

# DETERMINING FACTORS OF ENTREPRENEURIAL INTENTION: A STUDY WITH ENTREPRENEURS AND POTENTIAL ENTREPRENEURS OF THE STATE OF ACRE

## *FATORES DETERMINANTES DA INTENÇÃO EMPREENDEDORA: UM ESTUDO COM EMPREENDEDORES E POTENCIAIS EMPREENDEDORES DO ESTADO DO ACRE*

Submission: 17/12/2021  
Accept: 17/03/2022

Bárbara Alessandra Vieira de Brito<sup>1</sup>  
Márcio Shoiti Kuniyoshi<sup>2</sup>  
Alexandre Cappelozza<sup>3</sup>  
Almir Martins Vieira<sup>3</sup>

*1 Instituto Federal do Acre (IFAC), Rio Branco, Acre, Brazil.*

*2 Pontifícia Universidade Católica de São Paulo, São Paulo, São Paulo, Brazil.*

*3 Universidade Presbiteriana Mackenzie, São Paulo, São Paulo, Brazil.*

## ABSTRACT

**Objectives** - this article aimed to analyze, from the perspective of the Theory of Planned Behavior, the determining factors of the entrepreneurial intention of entrepreneurs and potential entrepreneurs of Acre.

**Design / Methodology / Approach** - The research covered graduates of the Empretec Seminar (SEBRAE), using the quantitative methodology of Structural Equation Modeling by Partial Least Square Structural Equation Modeling (PLS-SEM).

**Results** - Results showed that Attitude Towards Behavior is the construct that most positively influences the entrepreneurial intention, followed by the constructs of the subjective norms and the perception of control.

**Limitations / implications of the research** - The limitations of the study are related to the population because the list of participants includes only graduates of the Empretec Seminar, as well as the fact that it was not considered whether the individuals were temporally close to the triggering event.

**Practical implications** - Entrepreneurial intention is considered as the first step in the process of discovering and exploiting opportunities, which makes it a fundamental part of the understanding of entrepreneurship. The study contributes in diminishing the gap of theoretical and empirical studies on this subject in the Brazilian scenario.

**Originality / value** - The hypothesis that the need for achievement positively influences the entrepreneurial intention has not been accepted, which can occur due to the fact that the psychological characteristics of the entrepreneurs can undergo changes as the entrepreneur moves away from the motivating event of entrepreneurship.

**Keywords:** entrepreneurship; entrepreneurial intention; entrepreneurs; potential entrepreneurs.

## RESUMO

**Objetivo** - Analisar, sob a ótica da Teoria do Comportamento Planejado, os fatores determinantes da intenção empreendedora de empreendedores e potenciais empreendedores do Acre.

**Design / metodologia / abordagem** - A pesquisa abrangeu egressos do Seminário Empretec (SEBRAE), utilizando a metodologia quantitativa de Modelagem em Equações Estruturais pelos Mínimos Quadrados Parciais (Partial Least Square Structural Equation Modeling - PLS-SEM).

**Resultados** - Constatou-se que a Atitude Face ao Comportamento é o construto que mais influencia positivamente a Intenção Empreendedora, seguida dos construtos Normas Subjetivas e Percepção de Controle.

**Limitações / implicações da pesquisa** - As limitações acerca do estudo realizado dizem respeito à população, pois o rol de participantes contempla apenas egressos do Seminário Empretec, como também ao fato de não ter sido considerado se os indivíduos estavam temporalmente próximos ao evento desencadeador.

**Implicações práticas** - Destaca-se a importância que alguns preditores têm sobre a intenção empreendedora. Merece registro também o estímulo ao empreendedorismo para fortalecer a economia, direcionando as ações e políticas voltadas à criação e ao desenvolvimento de empresas do estado do Acre.

**Originalidade / relevância** - Em termos de contexto local (estado do Acre), a pesquisa é inédita; e, por ser a intenção empreendedora considerada como a primeira etapa no processo de descoberta e exploração de oportunidades, é parte fundamental para compreensão do empreendedorismo e da intenção empreendedora.

**Palavras-chave:** empreendedorismo; intenção empreendedora; empreendedores; potenciais empreendedores.

## 1 INTRODUCTION

The theme entrepreneurship has gained considerable space in education, public policies and in the interest of researchers and managers, much due to its impact on social and economic aspects, whether at regional or national level. The research scenario in this area includes several approaches to the term entrepreneurship, in particular the way business opportunities are identified, as well as what determines the success or failure of new businesses, among other specificities (Leitch, Hill, & Harrison, 2010).

This growing interest is due to a large extent to the correlation between entrepreneurship and economic growth, expressed through innovation and job creation. According to Ferreira, Raposo, Rodrigues, Dinis and Paço (2012, p. 811), “the dynamics and growth of the economy of developing countries depend largely on the ability to create companies capable of surviving, in order to generate work and income for the economically active population.”

Due to the entrepreneurial activity contributing to the growth of competitiveness and efficiency of the markets (Nickel, Nicolitsas, & Dryden, 1997, Matos, Lizote, Teston, Zawadzki & Guerra, 2020), it is noted an increased interest of researchers and government agencies in the investigation of the formation of the so-called “entrepreneurial intention” (Teixeira, & Davey, 2010). This predisposition of the individual to business has been the focus of researchers in the field of entrepreneurship, which led the amount of publications in English of the scientific base Web of Science to increase from 27, in 2011, to 48 articles, in 2015 (Nakao, Leite, & Cunha, 2018). Researchers such as Liñán and Fayolle (2015); Schlaegel and Koenig (2014); Oliveira and Rua (2018) and Barral, Ribeiro and Canever (2018) also adopted entrepreneurial intention as scope of study.

In addition, in the national context, several studies have been developed with the purpose of verifying the willingness of people to undertake, which consequently attracts the attention of researchers from various areas to the theme ‘entrepreneurial intention’ (Souza, Silveira & Nascimento, 2018 and Nascimento, Silveira, & Both, 2020).



Entrepreneurs are commonly seen as business creators, which is fundamental for the job and wealth creation, as well as contributing to increase the duties and tax collection. Technological innovation is also boosted from the creation of new enterprises, as companies invest in their development in search of improvements in manufacturing and service activities (Hisrich, & Peters, 2004). Thus, entrepreneurial intention is not understood only as the level of willingness that a person has to open a company, but rather by the changes made in existing companies (Bird, 1988), since, as Ajzen (1991) points out, it involves motivational factors that influence the behavior.

According to this scenario, it is worth assuming that the study of entrepreneurship is fundamental not only for economic development, but also for its scope regarding the conception of changes in the structure of business and society (Hisrich, & Peters, 2004). The micro level, which targets the individual, is the most notorious, focusing on entrepreneurial profile and characteristics, as well as the antecedents that move the person to undertake (Wang, & Jessup, 2014).

Regarding the motivations to start a business, Ferreira (2017) highlights the economic factors, the search for opportunities in the competitive market, the absence or dissatisfaction with job opportunities and the need for achievement. The latter, with special emphasis on the work of McClelland (1987). Still on the findings on the work of Ferreira (2017), it is found that, despite the growth in the number of international articles on entrepreneurial intention, in Brazil there is still a gap of research regarding the reasons that lead an individual to start his own business.

Given this context, especially the result found in Ross's research (2017), that Ajzen's model is responsible for 66% of the variance of the Entrepreneurial Intention, or rather, 44% of the variance resides in other factors not counted in the model, this research aims to investigate the determining factors of entrepreneurial intention of the entrepreneurs and potential entrepreneurs, taking into account both the need for Achievement, which is, among the motivations presented in McClelland's model (need for power, affiliation and achievement), considered the strongest (Barba-Sánchez, & Atienza-Sahuquillo, 2012), and attitudes towards behavior, subjective norm and the perceived behavioral control, which are part of Ajzen's model (1991) – TPB, which is the most used to evaluate entrepreneurial intention worldwide, as noted by Engle, Dimitriadi, Gavidia, Schlaegel, Delanoe, Alvarado, He, Buame and Wolff (2010) and Nogueira and Fagundes (2021).

