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Personality traits and variables of the individual's planned behavior: a study of its effects on entrepreneurial intentions

Traços de personalidade y variáveis do comportamento planejado do indivíduo: um estudo de seus efeitos nas intenções empreendedoras

Traços de personalidade e variáveis do comportamento planejado do indivíduo: um estudo de seus efeitos nas intenções empreendedoras

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Abstract

Objective: This study aims to investigate the effects of personality traits on the entrepreneurial intentions of students concluding Accounting courses at two private higher education institutions and a public one, located in the Midwest region of Brazil.

Methodology: Descriptive study, carried out from a survey, with the sample consisting of 173 students, 86 from a public university and 87 from two private universities. The survey instrument was applied in person to the respondents and for data analysis, the structural equation modeling technique was adopted.

Results: Among the results, it was found that attitudes affect students' entrepreneurial intentions in a statistically significant way, allowing inferring that it is one of the strongest principles to start an entrepreneurial career due to the evaluation of the pros and cons. It was also confirmed that personality traits (proactive personality and locus of control) are very relevant to understanding an individual's entrepreneurial interests. The proactive personality is a characteristic that positively affects the attitude, the subjective norm, the perceived behavioral control and also the entrepreneur's intentions. The locus of control in turn affects both the subjective norms and the perceived behavioral control of the individual.

Contributions of the study: Its results allow inferring that the personality traits and the variables of the Theory of Planned Behavior are in good parts predictors of the behavioral intentions.

Keywords: Propensity to take risks. Proactive personality. Control locus. Accounting Sciences.

Resumen

Objetivo: Este estudio tiene como objetivo investigar los efectos de los rasgos de personalidad en las intenciones empresariales de los estudiantes que concluyen cursos de contabilidad en dos instituciones privadas de educación superior y una pública, ubicadas en la región centro-occidental de Brasil.

Metodología: Estudio descriptivo, realizado a partir de una encuesta, con una muestra de 173 estudiantes, 86 de una universidad pública y 87 de dos universidades privadas. El instrumento de la encuesta se aplicó en persona a los encuestados y para el análisis de datos, se adoptó la técnica de modelado de ecuaciones estructurales.

Resultados: Entre los resultados, se encontró que las actitudes afectan las intenciones empresariales de los estudiantes de una manera estadísticamente significativa, lo que les permite inferir que es uno de los principios más fuertes para comenzar una carrera empresarial debido al hecho de evaluar los pros y los contras. También se confirmó que los rasgos de personalidad (personalidad proactiva y locus de control) son muy relevantes para comprender los intereses empresariales de un individuo. La personalidad proactiva es una característica que afecta positivamente la actitud, la norma subjetiva, el control conductual percibido y también las intenciones del emprendedor. El locus de control a su vez afecta tanto a las normas subjetivas como al control conductual percibido del individuo.

Contribuciones del estudio: Sus resultados permiten inferir que los rasgos de personalidad y las variables de la Teoría del comportamiento planificado son, en buena parte, predictores de intenciones conductuales.

Palabras clave: Propensión a asumir riesgos. Personalidad proactiva. Control de locus. Ciencias Contables.

Resumo

Objetivo: Este estudo tem como objetivo investigar quais os efeitos dos traços de personalidade sobre as intenções empreendedoras dos alunos concluintes dos cursos de Ciências Contábeis de duas instituições de ensino superior privadas e uma pública, localizadas na região centro-oeste do Brasil.

Metodologia: Estudo descritivo, realizado a partir de uma pesquisa de levantamento, com a amostra constituída por 173 alunos sendo 86 de uma universidade pública e 87 de duas universidades privadas. O instrumento de pesquisa foi aplicado presencialmente aos respondentes e para a análise dos dados adotou-se a técnica de modelagem de equações estruturais.

