

# Self-Efficacy as a Predictor of Entrepreneurial Intention In University Students

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## Abstract:

**Background:** The objective of the present research is to investigate, through 2nd order structural equations, self-efficacy as a predictor of Entrepreneurial intention among undergraduate students of a Brazilian public higher education institution.

**Materials and Methods:** Through different research instruments, data was collected (n = 122) in an entrepreneurship education course, with a multidisciplinary approach. The instruments applied were Self-Efficacy Scale in Higher Education (SESHE) and Entrepreneurial Intention Questionnaire (EIQ).

**Results:** The results reinforce the theory that self-efficacy predicts Entrepreneurial intention, suggesting that it is adequate for higher education institutions to offer students the opportunity of practicing entrepreneurship, encouraging them to engage in activities that not only will improve self-efficacy in higher education, but also allow real experiences related to entrepreneurship.

**Conclusion:** We identified, as originality for the theme, the logical demonstration of prediction of entrepreneurial intentions in students participating in an interdisciplinary discipline in a country of emerging economy, which through actions that increase self-efficacy in higher education, directly influence beliefs in the ability to perform tasks inherent to entrepreneurship.

**Key Word:** Self-efficacy; Entrepreneurial intention; Entrepreneurial Education, Entrepreneurship.

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## I. Introduction

Education is one of the most important pillars of a country, especially for developing countries, seen as education, when it receives especial attention, becomes one of the tools that can improve the population's quality of life (Usman & Tita, 2019). Similarly, entrepreneurship has been recognized as a relevant instrument for promoting economic growth and nation development, becoming an interesting topic to be discussed and studied (Rachmawan, Lizar & Mangundjaya, 2015; Webb, Khoury & Hitt, 2020; Lall, Chen & Roberts, 2020; Potluri & Phani, 2020; López-Núñez et al., 2020; Shepherd & Wiklund, 2020), including the university environment, since higher education often precedes the beginning of professional life (Bazan et al., 2020).

In this sense, preparing people for exercising entrepreneurship requires an education focused on it, providing knowledge about the theories, techniques and abilities necessary for becoming an entrepreneur (Usman & Tita, 2019; Jena, 2020). According to these authors, this can increase students' belief on their own ability of creating a business, starting to consider entrepreneurship as a possible professional occupation.

For Ayllón, Alsina and Colomer (2019), it is impossible to understand aspects of human functioning, such as motivation, learning or fulfillment, without considering the role performed by self-efficacy beliefs, and by how students feel that they are acquiring relevant knowledge, abilities and competencies.

Students respond differently when faced with opportunities in their education, evidencing the necessity of comprehending the variables of persona nature, such as self-efficacy, which deserves emphasis due to its relevant role as a cognitive factor (Polydoro & Guerreiro-Casanova, 2010; Alhadabi & Karpinski, 2020; Kelley et al., 2020). Furthermore, López-Núñez et al. (2020) argue that, to better understand the profile of entrepreneurs, it is recommended to analyze cognitive variables, such as self-efficacy, beyond specific traits.

Studies evidence that self-efficacy can contribute for the development of entrepreneurship intentions and in what conditions these intentions can be translated into action. Suggesting that the relation between self-efficacy and behavior have direct implications on the development of Entrepreneurial intentions and actions, which reaffirms the importance of studies about Entrepreneurial intentions among academics, without disregarding the effects of the intentions on the action itself (Boyd & Vozikis, 1994; Chen, Greene & Crick, 1998; Bird, 1988, 2015; Kariv, Cisneros & Ibanescu, 2019; Shahab, et al., 2020).

For Saraih et al. (2018), the investigation of self-efficacy provides a more dynamic approach to understand the process of becoming an entrepreneur. An examination of self-efficacy perception provides an overview of the wider cognitive process involved in the elaboration of entrepreneurial intentions. However, although self-efficacy has been recognized as a predictor of Entrepreneurial intentions, there is a lack of evidence that shows the influence of this factor on Entrepreneurial intentions, particularly among students in a context of entrepreneurship education in higher education (Bell, 2019; Cadenas et al., 2020).

Considering this, we outline the following research question: How self-efficacy in higher education influences on Entrepreneurial intentions among undergraduate students from a Brazilian higher education institution, participants in an entrepreneurship education course, with a multidisciplinary approach?

