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Entrepreneurship in social: Brazilian university students toward a career with purpose

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Abstract

Purpose – Social entrepreneurship (SE) presents specificities that the entrepreneur must address. Entrepreneurial intention (EI) and entrepreneurial orientation (EO) in SE should reflect specific characteristics of behavior. The purpose of this study is to identify the intention of Brazilian university students to undertake SE, having individual social EO (individual entrepreneurial orientation (IEO)-social) as their predictive behavior.

Design/methodology/approach – This paper collected study data from Brazilian university students. To test the study's hypotheses, this paper used confirmatory factor analysis, structural equation model, partial least squares and generalized linear regression model.

Findings – The results indicate that Brazilian university students positively respond to their intention to become social entrepreneurs in the future, regardless of gender, courses or types of universities. In line with the literature, IEO-Social proved to be a strong predictor of EI-social.

Research limitations/implications – This study was limited to understanding EI-social from IEO-Social. Besides, its sample is non-probabilistic, therefore, the findings of this study cannot be generalized.

Practical implications – The results encourage the inclusion of SE in entrepreneurial education programs. They guide the involvement of students from different areas of knowledge in activities aimed at higher education.

Social implications – Evidence indicates that including the SE theme in entrepreneurial education programs proves to be valuable for opening purposeful career opportunities for students.

Originality/value – The study contributes to eliminating the gap in studies on EI-social in Brazilian university students. It also offers the IEO-social scale, theoretically constructed and with superior psychometric quality.

Keywords Social entrepreneurship, Individual entrepreneurial intention, Individual social entrepreneurial orientation, Measurement, Scales

Paper type Research paper

The authors contributed in the following ways:

Márcia Maria Garçon: Conceptualization (Lead), Data curation (Lead), Formal analysis (Lead), Investigation (Lead), Methodology (Lead), Supervision (Equal), Validation (Lead), Writing-original draft (Lead), Writing-review and editing (Lead).

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1. Introduction

In 2018, Deloitte reported that young people within the millennial and Z generations, from 36 countries, are unhappy with business behavior regarding socio-environmental issues and would like to tie their career to a social purpose with a positive impact on society. Operating in social entrepreneurship (SE) can be an option, as it has a wide field of action. The Map of Civil Society Organizations of the Institute of Applied Economic Research of the University of São Paulo presents 781,921 registered entities (IPEA-USP, 2019). Pipe Social (2019) mapped 1,002 businesses across the country.

There are different definitions of SE, and the complexity of the theme makes a single concept difficult. However, it is common to perceive its role as promoting the improvement of people's living conditions through activities, products and services that result in the transformation of the entire social and economic system of society (Dwivedi & Weerawardena, 2018; Popov, Veretennikova, & Kozinskaya, 2018).

Based on this understanding, organizations are created under different models. Companies at the base of the pyramid (Prahalad, 2005), seek the social and economic insertion of the low-income population; social companies operate by the market mechanism but reinvest the profit in the business or benefits for the community (Borzaga, Depedri, & Galera, 2012), work cooperatives (Theodossiou, Rigas, Goulas, & Rigas, 2019) and non-governmental organizations (NGOs) (Dorado, 2006).

In recent years, researchers in countries with emerging economies have concentrated on identifying the interest in undertaking SE (EI-Social) among young people (Ayob, Yap, Amat Sapuan, & Abdul Rashid, 2013). Our study seeks to evaluate it in the light of two important constructs, namely, individual entrepreneurial orientation (IEO) and entrepreneurial intention (EI). EI is defined as "a self–acknowledged conviction by a person that they will set up a new business venture and consciously plan to do so at some point in the future" (Thompson, 2009, p. 676). This point in the future can be imminent or indeterminate and can never be reached. IEO is the predisposition toward entrepreneurship, formed by entrepreneurial characteristics that direct the intention to undertake (Bolton & Lane, 2012) and differentiate entrepreneurs from non-entrepreneurs (Kollmann, Stöckmann, Meves, & Kensbock, 2016).

The work by Bolton and Lane (2012) confirmed that EI and IEO are positively correlated constructs in commercial entrepreneurship. However, because of the socio-economic and environmental challenges that comprise the scenario of the social entrepreneur's performance, we believe in reframing the IEO construct to explain EI-social. According to DeVellis (2003), correctly defining a concept is a critical factor for its understanding and evaluation. Thus, we also present an appropriate scale for its measurement and evaluation – the IEO-social scale.