Resultados: Dentre os resultados constatou-se que as atitudes afetam as intenções empreendedoras dos alunos de maneira estatisticamente significativa permitindo inferir que ela é um dos princípios mais forte para se iniciar uma carreira empreendedora pelo fato da avaliação dos prós e contras. Também confirmou-se que os traços de personalidade (personalidade proativa e lócus de controle) são muito relevantes para se entender os interesses empreendedores de um indivíduo. A personalidade proativa é uma característica que afeta positivamente a atitude, a norma subjetiva, o controle comportamental percebido e também as intenções empreendedoras do indivíduo. O lócus de controle por sua vez afeta tanto nas normas subjetivas quanto no controle comportamental percebido do indivíduo.

Contribuições do estudo: Seus resultados permitem inferir que os traços de personalidade e as variáveis da Teoria do Comportamento Planejado são em partes boas predictoras das intenções comportamentais.

Palavras-chave: Propensão a assumir riscos. Personalidade proativa. Locus de controle. Ciências Contábeis.

1 Introduction

In recent years, universities have increasingly included entrepreneurial studies in their curricula, serving as an increasing factor in students' intention to create new businesses (Santos, Caetano & Curral, 2010). As such, entrepreneurship has been the subject of several academic research, given its importance in local economic performance and development, generating wealth, distributing income, and fighting unemployment (Rocha & Freitas, 2014).

In this direction, some studies have sought to understand which factors affect the intention and behavior of an individual for entrepreneurship (Munir, Jianfen & Ramzan, 2019), and among these, those focusing on personality traits, environmental and organizational factors stand out (Baum & Locke, 2004). Martinelli and Fleming (2010) confirm this interest by highlighting that among the various aspects of entrepreneurship, what stands out in the investigations is the determination of the characteristics of entrepreneurs' behavior, such as personality traits.

One of the theoretical approaches used to evaluate an individual's entrepreneurial intention is the Theory of Planned Behavior (TPB) by Ajzen (1991). The TPB seeks the understanding of intentionality, considering several aspects such as personal level, education for entrepreneurship, institutions, contexts, and entrepreneurial process (Munir, Jianfen & Ramzan, 2019).

The intention to start a business is strongly linked to the individual's characteristics and personality, such as the propensity to take risks, the proactive personality, and the locus of control (Santos, Caetano & Curral, 2010). The influences of these personality traits are strongly linked to the intention to start a business since the propensity to take risks is related to making decisions in situations of uncertainty; the proactive personality is the inclination that an individual has to change the environment through his choices and; the locus of control defines the ability, characteristics and internal actions that the individual possesses as control (Munir, Jianfeng & Ramzan, 2019).

Based on the above, this study seeks to answer the following research question: **What are the effects of personality traits (propensity to take risks, proactive personality, and locus of control) on the entrepreneurial intentions of students concluding Accounting Science courses?** Therefore, the objective is to investigate the effects of personality traits on the entrepreneurial intentions of students who complete Accounting Science courses at two private and one public higher education institution located in the Midwest region of Brazil.

For this purpose, a descriptive study was developed, based on a survey, with a sample of 173 students. The research instrument was applied in person in May 2019. To analyze the data and the proposed hypothesis, the technique of modeling structural equations was adopted.

According to Castro (1977), this study is justified based on its feasibility, originality, and importance. According to the feasibility, it is justified due to easy access to the data obtained with the institutions' students. Regarding the originality of the study, no scientific publications were identified on the subject researched at the national level and also with the use of the TPB approach. In terms of importance, the study contributes to a better understanding of the aspects that affect entrepreneurship, a subject that is little explored in the accounting area

at the national level. Moreover, according to the Global Entrepreneurship Monitor (GEM, 2018), the proportion of Brazilian people who wish to have their own business is higher than those who wish to make a career in organizations. The data also indicate that beginner entrepreneurs are between 18 and 24 years old, and when considering other age groups, it is possible to identify that the population between 25 and 34 years old is the most active in the enterprises.

2 Theoretical Framework

2.1 Theory of Planned Behavior and entrepreneurial intention

Inspired by social psychologist Icek Ajzen, the Theory of Planned Behavior (TPB) is an evolution of the Theory of Rational Action (TRA) (Fishbein & Ajzen, 1975) and has been disseminated in several areas of knowledge (Santos, 2016; Santos & Almeida, 2018). The TRA is based on (i) the interest to predict and understand the behavior and also, being this result of conscious choices of the individual, (ii) to specify the intention to accomplish it (Moutinho & Roazzi, 2010). In order for behavior to be understood, one must identify the determining factors of these behavioral intentions, such as attitudes about personal aspects and subjective norms of social influence (Moutinho & Roazzi, 2010).

