be seen not as unethical, but as individuals capable of sacrificing ethics according to their interests (Lustosa, Roazzi & Camino, 2004).

The bad reputation of this personality trait is grounded in Niccolò Machiavelli's political thought. In his work, a controlling political bias is revealed, with ideas such as "the lie, perception, manipulation and persuasion of voters, with the objective of providing the leader with political and social power" (Judge, Piccolo & Kosalka, 2009, p.866), successful to this day.

It turns out that the detractors of Machiavelli's work appear to ignore the historical and political context of his analysis, labeling it superficially as the forerunner of thought according to which "the ends justify the means". Although it is not properly the object of our study, it is convenient to briefly highlight the historical impropriety of Machiavellian terminology to designate selfish and manipulative behaviors, always with a negative bias: Machiavelli was born in Florence on May 3rd, 1469, and his work is permeated by the political scene of the time, marked by the division of Italy into several despotic principalities. Very simply, one of the Florentine's greatest concerns was precisely Italian unification. According to Gomes (1990, page 101),

[...] the Book *The Prince* speaks of a moment of exception where the State has to be constituted against the background the divided and exploited Italy. It is necessary, at that moment, to establish a unifying power. [...] If the prince governs with extraordinary powers, it is to establish the order and, as soon as this is done, surely the ideal of Machiavelli is that a republic be constituted.

Moreover, "[...] the exercise of the prince's powers of exception must be fleeting. As soon as the order is established, power must pass into the hands of the majority to whom it is effectively incumbent to govern ... "(Gomes, 1990, 102-103).

In this scenario, Alves (2008, p.8) explains that

The criticism against Machiavelli is restricted to the fact that he has allegedly asserted that the ruler can do everything necessary to attain power and preserve it. In this way, power would be an end in itself, which depended on nothing more than the desire to conquer it and the ability to keep it to legitimize itself. In fact, what fundamental problem does Machiavelli focus on in his political speculations? The question Machiavelli is concerned with is whether the ruler can always act in accordance with accepted Christian ethical principles in his time and hope to achieve his goals, or whether he must learn to follow other paths when faced with difficult situations. He does not advise rulers to disregard accepted rules for the sheer pleasure of doing so. On the contrary, he states that the ruler should behave according to those rules whenever possible. In this regard, he affirms that ‘it is praiseworthy for a prince to maintain his faith and to live with integrity whenever possible’ [...].

What he wants to know is if this is indeed possible. In other words, if ethics is enough to show how to act in politics in all situations. Machiavelli departs from evidence, that is, of what the conflicts in the cities are, in order to elaborate his ideas. It should be remembered that, for the author, human nature is highly negative. Man’s wickedness must be understood as a characteristic and becomes fundamental when it comes to the political sphere.

Despite the criticism presented above, the terminology “Machiavellianisms” is used in this work, since it is widely accepted in the academic context, having been, over the years, imbued with meaning by various branches of knowledge. In this sense, the Machiavellian personality trait was defined by Christie and Geis in 1970. They sought to define characteristics such as dexterity, manipulation, as well as the endless search for the necessary means to achieve a political goal. According to Judge et al. (2009), people who have this personality trait are quite strategic and calculating in their thinking, as well as manipulating others according to their interests. In addition to those already cited, Machiavelli’s characteristics are: “reputation, cynicism, strategic calculation, tactics, orientation towards the future, low ethical and moral standards, strategy, lack of principles, amorality and flexibility” (D’Souza, p. 23). Individuals with Machiavellian traits do not feel guilty about unethical behavior (Murphy, 2012).

It is necessary to analyze the definitions given of the act of dishonesty, one of which can be determined as counterproductive behavior in the work environment (Ferreira, 2013), the focus of this study. According to Robinson and Bennet (1995), counterproductive behavior violates the standards and principles of the organization, threatening the wellbeing of the environment. These behaviors interfere with the healthy development of the organization (Marcus & Schuler, 2004, Vardi & Weitz, 2004). For behavior to be evaluated as counterproductive, it should be an undesirable act that does not match the interests of the organization (Marcus & Schuler, 2004). In addition, it has to be intentional, as acts such as these can significantly influence the financial situation of the organization (Rotundo & Sackett, 2002).

Therefore, this study proposes to analyze Machiavellian personality traits at low, moderate and high levels (Lopes et al., 2016), and how these may be related to counterproductive attitudes in the routines of future accounting professionals. Thus, the research problem was: **What is the relation between the Machiavellian personality traits and the traces of counterproductivity in future accounting professionals?**

In total, 137 questionnaires were applied to future accounting professionals, who are or have been professionally active. The measures of personality that were used are: Short Dark Triad (SD3), which in addition to measuring behaviors like narcissism and psychopathy also measures the Machiavellian profile (focus of this study), with nine questions for each of these analyses; and the Workplace Deviance Scale (WDS), with 12 items that are proposed to explicitly evaluate trends to manifest Organizational Counterproductive Behavior (CCT-O) and seven that seek to evaluate Interpersonal Counterproductive Behavior (CCT-I) in the workplace.

These questions are justified as the analysis of the accounting employee's profile can help the organization to create personnel management strategies, thus avoiding internal relationship problems and even financial losses to the corporative world (Zettler, Friedrich & Hilbig, 2011). It is assumed that the identification of the origins of such behavior can contribute to the prevention and development of work organization and to intergroup wellbeing (D'Godoy & Noronha, 2005). In addition, studies involving the Dark Triad represent a good research opportunity, especially due to the interdisciplinarity and relevance of this theme (D'Souza & Jones, 2017).

It is worth noting that Machiavellian behavior is not always associated with bad behavior for the company, but rather, there are authors (Judge et al., 2009, Zettler et al., 2011, Jones & Paulhus, 2010) who consider that staff with these characteristics would be of great use to the organization. D'Souza (2016, p.23) considered that there are indeed negative characteristics associated with Machiavellianism; on the other hand, some have positive repercussions on the work environment, especially for leadership positions, such as future orientation, ability to formulate strategy and flexibility.

Also, the study may contribute to discussions that associate the Machiavellian profile with people who act dishonestly in their work environments, such as the behaviors already associated with Machiavellianism and discussed previously. The aim of this study is to identify the extent to which individuals with medium/high Machiavellian traits present counterproductive behaviors in the organizations they operate in.

2. Theoretical Framework

This chapter discusses the bases that served as drivers for the work, such as: definition of counterproductive behavior at work and the Machiavellian profile, as well as instruments to measure these variables. Finally, studies are presented that provide evidence on how these two variables relate and hypotheses are elaborated in order to test that relationship and to analyze the association of both the counterproductive behavior and the Machiavellian profile with the profile of the respondents.

2.1 Counterproductive behavior at work

According to Robinson and Bennet (1995), counterproductive behavior violates the standards and principles of the organization, whether in hierarchically high or low positions (Vardi & Weitz, 2004), threatening the wellbeing of the environment. They are acts intended to undermine the proper functioning of the organization and its staff. These behaviors interfere with the successful development of the organization (Marcus & Schuler, 2004, Vardi & Weitz, 2004).

This refers to employees' involvement with theft and/or lack of productivity but, in some cases, this behavior is not so evident, as the employee uses means that until then would be considered "legal" to justify his counterproductivity, such as, for example, the use of medical certificates to justify frequent absence from work. Absence due to illness is not considered to be counterproductive; what would be considered as such is the fact that the employee presents several certificates when one is not experiencing an actual disease problem (Cullen & Sackett, 2003). Thus, this behavior must be intentional and not accidental (Ferreira, 2013).

Counterproductivity in the organizational environment may be due to one or more specific situations. These situations may be related to

Financial or social pressures, unfair treatment, precarious working conditions or other events that may cause a sense of disparity and/or offense, provoking in the individual a desire to deal with the issue or express dissatisfaction through counterproductive behavior (Ferreira, 2016, p.8).

These are the motivating factors but, in addition to these, it is also necessary to take into account individual personality factors, such as the person's responsibility, his/her way of adapting and relating, as well as his emotional stability (Dalal, 2005).

In this work, we will use tools to evaluate counterproductive behavior (CCT) in the organization. The Workplace Deviance Scale (WDS), developed by Rebecca J. Bennett and Sandra L. Robinson, published in 2000, evaluates such behaviors through direct content, mainly involving robbery, physical assault, sabotage, absenteeism and other behaviors considered dishonest.

This scale of evaluation divides counterproductive behavior into two strands: organizational and interpersonal. The organization deals with the existing relationships among the members of the organization and, for that reason, an account of their own attitudes is evaluated, for example: if one procrastinates the work to gain extra hours, one works intentionally more slowly than one could, among others. The interpersonal strand focuses on behaviors aimed at undermining existing relationships within the organization, in contexts in which other people would be involved, such as: making a joke of someone, insulting someone, acting grossly within the organizational environment, etc. (Bennett & Robinson, 2000).

Studies focusing on the understanding of behaviors revealed in the work environment show that CCTs interfere with the healthy development of the organization (Fine, Horowitz, Weigler, Basis, 2010, Marcus & Schuler, 2004, Vardi & Weitz, 2004).

2.2 Machiavellian profile approach

People's behavior can be summarized, predicted and explained by personality traits, defined as "[...] relatively stable, consistent, and permanent internal characteristics that are deduced from an individual's pattern of behavior, attitudes, feelings, and habits" (VandenBos, 2010, p.701).

In 2002, Paulhus and Williams developed a tool to study the behavior of individuals with non-pathological traits of narcissism, Machiavellianism and psychopathy, known as the Dark Triad. The three profiles have some similarities (insensitivity and manipulation), despite their differences (D'Souza, 2016). The purpose of this tool is to analyze and understand "disposition trends through a self-report questionnaire" (D'Souza, 2016, p. 21) without the intention of diagnosing personality disorders or psychological problems (Furnham, Richard & Paulhus, 2014, Almeida, Laranjeira & Dractu, 1996).

Machiavellianism, the focus of this research, is one of the profiles analyzed in the Dark Triad, using the Short Dark Triad (SD3) questionnaire. The term «Machiavellianism» comes from the work «The Prince», 1513. A research theme in the managerial area, this psychological profile exerts a great influence on professional decisions and, consequently, on the world of business (Cyrac & Dharmaraj, 1994).

There are studies that elucidate good and bad behaviors associated with individuals with Machiavellian traits. Thus, when one investigates the traits of Machiavellianism, one perceives a personality characterized by a "... calculating attitude toward human relationships and a belief that ends justify the means, though inhumane" (VandenBos, 2010, p. 574).

The Machiavellian ceaselessly seeks success (victory). Thus, his personal interest reigns over everything, and the decision associated with ethics is easily discarded (Milan, 2014). According to Zettler & Hilbig (2010), employees with this profile focus on making their career satisfying only to their personal needs, striving to get the most out of the situation. Hence, the commitment to the team ends up in the background. In this way, this personality trait can lead to the apex or the professional decline (Mynatt, Omundson, Schroeder & Stevens, 1997).

2.3 Empirical Evidence on Machiavellianism and Counterproductive Behavior of accounting professionals

A survey by Hartmann and Maas (2010) of controllers/management accountants who assessed the susceptibility of involvement in creating budget gaps found that a strong Machiavellian profile is more likely to yield to administrative pressures and create budget slack when in need to make decisions. The expectation of the professional with these characteristics is that he can always perform better than others, even when this is not the factual reality (Jain & Bearden, 2011).

In 2008, Shafer and Simmons investigated the relationship between social responsibility, Machiavellianism, and tax evasion in Hong Kong tax professionals and found evidence that Machiavellianism affects the views expressed by tax professionals on corporate ethics and social responsibility, in addition to affecting professional judgment towards aggressive fiscal minimization.

Another study that related the accountant's Machiavellian profile inferred that those with a profile considered high in Machiavellianism are more likely to commit fraud in reports if they have the opportunity, precisely because of the absence of guilt about unethical behavior (Murphy, 2012). Wakefiel's (2008) research considers that the degree of counter-Machiavellianism is lower than that of other professional groups. There are other studies that contradict this conclusion, though, finding a stronger level of Machiavellianism in the accountant in relation to other professions, mainly in relation to professions related to the social area (Roodpooshiti, Nikoomaram & Mahfoozi, 2012).

People with the Machiavellian profile can be considered strategists and calculators in the way of thinking, as well as having the ability to work in complex businesses (Judge et al., 2009, Jones & Paulhus, 2011). This profile in accounting professionals would be very useful in the business environment, as it would help in short, medium and long-term decision making. Moreover, according to Zettler and Solga's (2013) research, people with a high degree of Machiavellianism have better organizational citizenship behavior than those with a lower degree, even though they have ethical problems (Kish-Gephart, Harrison & Treviño, 2010, Malinowski, 2009).