2. Literature review, problem issue and hypotheses

2.1 Entrepreneurial intention in the context of social entrepreneurship

The systematic literature review by Rai, Prasad, and Murthy (2017) on entrepreneurial behavior identified three significant models for evaluating EI, namely, the model proposed by Shapero and Sokol (1982) and validated by Krueger, Reilly, and Carsrud (2000); the model proposed by Bird (1988) and revised by Boyd and Vozikis (1994) and Ajzen's (1991) model of the theory of planned behavior. They all aim to identify the events that guide individuals to seek elements of social, psychological and self-efficacy theories (Bandura, 1986). These combined factors can form an entrepreneurial behavior (Ajzen, 1991). The literature agrees that EI is a state of mind toward the creation of a new business (Bird, 1988), an indicator of the commitment to adopt an entrepreneurial behavior (Liñán & Chen, 2009).

As Shapero and Sokol (1982) postulated, the greater the understanding that the ventures bring positive results, the greater the probability the individual will develop the EI. Thus, in SE, EI must also represent the determination to change society (Seelos & Mair, 2005). Social entrepreneurs seek not only financial benefits but also social benefits (Nga & Shamuganathan, 2010), and positive social impacts should be considered. It is assumed that the EI construct applied to the context of SE (EI-Social) is theoretically acceptable. Inspired by the concept of Thompson (2009), it can be understood as the recognition of a person's willingness and commitment to start a new social enterprise, be it in any organizational form and consciously plan to do it in the future.

2.2 Individual entrepreneurial orientation focused on the social – IEO-social

The literature on entrepreneurial orientation (EO) (Miller, 1983; Covin & Slevin, 1986), which identified three dimensions for the construct (innovation, proactivity and risk propensity), has been expanded with studies on its application within the individual (Bolton & Lane, 2012; DeGennaro, Wright, & Panza, 2016). For Kollmann et al. (2016), EO is an individual disposition, including action tendencies and entrepreneurial-specific thinking styles that drive people intending to become entrepreneurs in the future.

The IEO is based on the entrepreneurial characteristics and attitude of innovation, risk propensity and proactivity (Lee & Peterson, 2000), which direct people to the intention of becoming entrepreneurs in the future (Kollmann et al., 2016; Bolton & Lane, 2012). The entrepreneur is the subject capable of recognizing and exploring opportunities (Shane & Venkataraman, 2000; Sarasvathy, Dew, Velamuri, & Venkataraman, 2002), through the application of accumulated knowledge and motivation to create value (McMullen & Shepherd, 2006).

The social entrepreneur considers individual and business interests, in addition to the complex and systemic results involved in identifying and exploiting opportunities. The impact of activities, involvement and expectations of communities and participation and objectives of public institutions and private partners are the variables considered (Seelos & Mair, 2005). Thus, the dimensions of Individual Social EO will encompass such behavior if they are understood as:

- Social proactivity represents the ability and willingness of the social entrepreneur to lead and perform actions to effect changes in the environment, oriented to social objectives and the anticipated search for new solutions/opportunities. It is focused on cutting-edge practices in wanting to make the world a better place (Short, Moss, & Lumpkin, 2009).
- Social innovation represents the predisposition to introduce novelties through experimentation and creative processes to create solutions to social problems with a focus on causes and sustainable improvements (Murray, Caulier-Grice, & Mulgan, 2010; Dees, 2001).
- The behavior of propensity to social risk is related to the willingness to commit various resources to the development of solutions that act on the causes of socio-environmental problems, to create changes and sustainable improvements for the well-being of society.

IEO-social is a set of characteristics that lead to actions of discoveries and exploration of opportunities to solve socio-environmental problems. Based on these considerations, IEO-social must embrace positive, simultaneous and significant correlations between its dimensions, creating the following hypotheses:

H1a. Social proactivity is positively related to IEO-social.

H1b. Social innovation is positively related to IEO-social.

H1c. The propensity for social risk is positively related to IEO-social.