According to Santos and Almeida (2018), the development of TPB research on behavioral intentions had as observance a restriction of TRA, which was limited to adopting only the people's will, disregarding the resources to carry them out. In this sense, TPB was created, a combination of elements of improvement brought by TRA, including factors that may hinder or facilitate the individual's fulfillment of his behavior and beliefs (Santos & Almeida, 2018).

Briefly, TPB points out those three-isolated factors determine behavioral intentions. The first represents the propensity that the individual has in relation to the unfavorable or favorable evaluation in panorama with the behavior, titled as attitude. The second factor refers to social pressure, called subjective norm. The third and last factor is the intensity of perceived behavioral control, having as its definition the facility or difficulty found to reveal behavior (Heidemann, Araújo & Veit, 2012).

According to Heidemann, Araújo, and Veit (2012), TPB is a theoretical body used to predict the dispositions of the individual's behavior, being able to define his effort to produce an entrepreneurial intention based on the three preceding principles. The preceding principle of the attitude to start a business is one of the most influential principles for starting an entrepreneurial career, in which the individual shows a positive or negative attitude, being conveniently advantageous or disadvantageous to become an entrepreneur. The principle of subjective norms discusses the social influence of a person concerning their behavior or intention, in which individuals seek approval or disapproval of relationships about starting a business. The third and last antecedent is the perceived behavioral control, a combination of the individual's beliefs regarding the execution of planned behavior, defining the points of facility and difficulties in the realization of entrepreneurial behavior (Heidemann, Araújo & Veit, 2012).

This background has been elements of profound discussions among business professionals to explain the entrepreneurial intention, in which the individual only takes the lead of the entrepreneurial action if, in some way, he detaches himself from the resistance and stagnation caused by the uncertainties, which create doubts and barriers to it (Munir, Jianfeng & Ramzan, 2019). Based on this context, the following hypothesis is presented:

H1: There is a positive effect of (a) attitude, (b) subjective norm, and (c) perceived behavioral control in the entrepreneurial intentions of the individual.

2.2 Personality traits and TPB

The personality of an individual is a factor of utmost importance that may explain the extent to which entrepreneurial behavior is derived from the characteristics of personalities, combined with social and environmental factors, agents responsible for encouraging hidden motives and the interpretation of mental dispositions in behavior patterns (Oliveira, Silva & Araújo, 2014). Therefore, to understand the personality, researchers approach it from its defining traits.

Personality traits, combined with environmental factors, have been the subject of study in the area of successful entrepreneurship (Baum & Locke, 2004). There are relevant intrinsic and extrinsic conditions that lead the individual to pursue an entrepreneurial career. The decision is conditioned by the knowledge factors the person possesses about himself/herself, the labor market, and his/her personal and professional motives (Santos & Almeida, 2018).

According to Lima e Freitas (2010), the entrepreneurial personality is based on the context of organizational activities, environmental and personal resources. In this direction, some personality traits are more specific to explain the entrepreneurial personality, such as the propensity to take risks, the locus of control, and the proactive personality.

The individual with an entrepreneurial personality has a greater impulse to accept business risks, being able to find a point of moderate risk (Lima & Freitas, 2010). The strong necessity of accomplishment is conditioned by the behavior of independence, the need to perform complex tasks in an agile and independent manner, competitive instinct to overcome its competitors, and always demand more of himself.

The creation of a new business requires the analysis of several factors, which may be unfavorable to the objective (Munir, Jianfeng & Ramzan, 2019). Munir, Jianfeng, and Ramzan (2019) believe that a successful venture requires careful planning because it is an intentional and planned behavior. In this direction, the TPB dimensions may affect the intention of an individual to start a business.