Thus, this study aims to investigate, through 2<sup>nd</sup> order structural equations, self-efficacy as a predictor for Entrepreneurial intentions among undergraduate students from a Brazilian public higher education institution, participants in an entrepreneurship education course, with a multidisciplinary approach.

In this study, the theme is approach from an innovative perspective, presenting a measuring model based on 2<sup>nd</sup> order model, seeking to represent the structural relation between self-efficacy and entrepreneurship intention, using first order dimensions of each construct as factorial loads. For the academy, this focus can serve as a model for future studies that seek a better understanding of Entrepreneurial intentions and their predictors. Furthermore, we highlight, as empiric evidence, the relevance of entrepreneurship education majors and courses, seeking to make individuals more confident in their own entrepreneurial capabilities and skills, glimpsing an opportunity in an uncertain environment, typical from developing countries.

## **II. Theoretical Review**

### *Self-efficacy in higher education*

Self-efficacy was proposed by Bandura, in 1977, originated from Social Cognitive Theory (SCT). The author defined self-efficacy as the conviction that one can successfully execute a behavior needed to produce satisfactory results, considering self-efficacy as the most important pre-condition for behavioral change.

This construct represents individuals' belief in their own ability to learn and execute actions according to required levels, presented as a one of the most central and diffused mechanisms for human agency. Specifically, self-efficacy captures the individual's perception regarding their ability to successfully perform a variety of tasks through a variety of situations (Bandura, 2012; Moriano et al., 2012; Zhang, Ardasheva & Austin, 2020).

In an educational context, it is believed that students' self-efficacy influences task choice, performance level in tasks, the amount of effort employed in the execution of the chosen tasks and the degree of perseverance in task performance (Ding, Brinkman & Neerinx, 2020). According to Ayllón, Alsina & Colomer (2019), academic self-efficacy is organized hierarchically, in a way that students progressively develop different perceptions about their capabilities and skills in different academic domains.

Regarding Self-efficacy in Higher Education (SEHE), which is defined as a student's beliefs in their capability of organizing and executing courses of actions required to produce certain goals, it is known that, in order for learning to occur, the student needs to adopt an attitude of agency responsible for the construction of knowledge (Casanova & Polydoro, 2010; Guedes, 2014; Kelley et al., 2020).

We highlight that self-efficacy beliefs are important in the motivation process, influencing how the individual prepares for action. Individuals with elevated self-efficacy levels prefer to develop more challenging tasks and define more challenging goals for themselves (Santos, Zanon & Ilha, 2019), an attitude frequently associated with entrepreneur individuals.

However, strengthening self-efficacy beliefs related to the capacity to execute tasks inherent to entrepreneurship can make students feel more prepared to accomplish the tasks needed to begin and successfully establish a new enterprise (Campo, 2011), which would lead to an increase in students' Entrepreneurial intentions (Saraih et al., 2018).

In the studies by Leite (2011) and Shah, Amjed and Jaboob (2020), it is stated that this relation is particularly relevant, in the sense that self-efficacy can be used for studying and predicting choices, persistence

and efficacy of entrepreneurial behaviors, related with action and intentional action. In light of this, the construct of Entrepreneurial intention is discussed in the following section.

*Entrepreneurial intention*

Several studies define Entrepreneurial intention as an essential antecedent to entrepreneurial behavior, representing the commitment that an individual has to begin and manage their own business (Bird, 1988; Krueger, 1993, 1994, 2017; Shah, Amjed & Jaboob, 2020; Fragoso, Rocha-Junior & Xavier, 2020).

Nabi, Liñán and Fayolle (2017) suggest that some of the results of entrepreneurship education are the magnification of knowledge, abilities and attitudes, as well as changes in perception of entrepreneurial viability and intention. This intentionality is the base of studies about the Theory of Planned Behavior (TPB), formulated by Ajzen (1991), already tested in different situations related to entrepreneurship, confirming its applicability in different contexts and cultures (Moraes, Iizuka & Pedro, 2018), including the university environment (Kolvereid, 1996; Liñán & Chen, 2009; Gieure, Benavides-Espinosa & Roig-Dobón, 2019, 2020; Ayalew, 2020).