It is believed that a research with this scope can contribute to the actions to encourage entrepreneurship, because, when evaluating entrepreneurial intention in a group, it is possible to draw conclusions about how this group manifests itself before the idea of starting its own business (Liñán, & Chen 2009). Therefore, taking into account the importance of the entrepreneurial intention, the research aims to contribute to the work of support and promotion of entrepreneurship that is developed by the Brazilian Service for Support to Micro and Small Enterprises (SEBRAE) and by government policies, producing information that will serve as a subsidy for the improvement of these actions. Vatavu, Dogaru, Moldovan and Lobont (2021) also highlight the recognition of the importance of entrepreneurship policies, and governments have started to implement general and specific policies aimed at promoting entrepreneurial activities.

## 2 THEORETICAL BASIS

### 2.1 Entrepreneurship and entrepreneur

The word “entrepreneur” is of French origin (entrepreneur) and it is translated as “one who is between” or “intermediate”. This translation, which is contained in the work of Hisrich and Peters (2004), illustrates the role of the first entrepreneurs, who took out loans from people of resources to sell their goods, actively assuming the physical and emotional risks of the business. Still in the work



of these authors, there is the historical record that, at the end of the 17th century, Richard Cantillon developed one of the first entrepreneurial theories, being considered the creator of the term. Noting that traders bought at the right price and sold at an uncertain price, he defined the entrepreneur as someone who was at risk.

At the end of the 19th century, both the idea of entrepreneur and manager were the same, whose vision came from an economic perspective. "The entrepreneur organizes and operates a company for personal profit [...] and contributes with his own initiative, skill and ingenuity in the planning, organization and administration of the company" (Hisrich, & Peters, 2004, p. 28).

As an integral part of the idea of entrepreneurship, the concept of innovation emerged in the mid-twentieth century. The innovation, in an entrepreneur concept, can be understood as a new product, a new form of distribution or even a new organizational structure. In the context of the 21st century, entrepreneurship began to be seen from a personal perspective, being more explored and related to several areas of knowledge (Hisrich, & Peters, 2004).

Due to its relationship with diverse areas, the concept of entrepreneurship ends up not finding consensus in the scientific literature. This field of study is commonly analyzed according to the foundations of various disciplines, including Economics, Psychology, Administration and Sociology. Each area provides its own vision of entrepreneurship, which contributes to the development of knowledge, as well as its fragmentation.

Exactly having in literature different definitions of entrepreneurship, the currents of the economists, led by Schumpeter are taken as main references, whose ideas associate the entrepreneur to innovation and the explanation of the economic development. There is also the psychological current, whose main author is McClelland, detaching attitudinal aspects, contemplating the entrepreneurs as intuitive and creative people, and highlighting the paper of the changeable necessity or motivation of accomplishment in the development of the countries (Filion, 1997). According to the vision still defended by McClelland, innovation is part of the concept of entrepreneurship, something also assumed by the economist current.

Filion (1999, p. 7), in his work, highlights Schumpeter's thinking that "the essence of entrepreneurship remains in the perception and exploration of new opportunities, [...] always making use of national resources from their traditional application, and subjecting it to new combinations." David McClelland (1987) indicated that people with high motivation for achievement had characteristics such as risk acceptance, persistence, innovation, personal responsibility, search for feedback on their performance and search for goals.

This article focuses on the study of entrepreneurship from the behaviorist perspective, which has as its main pillar the theory of David McClelland, which investigates the reasons that lead entrepreneurs to create and make their companies last.

## 2.2 Entrepreneurial Intention

The term intention originates from the Arabic word *ma'nā*, which can be translated into 'meaning' or 'thought'. In medieval Latin, the word *intentio* was used for both concepts and ideas, but there was an important distinction: *intentio prima*, which was used for things and facts, and *intentio secunda*, which referred to the thought about other thoughts (Braddon-Mitchell, 2001).

For Tubbs and Ekeberg (1991), the intention can be understood as a demonstration of what one wishes to achieve. For Krueger, Reilly and Carsrud (2000), intention is something that precedes a behavior. Ajzen (1991) extends this definition of intention, when affirming that it is an indicator of how much a person is willing to dedicate himself in carrying through a behavior.



Being thus, in the context of this research, entrepreneurial intention is assumed as something related to the will and the commitment of each individual in starting a business. This intention is characterized by the definition of an action to achieve a certain objective, and the greater the intention to set a behavior, the greater the possibilities of its effective performance (Muller, Zapkau, & Schwens, 2014; Paiva, Lima, Rebouças, & Soares, 2019). In recent years, as pointed out by the works of Souza, Silveira and Nascimento (2018); Martins, Santos and Silveira (2019); Sousa, Fontenele, Silva and Sousa Filho (2019); Cruz, Falcão, Barbosa and Paula (2020) and Veiga and Cortez (2021), there is a significant increase in the number of studies on this theme.

Bird (1988) presents entrepreneurial intention as a state of mind that guides an individual's attention, his experience and action, towards a specific goal or a way (or means) to achieve something. For the author, the entrepreneurial intention is characterized not only by the desire to start a business, but also by the ideas of changing an existing business.

According to the works of Gerba (2012); Barbosa, Silva, Gonçalves and Morais (2020) and Brito, Santos and Silveira (2021), studies on entrepreneurial intention are commonly developed through intention models. These models are presented in the literature, almost always, containing similar or repeated constructs, and its improvements include only small additions or elimination of some of these constructs (Singh, Prasad, & Raut, 2012; Martins, Santos, & Silveira, 2019; Şahin, Karadağ, & Tuncer, 2019; Schmutzler, Andonova, & Diaz-Serrano, 2019).

According to Guerrero, Rialp and Urbano (2008), it was in the 1980s and 1990s that the intention models were applied to the area of entrepreneurship, which, according to Krueger, Reilly and Carsrud (2000), allowed entrepreneurial activities to be planned and explained.

Both works of Martins, Serralvo and João (2014), based on the Theory of Planned Behavior (TPB) as a model used in Psychology (and other areas) with the objective of demonstrating and anticipating various behaviors of individuals, as well as the results of meta-analysis carried out by Schlaegel and Koenig (2014) and Liñán and Fayolle (2015), which allowed the identification of the theoretical framework of studies on entrepreneurial intention, evidenced the prevalence of TPB (Ajzen, 1991), a proposal taken as a model in this study. Similar indications were also presented by Marcon, Silveira and Frizon (2021).

The Theory of Planned Behavior (TPB) is an expansion of the Theory of Rational Action (TRA), which admits that human beings are rational and use available information to evaluate the implications of their behaviors, with the intention of deciding on their achievement (Ajzen, & Fishbein, 1970). TRA is successful when applied to behaviors in which individuals exercise the control of their will (Ajzen, 1991). In a recent study, Joensuu-Salo, Viljamaa and Varamäki (2022) adopted TPB in research with two groups of students (high school and university level), linking sustainable skills to entrepreneurial intention.

According to Pinto (2010), both TRA and TPB demand that the adoption of a behavior is directly related to the individual's intention to assume this behavior. The intentions are driven both by the two constructs present in TRA, in relation to the behavior and subjective norms, as well as by the perception of behavioral control.

According to Ajzen (1991), the Theory of Planned Behavior (TPB) aims to understand the human behavior, assuming that some motivational factors can influence behavior, such as the measure of the effort that people are willing to invest to perform the action or, similarly, to what extent they would go to accomplish this action.

The author defends the idea that the central point of TPB is the intention of the individual to perform the action. This idea has as estimated that the individuals take their decisions in a rational way, considering, for the decision of execution of a behavior or not, all the available information, its perception and of its pairs in relation to this intended behavior, and the implications of their actions (Ajzen, 2002).



The model of Ajzen (1991) is formed by three independent variables that precede the intention, that, in turn, precede the behavior. These variables are: attitudes towards behavior, subjective norms and perceived behavioral control.