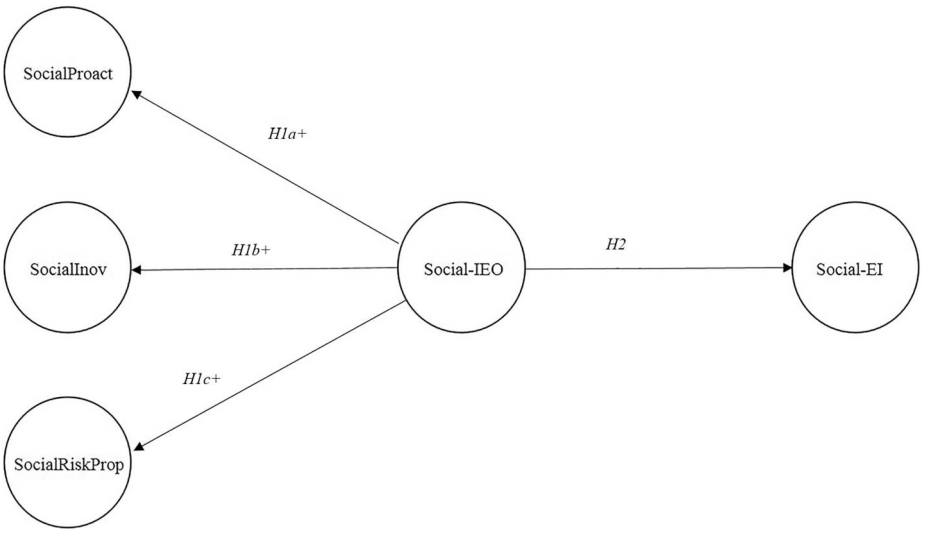
The social entrepreneur can play a relevant role in accelerating innovation processes and in inspiring other economic and social actors around the same cause. The culture of SE requires the figure of the entrepreneur to act as an agent of transformation (ASHOKA, 2018), therefore, such orientation characteristics should direct the individual to the initiative. Previous studies of commercial entrepreneurship indicate IEO is a predictor of entrepreneurial intent (Bolton & Lane, 2012). We expect that the same relationship between both constructs will take place in the SE. Therefore:

H2. IEO-social is positively related to the EI for the social (EI-social).

Figure 1 describes the conceptual model, grouping the hypotheses.

2.3 Youth and social entrepreneurship

Authors indicate that the economic literacy and simultaneously, the socioeconomic status of parents, have a significant effect on the entrepreneurial interest of university students. These elements enable them to analyze changes in the demand and supply of goods and to manage and allocate individual income (Quin, Hasan, Dinar, Tahir, & Ihsan, 2020). Additionally, young people have different opportunities compared to previous generations, as they have access to university training and educational entrepreneurship programs (EEP) (Fairlie, 2005), which have a significant influence on university students' EI (Fayolle & Gailly, 2015).



Source: The authors

Figure 1.
Conceptual model

Authors such as Bosma, Hessels, Schutjens, Van Praag, and Verheul (2012) suggest that young people need examples to inspire and encourage them in their entrepreneurial careers in non-traditional contexts. In developing economies, young people experience and recognize social problems and can develop pro-social behavior positively associated with the viability and desirability of undertaking Social (Lacap, Mulyaningsih, & Ramadani, 2018; Kedmenec, Rebernik, & Tominc, 2017; Tiwari, Bhat, & Tikoria, 2017). Thus, we define the main question of this research as do Brazilian university students intend to undertake on social (EI-social)?

Situational and environmental factors (Krueger et al., 2000) such as gender, undergraduate courses and university environment can assess this intention.

The literature in emerging countries indicates that among this audience, gender does not significantly affect EI-social. In India, students of engineering courses at a private university did not present EI-social with a significant difference between genders (Tiwari et al., 2017). The same happened with business students in Eastern European countries surveyed by Kedmenec et al. (2017). Given that emerging countries share similar levels of social inequality and young people from different countries manifest the same socio-environmental concern (Deloitte, 2018), it is expected that the results of this research with Brazilian university students will be in line with international studies:

H3. Gender has no significant effect on EI-Social among Brazilian university students.

The literature produced studies that expand research on EI-social with varied courses and indicate the same positive response toward EI-social (Lacap et al., 2018; Tiwari et al., 2017; Kedmenec et al., 2017; Rahman, Othman, Wahid & Pihie, 2016). The social cognitive career theory (Lent, Brown, & Hackett, 1994) can explain these results by sharing with the models of EIs the basic premise that people develop their professional aspirations in those activities that they perceive as viable and desirable (Bandura, 1986). Hockerts (2017) found that wages and job stability do not motivate people who intend to venture into SE, but the opportunity to make a social change does. While the career choice process is a sequence of elections between intentions and vocational conduct, the courses chosen should not influence EI-Social. Thus, *H4* includes the courses authorized and classified by the Ministry of Education (MEC/INEP, 2018):

H4. There is no significant difference in EI-social among business, administration and law students; engineering and information and communication technologies; social sciences, health and humanities.