The behavior is preceded by conscious decisions to act in a certain way (Ajzen, 1991; Leung, Frank & Thurik, 2020). According to this theory, the attitude towards behavior refers to the degree in which a person favorably or unfavorably evaluates the behavior in question. On the other hand, subjective norms refer to the social pressure to perform or not the behavior. The perceived behavioral control is seen as the perception of the ease or difficulty of performing entrepreneurial behaviors. These factors, which act in intention prediction, vary in light of behaviors and situations (Leung, Frank & Thurik, 2020).

More objectively, according to Martins, Santos and Silveira (2019), the measuring of Entrepreneurial intentions performed by Liñán and Chen (2009), grounded by TPB (Ajzen, 1985, 1991), gained importance in the literature about the theme. This resulted in the data collection instrument called Entrepreneurial Intention Questionnaire (EIQ), which has been the foundation for studies in different realities, also adopted in the present research.

For the authors, models that measure intentions are determinant to predict entrepreneurial action because they measure the influence of demographic variables, personal characteristics, personality traits and social, cultural and environmental variables on the behavior and action of entrepreneurs (Fragoso, Rocha-Junior & Xavier, 2020). In this study, keeping in mind the propose objectives and what was discussed, entrepreneurship education and self-efficacy in higher education are considered the most relevant factors to our analysis about Entrepreneurial intention among university students.

**III. Methodology procedures**

This research is a case study applied to a group of university students of an entrepreneurial attitude course in a Brazilian higher education institution, in the first and second semester of 2019. The group consisted of 122 students.

The instruments applied were Self-Efficacy Scale in Higher Education (SESHE), proposed by Polydoro and Guerreiro-Casanova (2010), and Entrepreneurial Intention Questionnaire (EIQ), proposed by Liñán and Chen (2009). The SESHE is composed by a 10-point Likert scale, varying from 1 (barely capable) to 10 (very capable).

The EIQ uses a 5-point Likert scale distributed as follows: Question 1 to 5: completely disagree, disagree more than agree, do not agree nor disagree, agree more than disagree and completely agree; Questions 6 to 8: would disapprove the decision, would disapprove more than approve, would not approve nor disapprove, would approve more than disapprove and would approve the decision; Questions 9 to 20: completely disagree, disagree more than agree, do not agree nor disagree, agree more than disagree and completely agree. The dimensions of the used instruments are presented in Table 1.

**Table 1.** Self-Efficacy Scale in Higher Education (SESHE) and Entrepreneurial Intention Questionnaire (EIQ) - dimensions

Dimensions of Instruments Used		
Dimension	Concept	Authors
Self-efficacy scale in higher education (SEHE)		
Academic self-efficacy (ASE)	It refers to confidence in one's own ability to learn, demonstrate, and apply the knowledge acquired in the course.	(Guerreiro, 2007; Polydoro & Guerreiro-Casanova, 2010)
Self-efficacy in training regulation (SETR)	It reflects the perception of confidence in the ability to set goals, make choices, plan, and self-regulate their actions in the process of training and career development.	(Polydoro & Guerreiro-Casanova, 2010; Santos, Zanon & Ilha, 2019)

Self-efficacy in regulating proactive actions (SERPA)	It indicates the perceived confidence in the ability to take advantage of training opportunities, update knowledge, and promote institutional improvements.	(Polydoro & Guerreiro-Casanova, 2010; Santos, Zanon & Ilha, 2019)
Self-efficacy in social interaction (SESI)	It assesses students' perception of confidence in their ability to relate to colleagues and teachers for academic and social purposes.	(Polydoro & Guerreiro-Casanova, 2010; Santos, Zanon & Ilha, 2019)
Self-efficacy in academic management (SEAM)	It refers to the perceived confidence in the ability to get involved, plan, and meet deadlines about academic activities.	(Polydoro & Guerreiro-Casanova, 2010; Santos, Zanon & Ilha, 2019)
<b>Questionnaire on Entrepreneurial Intentions (QEI)</b>		
Personal Attitude (PA)	It refers to the degree to which the individual has a positive or negative personal assessment of being an entrepreneur.	Ajzen, 2001; Autio et al., 2001; Kolvereid, 1996b; Liñán & Chen, 2009)
Subjective Norms (SN)	It measures the perceived social pressure to perform - or not perform - entrepreneurial behaviors.	(Ajzen, 2001; Liñán & Chen, 2009)
Perceived Behavioral Control (PBC)	It is defined as the perception of the ease or difficulty of becoming an entrepreneur. the perception about the control of certain behaviors.	(Ajzen, 2001; Liñán & Chen, 2009)
Entrepreneurial Intention (EI)	Preceded by the three previous dimensions, it indicates the effort that the person will make to carry out an entrepreneurial behavior.	(Ajzen, 1991; Liñán, 2004; Liñán & Chen, 2009; Nabi, Liñán & Fayolle, 2017).