For Ajzen and Fishbein (1981), the attitude (ATB) is a concept that consists of the following components: cognition, composed of the knowledge and beliefs; affectivity, formed by the preferences, tastes and sensations; and behavior. In accordance with Teo and Lee (2010), attitude is the predisposition, favorable or not, of an individual in developing a specific behavior.

The subjective norms (SN) can be defined as what the individual believes regarding the others' opinion or groups, if it should perform or not, such behavior (Ajzen, & Fishbein, 1981). The idea of social pressure is present in the construct, because it demonstrates the individual's predisposition to perform, or not, a behavior from the perspective of other people.

For Ajzen (1991), the result of perceived behavioral control (PBC) over the behavior is associated with how easy or difficult the individual believes to perform a certain behavior. Generally, people consider that behaviors are subject to interference and uncertainties and, for this reason, perceived behavioral control serves to verify the extent to which the individual considers situational factors and personal problems in the development of his action. This overview is also demonstrated in the studies of Che Nawati, Mamun, Hassan, Wan Ibrahim, Mohamed and Permarupan (2022) and Martínez-Gregorio and Oliver (2022).

Based on these concepts mentioned above, the following hypotheses were elaborated for the study:

H1 - Attitudes towards behavior positively influence Entrepreneurial Intention

H2 - Social Norms positively influence Entrepreneurial Intention

H3 - Perception of control positively influences Entrepreneurial Intention

### **2.3 Relationship between Need for Achievement and Entrepreneurial Intention**

McClelland (1971) appraised the need for achievement as being a force that makes the individual tests its limits, making the work the best possible. People who have a high need for achievement seek changes and set real and possible goals (McClelland, 1987), which makes this characteristic one of the main predictors of entrepreneurial behavior (Sivarajah & Achchuthan, 2013).

As seen before, there is no evidence of entrepreneurial behavior without entrepreneurial intention. For this reason, it is assumed that the perception of control over behavior, attitude towards behavior and subjective norms influence entrepreneurial behavior. However, the entrepreneurial intention that converges to success is related to the personal characteristics of the entrepreneurs, as is the case with the need for achievement (Dej, 2007).

This relationship between the need for achievement and entrepreneurial intention was also pointed out by authors such as Yusof, Sandu and Jain, (2007); McClelland (1987) and Burns (2011), stating that the need for achievement is seen as a very important entrepreneurial motivation and that, according to Mokhtar and Zainuddin (2016), it is one of the theories with more effect on entrepreneurial intention.

Bernardi (2003) argues that the need for achievement is one of the motivating factors of entrepreneurship. The author points out that some circumstances, such as the individual having personality traits common to born entrepreneurs, being heirs, being in an unemployment situation, having know-how about some service or product, among others, may lead the person to want to become an entrepreneur. The Collins, Hanges and Locke (2009) had evidenced that the need for achievement is related to the performance in the entrepreneurship, and to the fact of that people with bigger need for achievement search professional careers that allow them to have control on the results, something also pointed in the work of McClelland (1987).

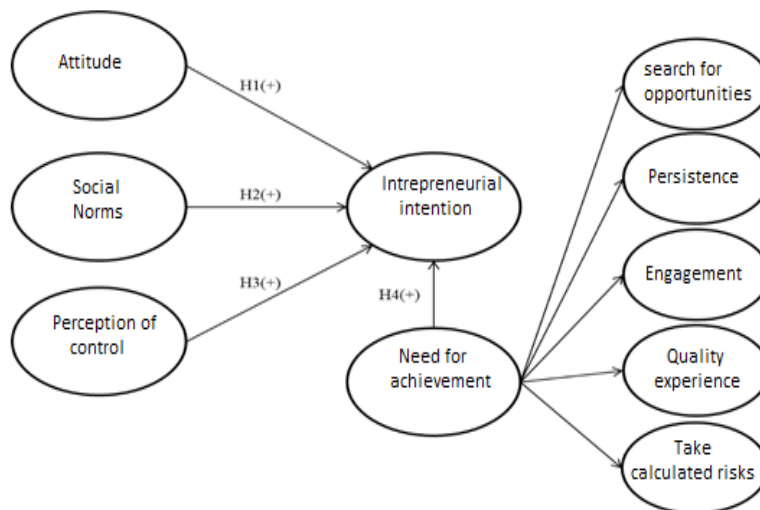


In the research carried by Blacksmith, Raposo, Rodrigues, Dinis and Paço (2012), searching to identify which variable exerted influence on the entrepreneurial intention of high school students, the need for achievement, the self-confidence and the personal attitude can be found as factors of positive impact in the students' intention to undertake. Frese and Gielnik (2014) had elaborated a meta-analysis that showed that traces of personality, such as self-efficacy and need for achievement, are positively associated to the creation of companies and their success.

From these considerations, the following hypothesis is also stipulated:

H4 - The Need for achievement positively influences entrepreneurial intention

Figure 1 - Search Model



Source: developed by the authors.

### 3 METHODOLOGICAL PROCEDURES

In search of a better understanding of the entrepreneurial intention of entrepreneurs and potential entrepreneurs (in the specific case of this study, belonging to the state of Acre), we chose to develop the research through a quantitative methodology, using multivariate data analysis.

According to Hair Jr, Hult, Ringle and Starstedt (2017), when theories about concepts are underdeveloped and the structural model is complex, containing many constructs and indicators, and if the main objectives of the research are the prediction and explanation of constructs, the method of Modeling in Structural Equations by Partial Least Square Equation (PLS-SEM) is the most appropriate methodological path, because it has the purpose of maximizing the explained variance of the endogenous constructs. Additionally, Bido and Silva (2019) indicated the use of SmartPLS in case of a reflective model.

For data collection, the questionnaire developed by David McClelland (1987), which is used in the projects of the United Nations Conference on Trade and Development (UNCTAD), and the scale developed by Liñán and Chen (2009), which is based on TPB, was partially applied. The research instrument was applied to graduates of the Empretec Seminar, which is a training that seeks to develop in its participants the behavior of a successful entrepreneur, because the participants of the seminar go through a previous selection process, for which an entrepreneurial profile is outlined that allows only candidates with minimal entrepreneurial characteristics to participate in the seminar.



The calculation of the sample size required for the model and the calculation of the statistical power of the analyses were performed according to the recommendations of Hair et al. (2017), using G\*Power 3.1.5 software (Faul, Erdfelder, Buchner, & Lang, 2009). As the proposed model has four predictors, the effect size ( $f^2$ ) of 0.15 was defined, with significance of 0.05 and power of 0.8 (Cohen, 1988, Hair Jr. et al., 2017). The result was 85 of valid cases, and the sample of 160 respondents was used and, thus, it can be considered adequate for the estimation by Partial Least Squares Path Modeling (PLS-PM).

## 4 DATA ANALYSIS AND INTERPRETATION

To verify whether the indicators associated with each construct are really reflections of the concept they represent, the cross loadings of each indicator were analyzed. According to Hair et al. (2017), the factor loading value of the indicator must be greater than or equal to 0.7, and greater than the cross loading with other constructs for the indicators to be maintained in the model. If the factor loading value of the indicator is lower than 0.4, the indicator should be automatically excluded.

Regarding this, the indicators ACF3, ACF5, BO4, COMP5, CRC4, CRC5, INT3, INT6, NS2, PER1 and PER4 had been excluded, therefore they had presented lower factorial loading than 0,40. Other indicators had presented inferior factorial loading than 0,7, however higher than 0,40. Thus, it was appealed to Hair et al. (2017) suggestion, to analyze the impact of the exclusion of each indicator with higher factorial loading than 0,4 and minor than 0,7, in the average variance extracted (AVE) and in the composed reliability.

From the analysis in the variations of AVE measures and composed reliability with the exclusion of each indicator with inferior factorial loading than 0,7, were opted to exclude the indicators BO1, COMP3, CRC1, EQ1, EQ3 and PER2. In Table 1, the cross loadings are presented after the exclusion of the appointed indicators.