Recent studies present evidence that environmental contexts, such as the university environment, affect EI by influencing the precursors of intention such as desirability and perception of viability (Krueger et al., 2000). Trivedi (2016) identified that cognitive and non-cognitive aspects inserted in EEP appear to have a positive correlation with the precursors of EI. In Malaysia, Pihie, Bagheri, and Sani (2013) identified that students from public higher education institutions (HEIs) are more aware of their skills, abilities and learning resources, being more likely to learn better knowledge for the entrepreneurship process than private university students. However, interestingly, students from private universities had a greater desire to become entrepreneurs.

The profile of HEIs, whether public or private, differently interferes in the development of EI related to cognition by the standards and values that transfer to students (Arora & Jain, 2019). It is expected that, for EI-Social, this influence will also be found:

H5. Students from public and private HEIs present significant differences in EI-social.

3. Method

3.1 Sample and sampling procedures

This study is quantitative, exploratory and cross-sectional (Malhotra, 2007). The authors used SnowBall to create the non-probabilistic convenience sample (Flick, 2013), which was composed of university students from different undergraduate courses and public and private HEIs.

The questionnaire was distributed and accessed over the internet through a link sent by email. The data collection took place between November 2019 and May 2020. To calibrate the respondents' level of information, we presented the concept of HEI and the different types of social enterprises.

We received 284 questionnaires, which we reviewed for incomplete questionnaires and/or skewed responses (Freire, Senise, dos Reis, & Ono, 2017). We completed the sample with 183 respondents, 33 different courses, 22 different public and private HEIs from six states of the Federation (São Paulo, Minas Gerais, Goiás, Mato Grosso do Sul and Rio Grande do Norte). Demographic details are shown in Table 1.

3.2 Scales

After reviewing the literature, we created 24 original statements for the three dimensions of IEO-social, which underwent content evaluation by specialists (DeVellis, 2003). In total, 24 entrepreneurship researchers participated in this stage (18 doctors from state and federal public universities, 4 from renowned private institutions and 2 researchers from the National Association of Studies in Entrepreneurship and Small Business Management).

The result unveiled that some sentences were confusing, classified in up to three different dimensions, therefore, we eliminated all in this situation. We selected only items that had a mention index in the correct dimensions above 60%. In total, 18 validated items completed the list, divided between the 3 dimensions of the construct, namely, social proactivity (6 items); social innovation (7 items) and propensity to social risk (3 items).

We performed an initial validation test, conducted with 198 social entrepreneurs. In this study, the social risk propensity scale showed psychometric weaknesses according to the

Variable	Frequency	(%)
Gender		
Male	80	43.7
Female	99	54.09
Not provided	04	2.21
*Courses INEP 2**		
Business, administration and law	124	67.76
Engineering and IT	34	18.58
Social science, health and humanities	25	13.66
Type of university		
Public	53	28.97
Private	130	71.03

Note: *The courses were categorized by the criteria of MEC/INEP (2018)
Source: Research data

Table 1. Sample characteristics (n = 183)

criteria of Hair, Hult, Ringle and Sarstedt (2017). It was then decided to replace it, using items of risk propensity scales previously tested in the literature. Four items were adapted to the social context of the instruments used by Moraes, Iizuka, and Pedro (2018) and Kraus, Niemand, Halberstadt, and Syrjä (2017).

The IEO-social scale proceeded to the final test with 17 items. Table 2 displays the final and validated items.

EI for the social: intention to undertake is a construct widely tested and validated in the literature. Thus, we measured it based on items adapted from the instruments proposed by Liñán and Chen (2009) and by Moraes, Iizuka, and Pedro (2018).

A seven-point Likert scale, ranging from 1 ("strongly disagree") to 7 ("strongly agree") measured both the IEO-social scale and EI-social scale.

3.3 Analysis of the data

We used the structural equations model and partial least squares (PLS), along with the SmartPLS 3.0M3 software, to test the theoretical model of this study, following the recommendations of Ringle, Silva, and Bido (2014). This verified the hypotheses about EI-Social in a generalized linear regression model (LRM) accompanied by an analysis of variance with the support of the statistical package for the social sciences-22 software. LRMs are used when the residues (error) of the model have a different distribution from the normal and/or the assumption of homogeneity of the variance is violated. LRMs recognize that the response variance is not constant (it can be a function of the mean) and it is possible to obtain linearity through a function that connects the mean of the response variable and the linear polynomial of the independent variables (Myers & Montgomery, 1997).