Initial studies addressed five personality traits according to McCrae and John's Big Five (1992): extroversion, emotional stability, openness to experience, kindness, and awareness (Caliendo, Fossen & Kritikos, 2014; Zhao, Seibert & Lumpkin, 2010). Other research has used the five traits combined with others, such as risk propensity (Nabi & Liñán, 2013), proactive personality (Zampetakis, 2008), and the locus of control (Caliendo, Fossen & Kritikos, 2014; Rotter, 1966) that are more influential in defining entrepreneurial occupational choices (Caliendo, Fossen & Kritikos, 2014).

Individuals who engage in the entrepreneurial area need to be able to explore new ideas and expand their field of opportunities, always seeking to innovate originally. In this sense, the individual finds himself in situations where decisions often need to be made in a timely and effective manner, under risk and uncertainty (Hurtz & Donovan, 2000). As a result, the propensity to take risks is related to decision making involving situations that provide the risk of adverse outcomes, and the way the individual will manage this propensity is an influential condition in TPB (Munir, Jianfeng & Ramzan, 2019). The entrepreneurs most susceptible to risk are those who tend to fail, different from individuals who seek to maintain risk behavior on average (Caliendo, Fossen & Kritikos, 2008). Martinelli and Fleming (2010) state that entrepreneurs are more likely to take risks, whether financial, psychological or social,

conditioning a bond between the individual and the entrepreneurial activity.

The concept of the locus of control is divided into two factors, being external and internal. The external factors are those that cannot be controlled by the individual, while the internal factors are the beliefs of the results of work resulting from their abilities and personal behavioral characteristics (Munir, Jianfeng & Ramzan, 2019). Due to the large number of decisions that the entrepreneur needs to make to create a great business result, the locus of control is a principle of great importance within the personality characteristics in the world of entrepreneurship (Caliendo, Fossen & Kritikos, 2014).

A proactive personality has been one of the characteristics of vital training for successful entrepreneurs. Munir, Jianfeng, and Ramzan (2019) consider that proactive individuals tend to stand out more among others, showing themselves to be more dynamic, independent, and visionary.

These traits affect the attitude characteristics of individuals. The attitude is expressed by the individual positively or negatively, highlighting the preferences and advantages or disadvantages in starting a business (Munir, Jianfeng & Ramzan, 2019). Lortie and Castogiovanni (2015) describe subjective norms as a social pressure that involves the individual, influencing his behavior positively or negatively. These influences may come from friends, family members, and even any other individual around him. Munir, Jianfeng, and Ramzan (2019) portray subjective norms as an essential factor in entrepreneurial intention since the influences of these referents are a great commitment to become an entrepreneur.

Lortie and Castogiovanni (2015) state that individuals' intentions are satisfactory to predict behavior that is entirely under control. If this will control on the individual's behavior decays, the perceived behavioral control tends to be an essential factor in determining the subsequent behavior. Considering all the above, the following set of hypotheses to be tested is evident.

H2: There is a positive effect of the personality traits of (a) propensity to take risks, (b) locus of control, and (c) proactive personality on the individual's entrepreneurial intentions.

H3: There is a positive effect of the personality traits of (a) the propensity to take risks, (b) the locus of control, and (c) the proactive personality on the attitude of the individual.

H4: There is a positive effect of the personality traits of (a) the propensity to take risks, (b) the locus of control, and (c) the proactive personality on the subjective norm of the individual.

H5: There is a positive effect of the personality traits of (a) the propensity to take risks, (b) the locus of control, and (c) the proactive personality in the perceived behavioral control of the individual.

Regarding the concepts and hypotheses presented, the following research design is highlighted according to Figure 1.