Table 1 - Cross loadings of the adjusted model

INDICADORES	AFC	BO	COMP	CONT	CRC	EQ	INT	NS	PER
AFC1	<b>0,748</b>	0,335	0,358	0,554	0,209	0,234	0,520	0,509	0,268
AFC2	<b>0,872</b>	0,143	0,157	0,607	0,183	0,238	0,664	0,562	0,146
AFC4	<b>0,893</b>	0,134	0,077	0,576	0,148	0,190	0,689	0,490	0,091
AFC6	<b>0,820</b>	0,153	0,072	0,569	0,113	0,185	0,674	0,522	0,075
BO2	0,146	<b>0,636</b>	0,436	0,149	0,323	0,340	0,054	0,005	0,278
BO3	0,162	<b>0,802</b>	0,277	0,177	0,111	0,234	0,149	0,146	0,369
BO5	0,162	<b>0,725</b>	0,249	0,291	0,170	0,223	0,232	0,305	0,372
COMP2	0,084	0,263	<b>0,704</b>	0,141	0,254	0,266	0,038	0,018	0,396
COMP4	0,185	0,402	<b>0,793</b>	0,260	0,244	0,329	0,153	0,107	0,389
CONT1	0,634	0,174	0,184	<b>0,770</b>	0,297	0,225	0,646	0,592	0,210
CONT2	0,647	0,237	0,244	<b>0,859</b>	0,222	0,253	0,719	0,609	0,332
CONT3	0,502	0,239	0,209	<b>0,896</b>	0,311	0,306	0,609	0,616	0,262
CONT4	0,512	0,234	0,242	<b>0,802</b>	0,332	0,340	0,504	0,471	0,278
CONT5	0,478	0,212	0,256	<b>0,809</b>	0,320	0,308	0,494	0,471	0,182
CONT6	0,601	0,300	0,226	<b>0,823</b>	0,283	0,325	0,682	0,626	0,236
CRC2	0,171	0,241	0,313	0,251	<b>0,845</b>	0,247	0,142	0,150	0,355
CRC3	0,136	0,217	0,216	0,325	<b>0,775</b>	0,272	0,111	0,125	0,213
EQ2	0,152	0,215	0,237	0,282	0,179	<b>0,688</b>	0,241	0,107	0,209
EQ4	0,083	0,314	0,298	0,102	0,158	<b>0,711</b>	0,017	-0,162	0,335
EQ5	0,290	0,248	0,299	0,361	0,327	<b>0,713</b>	0,262	0,223	0,267
INT1	0,611	0,281	0,160	0,670	0,182	0,219	<b>0,843</b>	0,638	0,166
INT2	0,750	0,155	0,089	0,703	0,120	0,180	<b>0,933</b>	0,725	0,123
INT4	0,741	0,163	0,149	0,695	0,133	0,248	<b>0,943</b>	0,686	0,128
INT5	0,678	0,131	0,088	0,655	0,142	0,234	<b>0,910</b>	0,610	0,074
NS1	0,589	0,223	0,128	0,605	0,117	0,090	0,695	<b>0,930</b>	0,139
NS3	0,561	0,156	0,032	0,677	0,202	0,051	0,664	<b>0,923</b>	0,033
PER3	0,072	0,344	0,471	0,178	0,315	0,243	0,036	0,010	<b>0,828</b>
PER5	0,198	0,449	0,419	0,331	0,293	0,408	0,183	0,141	<b>0,870</b>

Source: Research data

Hierarchical latent variable models are characterized by the number of levels and the relationship among the constructs of the model (Becker, Klein, & Wetzels, 2012). A second-order level construct is a general concept that is formed (formative construct) or represented (reflective construct) by first-order level constructs, in which the relationship between the second and first-order constructs does not represent dependence, but rather a hierarchy, because the second-order construct does not exist without the first-order constructs (Becker, Klein, & Wetzels, 2012).

The model developed in this research presents a hierarchical latent variable, in which the construct Need for Achievement is a second-order construct (High Order Constructs - HOC) formed by the first-order constructs (Low Order Constructs - LOC): Search for Opportunities, Persistence, Engagement, Quality Experience and Take Calculated Risks. And, according to theoretical support, the Need for Achievement has an influence on the Entrepreneurial Intention construct.

Due to the characteristic of the model, the two-stage approach was adopted to estimate on the parameters (Hair Jr et al., 2017). SmartPLS 3 software (Ringle, Wende, & Becker, 2015) was also used for that purpose.

In the two-stage approach, the analyses are separated into two stages: in the first stage, it is recommended to use the repeated indicator approach to obtain the scores of the constructs (Hair Jr et al., 2017). These values, scores of the latent variables, were saved as additional variables in the worksheet for further analysis in the second stage. Thus, in the second stage, the scores of the LOCs obtained in the previous stage were used as indicators for the second-order constructs (HOCs), due to the advantage of estimating a more parsimonious model, because there is no need to present the

LOCs (Hair et al., 2017).

All indicators of the research model are reflective, thus following the recommendations of Hair Jr et al. (2017), the following criteria were used for evaluation: internal consistency, indicator reliability, convergent validity and discriminant validity. Discriminant and convergent validities were evaluated at the level of the indicators and latent variables. Table 1 has already presented the analysis of the cross loadings, and most indicators presented high factor loadings in their latent variables, higher than 0.70, and lower in the other latent variables.

The average variance extracted (AVE) must have a value higher than 0.5. Regarding internal consistency, which is evaluated using Cronbach's Alpha, values between 0.60 and 0.70 are considered acceptable for exploratory studies, and values between 0.70 and 0.90 for advanced studies (Nunally & Bernstein, 1994, Hair et al., 2017).

To evaluate the measurement model, a main measure used, in addition to examining the loadings for each indicator is the composed reliability of each construct (Hair Jr et al., 2017), which describes the degree to which the indicators represent the latent construct in common, and has as acceptable reference value 0.70. Table 2 presents the mentioned components, and all of them are within the set values.

Table 2 - AVE, Composed Reliability and Cronbach 's Alpha

Constructs	Cronbach's Alpha	Composed reliability	Average Variance Extracted
<b>ATB</b>	0,854	0,902	0,697
<b>PC</b>	0,908	0,929	0,685
<b>EI</b>	0,929	0,949	0,825
<b>NA</b>	0,761	0,836	0,506
<b>SN</b>	0,835	0,924	0,858

Source: Research data

Note: AFB = Attitude Towards Behavior; EI = Entrepreneurial Intention; NA = Need for Achievement; SN = Social Norms; PC = Perception of Control.

The calculation of the AVE square root is another indicator of discriminant validity among the constructs. These values are presented in Table 3. The square root of the average variance extracted is presented in bold diagonally, and this value should be higher than the correlation among the latent variables (Fornell & Larcker, 1981).

Table 3 - Discriminant Validity / AVE Square Root

Constructs	Attitude	Entrepreneurial Intention	Need for Achievement	S o c i a l Norms	Perception of Control
<b>Attitude</b>	<b>0,835</b>				
<b>Perception of Control</b>	0,689	<b>0,828</b>			
<b>Entrepreneurial intention</b>	0,768	0,750	<b>0,908</b>		
<b>Need for achievement</b>	0,291	0,441	0,256	<b>0,711</b>	
<b>Social Norms</b>	0,621	0,691	0,734	0,178	<b>0,926</b>

Source: Research data



According to Table 3, all correlation values between latent variables are higher than the square root values of the average variance extracted (diagonal). To evaluate the structural model, its collinearity was analyzed, taking into account the values of the Variance Inflation Factor (VIF) for each subpart of the structural model. According to Hair et al. (2017), these values should be below 5, and in this evaluation, a value below 3 was obtained for all the constructs in relation to Entrepreneurial Intention: Attitude (2,064), Perception of Control (2,869), Need for Achievement (1,293) and Social Norms (2,160).

The technique of bootstrapping was used to analyze the significance of the indicators (Efron & Tibshirani, 1998). The t statistics of Student analyzes the hypothesis that the correlation coefficients are equal to zero. If the results of this test indicate values higher than 1.96, the hypothesis is rejected and the correlation is significant (Efron & Tibshirani, 1998; Hair et al., 2017). Table 4 presents the structural coefficients of the model of measurements and statistics t of Student. All values of structural coefficients are considered significant.