As for organizational behavior, people with a high Machiavellian profile show higher career commitment, lower organizational commitment (Zettler, Friedrich & Hilbig, 2011), greater behavioral influence (Barbuto & Moss, 2006) and behavioral counterproductivity (O'Boyle, Forsyth, Banks & McDaniel, 2012), further reinforcing the idea that this type of personality cares more about itself, leaving collective interest and well-being aside.

The work of Dahling, Whitaker and Levy (2009) also considers that high Machiavellian profiles are prone to counterproductive behaviors and, consequently, to actions that undermine the well-being of the organization (Fox & Spector, 1999). Harrell and Hartnagel's (1976) survey showed that high Machiavellian employee profiles were willing to steal from both a trusting supervisor and a mistrustful supervisor, while those with a low Machiavellian profile were less willing to steal from the trusted supervisor, out of a sense of reciprocity. Such action is linked to counterproductive organizational behavior when dealing with the appropriation of goods in the workplace without permission.

Based on the above, the following research hypotheses were constructed:

- **H₁**: There is a positive and significant relationship between the counterproductive trait of Machiavellianism and behavior.

In relation to the characteristics of the individuals, some studies argue that Machiavellianism is often associated with the gender of the individuals (men present stronger Machiavellian traits, which would be explained by the theory of the Sexual Role) (Webster & Harnos, 2002, Bolino & Tunley, 2003, Sweeney, Arnold & Pierce, 2009, Grohmann & Battistella, 2012, D'Souza & Lima, 2018, D'Souza, Lima, Jones, Daniel, & Carré, 2019). These studies indicate that this association between the Machiavellian profile and gender is linked to the context in which individuals live and relate. This is observed in macho environments where men are required to have postures associated with the characteristics of that profile. In a similar angle, previous studies have shown (War & Beck, 1990, Avelino & Lima, 2017) that counterproductive behavior can be observed more in men than in women, because women are socialized to obey the rules, while socialization for men is less restrictive in this regard.

Thus, hypotheses 2 and 3 are constructed as follows:

- **H₂**: There is a significant relationship between the respondents' gender and the Machiavellian profile.
- **H₃**: There is a significant relationship between respondents' gender and counterproductive behavior.

Regarding the marital status of the respondents, some evidence suggests that married people tend to present a more marked Machiavellian profile, as they seek greater stability and are therefore more willing to seek means that provide them with greater security in their social environment (Lima, Garcia & Pereira, 2012). In relation to single individuals, however, there are reports that they have a higher level of counterproductive behavior, given their willingness to adopt riskier behaviors than their peers (Lima, Garcia & Pereira, 2012).

- **H₄**: There is a significant relationship between the Machiavellian profile and the fact that the individual is married.
- **H₅**: There is a significant relationship between counterproductive behavior and the fact that the individual is single.

Two hypotheses were also constructed that refer to the relation with the contexts of the students' HEI. Students from public HEI suffer a higher performance charge from the start, considering that the college entrance exam seeks to select them only by evaluations; and also during the course, thinking that the institutional opportunities offered to them are conditioned to their performance, whether in the disciplines or the very selection process to which they are submitted (Formiga, 2004, Santos, 2012, Bublitz, Guido, Lopes & Freitas, 2016). Also, socially, the students of public HEIs are required to obtain better results (academic and professional performance) because, as they have had the opportunity to study in an environment funded by public resources, they feel obliged to become individuals with greater prominence and productivity and, by not satisfactorily discharging this burden, may have their behavior associated with the devaluation of this chance. Therefore, it is believed that students of public HEIs are subjects with stronger Machiavellian traits and even with counterproductive behaviors, with the aim of attending to those longings.

- **H₆**: There is a significant and positive relationship with the Machiavellian profile of public HEI students when compared to those of private HEIs.
- **H₇**: There is a significant and positive relationship with the counterproductive behavior of public HEI students when compared to those of private HEIs.

In relation to age, the results are controversial. It is observed that age is capable of influencing both the development of Machiavellian personality and counterproductive behavior but, at other times the results indicate that there is no relation (Cullen & Sackett, 2003, Sweeney, Arnold & Pierce, 2009, Souza, 2016); the organizational scenario hinders the recognition and representation of everyday events, as these environmental circumstances are increasingly complex. For example, factors such as globalization, technology, legislation, diversity of workforce, decentralization, increased knowledge and the need for rapid change and adaptability contribute to the increasing complexity and ambiguities associated with today's work environment, which affects individual challenges (Thiel, Bagdasarov, Harkrider, Johnson & Mumford, 2012). All this adds up to the desire of people to stabilize their lives, which defies their ethical standards and values (Sweeney, Arnold & Pierce, 2009). On the other hand, it is conjectured that as people age, their values become stricter and, therefore, their beliefs and behaviors become increasingly important, which motivates the individual to pursue more ethical behavioral models (Cullen & Sackett, 2003). Based on this argument, the following hypotheses are formulated.

- H_8 : There is a significant and positive relationship between the Machiavellian profile and the respondent's age.
- H_9 : There is a significant and positive relationship between counterproductive behavior and the respondent's age.

3. Method

The research in question is descriptive in nature, as it aims to analyze the event as it happens in practice, therefore using a survey. As for the approach, it is considered quantitative. In relation to strategy, this study can be considered a survey because it makes use of primary sources, in order to meet its objective of analyzing the association between Machiavellian personality traits and counterproductive behaviors in the work in relation to future accounting professionals (Marconi & Lakatos, 2002).

3.1 Questionnaire

The instrument used consisted of four parts: (i) free and informed consent form (TCLE); (ii) socio-economic information about the participant, including information on gender, age, marital status, race, work experience (trainee or contracted), current professional relationship, income, length of professional experience and satisfaction with the workplace; (iii) nine questions assessing the degree of Machiavellianism extracted from the Short Dark Triad - SD3 (Paulhus & Williams, 2002). The Portuguese version of SD3 was developed by D'Souza (2016). This author developed the translation using a method known as back translation, with a total of seven translators involved. Operationally, three professionals translated into Portuguese, after which these three translations were sent to three other professionals, who translated them back into English; and, finally, the six translations were validated by another qualified translator in the area of psychology (D'Souza, 2016). For this study, we use only the first nine questions of SD3, which identify Machiavellian behaviors. The items were evaluated on a five-point Likert scale, where 1 refers to "I totally disagree", 2 "I disagree", 3 "I neither agree nor disagree", 4 "I agree" and 5 "I totally agree"; and (iv) 19 questions aiming to identify counterproductive behaviors in the work environment through the Workplace Deviance Scale (WDS) (Bennett & Robinson, 2000) in the Brazilian context, developed by Nascimento, Araújo, Andrade and Mendonça (2015). After obtaining authorization from the original authors, researchers from the Federal University of Minas Gerais in the area of Psychology translated this questionnaire, also using back-translation (Nascimento et al., 2015). The items were evaluated on a five-point Likert scale, where 1 refers to "Never", 2 "Very rarely", 3 "Rarely", 4 "Occasionally", 5 "Often", 6 "Very often" and 7 "Always". Both scales followed those used by the Brazilian researchers in translating the instruments.

In D'Souza's work (2016), the classification criterion adopted was: (i) – initially, the average of each individual was measured and, then, the group median was calculated; (ii) for analysis purposes, the following were considered: Low traits - results that were below the median; Moderate traits - median results; and High traits - results above the median. In order to permit a better relationship between the variables “Machiavellianism” and “counterproductivity”, this study adopted the tertile for sample segregation at low, moderate and high levels of Machiavellianism and counterproductivity. The calculation of the tertiles was obtained by dividing the sample range by three for each of the variables that compose the sample. The low level refers to the smallest range and so on for the other levels considered (D'Souza, 2016).

Aiming to guarantee the validity of the instrument to the research context, a pre-test was performed, seeking greater accuracy, so that the data collected could be the most accurate representation possible of the research context. Thus, a pre-test was carried out with three students from a master's degree course in accounting in Minas Gerais to identify possible problems with the questions, and it was verified that the instrument fit its context. Therefore, the instrument was valid to gather the information that supported the signs discussed in this research.

To analyze the reliability of the questionnaire, the Cronbach's alpha test was performed. With regard to the psychometric evidence of the scale provided by the authors of the instrument, Nascimento et. al (2015) presented an alpha of 0.81 for the organizational deviance scale (CCT-O) and 0.77 for interpersonal deviance (Ferreira, 2013); with respect to the Machiavellian alpha, a study developed by D'Souza (2016) found an alpha coefficient of 0.75. Thus, this study results in reliability coefficients close to those presented when the questionnaires were created and translated: General Cronbach's alpha of 0.72, MQ 0.66, CCT-O 0.81 and CCT-I 0.77.

3.2 Variables Analyzed

The mapping of the empirical part of this study was based on the correlational relationships of variables, so that the relationships that occur naturally between them could be described, as presented in Figure 1.

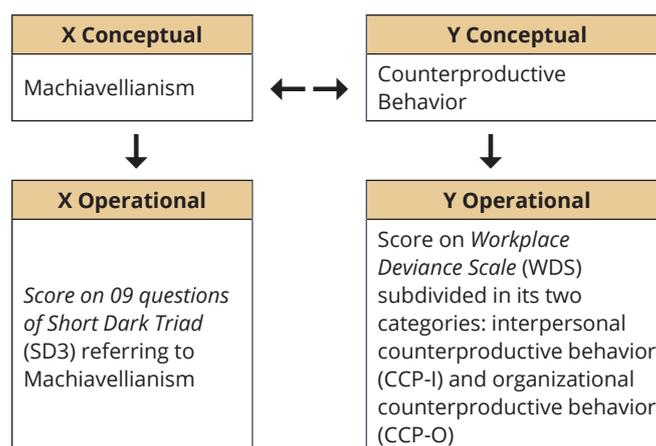


Figure 1. Research Design

3.3 Sample

Two hundred questionnaires were distributed to four HEI: two public, the Federal University of Minas Gerais (UFMG) (located in Belo Horizonte-MG) and the Federal University of Espírito Santo (UFES) (located in Vitória – ES), and two private HEI, located in MG (UNIFOR-MG) (University of Formiga) and Faculdades Pitágoras (Divinópolis branch). The teaching institutions and respondents were selected based on access criteria, which requires greater care for inferences, as the population the sample was selected from might differ substantially. Hence, the results cannot be generalized to the population, as they are restricted to the research sample.

As for the data collection procedures, a questionnaire was applied to students with current or previous professional experience. The respondents from the public institutions had access to the printed questionnaire, applied in the presence of the researchers with the responsible faculty members' consent. Although the respondents from the private institutions had access to the printed questionnaire, the institutions did not permit the researchers' presence on-site, so that only the coordination was present. The data were collected in May and June 2017.

In response, 149 answers were obtained. Some questionnaires were not fully answered, which made the analysis impossible; others were not answered, resulting in a final sample of 137 Accounting students from undergraduate Accountancy programs.

3.4 Data analysis

Before performing statistical tests, it is necessary to describe the data that make up the study sample by means of a descriptive analysis. In this study, the sample is described through graphs and tables that aim to highlight trends and favor the subsequent analysis of the data.

The inferential assumption that the data come from a certain population and are distributed according to the normal distribution is the basis for the application of several statistical tests. The existence of data normality is verified by the application of a normality test. Among the several tests in the literature, the Kolmogorov Smirnov test compares the absolute maximum difference between the cumulative distribution function of the normal distribution and the empirical distribution of the sampled data. The test presents the null hypothesis of data normality against the alternative of absence of normality (Siegel & Castellan Jr., 2006).

In this study, the objective was to verify the existence of significant differences, in relation to Machiavellianism and counterproductive behavior, segregated in relation to social variables, such as gender, race, income, etc. The mean values of two variables can be compared in terms of significant differences by means of a non-parametric Mann-Whitney test. The main difference between the t and Mann-Whitney tests relates to the distribution of the sample data. The t-test assumes the normality of the data, unlike the non-parametric Mann-Whitney test, also known as U-test, which verifies the presence of a significant difference between the measured values of the sampled data and does not require the normality assumption of the data (Devore, 2006).

In order to achieve the proposed objectives, it is necessary to verify the existence of a relationship between the variables in this study. The existence of a relationship between the variables can be investigated using the Pearson correlation coefficient or Spearman's correlation coefficient. The first coefficient assumes the existence of a linear relationship between the variables and also requires that they be measured in a class interval.

The second statistical approach, Spearman's correlation coefficient, is a non-parametric technique - it does not require the guarantee of data normality. Therefore, it does not require, a priori, any kind of assumption about the distribution of analyzed variables. Spearman's coefficient also has the advantage of not strictly capturing the linear relationship between the research variables (Siegel & Castellan Jr., 2006).