4. Results

4.1 Convergent and discriminant validity

The first round of evaluation of the convergent and discriminant validities of the model indicated low results of average variance extracted (AVE) of propensity to social risk and social innovation. Therefore, we analyzed the factor loadings of the variables, especially those constructs. This step removed five items that had factorial loads less than 0.70. The items eliminated are from the social innovation scale ("I am interested in new answers to social and environmental problems;" "I believe that the transformation of the world involves new ideas for old social and environmental problems;" "I am in favor of trying new activities, but not necessarily risky, to solve social and environmental problems instead of repeating what others usually do;" "I prefer the challenge of working in organizations that work with social and environmental projects and products than the routine of a traditional company") and the social risk propensity scale ("I believe that bold action is necessary to take advantage of the opportunities that SE presents"). Table 2 shows the adjustment of the IEO-social construct in three individual factors and 12 items.

This study confirmed convergent and discriminant validities, with all values adequate with AVE (> 0.50), compound reliability (> 0.70) and Cronbach's alpha (> 0.60), as displayed in Table 3, and the quality criteria psychometric variables of the attended variables, according to Table 4.

The results confirm that the dimensions of IEO-social could represent the individual traits of social entrepreneurs and the guiding principles of conduct (Rokeach, 1973) toward SE. This discovery is in line with the literature (Covin & Slevin, 1986; Lee & Peterson, 2000; DeGennaro et al., 2016). EI-social captured the desire of these university students to undertake SE in the future, confirming that the premises of the construct are also valid for this sector (Fayolle & Gailly, 2015).

Table 2.
Confirmatory factor analysis

Items		Factors loadings				
		Proat-social	Innov-social	PropRisck-social	EI-social	Cronbach's alpha
Proat-Social_1	I usually organize social and/or environmental aid actions, even before someone asks me	0.803				0.855
Proat-Social_2	I seek to transform the social and/or environmental reality of my city (neighborhood, country), even if no one is doing it	0.764				
Proat-Social_3	I prefer to "speed up" and act to make the world a better place instead of sitting around and waiting for someone to do it	0.730				
Proat-Social_4	I usually take actions to make the world a better place to live	0.733				
Proat-Social_5	I always participate in actions that improve people's lives and the environment	0.728				
Proat-Social_6	I create social projects and/or environmental and I invite my friends and others to participate	0.807				
Innov-Social_1	I like to create unusual projects to solve social and environmental problems		0.874			0.862
Inov-Social_2	I am a determined person in search of innovative solutions to social and environmental problems		0.880			
Innov-Social_3	I am concerned with proposing new solutions to social and environmental problems. Something that no one has ever done before		0.901			
PropRisck-Social_1	I would assume a long-term debt, believing in the results and opportunities that social entrepreneurship would bring to society			0.797		0.759
PropRisck-Social_2	I admit to taking risks and investing time and money in social and environmental projects and products that can contribute to a great positive impact on society			0.836		
PropRisck-Social_3	I am not afraid to invest resources in social entrepreneurship			0.832		
EI-Social_1	I would create an organization focused on solving social and/or environmental problems				0.809	0.932
EI-Social_2	I would invest time and money to create a social organization that works with social or environmental issues				0.830	
EI-Social_3	I would invest time and money to create a business with a social impact with solutions for the social or environmental				0.817	
EI-Social_4	I would create a business with a social impact that would act on solutions for the social or environmental				0.805	
EI-Social_5	I will do whatever it takes to act in social entrepreneurship				0.780	
EI-Social_6	My professional goal is to be a social entrepreneur				0.746	
EI-Social_7	I will make great efforts to create and maintain a social enterprise				0.826	
EI-Social_8	Even working in other companies. I have a dream of being a social entrepreneur				0.796	
EI-Social_9	I will make great efforts to create and maintain a business with a social impact that works with the social or environment				0.829	

Source: Research data

4.2 Structural model

The analysis of the structural model focuses on the causal relationships in the main model (Figure 1) and the hypotheses tests. The authors considered the quality of the solution obtained as the evaluation of the path coefficients (Γ), which can be interpreted as the betas (β) of simple linear regressions, and the determination coefficient (R^2), both with $p < 0.05$ (Hair, Hult, Ringle, & Sarstedt, 2017). The bootstrap technique with substrate validated the model. We performed 300 repetitions (re-sampling) to evaluate the student's *t*-test (t> 1.96).