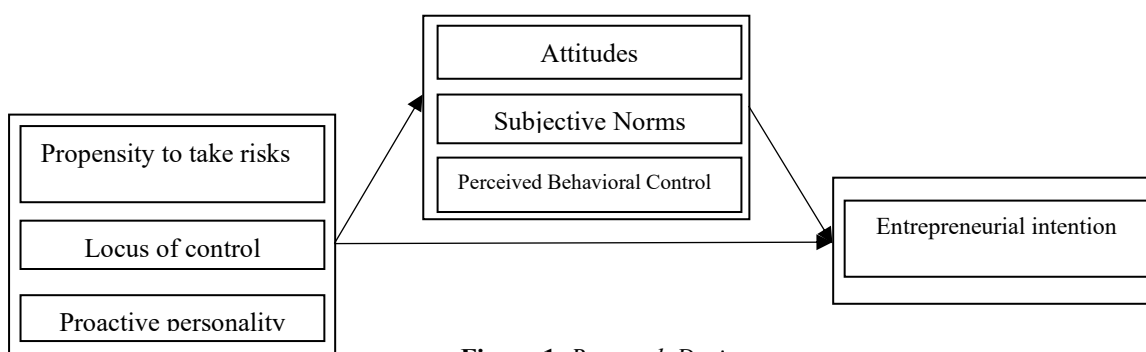


Figure 1. Research Design.

Source: *developed by the authors.*

From Figure 1, the study intends to discover that personality traits affect the TPB variables and, therefore, the entrepreneurial intention.

3 Methodological Procedures

A descriptive study was carried out from a survey, with 173 students, 86 from a public university and 87 from two private universities. To define the sample, it was used as a criterion that the students should have been attending the last two years of the course because they had fulfilled the course's basic subjects.

The research instrument was applied in person to the students by one of the authors of this work in May 2019. It consisted of three constructs with 31 statements, measured on a 5-point Likert type of scale (I totally disagree to I totally agree) as summarized in Table 1.

Table 1
Presentation of the research construct and variables

Construct	Variables	Description	No. items
TPB	Attitudes towards entrepreneurship (ATIT)	Evaluation that the individual makes about being unfavorable or favorable to initiate a business, seeking to evaluate being advantageous or disadvantageous the start of a business.	6
	Subjective norms (SN)	Evaluation that the individual makes concerning his behavior or intention, seeking approval or disapproval from reference people related to starting a business.	3
	Perceived behavioral control (PBC)	Evaluation that the individual makes about his abilities, characteristics, and internal actions that he has control.	5
Personality Traits	Locus of Control (LoC)	External factors (those unable to be controlled by the individual), and internal factors (beliefs of work results resulting from personal abilities and personal behavioral characteristics).	3
	Propensity to take risks (PP)	Characteristics of those who tend to fail, different from individuals who seek to maintain risk behavior on average.	4
	Proactive Personality (PP)	Characteristic that the individual has in standing out more among the others, showing himself to be more dynamic, independent, and visionary.	4
Entrepreneurial intention	Entrepreneurial intention (EI)	Individual characteristics, traits, and personalities that influence the individual to follow the area of entrepreneurship.	6

Source: *Translated and adapted from Munir, Jianfeng and Ramzan (2019).*

It is worth emphasizing that before the application of the research instrument, the following procedures were performed: (i) a back-translation process (Brislin, 1970) with two professionals and (ii) a pre-test for external validation. The pre-test was conducted with five undergraduate students, three from a public university and two from a private university, and no need for writing changes was identified.

To analyze the data, we adopted the technique of modeling structural equations, estimated from Partial Least Squares (PLS). PLS allows testing a set of variables in order to investigate the level of explanation of the predictor variables for the dependent variables, with the indicative of the most important predictor variable (Klem, 2006). In addition, to examine the effects of mediation, we used a step-by-step analysis of the paths proposed by Baron and Kenny (1986).

4 ANALYSIS AND DISCUSSION OF THE RESULTS

4.1 Respondents' Profile

To show the profile of the respondents, we highlight the descriptive analysis of the data, describing the (i) gender, (ii) age group, and (iii) situation in the labor market (Table 2).