4. Results

The descriptive statistics of the sample in this study are presented below. Table 1 shows the results evidenced in relation to social aspects such as: gender, race, type of educational institution (public or private) and marital status. The average profile of the respondents was of female subjects (53%); 56% self-declared white; 86% are single and most are students of public universities.

Table 1
Distribution of the Respondents per gender, race, marital status, public or private education of the participants.

Variable		Frequency		
		Distribution	Absolute	Relative
Gender	Female		73	53%
	Male		64	47%
	Total		137	100%
Marital Status	Single		118	86%
	Married		16	12%
	Separated		3	2%
	Widowed		0	0%
	Other		0	0%
	Total		137	100%
Race	White		77	56%
	Yellow		3	2%
	Black		19	14%
	Mulatto		35	26%
	Indigenous		1	1%
	Missing		2	1%
	Total		137	100%
Type HEI	Public		73	53%
	Private		64	47%
	Total		137	100%

Source: elaborated by the authors

The mean age of participants was 25.4, the median found was 23, with a standard deviation of 7.1, with a minimum age of 18 years and a maximum of 58, and 25 of the respondents did not inform their ages. Also based on the sample data, six distribution ranges of the respondents were developed (Table 2). As verified, 42% of the interviewees (57) are in the age group of 21 to 25 years, followed by 20% of respondents aged 25 to 30 years, and only four respondents are older than 50 years.

Table 2
Distribution of the participants per age range

Range	Frequency	
	Absolute	Relative
Up to 20 years	19	14%
21 to 25	57	42%
25 to 30	27	20%
30 to 40	8	6%
40 to 50	1	1%
Over 50 years	4	3%
Missing	21	15%
Total	137	100%

Source: elaborated by the authors

Table 3 shows the summary and variability measures related to the three main variables of the study: Machiavellian - MQ, Organizational Counterproductive Behavior - CCT-O and Interpersonal Counterproductive Behavior. The descriptive statistics, evidenced in Table 3, allow us to infer that the variable MQ can be normally distributed, as all the summary measures (mean, mode and median) are close. In contrast, the distinction between the same measures for the CCT-O and CCT-I variables allows us to infer a possible asymmetry in their distribution.

Table 3
Statistics Machiavellianism, CCT-O and CCT-I

	MQ	CCT-O	CCT-I
Mean	30.37	21.26	10.45
Median	30.00	20.00	9.00
Mode	30.00	12.00	7.00
Standard Deviation	5.33	7.36	4.31
Minimum	16.00	12.00	7.00
Maximum	45.00	49.00	32.00

Source: elaborated by the authors

In order to verify the fitness of the tests to analyze the research data, the normality test of the variables Machiavellianism - MQ, Organizational Counterproductive Behavior - CCT-O and Interpersonal Counterproductive Behavior - CCT-I was executed. Table 4, below, refers to the normality test of the three main study variables. The results reveal that, at the 0.05 level of significance, only the Machiavellian (MO) variable presents a normal distribution.

Table 4
Kolmogorov- Smirnov Normality Test

Variables	P-Value
Machiavellianism - MQ	0.545
Organizational Counterproductive Behavior - CCT-O	0.000
Interpersonal Counterproductive Behavior - CCT-I	0.000

Source: elaborated by the authors

In relation to the prevalence of the Machiavellian, CCT-O and CCT-I profile, Figure 2 shows that most respondents present a moderate Machiavellian profile (65% of respondents). This result is in line with the work of Wakefiel (2008), who considered that accountants are less Machiavellian than other professional groups studied, as well as the work of D'Souza and Lima (2018) and D'Souza, Lima, Jones and Carré (2019). On the other hand, it goes against the work of Lopes et al. (2016), which indicated a low profile for accounting students. When analyzing the profiles of counterproductive behavior, we found higher concentrations of individuals in the low profile (73% and 89%, respectively).

The information above presents an important contribution of this sample, as it can be inferred that, despite the preponderance of individuals with a moderate profile of Machiavellian behavior, these do not present indications of counterproductive behaviors in the organizations where they act. This finding contradicts some recent studies in the area that related the Machiavellian profile to dishonest performance, such as the ability to deceive and defraud financial reports (Murphy, 2012), perform earnings management (Shafer & Simmons, 2011), and create budget slack in decisions under pressure (Hartmann & Maas, 2010). Although the questionnaire applied here does not directly take into account these types of behaviors, individuals do not self-declare capable of manifesting counterproductive behaviors in their organizational tasks.

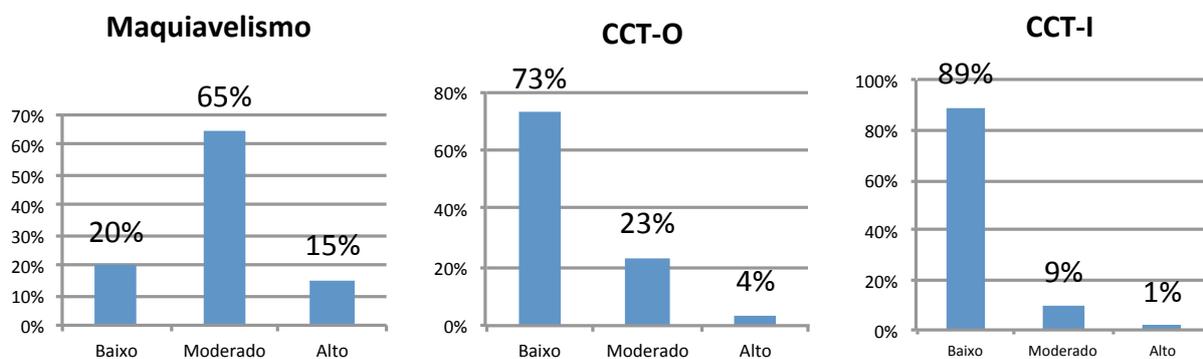


Figure 2. Bar graph of variables MQ, CCT-O and CCT-I

Source: elaborated by the authors (TRAD: Machiavellianism, low, moderate, high)

Table 5, below, shows the Correlation test for the MQ, Organizational Counterproductive Behavior - CCT-O and Interpersonal Counterproductive Behavior - CCT-I variables. Table 5 shows that there is a strong positive (0.626) and significant (p-value = 0.000) positive relationship between the Organizational Counterproductive Behavior (CCT-O) and Interpersonal Productive Behavior (CCT-I) variables, which allows us to infer that a higher degree of CCT-O is related to a higher CCT-I.

In the statistical analysis, based on the correlation presented (Table 5), an individual with a Machiavellian profile does not necessarily represent a profile for counterproductive behavior in organizations. On the other hand, the sample shows a strong correlation between Organizational Counterproductive Behavior and Interpersonal Counterproductive Behavior, which corroborates the results of Nascimento, Araújo, Andrade & Mendonça (2015), who found that only WDS identified a moderate correlation between CCT-O and CCT -I of 0.46, with the result of this study being 0.626.

Table 5

Spearman's correlation test

Variables	P-Value	Coefficient
MQ versus CCT-O	0.073	0.154
MQ versus CCT-I	0.056	0.164
CCT-I versus CCT-O	0.000	0.626

Source: elaborated by the authors

Table 6 presents the mean coefficients of the variables Machiavellianism – MQ, Organizational Counterproductive Behavior - CCT-O and Interpersonal Counterproductive Behavior CCT-I measured in relation to social factors (gender, marital status and type of education). The table reveals that the Machiavellian trait seems to be clearer in men than in women (p-value=0.0254) and in public HEI students (p-value=0.0823). What the marital status is concerned, the Machiavellian characteristics seem to be more present in married individuals, although this association was not confirmed statistically.

Although the studies that also presented this type of analysis did not use the same tool to survey the Machiavellian profile, Grohmann and Battistella (2012) used the Machiavellianism Personality Scale for example, and also concluded that men presented higher means (without statistically significant differences). Besides those authors, Webster and Harnos (2002), Bolino and Tunley (2003), Sweeney, Arnold and Pierce (2009) also identified this behavior. This characteristic can be attributed to the standards that are socially desired of men, in that these required postures end up being similar to the standards defined by the Machiavellian profile.

Table 6

Means of Variables MQ, CCT-O, CCT-I

Variables	Gender		Marital Status			Type of Education	
	Male	Female	Married	Single	Divorced	Private	Public
MQ	31.32	29.51	31.16	30.27	30.33	20.28	31.32
CCT-O	20.84	21.7	20.87	21.33	19.33	19.25	23.01
CCT-I	10.58	10.30	10.00	10.54	9.33	8.92	11.79

Source: elaborated by the authors

In order to verify if the associations presented in Table 6 were statistically significant, Tables 7, 8 and 9 were produced, shown below, which refer to the association test for the variables Machiavellianism - MQ, Organizational Counterproductive Behavior - CCT-O and Interpersonal Counterproductive Behavior - CCT-I, segregated by social factors (gender, marital status and type of educational institution - public or private).

Table 7, referring to the mean test, for the variables MQ, Organizational Counterproductive Behavior - CCT-O and Interpersonal Counterproductive Behavior - CCT-I, refers to the comparison of the mean values of each of the variables in relation to gender (male and female). The observation of the table shows that, at the 0.05 level, all the analyzed variables present significant associations. In relation to CCT-O, women reported having a higher degree, which could be an indication of behavior change regarding the historically reported and expected role for women (War & Beck, 1990).

Table 7

Association Test – per gender

Variables	P-Value
Machiavellianism – MQ	0.00145
Organizational Counterproductive Behavior – CCT-O	0.0040
Interpersonal Counterproductive Behavior – CCT-I	0.0001

Source: elaborated by the authors

Table 8 shows the test of means for the variables MQ, Organizational Counterproductive Behavior - CCT-O and Interpersonal Counterproductive Behavior - CCT-I in relation to the marital status of the sampled individuals. The analysis of the table shows that only the Machiavellian variable (MQ) does not present significant differences in relation to its mean values for the different types of marital status (single, married and divorced). For the other variables, CCT-I and CCT-O, it is significant differences exist in terms of marital status.

Table 8

Association Test – per marital status

Variables	P-Value
Machiavellianism – MQ	0.8271
Organizational Counterproductive Behavior – CCT-O	0.0465
Interpersonal Counterproductive Behavior – CCT-I	0.0026

Source: elaborated by the authors

Regarding the type of higher education institution - public and private - the employee association test indicated a significance level of 10% for MQ and 1% for other dimensions that there is an association with the type of HEI. Table 4 shows that, in the three dimensions, the students of the public HEI had a higher average than those of the private HEI.

Table 9

Association Test – per education type

Variables	P-Value
Machiavellianism – MQ	0.0823
Organizational Counterproductive Behavior – CCT-O	0.0029
Interpersonal Counterproductive Behavior – CCT-I	0.0002

Source: elaborated by the authors

A Correlation test was also performed between the MQ, CCT-O and CCT-I dimensions and the age of the respondents.

Table 10

Correlation MQ, CCT-O, CCT-I with age

Category	MQ	CCT-O	CCT-I	
Age	Correlation	0.0368	0.1141	0.0082
	P-value	0.6961	0.2167	0.9296

Source: elaborated by the authors

According to Table 10, correlations other than low (all below 0.15) are not significant either ($p\text{-value} > 0.1$), which is indicative that age does not influence those three variables. This result may be related to the sample, as approximately 76% of the sample is younger than 30 years of age, and therefore composed mainly of young people, which may have influenced the identification of the effect of life experience on the variables MQ, CCT-O and CCT -I, although it has already been mentioned that the age effect seems to be controversial in the studied variables (Cullen & Sackett, 2003, Sweeney, Arnold & Pierce, 2009, D'Souza, 2016, Thiel et al., 2012).

In summary, based on the data, a positive and low, but statistically non-significant association between Machiavellian and both Organizational and Interpersonal Counterproductive Behavior can be mentioned ($p\text{-value} > 0.05$). This analysis reveals that there is evidence to reject H₁, which is contrary to several works, such as Shafer and Simmons (2008), Hartmann and Maas (2010), Zettler, Friedrich and Hilbig (2011), Murphy (2012), O'Boyle et al. (2012). For the authors, however, this can be explained by the predominantly moderate profile of the students who participated in the research (65% of them have this profile). According to Harrell and Hartnagel (1976), Dahling, Whitaker & Levy (2009), Hartmann and Maas (2010) and Zettler, Friedrich & Hilbig, (2011), the association between Machiavellianism and counterproductive behavior would be perceived only in high Machiavellianism, considering that their moral limitations would be more elastic than individuals with lower and moderate profiles (Murphy, 2012).