Table 4 - Model of measurements and statistics t of Student structural coefficients

Indicators	Average	Standard Error	Statistics T	P- value
<b>AFC1 &lt; AFC</b>	0,748	0,050	15,068	0,000
<b>AFC2 &lt; AFC</b>	0,871	0,028	31,535	0,000
<b>AFC4 &lt; AFC</b>	0,892	0,023	39,426	0,000
<b>AFC6 &lt; AFC</b>	0,819	0,034	24,032	0,000
<b>CONT1 &lt; CONT</b>	0,771	0,035	21,747	0,000
<b>CONT2 &lt; CONT</b>	0,860	0,024	35,140	0,000
<b>CONT3 &lt; CONT</b>	0,895	0,019	48,260	0,000
<b>CONT4 &lt; CONT</b>	0,799	0,043	18,857	0,000
<b>CONT5 &lt; CONT</b>	0,806	0,039	20,681	0,000
<b>CONT6 &lt; CONT</b>	0,822	0,032	25,372	0,000
<b>INT1 &lt; INT</b>	0,843	0,037	22,627	0,000
<b>INT2 &lt; INT</b>	0,933	0,016	59,202	0,000
<b>INT4 &lt; INT</b>	0,943	0,012	78,646	0,000
<b>INT5 &lt; INT</b>	0,908	0,025	35,995	0,000
<b>NS1 &lt; NS</b>	0,931	0,015	63,255	0,000
<b>NS3 &lt; NS</b>	0,920	0,028	32,471	0,000
<b>BO &lt; NR</b>	0,718	0,090	8,137	0,000
<b>COMP &lt; NR</b>	0,681	0,122	5,855	0,000
<b>CRC &lt; NR</b>	0,605	0,112	5,490	0,000
<b>EQ &lt; NR</b>	0,753	0,072	10,560	0,000
<b>PER &lt; NR</b>	0,696	0,106	6,814	0,000

Source: Research data

Table 5 shows the values of the coefficients between the constructs and the respective statistics t of Student. The values were also estimated by the bootstrapping technique. All the values of relationships that presented t values of Student higher than 1.96 (significance level = 5%), are supported for the corresponding hypothesis. However, the relation of Need for Achievement and Entrepreneurial Intention obtained the value of the t-test of Student below 1.96, and does not provide support for this hypothesis.



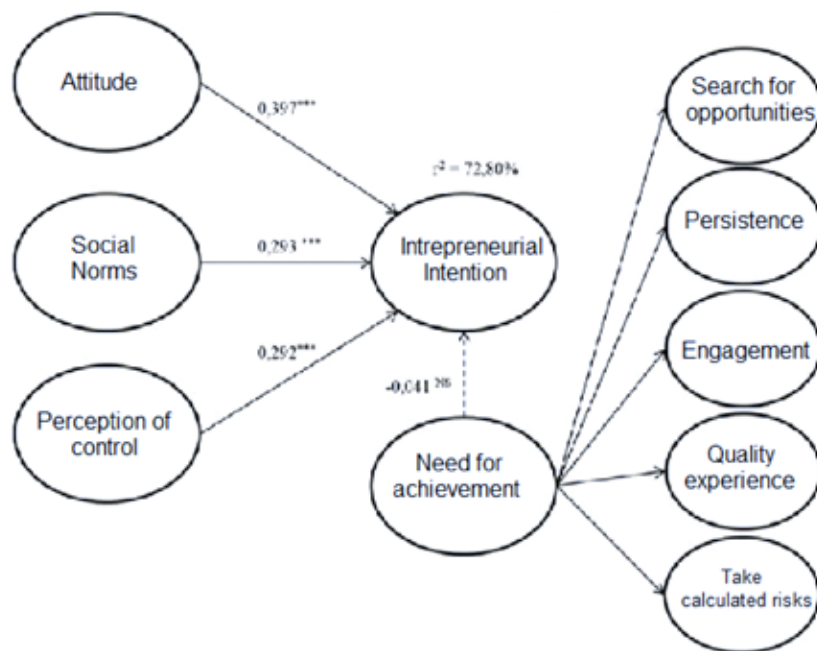
Table 5 - Coefficients of the structural model (among constructs)

Indicators	Average	Standard Error	Statistics T	P Value
<b>AFC -&gt;INT</b>	0,403	0,074	5,362	0,000
<b>CONT -&gt;INT</b>	0,286	0,072	4,070	0,000
<b>NR -&gt;INT</b>	-0,031	0,052	0,790	0,430
<b>NS-&gt;INT</b>	0,290	0,084	3,501	0,000

Source: Research data

The coefficient of determination ( $R^2$ ) was evaluated according to the studies by Cohen (1988) and Faul et al. (2009), which determine that the values of  $f^2$  equal to 0.02, 0.15 and 0.35 are considered, respectively, as small, medium, and large effects. These values of  $f^2$  represent values of  $R^2$  equal to 2%, 13% and 25%, respectively. The results are presented in Figure 2 and Table 7, and indicate that the Entrepreneurial Intention construct presented a high effect, with a value of  $R^2$  equal to 0.721.

Figure 2 - Model resulting from the search



Source: Research data

Notes: \* = significant at 5%; \*\* = significant at 1%; \*\*\* = significant at 0.1%; NS = not significant.

It was also analyzed the  $Q^2$  value, which is an indicator of the predictive relevance model. The measure  $Q^2$  applies a technique of sample reuse that omits part of the data matrix and uses model estimates to predict the omitted part. When a model PLS-SEM presents predictive relevance, it predicts with precision the data points of the indicators in the reflective measurement models. Table 6 presents the values of  $R^2$ ,  $R^2$  adjusted and  $Q^2$ .

Table 6 - Results of the values of R<sup>2</sup> and Q<sup>2</sup>

Construct	R <sup>2</sup>	R <sup>2</sup> Adjusted	Q <sup>2</sup>
Entrepreneurial intention	0,728	0,721	0,554

Source: Research data

For SEM models, Q<sup>2</sup> values higher than zero for a specific reflective endogenous latent variable indicate the predictive relevance of the path model. In the case of the present study, the values were higher than zero. Figure 3 shows the synthesis of the hypothesis tests of the study.

Figure 3 - Synthesis of the hypothesis tests of the study

Hypotheses	Description	Result
H1	Attitude Towards Behavior positively influences entrepreneurial intention.	CONFIRMED
H2	Social Norms positively influence entrepreneurial intention.	CONFIRMED
H3	Perception of Control positively influences entrepreneurial intention.	CONFIRMED
H4	Need for Achievement positively influences entrepreneurial intention.	UNCONFIRMED

Source: Research data

The research presented a robust model with high explanatory value. In relation to the results of the study, entrepreneurial intention is positively influenced by Attitude Towards Behavior, Social Norms and Perception of Control, which confirms the Ajzen's model (1991), which points to these three independent variables as antecedents of intention, which, in turn, precedes behavior.

Attitude Towards Behavior is the construct that most influences entrepreneurial intention. Thus, the more positive the attitude of the person towards entrepreneurship, the greater the intention to undertake. The constructs Social Norms and Perception of Control practically have the same (significant) influence in relation to Entrepreneurial Intention. These results are similar to the ones for Arruda, Souza, Rocha and Montenegro (2015) that, when evaluating the entrepreneurial intention of individuals with entailed projects the two businesses incubation in Natal/RN, had also concluded that the constructs that more impact the entrepreneurial intention are the entrepreneurial attitude and the subjective norms. Thus, by being the respondents already entrepreneurs, the easiness or the difficulty of the achievement of the behavior was set aside, similar scenario to the evidenced one in this work, once 44,85% of the individuals had declared already to possess its own business. Similar results had also been found in the studies of Lu, Song and Pan (2021) and in St-Jean, Tremblay and Chouchane (2021).