Table 2
Respondents' Profile

Gender	Public University		Private Universities	
	N	%	N	%
Female	25	29,07%	46	52,87%
Male	61	70,93%	41	47,13%
Total	86	100,00%	87	100,00%
Age group	Public University		Private Universities	
	N	%	N	%
From 1964 to 1989	23	26,74%	6	6,90%
From 1990 to 1994	24	27,91%	23	26,44%
From 1995 to 2001	39	45,35%	58	66,67%
Total	86	100,00%	87	100,00%
Employment	Public University		Private Universities	
	N	%	N	%
Formal	53	61,63%	57	65,52%
Internship	18	20,93%	18	20,69%
Unemployed	15	17,44%	12	13,79%
Total	86	100,00%	87	100,00%

Source: *Research data.*

Table 2 shows that the majority of students in public universities are male (70.93%), while in private universities, they are female (52.87%). Concerning the age group, it is possible to identify, both individually and together, the existence of a younger public (19 to 25 years old) studying Accounting Sciences, corresponding to more than half of the respondents. Individually, the public university has a percentage of 45,35% of its total, while the private universities were 66,67%.

Regarding the employability of students in the labor market, it is noteworthy that of those in the public university, most have formal employment (61.63%), another 20.93% are trainees, and 17.44% are unemployed. Of the participants from private universities, 65.52% have formal work; 20.69% are interns, and 13.79% were not working.

4.2 Measurement model

The measurement model intends to verify four main criteria: convergent validity, composite reliability, Cronbach's alpha, and discriminant validity (Hair Jr. et al., 2016). The first seeks to verify the external loads of indicators and the way in which latent variables correlate with their constructs, and is confirmed when the Average Variance Extracted or AVE is higher than 0.5 (Hair Jr. et al., 2016).

Subsequently, Cronbach's Alpha and Reliability Composite tests are evaluated, which show whether the sample responses are reliable and contain no bias. For its evaluation, the values are considered satisfactory as recommended by the literature (Hair Jr. et al., 2016).

Then, one examines the discriminant validity, which reveals how one construct differs from the others in terms of exclusive phenomena in the model being analyzed. This test may be carried out in two ways: by the Cross Loading matrix or by the Fornell and Larcker criterion (1981). This study shows the results of the second criterion, according to Table 3.

Table 3
Measurement Model Validities

	<i>Cronbach's Alpha</i>	<i>Composite Reliability</i>	<i>AVE</i>	Discriminant validity							
					ATIT	PBC	EI	LoC	SN	PA	PP
ATIT	0,892	0,919	0,655	ATIT	0,809						
PBC	0,817	0,871	0,575	PBC	0,538	0,758					
EI	0,947	0,958	0,792	EI	0,827	0,441	0,890				
LoC	0,578	0,743	0,503	LoC	0,413	0,450	0,319	0,709			
SN	0,768	0,867	0,686	SN	0,513	0,536	0,395	0,357	0,828		
PA	0,741	0,837	0,564	PA	0,556	0,477	0,505	0,577	0,441	0,751	
PP	0,477	0,729	0,478	PP	0,375	0,308	0,294	0,369	0,278	0,492	0,692

Note: ATIT: Attitudes towards entrepreneurship; PBC: Perceived behavioral control; EI: Entrepreneurial intention; LoC: Locus of Control; SN: Subjective norms; PA: Proactive personality; PP: Propensity to take risks.

Source: Research data.

It should be noted that in order to fulfill the criteria presented in Table 3, one indicator was excluded from the construct propensity to take risks. For this exclusion, the criterion of lower factor load was followed and also its alignment with the literature.

As for the composite reliability values, they were higher than 0.8, and Cronbach's alpha was all higher than 0.70, which confirms the internal consistency and reliability of the model (Hair Jr. et al., 2016). It also confirms the discriminant validity that was fulfilled both by Fornell and Larcker's (1981) criteria to examine how much a construct is individually distinct from the others as claimed by Hair Jr. et al. (2016).

4.3 Structural model

The analysis of the structural model allows observing if the relations between the constructs, and the connections, according to the structure of a diagram of theoretically constructed paths, have statistical validity (Hair Jr. et al., 2016). Furthermore, it also emphasizes the measurement model's adequacy and attests to the significance of the relationships between the study constructs (Hair Jr. et al., 2016). For this purpose, Table 4 presents the structural paths of hypotheses 1 to 5.