Another hypothesis that the data support is related to the respondents' gender. H₂ and H₃ signaled that the respondents' gender influences the variables and, in this study, it was found that they could not be rejected, that is, there is evidence to indicate that the respondents' gender is something that is associated with degrees of Machiavellianism and Counterproductive Behavior, according to Ward and Beck (1990), Webster and Harnos (2002), Bolino and Tunley (2003), Sweeney, Arnold and Pierce (2009), Grohmann and Battistella (2012), Avelino and Lima (2017), D'Souza and Lima (2018), D'Souza, Lima, Jones, Daniel and Carré (2019).

Regarding H₄ and H₅, again based on the results, H₄ did not present a statistically significant association ($p\text{-value} = 0.8271$); on the other hand, H₅ was statistically significant ($p\text{-value} < 0.05$). Considering that an association was identified regarding the marital status of the respondents, the data of this research indicate that married respondents do not have a Machiavellian level higher than the other marital statuses, although single individuals who participated in the study reported higher counterproductive behavior.

For H₆ and H₇, evidence has been found that permits concluding that, for the first, there is no statistically significant association ($p\text{-value} = 0.0823$) whereas, for the second, the association is statistically significant ($p\text{-value} < 0.01$). These hypotheses indicated that the public HEI students participating in the research would present a more marked degree of Machiavellianism and Counterproductive Behavior than those of private HEIs, which was therefore partially in line with other works (Formiga, 2004, Santos, 2012, Bublitz, Guido, Lopes & Freitas, 2016).

Finally, with respect to age, base for H₈ and H₉, the research data demonstrated that the relationship is weak and not significant. Therefore, both H₈ and H₉ were rejected ($p\text{-value} > 0.1$).

5. Conclusion

This work sought to evaluate the relationship between the Machiavellian personality traits and the traits of counterproductivity in future accounting professionals. For this purpose, 137 questionnaires were applied in four higher education institutions: the Federal University of Minas Gerais (UFMG), the Federal University of Espírito Santo (UfesFES), the University of Formiga (UniforNIFOR-MG) and the Faculdades Pitágoras (Divinópolis Branch), and the study sample consisted of two public institutions and two private institutions.

The literature shows that personality traits can explain people's behavior, as well as justify their negative and positive attitudes. The presence of these traits can sometimes demonstrate organizational disadvantages, but may also prove to be advantageous, especially when the degree found is moderate (D'Souza & Lima, 2015). In addition, several researches present a negative view of the Machiavellian profile, which is particularly due to their behavior within the organization, which is characterized by the manipulation of something to their benefit.

In the conceptualization of Machiavellianism, literature associates its main characteristics with personalities that act for their own benefit, coldly, as most of the authors who approach the subject describe the Machiavellian individual as people who considers their individual interests as superior to the interests of the group they are inserted in. The counterproductive behavior of employees of a given institution may deviate the company from the goal proposed by its top executives and shareholders, and individuals with Machiavellian characteristics may lead the company along paths that are not satisfactory to its policies and practices.

Based on the assumption that Accounting encompasses equity information of the organization, it should be verified if Machiavellian accountants could manifest counterproductive behaviors in their work, elaborating distorted information and that did not portray the actual equity position of the entity.

The main finding of this work was the lack of empirical evidence to conclude about the existence of a relationship between Machiavellian and counterproductive behaviors in relation to future accounting professionals. Although it cannot be affirmed that the moderate trait of Machiavellianism is present in most of the interviewees (65%), the results of counterproductivity showed that most of the interviewees self-declared a low profile of organizational and interpersonal counterproductivity (73% and 89%). This result goes against the results found by several authors who conclude that individuals with moderate to high Machiavellian profiles decide opportunistically, through strategies that maintain their reputation and allow the achievement of personal goals and objectives (Milan, 2014, Zettler & Hilbig, 2010, Vandembos, 2010, D'Souza, 2016, Shafer & Simmons, 2008). According to Judge et al. (2009), Zettler et al. (2011), Jones and Paulhus (2010) and D'Souza (2016), however, when individuals show moderate traits in relation to the Dark Triad characteristics, they can reveal talents, creativity, innovation, and better individual and corporate performances, so some degree of Machiavellianism can be of benefit.

The results allow us to infer that the Machiavellian trait seems to be more evident in males than in females (31% males and 29% females), as found by Grohmann and Battistella (2012), when using a different instrument, known as the Machiavellianism Personality Scale.

The identification of professional profiles helps companies in their selective processes as well as in periodic evaluations with the purpose of promoting organizational development (Ferreira, 2013). Thus, the results presented here can help human resources professionals to better recruit and train employees. Authors, such as Judge et al. (2009) and Jones & Paulhus (2011) have identified that people with Machiavellian profiles are strategists and calculators and have the ability to work in complex businesses. Zettler and Solga (2013) conclude that people with a high degree of Machiavellianism have better organizational citizenship behavior. As a contribution of this study, the understanding that the moderate Machiavellian profile does not necessarily present counterproductive behavior can help the management area in its selection processes and evaluations, revealing support that reject paradigms that are often resistant to this professional profile and that associate it, often unfairly, with patterns of behavior.

In fact, the data of this research evidence a positive relationship between the interpersonal and organizational counterproductive behavior, allowing to infer that a higher level of organizational counterproductivity among professionals is associated with higher levels of interorganizational counterproductivity. This finding can be confirmed in Nascimento et al. (2015), who found a moderate correlation, suggesting that they are related.

The results point to the need for more studies in the Brazilian context that analyze the profile of the accounting professional, with a view to evidencing manifestations of behaviors more clearly, also recommending the inclusion of a variable that signals the professional's length of experience, as this would permit analyzing whether that variable can influence Machiavellianism or counterproductive behavior.

6. References

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Relation between Locus of Control and Resilience according to the social characteristics of Accounting students

Abstract

Objective: Analyze the relation between the Internal and External Locus of Control and resilience according to the social characteristics of Accounting students.

Method: The data were collected by means of a survey, using Levenson's (1973) for Locus of Control and Pesce, Assis, Avanci, Santos and Malaquias' (2005) scale for resilience, respectively. The sample consists of 449 Accounting students from all regions of Brazil, with 31.63% men and 68.37% women. For the data analysis, multiple linear regression was applied and Student's T-test, the ANOVA test and Cronbach's alpha coefficient were calculated.

Results: The results demonstrate that Accounting students in general have high levels of resilience and Internal Locus of Control, granting them a profile of determined, self-confident and persevering people when confronted with the difficulties of the undergraduate Accountancy education process. Differences in Locus of Control and resilience levels were found between female and male individuals, students from private, public and public-private institutions and according to marital status, in that the highest levels of Internal Locus of Control were found in male individuals and higher resilience in female persons. No significant difference in resilience was found according to the students' marital status, but a higher perceived External Locus of Control was found in single students. Finally, both the External Locus of Control and resilience were higher from students from public-private institutions.

Contributions: The study contributes by identifying the resilience and Locus of Control levels of Accountancy students according to gender, marital status, or even according to the type of institution. These factors from the psychological and social learning theory permit understanding the criteria that most affect aspects such as continuation in the course.

Key Words: Locus of Control; Resilience; Accounting Students.

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1. Introduction

Traditional accounting is commonly associated with the responsibility for preparing and analyzing financial statements. Several other information types exist in the scope of Accounting though, not necessarily of a financial nature, which should also be considered and analyzed in order to provide the best assistance to information users. In this context, Behavioral Accounting research exists, which considers the dimension of human behavior applied to Accounting, which encompasses a set of relevant information which the professionals who elaborate the financial statements have to (or should) analyze (Lucena, Fernandes & Silva, 2011).

Accounting, as an integral part of applied social sciences, influences the decision-making processes. Hence, it also uses behavioral principles from psychology to better understand accounting information users. Specifically in relation to Behavioral Accounting, being an area that contemplates different perspectives, authors such as Siegel and Ramanauskas-Marconi (1989) and Lucena et al. (2011) segregate the research in three areas: i) construction and use of the accounting system; (ii) the effect of the accounting system on human behavior; iii) forecasting methods and strategies adopted by accounting users to change human behavior.

In the context of the second perspective (effect of the accounting system on human behavior), Farag and Elias (2016) report that it is important to understand Accounting students because they represent the population of potential accountants. These students are preparing to be the next generation of accountants. Thus, choosing a career in Accounting should be the product of individual reflection and perception of one's characteristics and personality, in view of the environment in which the profession they chose will be executed (Magalhaes, 2005), although there are other underlying reasons.

In addition, Accounting itself has been considered as a stressful occupation, although not all stress is bad (Selye, 1974), and environmental conditions such as workload, time pressure, and conflicting duties in the field of Accounting have been consistent with this concept of stress (Hasin & Omar, 2007). Therefore, the existence of a relation between the choice of the profession and self-knowledge may be favorable, so that the individual opts for careers that best represent his/her personal identity, interests, abilities, and personality characteristics (Magalhães, 2005).

In this way, some behavioral variables, such as the Locus of Control and Resilience, have been the focus of research in several areas of knowledge. Unlike countries in Europe and North America, however, the issue has been little investigated in Brazil, especially when applied to professionals in the social sciences. In this sense, the research on locus of control and resilience in Brazil is still incipient (Cowen, Wyman & Work, 1996; Yunes, 2003).

The Locus of Control corresponds to the perception of control over life, determined by the individual, being a pattern of orientation (Rodrigues, 2007). Thus, there are two parameters for the Locus of Control: internal and external. People with an Internal Locus of Control attribute responsibility for what happens to themselves, they feel responsible for controlling most of the situations they face and believe that they can interfere in the results of these situations (Dela Coleta, 1987; Tavares, 2006). People with external Locus of Control, on the other hand, tend to attribute responsibility for what happens to others or to what is external, they do not feel able to control the situations they go through (Callado et al., 2006).

In the research, in turn, it is assumed that resilience consists in the human capacity to face and overcome experiences of adversity, allowing the individual to emerge strengthened or transformed (Yunes, Szymanski, 2001; Minello & Scherer, 2014). According to Pesce, Assis, Santos, and Oliveira (2004), resilience can be understood as the set of social and intrapsychic processes that permit the development of a healthy life, even when living in an environment that is not healthy. Studies and research on human resilience seek to understand how some people have the capacity to develop and overcome better than others, even when experiencing the same situations of adversity, and these differences can also derive from the environment of the undergraduate program.

Considering the above, and considering that there is a research gap on the theme in Accounting, the following research question is formulated: **What is the relationship of the internal and external Locus of Control with resilience according to the social characteristics of the Accounting students?** Based on the research question, the objective of the study is to analyze the relationship between the Internal and External Loci of Control and resilience according to the social characteristics of Accounting students.

Therefore, a survey was carried out, using the scales of Levenson (1973) and Pesce, Assis, Avanci, Santos & Malaquias (2005) for Locus of Control and resilience, respectively. The final sample comprises 449 accounting students. Data analysis was performed using multiple linear regression, Student's T-test, ANOVA and Cronbach's alpha. The results show that Accounting students, in general, have high levels of resilience, as well as of internal locus of control, which grants them a profile of determined, self-confident and perseverant in view of the difficulties during undergraduate Accountancy education. There were also higher levels of Internal Locus of Control in male students and greater resilience for females. Both the External Locus of Control and resilience were greater for students from public-private institutions.

This research differs from the others as resilience is little studied in this scenario, as a central theme or its connections, being usually related to the operational part (Cowen; Wyman; Work, 1996; Angst, 2013). In addition, authors from the social sciences, such as Yunes and Szymansky (2001); Barreira and Nakamura, (2006); Angst (2013) study the Locus of Control but as an isolated theme. In this way, studying these relations together and also considering the social characteristics permits identifying the profiles of how the students react to the situations according to their level of Locus of Control and resilience. These findings can help institutions and individuals interested in preparing individuals for the process they are going through, minimizing the costs of professional traumas that could develop as a result of possible failures in the training process.

The research also complements the study by Damascena, França, and Silva (2016), which only investigated the relationship of Loci of Control and resilience with accounting professionals, researching academics, and the subdivisions of Locus of Control and resilience. This study, therefore, differs by studying the relationship of (internal, chance and powerful others) Locus of Control with resilience (actions and values, independence and determination, and self-confidence and adaptability to change) according to the social characteristics, not identified earlier.

Studying the Locus of Control is important because it helps to understand the characteristics of individuals with Internal and External Loci of Control, and the type of Locus of Control impacts the resistance to coercion, influences the ability to accept challenges and provides greater persistence in the efforts to obtain results (Rodrigues, 2007), which is indeed necessary for individuals in academic environments. In addition, as presented by Rotter's (1966) theory of social learning, it is necessary to consider the subject's interaction with the environment, personality variables, and individual characteristics.