Table 5 shows that the values reached the psychometric quality criteria of the model, accepting *H1a–H1c* with strong and significant relationships ($p < 0.001$). Each dimension of the IEO-social construct – social proactivity ($\beta = 0.88, p < 0.01$), social innovation ($\beta = 0.82$, $p < 0.01$) and propensity for social risk ($\beta = 0.73$, $p < 0.01$) was able to explain this phenomenon. This result attests to the empirical nature of the construct as reflective and second-order, supporting the arguments that guide this measurement approach (Kreiser, Marino, & Weaver, 2002; Anderson, Kreiser, Kuratko, Hornsby, & Eshima, 2015).

The data confirms the condition of IEO-Social as an antecedent of EI-Social (*H2*), with a positive and significant indicator ($\beta = 0.66$, $p < 0.01$). The effect of the determination coefficient exhibits the strong explanatory potential of IEO-social for EI-social ($R^2 = 0.445$).

Table 3.
Convergent validity

Constructs	AVE	CC	AC
Social entrepreneurial intention	0.648	0.943	0.932
Social innovation	0.783	0.915	0.862
Social proactivity	0.580	0.892	0.855
Propensity to social risk	0.675	0.862	0.759

Notes: Average variance extracted (AVE); composite reliability (CR); Cronbach's alpha (CA)
Source: Research data

Table 4.
Discriminant validity

Variables	EI-social	Innov-social	Proat-social	PropRisc-social
EI-social	*0.805*			
Innov-social	0.528	*0.885*		
Proat- social	0.511	0.561	*0.761*	
PropRisck-social	0.644	0.497	0.447	*0.822*

Note: Square root of the AVEs of the constructs
Source: Research data

Table 5.
Structural relationships – statistics

Paths	Original sample	Mean	Standard error	*t*-test	*p*-value	R^2
H1a (+): IEO-social → Proat-social	0.882	0.883	0.022	40.898	0.001	0.445
H1b (+): IEO-social → Innov- social	0.821	0.823	0.030	27.053	0.001	
H1c (+): IEO-social → PropRisck-social	0.730	0.731	0.040	18.389	0.001	
H2 (+): IEO-social → EI-social	0.667	0.668	0.043	15.340	0.001	

Source: Research data

This result reinforces and expands the literature (Bolton & Lane, 2012) by validating this positive relationship with SE.

4.3 General linear model

We conducted the general linear model analysis with the EI-social as a dependent variable and as factors gender (male and female), HEI typification (public and private) and courses. At this stage, two people did not answer their gender characterization and two others did not provide their HEI, therefore, the sample, shown in Table 6, completed at $n = 179$. Although the samples between groups are unbalanced, Levene's error test for equality of variances confirms their homogeneity and statistical validity in the study ($Z = 0.864$, $p > 0.05$).

The analyzes answer the research question indicating that the intention to undertake in social among the surveyed university students is positive, with averages ranging from 3.71 (men, from business, administration, law courses in public HEIs) to 6.44 (women studying engineering and information and communication technologies in private HEIs).

Despite the variation in the level of intention among students in the different independent variables, the relationships hypothesized by *H3–H5* are not significant at the level of $p < 0.05$ or $p < 0.001$ (Table 7). As expected, we found no significant differences in the effects of gender ($Z = 1.690$, $p > 0.10$) and courses ($Z = 0.799$, $p > 0.10$).

Sample characteristics ($n = 179$)	*N*
Business, administration, Law	123
Engineering and information and communication technologies (ICTs)	33
Social sciences, health and humanities	23
Private HEIs	131
Public HEIs	48
Male	80
Female	99

Note: Classification of courses according to the Ministry of Education
Source: Research data

Table 6. Sample characteristics sample (*N*)

Origin	Type III sum of squares	df	Medium square	Z	Sig.
Corrected model	6.232[a]	4	1.558	1.08	0.368
Intercept	2,045.181	1	2,045.181	1,418.419	0
Course	2.305	2	1.152	0.799	0.451
HEI	3.581	1	3.581	2.484	0.117
Gender	2.437	1	2.437	1.69	0.195
Standard	250.886	174	1.442		
Total	3,772.21	179			
Corrected total	257.118	178			

Note: [a]$R^2 = 024$ (R^2 adjusted = 0.002). Dependent variable: social entrepreneurial intention
Source: Research data

Table 7. Effects testing – GLM

The equality of EI-Social between genders confirms previous studies with the same profile as the sample (Tiwari et al., 2017; Kedmenec et al., 2017), even with different predictor variables in each of these studies. This discovery is consequential, as in commercial entrepreneurship, studies on gender show contradictory results (Bagheri & Pihie, 2014).