Table 4
Structural paths

Hypothesis	Paths	β	t-value	p-value
H1	ATIT -> EI	0,821	18,152	0,000***
	SN -> EI	-0,051	0,936	0,350
	PBC -> EI	0,008	0,142	0,887
H2	PP -> EI	-0,039	0,765	0,445
	LoC -> EI	-0,061	1,175	0,242
	PP -> EI	0,122	2,371	0,019**
H3	PP -> ATIT	0,120	1,523	0,130
	LoC -> ATIT	0,123	1,514	0,132
	PP -> ATIT	0,426	5,352	0,000***

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H4	PP -> SN	0,063	0,800	0,425
	LoC -> SN	0,145	1,700	0,091*
	PP -> SN	0,327	3,809	0,000***
H5	PP -> PBC	0,069	0,884	0,378
	LoC -> PBC	0,254	3,220	0,002***
	PP -> PBC	0,297	3,037	0,003***

Note: *** sig. 1%; ** sig. 5%; and * sig. 10%.

Source: Research data.

According to the results presented in Table 4 for the hypotheses, the following details are highlighted. The first hypothesis intended to verify if there is a positive effect of (a) attitude, (b) subjective norm, and (c) perceived behavioral control in the individual's entrepreneurial intentions, and the results proved only the attitude effect on the students' entrepreneurial intentions. This effect corroborates the study by Heidemann, Araújo, and Veit (2012) that suggested that the attitude to start a business is one of the strongest principles to start an entrepreneurial career, in which the individual demonstrates a positive or negative attitude, being conveniently advantageous or disadvantageous to become an entrepreneur.

Heidemann, Araújo, and Veit (2012) discuss the social influence of a person in relation to their behavior or intention, in which individuals seek approval or disapproval of relationships regarding the start of business. However, the lack of proof of the effect (SN -> EI) was not proven in this analysis, perhaps due to the fact that the research instrument did not emphasize who specifically are the influencers (father/mother, teachers, bosses...) of this intention. Moreover, the results obtained in this study do not corroborate those of Munir, Jianfeng, and Ramzan (2019), who portrayed subjective norms as an essential factor to have an entrepreneurial intention, since the influences of reference people is a significant commitment to become an entrepreneur.

The results of H2 did not confirm that there is a positive effect of the personality traits of the propensity to take risks and the locus of control on the individual's entrepreneurial intentions, but it did prove the effects of the proactive personality on the individual's entrepreneurial intentions (B: 0.122; $p > 0.05$). These findings have not confirmed the premise that entrepreneurs are more likely to take risks, whether financial, psychological, or social, conditioning a bond between the individual and the entrepreneurial activity (Martinelli & Fleming 2010). Furthermore, it has not been confirmed that the locus of control is positively related to the students' entrepreneurial intentions. However, the effects between PP->EI were confirmed, which corroborates the study by Zampetakis (2008), which conceptualizes the proactive personality as an influential factor in defining entrepreneurial occupational choices.

The results of H3 have not confirmed that there is a positive effect of personality traits of the propensity to take risks and the locus of control on the attitude of the individual. However, it has been confirmed that proactive personality positively affects individuals' attitudes, which reinforces the findings of Munir, Jianfeng, and Ramzan (2019). In this study, they show that the propensity to take risks is related to decision making in situations of uncertainty relating to proactive personality, which is the inclination of an individual to change the environment through his choices.

Rejections of the effects of PP->ATIT and LoC->ATIT contrast with the claims of Munir, Jianfeng, and Ramzan (2019), which declare that the propensity to risk is related to decision making involving situations that provide adverse results. Thus, it is conjectured that perhaps the respondents understand that situations should be evaluated without pressure so that they could assess all the pros and cons and do not feel a strong locus of control for this.

H4 has not confirmed that the propensity to take risks positively affects the subjective

norm and, therefore, does not corroborate the findings of Munir, Jianfeng, and Ramzan (2019). However, the results confirmed the effects of the locus of control and proactive personality on individuals' subjective norm. These results align with the study by Lortie and Castogiovanni (2015), who described subjective norms as a social pressure that involves the individual, influencing its behavior. These influences may come from friends, family members, and even any other individual around him.