As for the contribution to research on resilience, there is increasing research interest due to the need to invest in problem prevention and mental health promotion of individuals in whatever areas of action (Pesce et al., 2004). In the field of education, resilience plays an important role because it favors the development of social, academic, and personal skills that allow the student to overcome adversities and to achieve academic, professional, and personal success (Ruter, 1987; Díaz, Giraldo, & Buitrago, 2011).

In addition to all the theoretical contributions in terms of specifically knowing the effects of variables, the understanding of this set of variables offers practical contributions to educational institutions. These can use the results of their students according to gender, marital status, or even the type of institution, related to the level of resilience and Locus of Control, factors from the theory of Psychological and Social Learning (Lefcourt, 1976). These relationships make it possible to understand the criteria that most affect aspects such as the continuation in the course.

In this sense, it is suggested that the discussion about these criteria is of paramount importance for higher education institutions that have witnessed the frequent problem of course dropout year after year and are still unable to solve and fully understand it. The analysis of individual variables permits outlining profiles that can be trained and understood in order to maximize the promotion of academic potential.

This study also contributes to the literature on Accounting education because it emphasizes the relationships between specific variables of the students in the course, helps to identify personality characteristics in a population of future accountants, and broadens discussions on research that helps the students, aiming to make them successful in the future.

2. Theoretical Background

To support this study, the theoretical framework includes the discussion of Locus of Control, presenting the concepts and appointing relations between the theme and the social sciences and Accounting. The same discussion and development take place for resilience research.

2.1 Locus of Control

Differently from the study by Damascena, França, and Silva (2016), which aimed to analyze the relationships and characteristics between the Locus of Control and resilience of accounting professionals, considering their position in relation to the decisions of life and their level of resilience, this study focused on Accounting students. Taking an undergraduate course is not a simple task and, according to Hasin and Omar (2007), the course in Accounting requires commitment and should prepare students to act in a stressful profession. Therefore, it is important to know and understand the Locus of Control and resilience.

Rotter (1966) was one of the first authors to describe the concept of Locus of Control. According to this author, the Locus of Control refers to the existing expectation of our behaviors in relation to contingencies. According to the author, the construct of Locus of Control consists of a bipolar dimension: on one side of the pole, there is the dimension of internality and, on the other, the dimension of externality. According to this construct, people whose Locus of Control is Internal (internality) believe that the attainment of their goals depends on their efforts and skills. In turn, people with External Locus of Control (externality) believe that the attainment of their goals depends on any factor other than themselves, such as luck, faith, fate, chance or coincidence.

For Dela Coleta (1987), Locus of Control is a variable that seeks to explain a characteristic related to the people's perception of the source of control of the events they are involved in. According to the author, individuals can perceive themselves in control over these events or as being controlled by external factors. Callado et al. (2006) contribute to the discussions about the theme by arguing that personality variables and characteristics are considered individually, and these do not explain behavior, as the interaction of the subject with the environment needs to be considered and, thus, each subject will demonstrate whether it is internal or external. For Rodrigues (2007), Locus of Control is the perception of control over one's life, that is, a pattern of orientation. In the social sciences, authors such as Yunes and Szymansky (2001); Barreira and Nakamura, (2006); Angst (2013) and Damascena, França, and Silva (2016) have focused on the theme.

Due to the multidimensionality of the Locus of Control construct, several scales emerged to measure these factors and, consequently, the number of related studies increased. One of the main contributions proposed came from Hanna Levenson, who divided the externality proposed by Rotter (1966) into two, in that her version of externality is divided between chance and powerful others; the external in this case should not represent something necessarily bad or undesirable (Da Coleta, 1987). According to Dela Coleta (1987), Levenson's scale (1973) was theoretically similar to that of Rotter (1966), but not empirically.

Adapted to the Brazilian context by Dela Coleta (1987) and validated by Tamayo (2012), Levenson's scale (1973) determines that the people who deposit the control in powerful people constitute the defensive external ones, while people who perceive destiny, luck, or chance as sources of control constitute the authentic external individuals. And, finally, people who do not believe in the power of other people, nor in chance, destiny or luck, but in themselves would be the authentic internal individuals.

In relation to the Locus of Control studies, overall, one can say that they describe several characteristics attributed to internal or externally oriented subjects. According to these studies, people with an internal locus are more resistant to coercion, engage more directly in activities to achieve their goals, accept the challenges more, are more persistent and hardworking for results, resistant to social influence, choose what situations to submit to (Dela Coleta, 1982) -and are associated with greater ambition, motivation, success in the professional career, learning in the workplace and organizational performance (Macia & Camargo, 2010).

While externals manifest more emotions, they suffer more affective influence, do not take direct responsibility for goals and are more likely to undergo persuasive influence (Dela Coleta, 1982), besides being associated with more effective leaders. Individuals who hold the belief that their success depends more on external than internal factors often present greater consideration towards the people they manage.

In view of the above, we consider that the Loci of Control is not a new concept (Macia & Camargo, 2010) for the research. Studies in different disciplines, such as Psychology, Administration, Human Resources and Entrepreneurship, have already conducted research using the construct. In relation to these studies, one can notice that the concept has undergone a certain evolution in the development of different measures since its initial presentation, although there remains a research gap in certain areas, such as Accounting.

Accounting is rooted in the applied social sciences and, in dealing with the decision-making processes, it uses behavioral principles deriving from Psychology (Lucena et al., 2011). Starting from this assumption, the opportunity of research in Behavioral Accounting arises, involving Locus of Control. According to MacDonald (1973), the development of the Locus of Control can be affected by the quantity and quality of environmental interactions during childhood, regarding the amount of control the individuals feel they obtain. This concept is also applicable to the explanation of resilience. Therefore, the next section discusses resilience which, in combination with locus, are the variables studied in this research.

2.2 Resilience

Resilience, unlike the Locus of Control, is a recent theme that is under construction, discussion, and debate. Resilience refers to the set of social and intrapsychic processes that enable the healthy development of the individual, even when experiencing unfavorable experiences (Pesce et al., 2004). According to Oliveira, Reis, Zanelato, and Neme (2008), the theme has been studied in different areas of knowledge. Before being properly used in the field of human and social sciences, the term was suggested by the exact sciences to refer to the elastic capacity of certain materials.

In recent years, however, resilience has come to appear more frequently in the literature. Due to that attention, research on this topic has grown and most of these studies use definitions with an operational focus (Cowen, Wyman; Work, 1996). The growing interest in the concept of resilience in the social and human sciences reflects the need for investment in problem prevention and promotion of mental health in humans (Pesce et al., 2004).

The contemporary health promotion movement has revealed resilience as an important concept in this area of knowledge (Pesce et al., 2004). Studies and research on human resilience seek to understand how some people acquire greater ability to overcome than others, despite experiencing similar situations of adversity (Minello & Scherer, 2014). In this sense, resilience is not an inborn attribute, nor acquired in the course of development, but an interactive process between individuals and their environment (Rutter, 2012).

In general, some definitions of resilience have been shaped over time. For Yunes (2003), resilience refers to the ability to overcome adversity, which does not mean that there are no changes in individuals, as the terms invulnerability and invincibility suggest. According to Fortes, Portuguese, and Argimon (2009), resilience is defined as the ability of the individual or family to face adversities, be transformed by them and overcome them.

Several definitions of resilience are identified. Individuals and groups differ in their sensitivities and vulnerabilities to certain types of events, as well as in their interpretations and reactions, and this seems to stimulate the development of research to measure resilience. Studies on resilience as a central theme or associated with other aspects are few and characterize the gap for the development of this research because, according to Angst (2013), the term has not been applied in the social sciences.

In this sense, in the analysis of the approaches and discoveries about the concept of resilience, Grotberg (2003) identified eight aspects that represent the findings, among which the following stand out: the connection of developmental stages and human growth, including age differences and gender, their possible measurement, role in mental health and quality of life. Prevention and promotion are some of the concepts of resilience, which is a process: there are resilience factors, resilient behaviors, and resilient outcomes.

In the context of work, resilience explains the mobilization of psychosocial resources to cope with the ruptures and tension situations characteristic of modernity (Rogge & Lourenço, 2015). It is noteworthy that there is no consensus on the number of negative life events required to affect individuals' resilience (Pesce et al., 2004). The different individual levels of stress tolerance also vary according to the period of life in which the event occurs and as the situation is faced: a person is disturbed by small changes, some are affected by larger events, others when the exposure to the event is more prolonged, or some can even reach their tolerance limit only when small stressful day-to-day events accumulate (Savoia, 1999).

According to Díaz et al. (2011), is the combination of nature, quantity, and intensity of risk factors that defines the context of adversity required for resilience. In the field of education, resilience plays an important role because, through its development, it is possible to foster the development of social, academic, and personal skills that allow the student to overcome adversity and succeed in life (Rutter, 1987). In this sense, and in order to broaden the studies on academic performance, including the aspects of drop-out, the research focuses on the discussion of the Locus of Control aspects, personal characteristics, and resilience, in order to identify Accountancy students' perception of these aspects.

2.3 Social characteristics and hypothesis development

With each passing year, new opportunities are gained to reflect on the scientific events that determine our knowledge on how to better understand all people. Thus, the importance of promoting the potential of all has gained focus and, consequently, has emphasized the importance of the concept of resilience (Infante, 2005). In the field of education, resilience plays an important role because, through promotion, it can foster the development of social, academic, and personal skills that enable the student to overcome adversity and succeed in life (Ruter, 1987).

Research on student resilience, especially considering higher education, has been scarce though. Although some attempts have focused on academic performance and seek to analyze it, its multidimensionality has been the focus, seeking to discuss family, social, and educational variables that may affect its condition, but little evidence is available about social characteristics (Díaz, Giraldo & Buitrago, 2011). This indicates that there are few studies that aim to understand academic performance in further depth.

The problem is established when it is identified that poor performance is one of the main and most common problems at universities, which can lead the student to drop out of the course (Díaz, Giraldo & Buitrago, 2011), because drop out from undergraduate programs is a recurrent concern in any higher education institution (HEI) (Cunha, Nascimento & Durso, 2014). Although the socioeconomic and cultural characteristics differ among different (public or private) institutions, some studies point to similar characteristics of this phenomenon; one of them refers to the individual perceptions of each individual.

In order to help and reduce this gap, this research uses factors called social characteristics of students, such as sex, marital status, and attending school, which should be analyzed in situations of academic risk, such as the professional frustration that will accompany a lifelong learner for starting and not completing an undergraduate course (Cunha, Nascimento & Durso, 2014). The Locus of Control and resilience interfere in these aspects of interaction with the environment and perception of events in one's life.

The Locus of Control is considered a characteristic deriving from the individuals' perceived command of the events and situations they are submitted to (Dela Coleta, 1987). The perceived distribution of the command may be related to self-command or command by external factors and without the individual ability to change. Resilience, then, is understood as an agglomeration of social and intrapsychic experiences and processes that help the development of the individual, regardless of the origin of the experiences (Pesce et al., 2004).

According to Callado et al., (2006) individual discussions such as personality and characteristics should not be investigated alone, because they may be due to interactions with the environment they are immersed in and, thus, these command characteristics will be conceived as internal or external/submitted. The study of the environment individuals are inserted in is of great importance because it influences their behavior and contributes to the formation of characteristics and personality. In this sense, Minello and Scherer (2014) affirm that, even when experiencing similar experiences of difficulties and misfortunes, there are individuals who acquire higher skills and ability to overcome than others, and this can be studied through research on resilience.

Thus, resilience is not characterized as ready, or possessed by a certain individual, but rather as constructed/developed according to the interactive process between this individuals and his/her environment (Rutter, 2012). Therefore, the Locus of Control being understood as a pattern of the individual, who acts by recognizing the reasons for the events in his/her life (Rodrigues, 2007) and the resilience to the capacity to face adversities, to undergo changes and to overcome them (Fortes, Portuguese & Argimon, 2009), a relation between the themes is assumed as, depending on how the individual perceives the control of the situations experienced in his/her life, (s)he will react differently and, therefore, his/her resilience and ability to overcome will differ.

The Internal Locus of Control (ILC), Chance Locus of Control (CLC) and Powerful Others Locus of Control (PLC) being different perceptions of who is responsible for the adverse situations the individual faces on a daily basis, it is emphasized that these different perceptions will impact resilience differently, as the judgments and suffering deriving from undesirable and unfortunate situations allow the individuals to recognize, develop, and mobilize resources and abilities in themselves they may never have noticed before (Calvo & Garcia, 2010). This is confirmed by Rodrigues (2007), who states that, in addition to influencing the strategies of life, the Locus of Control also influences how people behave and plan their actions based on their actions and results.

Furthermore, in the study involving Accounting professionals, Damascena et al. (2016) find a direct and significant relationship between Locus of Control and resilience.