Although the second-order construct, Need for Achievement was properly explained by the constructs Search for Opportunities, Persistence, Engagement, Quality Requirement and Take Calculated Risks, the hypothesis that the Need for Achievement positively influences Entrepreneurial Intention (H4) was not accepted, as the results of authors such as Liñán and Rodríguez (2004); Burns (2011) and Mokhtar and Zainuddin (2016). On the other hand, it is worth noting that research such as Begley and Boyd (1987) and Yusof, Sandu and Jain (2007) identified the Need for Achievement as a vital factor for entrepreneurship, which may suggest future research in the Brazilian scenario, aiming to investigate the influence of this construct on Entrepreneurial Intention, or even research that investigates scenarios from different countries, as did Nascimento, Dantas, Santos, Veras and Costa Jr. (2010), whose results were similar to those found in this study.



## 5 FINAL CONSIDERATIONS

Theme addressed in recent studies, the entrepreneurial intention conducted this work in the search to identify the intentions of entrepreneurs and potential entrepreneurs to start or expand a business in the state of Acre, given that the theoretical-conceptual field assumed shows that the investigation of the intentions allows to find “the motivational factors that influence the behavior; how much effort people plan to exercise in order to perform the behavior” (Ajzen, 1991, p. 181). Thus, we sought to analyze, from the perspective of the Theory of Planned Behavior, the antecedents of the entrepreneurial intention of entrepreneurs and potential entrepreneurs of the mentioned state. The theoretical model, in addition to TPB, was also based on an additional construct - need for achievement -, also obtained in the theoretical-conceptual field. Given the assumed quantitative methodological stance, we tried hypotheses related to the object of the research.

According to the results of the research, Entrepreneurial Intention is positively influenced by Attitude Towards Behavior, Social Norms and Perception of Control, with Attitude Towards Behavior being the construct that most positively influences Entrepreneurial Intention. These confirmations can be used by institutions that seek to encourage entrepreneurship in the state of Acre, as they highlight the importance that some predictors have on the entrepreneurial intention of entrepreneurs and potential entrepreneurs of the state.

Institutions such as Sebrae/AC, which have as part of their mission to foster entrepreneurship to strengthen the economy, can, given the results of this work, develop actions to encourage the favorable predisposition of individuals to have their own business. These actions should not only be directed at people who want to start a business, but also those who intend to expand and improve their enterprises.

It is also important to highlight that the result of that subjective norms influence the entrepreneurial intention of the respondents, that is, individuals believe in others’ opinion or groups about whether or not they should undertake, it is important for the reduction of the culture of the “paycheck” (attachment to the traditional employment relationship). Dissemination and incentive actions to choose entrepreneurship should also target schools, colleges and parents of young people who are still in the phase of choosing a career.

The non-confirmation of the relationship between the Need for Achievement and the Entrepreneurial Intention may have occurred due to the fact that the psychological characteristics of the entrepreneurs may change as the entrepreneur distances himself from the moment when the entrepreneurial motivating event occurred, as also detected by Teixeira (2015).

In terms of academic-scientific contribution, this study can provide a better understanding of the motivations of entrepreneurial intention. In addition, it can stimulate progress in discussions on the subject, as it presents data collected in a scenario where the entrepreneurial culture is still in the development phase. Kuratko, Fisher, and Audretsch (2021) emphasize that some scholars have made references to the concept of entrepreneurial mindset, such as Naumann (2017); however, few have clearly defined it or addressed its attributes, underlying qualities, and effects. Thus, the question remains as to the entrepreneurial mindset (and how people take advantage of it). Once associated with entrepreneurial intention, the mindset can be a topic for future research.

The limitations regarding the study carried out concern the population, since the list of participants includes only graduates of the Empretec Seminar of Acre, as well as the fact that it was not considered whether the individuals were temporally close to the triggering event, which, according to Teixeira (2015), may increase the risk that the psychological characteristics have been changed by negative events and external to the individual. The works of Figueiredo, Avrichir and Barbosa (2017) and Barbosa, Silva, Gonçalves and Morais (2020) also present elements on specific entrepreneurial characteristics of the Amazon region.



Finally, it is suggested, in future research, to investigate separately the entrepreneurial intention of individuals who already have their own business from those who do not. Another possibility of further studies would be to add to the TPB model other constructs found in the literature, as predictors of entrepreneurial intention.

## REFERENCES

- Ajzen, I. (1991). The theory of planned behavior, *Organizational Behavior and Human Decision Processes*, (50), p. 179–211.
- Ajzen, I. (2002). Residual effects of past on later behavior: habituation and reasoned action perspectives, *Personality and Social Psychology Review*, 6 (2), p. 107-122.
- Ajzen, I., & Fishbein, M. (1970). The prediction of behavior from attitudinal and normative variables, *Journal of Experimental Social Psychology*, (6), p. 466-487.
- Ajzen, I., & Fishbein, M. (1981). Attitudes and voting behavior: an application of the theory of reasoned action, *Progress in Applied Social Psychology*, (1), p. 253-313.
- Arruda, EH, Souza, LA, Rocha, FSF, & Montenegro, CB (2015). Comportamento planejado, um estudo da intenção empreendedora em incubadoras de empresas através da aplicação de modelagem de equações estruturais, 25ª Conferência ANPROTEC (Mato Grosso), Anais..., Cuiabá.
- Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2012). Entrepreneurial behavior: Impact of motivation factors on decision to create a new venture, *Investigaciones Europeas de Dirección y Economía de la Empresa*, 18, p. 132-138.
- Barbosa, R. A. P., Silva, E. A., Gonçalves, F. H. L., & Morais, F. R. (2020). O Impacto da Educação Empreendedora na Intenção de Empreender: Análise dos Traços de Personalidade. *Revista de Empreendedorismo e Gestão de Pequenas Empresas*, 9(1), 124-158.
- Becker, J. M., Klein, K., & Wetzels, M. (2012). Hierarchical Latent Variable Models in PLS-SEM: Guidelines for Using Reflective-Formative Type Models. *Long Range Planning*, 45, 359-394.
- Begley, T. M., & Boyd, D. (1987). Psychological characteristics associated with performance in entrepreneurial firms and small businesses, *Journal of Business Venturing*, 2, p. 79-93.
- Bernardi, L. A. (2003). *Manual de empreendedorismo e gestão*, São Paulo, Atlas.
- Bido, D. S., & Silva, D. (2019). SmartPLS 3. Especificação, Estimação, Avaliação e Relato. *Administração: Ensino e Pesquisa*, 20(2), 488-536.
- Bird, B. J. (1988). Implementing entrepreneurial ideas: the case for intention, *Academy of Management Review*, 13, p. 442-453.
- Braddon-Mitchell, D. (2001). Intentionality and rationality: an analytical perspective, In: Smelser, N. J. and Baltes, P. B. (ed). *International Encyclopedia of the Social & Behavioral Sciences*, Oxford, Elsevier Publisher.
- Brito, B. A. V., Santos, ICD, & Silveira, G. B. (2021). Agrupamento de Empreendedores e Possíveis Empreendedores do Acre: Uma Análise da Intenção Empreendedora. *Revista Economia & Gestão*, 21(58), 62-78.