The confirmation of *H4* corroborates with previous studies that indicate a positive correlation between IE and interests and vocational conduct in different areas of knowledge (Lanero, Vázquez, & Muñoz-Adánez, 2015; Lent et al., 1994).

The lack of significant effect of HEIs on EI-Social ($Z = 2.484$, $p > 0.10$) rejected *H5*, presenting different results from those found on commercial EI. However, this is not unexpected, as even in commercial entrepreneurship this issue is not pacified. Barral, Ribeiro, and Canever (2018) indicate that the understanding of the role of HEI in students' EI is still limited, as there are indications that external factors have greater influence than the university environment.

The literature addresses different external aspects that influence EI (Kibler, 2013), among them, the relationship with family, community and church that are important in the formation of beliefs, values, and attitudes that influence the decision to become an entrepreneur (Díaz-Casero, Ferreira, Mogollon, & Raposo, 2012). These elements still contribute to the construction of subjective norms (Ajzen, 1991), which have an indirect effect on EI but presume a significant relationship with the university students' attitude toward entrepreneurship (Trivedi, 2016). In this sense, such aspects may overlap the influence of the university environment concerning EI-social. As both are aligned with the nature of the social entrepreneur's profile, they can justify this result.

5. Conclusions

The objective of this research was to investigate the social EI of Brazilian university students, of different genders, HEIs and training courses, having individual social EO as a predictive behavior.

The proper qualification of the construct in SE (IEO-social) proved to explain EI-social, also reframed to explain the phenomenon. This discovery is important because, although research on EI-social is increasing, particularly in emerging economies, most of them seek to examine the characteristics and attitudes that can explain it. Therefore, IEO-social qualifies to be an important variable of analysis for the field.

The IEO-social scale proved capable of surrounding the construct and measuring it properly, configuring itself as an important contribution to the field, lacking a theoretically constructed instrument and with superior psychometric quality.

EI-social was identified with no significant differences between gender, courses and HEI typification. This discovery suggests that, as it is associated with the search for opportunities, innovation and the creation of social enterprises and with a motivation to seek social well-being, this behavior must be strongly associated with an explicit individual ethical agenda and committed to social change (Branzei, 2012; Oceja & Salgado, 2013).

The main practical implications of this study include HEIs and their entrepreneurial environment. Our results indicate that there is no specific context in which the social entrepreneur can emerge, which can happen in different courses, genders and HEIs. Therefore, given the urgency that social problems demand, HEIs must assume a significant role in training for SE (Hockerts, 2017). HEIs must provide ways for students to awaken their IEO-Social and enable them to be future social entrepreneurs, which can help in the sustainable promotion of the area and in choosing a career with purpose. As HEIs offer opportunities for university students to engage in SE or experience socio-environmental problems, new social entrepreneurs may emerge. This can be through voluntary programs

in NGOs, technical visits in social companies, lectures with successful entrepreneurs and, more importantly, the insertion of the SE discipline in the EEP. This study was limited to understanding EI-social from IEO-social and, although it was able to explain EI-social, there are other predictive behaviors. Self-efficacy (Bandura, 1982) proved to be competent to explain EI-social among university students (Lacap et al., 2018). Kedmenec et al. (2017) identified that pro-social behavior has a positive and significant association with the desirability and viability of SE. These may be future paths for research in Brazil, as well as the identification of a positive relationship between IEO-social, IE-social and personal values (Schwartz, 1990).

In addition, it is necessary to advance the understanding of the effect of HEIs on IE-social. Our research increased the list of contradictory results on this topic. As they are still inconsistent, this issue can be added to the investigations on entrepreneurial education and the influence of the university environment on entrepreneurial behavior (Miller, Grimes, Mcmullen, & Vogus, 2012; Hockerts, 2017; Bazan et al., 2020).

Finally, the findings of this study cannot be generalized as our sample is non-probabilistic. Future research may expand this study, looking for a more balanced sample, including comparisons between regions.

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