- H_1 : Accounting students' resilience is related with the Locus of Control.
- H_2 : Accounting students' social characteristics distinguish the resilience and Locus of Control.

3. Methodological Procedures

To meet the objective of analyzing the relationship of the Internal and External Control Loci with resilience according to the social characteristics of Accounting students, a quantitative study was performed with data collection by means of a questionnaire. The research population comprises Accountancy students of all phases, and regions of Brazil, who answered the survey that was sent individually by e-mail. The population data were obtained by surveying the public and private higher education institutions that offered the Accountancy course in their institution. The questionnaire was forwarded by a google docs link, resulting in 449 responses that compose the research sample.

The instrument used for the data collection was a questionnaire composed of three stages. The first stage corresponds to the demographic data of the respondents, which in this research are called social data. The second stage corresponds to the Control Locus scale, using the version by Levenson (1973), which measures the Control Locus in three parts: ILC - Internal Locus of Control, CLC - Chance Locus of Control and PLC - Powerful Others Locus of Control. Finally, the last step corresponds to the resilience scale of Pesce, Assis, Avanci, Santos & Malaquias (2005), which classifies resilience into three distinct factors, in this case, factors I, II and III. Both scales are discussed in the next section. The construct referring to the questionnaire is presented in Table 1.

Table 1

Construct of the Questionnaire

Variables	Description	Block	Questions
Social Characteristics	-	1	1 to 10
Control Locus	ILC	2	1. 4. 5. 9. 18. 19. 21. 23
	CLC		2. 6. 7. 10. 12. 14. 16. 24
	PLC		3. 8. 11. 13. 15. 17. 20. 22
Resilience	Factor I	3	1. 2. 6. 8. 10. 12. 14. 16. 18. 19. 21. 23. 24. 25
	Factor II		5. 7. 9. 11. 13. 22
	Factor III		3. 4. 15. 17. 20

Source: Research data.

After the data collection, we verified the statistical methods to be used, choosing descriptive statistics, multiple linear regression, Student's T-test, ANOVA test and Cronbach's alpha coefficient for data reliability analysis. Descriptive statistics are used to understand the behavior of a variable in the dataset under analysis¹. Student's T-test and ANOVA were parametric tests for comparison of means and were used to distinguish the mean resilience and Control Locus scores according to the characteristics of the Accounting students. The T-test compares means in a binary form and, according to Hair, Black, Babin, Anderson, and Tatham (2009), is used for samples when the population variance is not known and if the objective is to test whether a given mean corresponds to a specific value or not.

The ANOVA test compares the means of larger samples and is considered an extension of the T-test. It is applied when testing if the population means are equal (Hair et al., 2009). For the null hypothesis that the data are equal to be rejected, there must be at least one group of means different from the others. In ANOVA, it is assumed that each group comes from a normal distribution with averages and with homogeneous variance. The normality of the data was assumed according to the central limit theorem, due to the sample size.

For the development of the research, multiple linear regressions were also performed. According to Fávero, Belfiore, Silva, and Chan (2009), linear regression aims to study the relationship between two or more explanatory variables, presenting a relation with a metric dependent variable. The equations that demonstrate the regression models used in this study are as follows, starting with the multiple linear regression given by equation (1).

$$FIR = \beta_0 + \beta_1 ILC + \beta_2 CLC + \beta_3 PLC + \varepsilon \quad (1)$$

$$FIIR = \beta_0 + \beta_1 ILC + \beta_2 CLC + \beta_3 PLC + \varepsilon \quad (2)$$

$$FIII = R\beta_0 + \beta_1 ILC + \beta_2 CLC + \beta_3 PLC + \varepsilon \quad (3)$$

$$RESIL = \beta_0 + \beta_1 ILC + \beta_2 CLC + \beta_3 PLC + \varepsilon \quad (4)$$

Where FIR is related to Resilience Factor I, FIIR to Resilience Factor II, RFIIR to Resilience Factor III, RESIL refers to Resilience in general, ILC refers to the Internal Locus of Control, CLC refers to the Chance Locus of Control, PLC to the Powerful Others Locus of Control, ε is the random error of the regression and β_0 , β_1 , β_2 and β_3 are coefficients generated by the regression, which express the sensitivity of the resilience to the independent variables. Finally, the reliability analysis of the data is performed, which permits analyzing the measurement scale used in the research, thus providing information on the relationships between the six individual items of the survey, leading to the validation of the same six traits.

Specifically, descriptive statistics were applied to describe the data used in the research, explaining the percentage of female and male respondents and the mean levels of locus and resilience they presented. The multiple linear regression estimated by the Ordinary Least Squares (OLS) was applied to diagnose the relationship of the Locus of Control with resilience.

Student's t-test was used to test whether there is a difference between the levels of locus of control and resilience between male and female respondents. The ANOVA test, in turn, explores the difference in locus of control and resilience among respondents from public, private, and public-private institutions, and also among single, married, and widowed respondents. Finally, Cronbach's Alpha proves the validity of respondents to the research. The development of the scales used is explained in further detail in the next topic.

3.1 Locus of Control and resilience scales

Rotter (1966) proposed the Locus of Control scale. The author initially developed a theory of social learning in which he argued that the tendency to perform some behavior is partly a function of the expectation that the response will be followed by reinforcement. Rotter (1966) defines Locus of Control as the generalized expectation of someone in his/her ability to control the events that follow his/her actions. A division into two groups was proposed: Internal Locus of Control (ILC) and External Locus of Control (ELC), in which the ILC corresponds to when individuals perceive the results as a consequence of their actions, and the ELC corresponds to the perception of the results as a consequence of external factors.

Levenson (1973), however, in studying Rotter's theory, suggested dividing the externality dimension into two subdimensions: attribution to chance and attribution to powerful others. According to the researcher, externality is not a negative dimension, as believed in Rotter's version. Levenson (1973) suggested the "defensive external", who envisage the possibility of some personal control in the future but determine the consequence by what she named powerful others. And the external individuals, similar to Rotter's proposal (1966), perceive destiny, luck, or chance as the source of control; these constitute the "authentic external" individuals.

Levenson's multidimensional scale (1973) was adapted to the Brazilian context by Dela Coleta (1987) and validated by Tamayo (2012). Overall, in the division proposed by Levenson (1973), there are three types of orientations: 1st Authentic Internal (internality) - people who do not believe in the power of other people, nor in chance, destiny or luck, but in themselves; 2nd Defensive External (powerful) - people who believe in the power of other people, but do not believe in chance or even in themselves; 3rd Authentic External (chance) - people who believe only in the power of chance, destiny or luck, that is, they do not believe in their own power or the power of other people.

The scale consists of 24 items, divided into three subdimensions with eight assertions each: Internal Locus of Control (ILC), Powerful Others Locus of Control (PLC) and Chance Locus of Control (CLC). By reading the items that make up the three subscales of the Multidimensional Locus of Control scale, it is determined that higher scores on the "internality" subscale indicate belief in oneself; higher scores on the "powerful others" subscale indicate belief in powerful people; and higher scores on the "chance" subscale point to belief in chance. The scale is a five-point Likert scale, and the respondents chose between "Strongly Disagree" and "Strongly Agree". As in the study by Damascena et al. (2016), the criterion to define the level of the Locus of Control was used: 4.20 to 5.00 - very high level; 3.40 to 4.19 - high level; 2.60 to 3.39 - neutral level; 1.80 to 2.59 - low level; and 1.00 to 1.79 - very low level. This study also confirmed its reliability by means of Cronbach's alpha, corresponding to 0.790.

As to the resilience scale, Wagnild and Young (1993) performed the first validation, with two factors for analysis. Factor I was called "personal competency" and factor II "acceptance of oneself and life". After the adaptation, Pesce et al. (2005) gave up the original classification, choosing to divide the resilience scale into three factors: Factor I - consisting of 14 assertions that indicate the resolution of actions and values (that give meaning to life, such as friendship, personal accomplishment, satisfaction and meaning of life); Factor II - with six assertions, transmitting the idea of independence and determination; and Factor III - consisting of five assertions, presenting indications of self-confidence and ability to adapt to changes. To calculate the resilience scale scores, the same logic used to analyze the Multidimensional Locus of Control scale was applied. The reliability was also confirmed using Cronbach's alpha, corresponding to 0.856.

Based on the collected data, the analysis procedures were applied, which were based on the variables estimated according to Table 2, which summarizes the research construct.

Table 2

Construct of research variables

Type of Variable	Variable	Measuring
Dependent	FIR	Mean Resilience of factor I questions (Actions and values)
	FIIR	Mean Resilience of factor II questions (Independence and determination)
	FIIIR	Mean Resilience of factor III questions (Selfconfidence and ability to adapt to changes)
Independent	ILC	Mean of Internal Locus of Control questions
	CLC	Mean of Chance Locus of Control questions
	PLC	Mean of Powerful Others Locus of Control questions
	SEX	0 when male and 1 when female
	Marital Status	0 when single; 1 when married and 2 when widowed
	HEI	0 when public; 1 when private and 2 when public/private

Source: elaborated by the authors.

In Table 2, the three resilience factors are explained that comprise the dependent variable and the variables related to the Locus of Control and the social characteristics (dummies), which are the independent variables. SPSS 21.0 was used for the statistical tests analyzed.

4. Data Analysis

In this section, the study results are discussed. The descriptive statistics of the variables are displayed in Table 3.

Table 3
Descriptive statistics of variables used in the research

Variable	Frequency	ILC	CLC	PLC	FIR	FIIR	FIIR
Male	142	3.66 (0.43)	2.39 (0.66)	2.42 (0.62)	3.92 (0.44)	3.26 (0.45)	3.78 (0.52)
Female	307	3.65 (0.44)	2.44 (0.52)	2.26 (0.56)	4.01 (0.43)	3.34 (0.44)	3.89 (0.47)

Legend: Information about means is displayed alone in the text, while information on the standard deviation is shown in brackets.

Source: Research data

Table 3 shows the Locus of Control, resilience and sex variables. Starting with the analysis of the Locus of Control, both men (3.66) and women (3.65) assign a high level to the Internal Locus of Control (ILC), which determines that the respondents, on average, consider themselves as responsible for the events of their life. In this case, one can identify a student profile as authentic internal. These results are particularly important considering the academic environment, as individuals with Internal Locus of control seek to engage in activities that refer to their ability to achieve their goals, and are more persistent and work harder to achieve results (Dela Coleta, 1982), being associated with greater ambition, motivation, success in the professional career (Macia & Camargo, 2010), which is an important characteristic for undergraduates.

In general, Locus of Control variables were, on average, similar for men and women responding to the survey. Although it is generally known that they have different personalities and characteristics, this does not explain their behavior, as the interaction with the environment (Callado et.al, 2006) needs to be taken into account. It was identified, therefore, that men, in addition to presenting greater internal locus of control, are also the ones that most determine the events of their lives to powerful others (PLC-2.42), rather than considering external factors of chance (CLC- 2.39). Subjects with greater Internal Locus of Control engage more directly in activities to achieve their goals, while external individuals manifest more emotions of non-direct responsibility (Levenson, 1973; Dela Coleta, 1987).

Analyzing the female students, in general, they presented a lower average than the male students for the Internal Locus of Control (ILC), although it is the only locus with a high and considerable score. The Powerful Others (PLC) and Chance Locus of Control (CLC) had low scores, although it can be identified that women, unlike men, first attribute the consequences of life to chance, before indicating powerful others, which determines a difference in the investigated group between the male and female sexes regarding the determination of the powerful others locus of control.

Regarding resilience, men and women, again, presented different scores for each level analyzed, recalling that level I represents the ability to solve actions and values that give meaning to life, such as friendship, personal accomplishment, satisfaction and meaning of life. Level II represents independence and determination and level III self-confidence and ability to adapt to change. As for male students, levels I (3.92) and III (3.78) are considered high. As for level II resilience, this was considered neutral for men. As for female students, the same thing happened; levels I and III were considered high and level II neutral, corresponding to 4.01, 3.89 and 3.34, respectively. Compared to men, women presented higher levels of resilience, indicating that female students are significantly more resilient than male students. Therefore, women have a better ability to overcome than men, even when experiencing similar situations of adversity (Minello & Scherer, 2014).

With higher I and III levels, it is assumed that female students are more accomplished and satisfied with their lives, have greater self-confidence, and are better suited than men in any changes that may occur during the undergraduate years. These findings also determine that male students are resilient, however, with higher levels for factors such as the resolution of actions, personal accomplishment, friendships, self-confidence, and adaptation to change.

Table 4 presents the descriptive statistics for the subdivisions of Locus of Control and Resilience.