- Burns, P. (2011). *Entrepreneurship and small business: start-up, growth and maturity*, Hampshire, Palgrave Macmillan.
- Bux, S. R., & Honglin, Y. (2015). Analyzing the impact of the psychological characteristics on entrepreneurial intentions among university students, *Advances in Economics and Business*, 3, p. 215-224.
- Che Nawi, N., Mamun, A. A., Hassan, A. A., Wan Ibrahim, W. S. A. A., Mohamed, A. F., & Permarupan, P. Y. (2022). *Agro-Entrepreneurial Intention among University Students: a study under the premises of Theory of Planned Behavior*. SAGE Open.
- Chin, W. W., & Newsted, P. R. (1999). Structural equation modeling analysis with small samples using partial least squares, In: Hoyle, R. H. (ed.). *Statistical strategies for small sample research*, Thousand Oaks, Sage Publications.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*, Hillsdale Erlbaum.
- Collins, C. J., Hanges, P. J., & Locke, E. A. (2009). The Relationship of Achievement Motivation to Entrepreneurial Behavior: A Meta-Analysis, *Human Performance*, 17(1), p. 95-117.
- Cruz, E. P., Falcão, R. P. Q., Barbosa, Y. O. F., & Paula, F. O. (2020). Análise de Variáveis Prescritoras da Intenção Empreendedora de Imigrantes Brasileiros em Portugal. *Revista de Administração Contemporânea*, 24(4), p. 349-368.
- Dej, D. (2007). Motivation to become entrepreneur. In: Moriano, J. A. and Gorgievski, M. (org.). *Psychology of Entrepreneurship: research and education*. University of Technology in Dresden, 57-64.
- Efron, B., & Tibshirani, R. J. (1998). *An introduction to the bootstrap*. Chapman & Hall/CRC, Boca Raton.
- Engle, R. L., Dimitriadi, N., Gavidia, J. V., Schlaegel, C., Delanoe, S., Alvarado, I., He, X., Buame, S., & Wolff, B. (2010). Entrepreneurial intent: A twelve-country evaluation of Ajzen's model of planned behavior, *International Journal of Entrepreneurial Behaviour & Research*, 16(1), p. 35-57.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses, *Behavior Research Methods*, 41, p. 1149-1160.
- Ferreira, A. S. M. (2017). *Intenção de carreira empreendedora de estudantes universitários: revisão de literatura e estudos empíricos*, Tese de Doutorado, Universidade Federal da Bahia.
- Ferreira, J.J., Raposo, M. L., Rodrigues, R.G., Dinis, A., & Paço, A. D. (2012). A model of entrepreneurial intention: an application of the psychological and behavioral approaches, *Journal of Small Business and Enterprise Development*, 19(3), p. 424-440.
- Figueiredo, C. C., Avrichir, I., & Barbosa, R. A. P. (2017). A Personalidade de Empreendedores e Gerentes de Loja Medida via Teoria do Big Five. *Revista Administração em Diálogo*, 19(3), 70-94.
- Filion, L. J. (1999). Empreendedorismo: empreendedores e proprietários-gerentes de pequenos negócios, *Revista de Administração*, 34(2), p. 5-28.





- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error, *Journal of Marketing Research*, 18, p. 39-50.
- Frese, M., & Gielnik, M. M. (2014). The Psychology of Entrepreneurship, *Annu. Rev. Organ. Psychol. Organ. Behav*, 1, p. 413–438.
- Gerba, D. T. (2012). Impact of entrepreneurship education on entrepreneurial intentions of business and engineering students in Ethiopia, *African Journal of Economic and Management Studies*, 3(2), p. 258-277.
- Guerrero, M., Rialp, J. & Urbano, D. (2008). The impact of desirability and feasibility on entrepreneurial intentions: a structural equation model, *International Entrepreneurship Management Journal*, 4, p. 35–50.
- Hair, J. F., Hult, G. T. M., Ringle, C. M. & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, Sage.
- Hisrich, R. D., & Peters, M. P. (2004). *Empreendedorismo*. 2. ed. Porto Alegre: Bookman, 2007.
- Joensuu-Salo, S., Viljamaa, A., & Varamäki, E. (2022). Sustainable Entrepreneurs of the Future: The Interplay between Educational Context, Sustainable Entrepreneurship Competence, and Entrepreneurial Intentions. *Administrative Sciences*, 12 (23), 1-15.
- Kolvereid, L. (2016). Preference for self-employment prediction of new business start-up intentions and efforts, *The International Journal of Entrepreneurship and Innovation*, 17(2), p. 100–109.
- Kristiansen, S., & Indarti, N. (2004). Entrepreneurial intention among Indonesian and Norwegian students, *Journal of Enterprising Culture*, 12(1), p. 55-78.
- Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15, p. 411–432.
- Kuratko, D. F., Fisher, G. & Audretsch, D. B. (2021). Unraveling the entrepreneurial mindset. *Small Business Economy*, 57, 1681–1691.
- Lee-Ross, D. (2017). An examination of the entrepreneurial intent of MBA students in Australia using the entrepreneurial intention questionnaire, *Journal of Management Development*, 36(9), p.1180-1190.
- Leitch, C. M., Hill, F. M., & Harrison, R. T. (2010). The philosophy and practice of interpretivist research in entrepreneurship: quality, validation, and trust, *Organizational Research Methods*, 13, p. 67-84.
- Liñán, F., & Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 1, p. 593-617.
- Liñán, F., & Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda, *International Entrepreneurship and Management Journal*, 11(4), p. 907-933.
- Liñán, F., & Rodríguez, J. C. (2004). Entrepreneurial attitudes of Andalusian university students, 44th ERSA Conference, Proceedings..., Porto, Portugal.



- Liñán, F., Rodríguez-Cohard, J. C., & Rueda-Cantucho, J. M. (2005). Factors affecting entrepreneurial intention levels. 45th Congress of the European Regional Science Association, Proceedings..., Amsterdam, Netherlands.
- Lu, G., Song, Y., & Pan, B. (2021). How University Entrepreneurship Support Affects College Students' Entrepreneurial Intentions: An Empirical Analysis from China. *Sustainability*, 13, 3224.
- Marcon, D. L., Silveira, A., & Frizon, J. A. (2021). Intenção Empreendedora e a Influência das Teorias do Comportamento Planejado e dos Valores Humanos. *Revista de Gestão e Secretariado*, 12(1), 178-204.
- Martínez-Gregorio, S., & Oliver, A. (2022). Measuring Entrepreneurship Intention in Secondary Education: Validation of the Entrepreneurial Intention Questionnaire. *Journal of Psychoeducational Assessment*, 40, 1-18.
- Martins E. C. B., Serralvo, F. A., & João, B. M. (2014). Teoria do comportamento planejado: uma aplicação no mercado educacional superior, *Gestão & Regionalidade*, 30(4), 107-122.
- Martins, F. S., Santos, E. B. A., & Silveira, A. (2019). Entrepreneurial Intention: Categorization, Classification of Constructs and Proposition of a Model, *Brazilian Business Review*, 16(1), p. 1-17.
- Matos, C. M. F., Lizote, S. A., Teston, S. F., Zawadzki, P., & Guerra, M. C. A. G. (2020). Entrepreneurial Education Influence on the Development of Self-Efficacy and Entrepreneurial Competences. *Revista de Administração da UFSM*, 13(Ed. Esp.), 1551-1570.
- McClelland, D. C. (1987). *Human motivation*, Cambridge, Cambridge University Press.
- Mokhtar, R. B., & Zainuddin, Y. B. (2016). Psychological characteristics and entrepreneurial intention: a theory of planned behavior approach, *Journal of Social Sciences and Humanities*, 1, 1-13.
- Muller, J., Zapkau, F., & Schwens, C. (2014). Impact of prior entrepreneurial exposure on entrepreneurial intention – cross-cultural evidence, *Journal of Enterprising Culture*, 1(3), p. 251-282.
- Nakao, A. N., Leite, L. E. C., & Cunha, J. A. C. (2018). Uma análise qualitativa da intenção empreendedora e do comportamento empreendedor no período de 2011 a 2015, *Revista de Micro e Pequenas Empresas e Empreendedorismo da FATEC*, 4(2), 271-295.
- Nascimento, S., Silveira, A., & Both, V. (2020). Cognitive Style, Self-Handicapping and Entrepreneurial Orientation of the Employees of an Agroindustry of Santa Catarina. *Revista de Administração da UFSM*, 13(Ed. Esp.), 1476-1494.
- Nascimento, T. C., Dantas, A. B., Santos, P. C. F., Veras, M., & Costa Junior, A. G. (2010). A metodologia de Kristiansen e Indarti para identificar intenção empreendedora em estudantes de ensino superior: comparando resultados obtidos na Noruega, Indonésia e Alagoas, *Revista de Negócios*, 15(3), p. 67- 86.
- Naumann, C. (2017). Entrepreneurial Mindset: A Synthetic Literature Review. *Entrepreneurial Business and Economics Review*, 5(3), 149-172.