In the same way as the fourth hypothesis, the results of H5 did not confirm the positive effect of the propensity to take risks in the perceived behavioral control of the individual. Nevertheless, it was confirmed that the locus of control and proactive personality positively affect the individual's perceived behavioral control.

In the sequence, we used the multigroup analysis (MGA) with the bootstrapping technique, which allowed the analysis of the two samples and the differences between the paths (Hair Jr. et al., 2016) according to Table 5.

Table 5
Multigroup analysis

Relations	Private (n: 87)			Public (n: 86)			PLS MGA	
	B	t-value	p-value	β	t-value	p-value	dif.	p-value
ATIT -> EI	0,780	10,003	0,000***	0,852	11,113	0,000***	0,072	0,752
SN -> EI	0,026	0,245	0,807	-0,146	2,027	0,044**	0,172	0,089*
PBC -> EI	-0,082	0,765	0,445	0,064	0,798	0,426	0,146	0,860
PP -> EI	0,057	0,645	0,519	-0,099	1,459	0,146	0,165	0,126
LoC -> EI	-0,095	1,096	0,275	-0,118	1,425	0,156	0,123	0,759
PP -> EI	0,081	0,966	0,335	0,241	2,454	0,015***	0,195	0,861

Note: *** sig. 1%; ** sig. 5%; and * sig. 10%.

Source: *Research data.*

As a differential, we tested the TPB dimensions (attitude, subjective norm, and perceived behavioral control) and personality traits (propensity to take risks, locus of control, and proactive personality) in the entrepreneurial intentions of the individual separated into groups of students by the types of universities (public and private). The results obtained with the statistical significance in the group indicate that the subjective norm affects the entrepreneurial intention of students in private educational institutions with a difference of 0.172 (sig.: 10%). In the same context, regarding personality traits in private universities, it was confirmed that the proactive personality variable has complementary relevance in individuals' behavior in terms of the intention to start a business.

5 CONCLUSION

This study had the objective of investigating the effects of personality traits on students' entrepreneurial intentions concluding Accounting Sciences courses at two private and one public higher education institutions, all located in the Midwest region of Brazil. For this purpose, a questionnaire was applied to 173 students.

Among the results, it was found that the attitude affects students' entrepreneurial intentions in a statistically significant way, allowing to infer that it is one of the most vital principles to start an entrepreneurial career by evaluating the pros and cons. It was also

confirmed that personality traits (proactive personality and locus of control) are very relevant to understanding an individual's entrepreneurial interests. The proactive personality is a characteristic that positively affects the attitude, the subjective norm, the perceived behavioral control, and the individual's entrepreneurial intentions. The locus of control, in turn, affects both the subjective norms and the individual's perceived behavioral control.

These results allow inferring that personality traits and TPB variables are, in part, good predictors of individuals' behavioral intentions when they are focused on the interest of starting a business or not. Moreover, they contribute to contrast the differences between entrepreneurial intentions in terms of personality and the determinants of the planned behavior of university students, in addition to innovating by integrating personality traits and TPB factors.

As far as the literature is concerned, the results of this study are aligned with Baum and Locke (2004), who highlighted these traits as one of the factors affecting the intention and behavior of an individual for entrepreneurship. It is also noted that the same line was adopted by Martinelli and Fleming (2010) and also by Munir, Jianfen & Ramzan (2019). In addition, the findings on TPB variables are in accordance with the definitions of Heidemann, Araújo, and Veit (2012), who pointed out behavioral intentions and attitude as one of the factors that may define the effort to produce an entrepreneurial intention.

As in any scientific research, this study also has limitations due to the authors' decisions about the methodological framework. However, these limitations make it possible to anticipate opportunities for new studies, such as (i) definition of the sample that captured the responses only from students of Accounting Sciences and from three institutions; (ii) treatment of the data that may be analyzed by another procedure. Therefore, a suggestion for future research is that the sample is extended to other students from other business courses, as well as to students coming from other public and private institutions.

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