Table 4

Subdimensions of Control Locus and Resilience Characteristics

Control Locus				
Variables	Minimum	Maximum	Mean	Standard Deviation
ILC	1.000	4.750	3.654	0.440378
PLC	1.000	4.875	2.424	0.569004
CLC	1.000	4.875	2.312	0.578705
Resilience				
FIR	1.000	5.000	3.983	0.432413
FIIR	1.000	4.667	3.315	0.44449
FIIR	1.000	5.000	3.854	0.487784

Source: Research data

When specifically analyzing the subdimensions of Locus of Control, Table 2 illustrates that the averages presented show that ILC is the locus that best represents the survey respondents because it presents the only high average. As the research sample is characterized by people who attribute responsibility for what happens to themselves, they feel responsible for controlling most of the situations they face and believe that they can interfere in the results of these situations (Dela Coleta, 1987; Callado, Gomes & Tavares, 2006). Meanwhile, the PLC and CLC presented low levels, meaning that the students surveyed do not consider them that much.

As for resilience, levels I and III represented high levels while level II was neutral, which means that, in general, Accountancy students in Brazil are self-reliant and have an inherent level of satisfaction, which makes them face the adversities with more perseverance. This means that the sample is characterized by individuals who give meaning to life, friendship, personal accomplishment, satisfaction, self-confidence and adaptation to change, having the idea of independence and determination to a lesser extent (Pesce et al., 2005).

Table 5 shows the T-tests between the Locus of Control, resilience, and sex, considering the survey respondents' answers, as shown below.

Table 5

T-test between Control Locus, Resilience and Sex

Data	Group	T-test			
		Qnt.	Mean	T	Sig.
ILC	0	142	3.664	0.311	0.756
	1	307	3.650		
CLC	0	142	2.391	-0.711	0.442
	1	307	2.440		
PLC	0	142	2.421	2.740	0.006*
	1	307	2.261		
FIR	0	142	3.926	-1.930	0.054***
	1	307	4.010		
FIIR	0	142	3.257	-2.197	0.029**
	1	307	3.341		
FIIIR	0	142	3.780	-1.877	0.061***
	1	307	3.889		

*. The relation is significant at 0.01 (2 ends).

**.. The relation is significant at 0.05 (2 ends).

***. The relation is significant at 0.10 (2 ends).

Legend: 0 for male; 1 for female; FIR: Factor I Resilience (actions and values); FIIR: Factor II Resilience (Independence and determination and self-confidence); FIIIR: Factor III Resilience (ability to adapt to changes); ILC: Internal Locus of Control; CLC: Chance Locus of Control; PLC: Powerful Others Locus of Control;

Source: Research data

As for the T-test, this determines the difference found in the groups studied. When analyzing the sex, we identified that it was statistically different (0.006) for the Powerful Others Locus of Control (PLC) group, determining that group 0, which refers to male students, is superior to the female group, that is, men believe more than women that the powerful, that is, more important people than themselves, can be responsible for the consequences of their lives. Thus, men manifest more emotions, suffer more affective influence, do not take direct responsibility for goals and are more likely to undergo persuasive influence (Dela Coleta, 1982).

Regarding resilience, when the T-test was analyzed in relation to sex, all three levels were statistically significant, with Level I and Level II at 5% and Level 3 at 10%, corresponding to 0.054; 0.029 and 0.061, respectively. With these results, it can be argued that, in all groups, men and women have different levels of resilience and, in all cases, women were more resilient than men.

These findings also determine that being more resilient, female students are better able to cope with the pressures and problems that arise as a result of the course they are undertaking, which means that they remain in the undergraduate course and do not give up in view of the difficulties resulting from the undergraduate Accountancy course. Therefore, it is assumed that regardless of the influence the environment exerts on the individual, women have a greater facility and ability to adapt to difficult situations. Therefore, the results of this research corroborate Yunes and Szymanski, (2001) and Minello and Scherer (2014) for finding strong resilience in the findings. In Table 6, the ANOVA tests between Locus of Control, resilience and the social variable called marital status are presented.

Table 6

ANOVA test between Locus, Resilience and Marital Status

ANOVA					
		Df	Mean Squared	F	Sig.
ILC	Intergroup	2	0.057	0.293	0.747
	Intragroup	446	0.195		
CLC	Intergroup	2	2.089	6.613	0.001
	Intragroup	446	0.316		
PLC	Intergroup	2	1.949	5.949	0.003
	Intragroup	446	0.328		
FIR	Intergroup	2	0.006	0.033	0.968
	Intragroup	446	0.188		
FIIR	Intergroup	2	0.135	0.565	0.569
	Intragroup	446	0.238		
FIIIR	Intergroup	2	0.107	0.542	0.582
	Intragroup	446	0.198		

Dependent	(I)	(J)	Mean difference (I-J)	Sig.
CLC	0	1	0.186283	0.003
		2	0.250758	0.192
	1	0	-0.186283	0.003
		2	0.064475	0.897
	2	0	-0.250758	0.192
		1	-0.064475	0.897
PLC	0	1	0.161232	0.015
		2	0.331124	0.063
	1	0	-0.161232	0.015
		2	0.169892	0.482
	2	0	-0.331124	0.063
		1	-0.169892	0.482

Legend: 0 – single; 1- married/partner; 2- separated/divorced; 3- widowed

Source: Research data

As for Table 6, the ANOVA test was performed, considering the social variable marital status, in relation to the Locus of Control groups. Both the External Locus of Control (CLC) and the Powerful Others Locus of Control (PLC) were statistically significant, determining a statistical difference in locus of control depending on the student's marital status. Regarding resilience, there was no difference between the groups in statistical terms, which determines that the marital status is not responsible for the difference between the groups. Thus, differences in marital status do not alter the Accounting students' ability to adapt, indicating that students do not have greater or lesser motivation to cope with environmental difficulties, whether they have a partner or not.

Also regarding the differences in the Locus of Control, to identify which of the marital status groups differ in relation to the group of external and powerful others Locus of Control, the Sheffer test was performed. Based on the test results also shown in Table 6, some findings are possible. When looking at the External Locus of Control, group 0, which refers to single persons, was statistically different from group 1, which refers to married individuals or people having a partner. These results indicate that the External Locus of Control (CLC) is most commonly found for single students.

Some studies determine that individuals with an External Locus of Control, who in fact do not believe they can control important aspects of their environment, are more likely to consider the workplace as threatening and stressful (Spector & O'Connell, 1994; Callado, Gomes & Tavares, 2006). These findings are important, considering that single students may consider the HEI environment stressful and may be unable to cope with adverse events deriving from the undergraduate course, sometimes dropping out.

Regarding the Powerful Others Locus of Control (PLC) group, when the Sheffer test was performed, two statistically significant differences were identified, between the unmarried and the married or fixed partner group on the one hand, and between the unmarried and the separated or divorced group on the other. Single people in both cases are the ones who most determine the consequences of their lives depending on powerful others who, according to Levenson (1973), are people who believe in the power of other people, but do not believe in chance or even in themselves. Accordingly, it has been found that single students more strongly determine the events of their lives to powerful people; It is inferred that this fact can be due to single people in the higher education environment being, in short, dependent on someone, such as parents, caregivers, relatives, boy- or girlfriends, roommates, among others and, therefore, do not attribute the consequences only to themselves, and think that others influenced events.

Table 7 shows the ANOVA tests between Locus of Control, resilience and higher education institution.

Table 7

ANOVA test between Locus, Resilience and HEI

		ANOVA			
		Df	Mean Squared	F	Sig.
ILC	Intergroup	2	0.218	1.127	0.325
	Intragroup	446	0.194		
CLC	Intergroup	2	0.933	2.907	0.056
	Intragroup	446	0.321		
PLC	Intergroup	2	0.602	0.602	0.166
	Intragroup	446	0.334		
FIR	Intergroup	2	0.660	0.660	0.029
	Intragroup	446	0.185		
FIIR	Intergroup	2	0.585	0.585	0.085
	Intragroup	446	0.236		
FIIIR	Intergroup	2	1.037	1.037	0.005
	Intragroup	446	0.194		
Dependent		(I)	(J)	Mean difference (I-J)	Sig.
CLC	0	1	1	0.039620	0.828
			2	0.533929	0.056
		2	0	-0.039620	0.828
	1	2	0	0.494309	0.075
			2	0	-0.533929
		2	1	-0.494309	0.075
FIIR	0	1	1	-0.074181	0.334
			2	0.431667	0.044
		2	0	0.074181	0.334
	1	2	0	0.505848	0.011
			2	0	-0.431667
		2	1	-0.505848	0.011
FIIIR	0	1	1	0.025029	0.903
			2	0.422857	0.085
		2	0	-0.025029	0.903
	1	2	0	0.397828	0.102
			2	0	-0.422857
		2	1	-0.397828	0.102

Legend: 0 - Public; 1 - Private; 2- Public-Private

Source: research data

As for Table 5, the ANOVA test was performed considering the HEI variable, whether public, private or mixed (public-private) in relation to the Locus of Control and resilience groups. As for the Locus of Control, it is identified that only the External Locus of Control (CLC) was statistically significant, determining that, for this variable, there are differences depending on which HEI the student belongs to. Therefore, it was identified that at the 5% level, the locus of control justified by external factors (CLC) is higher in mixed, public-private HEIs, than in public HEIs. In about 10%, a similar result occurs when mixed, public-private and private HEIs are confronted.

Thus, students from mixed institutions have a higher level of External Locus of Control, indicating that these students attribute the events in their daily reality to chance or third parties rather than to themselves. For Dela Coleta (1982), external individuals express their emotions more, receive the actions of the people around them more affectively, do not commit themselves strongly to their responsibilities and suffer greater influence from third parties.

Regarding resilience, the ANOVA test also determined significant differences for levels II and III. Level II resilience is different between academics from both public and private institutions compared to mixed HEIs. For level III resilience, only the public and the mixed were statistically significant, determining a difference between the groups. These findings determine that mixed HEI students have higher levels of resilience, indicating that students from these institutions cope better with situations of adversity. It is inferred that this fact occurs because this student is exposed to the difficulties of these two types of institutions; the financial burden of private HEIs and the supposed higher requirements of public HEIs. These facts may influence student resilience, as Díaz et al. (2011) argue that it is the combination of nature, quantity, and intensity of risk factors that defines the context of adversity needed for resilience.

Table 8 shows the regressions performed with resilience as a general variable in relation to the levels of Locus of Control. Initially, it can be observed that the assumptions for the use of the regression were met, as the tests prove the normality of the data, even if by the large amount of data normality can already be assumed. The same can be proved by the Pesarán-Pesarán, ANOVA, Durbin-Watson, and VIF tests, which meet the requirements and assume the homoscedasticity, linearity, self-correlation, and multicollinearity of the data.

Table 8

Regressions: Resilience and Control Locus

Dependent Variable	Independent Variable	Beta	t-statistic	Sig.	VIF	R ²	Sig. model
FIR	ILC	0.477	11.850	0.000*	1.017	0.255	0.000
	CLC	0.013	0.311	0.756	1.805		
	PLC	-0.129	-3.244	0.001*	1.816		
FIRIR	ILC	0.336	7.522	0.000*	1.017	0.132	0.000
	CLC	0.158	3.508	0.000*	1.805		
	PLC	-0.115	-2.591	0.010*	1.816		
FIIR	ILC	0.465	9.779	0.000*	1.017	0.182	0.000
	CLC	0.091	1.895	0.059***	1.805		
	PLC	-0.040	-0.841	0.401	1.816		
RESIL	ILC	0.440	12.580	0.000*	1.017	0.269	0.000
	CLC	0.063	1.790	0.074***	1.805		
	PLC	-0.108	-3.110	0.002*	1.816		
Regression Premises							
Premise	Test		Value				
Normality	Kolmogorov-Smirnov		0.453				
Homoscedasticity	Pesarán-Pesarán		0.410				
Linearity	ANOVA		0.000				
Self-Correlation	Durbin-Watson		1.909				

*, The relation is significant at level 0.01 (2 ends).

**, The relation is significant at level 0.05 (2 ends).

***. The relation is significant at level 0.10 (2 ends).

Legend: FIR: Factor I Resilience; FIRI: Factor II Resilience; FIIR: Factor III Resilience; RESIL: Overall Resilience; ILC: Internal Locus of Control; CLC: Chance Locus of Control; PLC: Powerful Locus of Control;

Source: research data

According to Table 8, when tested for the relationship of Level I resilience and the three levels of Internal, External, and Powerful Others Locus of Control, the regression results suggest that the Internal (ILC) and the Powerful Others Locus of Control (PLC) were statistically significant, determining that these Locus of Control formats explain Level I resilience, according to this sample of respondent students. As for Level II resilience, all Loci were statistically significant, determining that all Locus of Control forms identified in these students contribute to determining how resilient they are. As for Level III resilience, both the Internal Locus of Control (ILC) and the Powerful Others Locus of Control (PLC) explain this level.