- Nickell, S., Nicolitsas, D., & Dryden, N. (1997). What makes firms perform well? *European Economic Review*, 41, p. 783-796.
- Nogueira, C. M., & Fagundes, P. M. (2021). Consumer behavior in short agrifood chains in the region of Corede Rio da Várzea/RS/Brazil. *Revista de Administração da UFSM*, 14(Ed. Esp.), 1101-1122.
- Nunnally, J. C. and Bernstein, I. H. (1994). The Assessment of Reliability. *Psychometric Theory*, 3, 248-292.
- Paiva, L. E. B., Lima, T. C. B., Rebouças, S. M. D. P., & Soares, R. A. (2019). An Analysis of the Behavioral Constructs of Sustainable Entrepreneurship in Brazilian University Students. *Revista de Administração da UFSM*, 12(4), 718-740.
- Pinsonneault, A., & Kraemer, K. (1993). Survey Research Methodology in Management Information Systems: An Assessment, *Journal of Management Information Systems*, 10(2), 75-105.
- Pinto, M. D. R. (2010). A Teoria do comportamento planejado (TCP) e o índice de disposição de adoção, *Gestão & Tecnologia*, 7(2), 1-13.
- Ringle, C. M., Wende, S., & Becker, J. M. (2015). SmartPLS 3, Bönningstedt. Available at: <<http://www.smartpls.com>>.
- Şahin, F., Karadağ, H., & Tuncer, B. (2019). Big five personality traits, entrepreneurial self-efficacy and entrepreneurial intention - the configurational approach. *International Journal of Entrepreneurial Behavior & Research*, 25 (6), 1188-1211.
- Schlaegel, C., & Koenig, M. (2014). Determinants of entrepreneurial intent: a meta-analytic test and integration of competing models, *Entrepreneurship Theory and Practice*, 38(2), 291-332.
- Schmutzler, J., Andonova, V., & Diaz-Serrano, L. (2019). How Context Shapes Entrepreneurial Self-Efficacy as a Driver of Entrepreneurial Intentions: A Multilevel Approach. *Entrepreneurship Theory and Practice*, 43(5), 880–920.
- Segal, G., Borgia, D., & Schoenfeld, J. (2005). The motivation to become an entrepreneur, *International Journal of Entrepreneurial Behavior & Research*, 11(1), 42-57. about:blankabout:blank
- Singh, I., Prasad, T., & Raut, R. D. (2012). Entrepreneurial intent – A review of literature, Ninth aims International Conference on Management, Proceedings..., Pune, Maharashtra, India.
- Sivarajah, K., & Achchuthan, S. (2013). Entrepreneurial Intention among Undergraduates: Review of Literature, *European Journal of Business and Management*, 5(5), 172-186.
- Souitaris, V., Zerbinati, S., & Al-Laham, A. (2007). Do entrepreneurship programs raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources, *Journal of Business Venturing*, 22(1), 566–591.
- Sousa, E. S., Fontenele, R. E. S., Silva, A. L. L., & Sousa Filho, J. M. (2019). Mapeamento da Produção Científica Internacional sobre Intenção Empreendedora. *Revista de Gestão e Secretariado*, 10(3), 114-139.
- Souza, RDS, Silveira, A., & Nascimento, S. (2018). Ampliando a Mensuração da Intenção Empreendedora. *Revista de Administração FACES Journal*, 17(2), 74-93.



- St-Jean, E., Tremblay, M., & Chouchane, R. (2021). Back Into Entrepreneurship: Entrepreneurial Mindset of Experienced Entrepreneurs. *Academy of Management - Proceedings*, 1, 2021.
- Teixeira, A. A. C., & Davey, T. (2010). Attitudes of Higher Education students to new venture creation: a preliminary approach to the Portuguese case, *Industry and Higher Education*, 24(5), 323-341.
- Teixeira, R.M.A. (2015). O evento desencadeador do empreendedorismo a proposta de Bygrave aplicada aos empreendedores portugueses, *Dissertação de mestrado*, Instituto Politécnico de Lisboa, Portugal.
- Teo, T., & Lee, C. B. (2010). Explaining the intention to use technology among student teachers: An application of the Theory of Planned Behavior (TPB), *Campus-Wide Information Systems*, 27(2), 60-67.
- Tubbs, M. E., & Ekeberg, S. E. (1991). The role of intentions in work motivation: implications for goal-setting theory and research, *Academy of Management Review*, 16(1), 180-199.
- Vatavu, S., Dogaru, M., Moldovan, N. C., & Lobont, O. R. (2021). The impact of entrepreneurship on economic development through government policies and citizens' attitudes. *Economic Research-Ekonomska Istraživanja*, 34 (1), 1-14.
- Veiga, H.M.S., & Cortez, PA (2021). Análise de Interação entre Autoeficácia Criativa e Perfil Empreendedor na Predição da Intenção Empreendedora entre Universitários. *Gestão & Conexões*, 10(1), 28-46.
- Wang, X., & Jessup, L. M. (2014). A review and synthesis of entrepreneurship research: towards an integrative model of dependent variables, *The Journal of Entrepreneurship*, 23(2), 163–199.
- Yusof, M., Sandu M. S., & Jain, K. K. (2007). Relationship between psychological characteristics and entrepreneurial inclination: a case study of students at University Tun Abdul Razak (UNITAR), *Journal of Asia Entrepreneurship and Sustainability*, 3(2), 1-19.



# AUTHORS

## 1. Bárbara Alessandra Vieira de Brito

Instituto Federal do Acre (IFAC), Rio Branco, Acre, Brazil.

PhD student in Administration at the University of São Caetano do Sul (USCS). College teacher at the Federal Institute of Acre (IFAC).

E-mail: barbara.vbrito@ifac.edu.br

ORCID: <https://orcid.org/0000-0002-6518-9145>

## 2. Márcio Shoiti Kuniyoshi

Pontifícia Universidade Católica de São Paulo, São Paulo, São Paulo, Brazil.

PhD in Business Administration from University of São Paulo (USP). Professor at the Department of Administration at the Pontifical Catholic University of São Paulo (PUC/SP).

E-mail: mskunfea@gmail.com

ORCID: <https://orcid.org/0000-0003-2973-9645>

## 3. Alexandre Cappellozza

Universidade Prebisteriana Mackenzie, São Paulo, São Paulo, Brazil.

PhD in Administration from the Fundação Getulio Vargas (FGV/EAESP). Professor at the Postgraduate Program (Professional Masters) in Management of Business Development at the Mackenzie Presbyterian University.

E-mail: cappellozza@gmail.com

ORCID: <https://orcid.org/0000-0002-1539-1230>

## 4. Almir Martins Vieira

Universidade Prebisteriana Mackenzie, São Paulo, São Paulo, Brazil.

PhD in Education from the São Paulo State University (UNESP). Professor at the Postgraduate Program in Administration at the Mackenzie Presbyterian University.

E-mail: almir.vieira@gmail.com

ORCID: <https://orcid.org/0000-0002-0523-3976>

### Contribution of authors

Contribution	[Author 1]	[Author 2]	[Author 3]	[Author 4]
1. Definition of research problem	√	√		
2. Development of hypotheses or research questions (empirical studies)	√	√	√	
3. Development of theoretical propositions (theoretical work)	√	√	√	√
4. Theoretical foundation / Literature review	√	√	√	√
5. Definition of methodological procedures		√	√	
6. Data collection	√			
7. Statistical analysis	√	√	√	
8. Analysis and interpretation of data	√	√	√	√
9. Critical revision of the manuscript	√	√	√	√
10. Manuscript writing	√	√	√	√

### Contribution of authors

#### **Conflict of Interest**

*The authors have stated that there is no conflict of interest.*

#### **Copyrights**

*ReA/UFSM owns the copyright to this content.*

#### **Plagiarism Check**

*The ReA/UFSM maintains the practice of submitting all documents approved for publication to the plagiarism check, using specific tools, e.g.: CopySpider.*