When analyzing resilience in general, this is explained by the Locus of Control found in each student, regardless of what they consider, whether the Internal, External or Powerful Others Loci. These findings are important as behavioral aspects impact the work people do in their respective areas, as well as the aspects pointed out by Rotter (1966) about considering the subject's interaction with the environment, personality variables and individual characteristics, considering that the identification of these perceptions permits the identification of groups and characteristics that represent signs of attention for the institutions so that they can inhibit suffering during the academic education process and ensure improvement as a professional in the future.

Therefore, the research findings indicate that the Locus of Control, which understands the subjects' characteristics and whether they impact resistance to coercion, influence the ability to accept challenges and the propensity for persistence in efforts to obtain results (Rodrigues, 2007) and explains resilience, which is understood as the set of social and intrapsychic processes that enable the development of a healthy life, even when living in a non-healthy environment (Pesce et al., 2004). Particularly in the educational field, studies like this are important considering the need to balance the demands of social, academic and personal skills and overcome adversities to guarantee success in all spheres in the life of a student (Ruter, 1987; Díaz, Giraldo, & Buitrago, 2011).

4.1 Discussion of results

By analyzing each variable individually, a profile could be identified for the Accounting students who served as respondents. In particular, it could be identified that men and women had a high level of Internal Locus of Control. Thus, these academics accept more challenges and are more dedicated to achieving the goals and objectives, as in the case of graduating, despite difficulties during the course. Because they are also more resistant to coercion, these may be the students who have not changed their course.

Even though they did not score as significantly as the Internal Locus of Control, the Chance Locus of Control and the Powerful Others Locus of Control scored differently for men and women. What can be identified based on these differences is that women first attribute the responsibility for the events in their life to external factors, such as luck or God, while men first attribute them to powerful others, that is, people who are more important than themselves, assigning to them the responsibility for determining their results. In the undergraduate setting, this would correspond to female students believing in bad luck, while male students would believe that a low grade would be a consequence of the teacher for example.

When analyzing resilience, which in this study was measured by factors, it was identified that men and women presented high levels for Factor I and Factor III, while the results were neutral for Factor II. These results determine that Accounting students have high levels of resilience, especially women who score higher than men on all factors. As already identified by previous research, there is a difference between the sexes. Factors I and III indicate that, in the life of each, values such as friendships, satisfaction and personal accomplishment are present, as well as self-confidence and ability to adapt to changes, which in the case of Accountancy could be related to frequent changes in legislation, which means that the student always needs to be up to date and seek new knowledge; hence, the student needs to rest on self-confidence and be the professional (s)he desires.

When the social characteristics of marital status were analyzed in the previous section in combination with the students' Locus of Control and student resilience, it was found that the Locus of Control is different for the students, depending on the marital status, but not statistically different regarding resilience. After performing the tests, it could be identified that the External Locus of Control, which refers to chance, is higher for single students. These findings can be justified, as married students tend to have greater responsibilities and feel more responsible for their choices of life, as they already have to make daily decisions within their family environment, making them equally persistent in the course.

The Powerful Others Locus of Control was also statistically different between the unmarried and the married and between the unmarried and the widowed. The single persons again attribute the consequences of their lives to powerful people. The findings determine that single individuals are generally more likely to undergo persuasive influence and suffer more from affective influences, that is, they may be more willing to give up because they feel pressured by another person, whether parents or friends. As discussed in the previous section, you may feel more pressure from the environment, and not know how to deal with stress.

Regarding the variables of HEI, public, private and mixed (public-private) for the Locus of Control, statistical differences were found when referring to the Chance Locus of Control. The findings indicate that students affiliated with mixed educational institutions presented more Chance Locus of Control, without assuming the responsibility for what happens to them. As for resilience, the findings are similar, as students from mixed institutions have different levels of resilience than students from public or private institutions.

Regressions were also calculated to identify whether the locus of control factors explained the resilience of the students surveyed. With the regressions analyzing the factors separately, it could be determined that level I resilience, which refers to things that give meaning to life, is made up of individuals who have Internal Locus of Control and part of the Powerful Others Locus of Control. At level III, the findings are repeated and, at level II, all the locus forms were statistically significant. Thus, it can be concluded that the level of resilience is determined by the individuals' Locus of Control, regardless of whether it is Internal or External. Thus, the research hypotheses were accepted, as shown in Table 9.

Table 9

Acceptance of Hypotheses

Hypothesis	Situation
H1: Accounting students' resilience is related to their control locus.	Not rejected.
H2: Accounting students' social characteristics distinguish their resilience and control locus.	Not rejected.

Source: research data.

Finally, there are unpublished findings that encourage new research to thoroughly understand these environments and that may indicate research possibilities to assist managers, teachers or authorities in the training of personal skills and self-knowledge, so that the individual does not get traumatized, gain resilience and reach higher levels of Internal Locus of Control in the face of difficulties encountered during the Accountancy course.

5. Final Considerations

The objective in this research was to analyze the relation of the Internal and External Locus of Control with resilience, according to the social characteristics of the Accounting students. Thus, the research is characterized as a descriptive and quantitative survey. For the accomplishment of this study, a three-part questionnaire was sent to Accountancy students; the first one referring to demographic data - in this research called "social data"; the second relative to Locus of Control; and, finally, the third on resilience. With the respondents, the survey relied on a sample of 449 students.

The results showed that there are differences between men and women in view of the Locus of Control and resilience. Women have a somewhat lower level of Internal Locus of Control compared to men, although both have high levels. As for resilience, women score the highest at all levels; I, II and III. The differences found also extended to the marital status, with single individuals being the most different regarding the marital status found in the sample. As for HEIs, it has been identified that students from mixed institutions (public-private) presented the highest chance locus of control, not assuming responsibility for what happens to them.

Considering the results found and the discussions presented in this work, it is concluded that Accounting students generally have high levels of resilience, as well as of Internal Locus of Control, which causes them to have a profile of determined, self-confident and persevering individuals in the face of the difficulties during the undergraduate Accountancy course. We also highlight the relationship between resilience and locus of control, as evidenced in the regression, as it was found that the Internal and Chance Locus of Control increase the students' resilience, while the Powerful Others Locus of Control decreases resilience. The findings are also important in the Brazilian scenario because they represent a perspective of limited behavioral accounting research.

As a theoretical contribution, we highlight the research findings regarding the Accounting students, potential future elaborators of the financial statements and research in the area of human behavior, bringing interdisciplinarity to the study between psychology and applied social sciences. This study also aims to open and stimulate new research that understands the environment and the relationships between social and behavioral variables, establishing a path and opportunity for future studies.

As a limitation of this study, we highlight the choice of scales, according to the authors' interpretation, because this choice was intentional. To do so, we suggest new studies like this one or using other variables, aiming to better understand the variables that may actually related to individuals' behavioral factors. It is also suggested to carry out other studies with other Accounting groups, in order to compare the findings with the results obtained from this research.

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Guidelines for Authors

1. Paper Submission Guidelines

To submit articles to the *Journal of Education and Research in Accounting* – REPeC authors should follow the standards and criteria set by REPeC. From January 2013, the guidelines of the American Psychological Association (APA) with regard to citations and references should be followed. Submissions not complying with the standards will be rejected.

Articles submitted to the journal must be original, i.e., cannot have been published or submitted to another journal.

Articles may be written in Portuguese, English, with at least 5,000 and maximum 9,000 words, including tables, figures, notes and references. A maximum of 5 (five) authors are allowed per article. All papers accepted will be translated and published in two languages: Portuguese and English.

Articles containing tables or figures, they [the tables and figures] should be in a format that allows them to be edited. In case some of these Figures or Tables have been imported from other programs such as Excel, Power Point etc., the source file must also be sent as Supplementary File.

Do not use expressions like id., ibid., op. cit., loc. cit. and the like, or reference notes and footnotes. Notes at the end of the text are acceptable, but should be avoided.

The submission of articles should be done electronically, through the www.repec.org.br website. At the end of the submission an electronic message will be sent by e-mail, confirming receipt of the article.

2. Content and Formatting of Papers

At the moment of submission, the articles should contain:

- The **title** in the language of origin of the article (Portuguese or English) without identifying the author(s);
- An **abstract** written in the language of origin of the article (Portuguese or English) with at least 150 and at most 200 words, single space between lines, in four paragraphs containing the following elements, highlighted: **Objective, Method, Results and Contributions**. At the end of the abstract should be placed **three to five** keywords;

Objective: this study was aimed at investigating the relevance of accounting education and research for the growth of the Brazilian economy during the first decade of the 21st century.

Method: to collect the data, a structured questionnaire was used, elaborated based on the relevant literature. The questionnaire was tested and applied to a sample of Brazilian accountants and businessmen during 2017. In the analysis of these data, content analysis was applied and statistical tests were used to establish relations between the answers obtained.

Results: the main findings of this study indicate that the expansion of accounting education and research in Brazil was essential for the growth of the economy, according to the respondents' perception, despite the impression that accountants and businessmen need to make better use of the accounting information.

Contributions: from the academic viewpoint, the evidences from this research contribute to fill of an important existing gap in the Brazilian literature. What the market is concerned, they contribute by providing evidence that, despite its perceived relevance, its users need to make better use of the accounting information.

Key words: Education; Research; Accounting.

- The article itself, written in Portuguese or English, with at least 5,000 and at most 9,000 words, including tables, figures, notes and references.
- The pages of the articles should be properly numbered in the upper right corner, typed with Word for Windows, under the following conditions:
 - A4 paper (210 x 297 mm);
 - Times New Roman, size 12;
 - Spacing: single;
 - Paragraph input: 1.25;
 - Margins: 3cm top, 2cm bottom, 3cm left, 2cm right;
 - Tables and figures in Times New Roman, size 10;
 - Citations and references must comply with current standards of the APA (American Psychological Association).

3. Tables and Figures¹

Tables and figures should be used in articles whenever their information make text comprehension more efficient, without repeating information already described in the text.

3.1 Tables

The table should usually show numeric or textual information organized in an orderly exposition of columns and rows. Any other statement should be characterized as textual figure.

The table should be displayed with its information visible and sufficient for their understanding and should be formatted as follows:

¹ Most of these guidelines were adapted from the Manual for Submissions of the *Revista de Administração Contemporânea* – RAC, available at www.anpad.org.br.

Table editor	Word for Windows 97 or superior. In case authors have drawn their tables in Microsoft Excel or in a similar program, please remake the tables using the feature in Word.
Font	Times New Roman, size 10.
Line spacing	Simple.
Spacing before and after paragraphs	3 pt.
Table colors	Use only black and white (grayscale).
Title	The table title must be brief, clear and explanatory. It should be placed above the table, in the top left corner, and on the next line, just below the word Table (with a capital initial), followed by the number that designates it. The tables are presented with Arabic numerals in sequence and within the text as a whole. Eg: Table 1, Table 2, Table 3, and so on.
Citation of tables	When citing tables in the text, type only the number referring to the table, for example Table 1, Table 2, Table 3 and so on. (the word 'Table' should be presented with the first letter capitalized). Never write 'table below', 'table above' or 'table on page XX' because the page numbers of the article may change while formatting.
Table notes	The font used in the notes of the table should be Times New Roman, size 10, single spaced. The notes should be described in the footnote of the table, and they serve to indicate the Source of the information of the table, and other information important to understanding the table.

3.2 Figures

The figure should show a flow chart, a chart, a photograph, a drawing or any other illustration or textual representation.

The figure should be displayed with its information visible and adequate for its understanding, and should be formatted as follows:

Font	Times New Roman, size 10.
Figure colors	Use only black and white (grayscale).
Format	Figures should be submitted in an editable format.
Title	It explains the figure concisely, but discursively. The title should be placed under the figure and numbered with Arabic numerals in sequence, preceded by the word Figure (with initial capital). Eg: Figure 1, Figure 2, Figure 3, etc. After the title, any other information necessary for clarification of the figure or source must be added as a note.
Captions	The caption is the explanation of the symbols used in the figure and must be placed within the limits of the figure.
Size and proportion	Figures must fit the dimensions of the journal. Therefore, a figure should be drawn or inserted into the article so that it can be reproduced in the width of a column or page of the journal to which it will be submitted.
Citations in the main text	When citing a figure in the text type only the number referring to the figure, e.g. Figure 1, Figure 2, Figure 3 and so on. (the word 'Figure' should be presented with the first letter capitalized). Never write 'figure below' figure above ', or even 'figure on page XX' because the page numbers of the article can be changed during formatting.

4. Citations and References

For the full version of the standards of citations and references according to APA (American Psychological Association), access <http://www.repec.org.br/index.php/repec/article/view/1607/1237>.