Source: Elaborated by the authors

It is worth highlighting that the first three EIQ dimensions are considered antecedents of the fourth dimension, Entrepreneurial intention, capturing the three motivational factors, or antecedents, that influence the behavior (Ajzen, 1991; Liñán, 2004). Regarding the profile of the interviewees, it was found that 63.11% were male and 36.89% female, where in total (n = 122) 49.18% were aged owned 21 and 25 years and 54.92% never attended one discipline of an entrepreneurship.

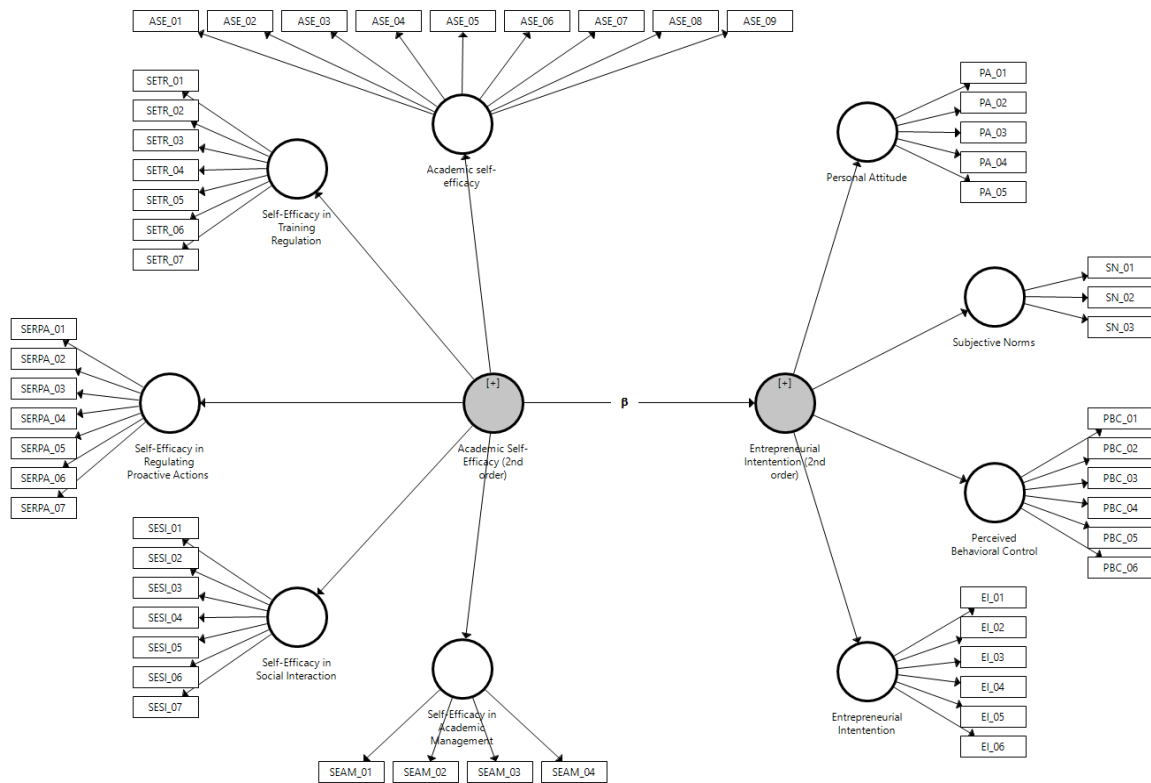
To evaluate the research proposal, we used the structural equation modeling technique based on variance (Partial Least Squares Structural Equation Modeling – PLS-SEM). The PLS-SEM approach concentrates in maximizing the explained variance in endogenous dimensions (Hair, Gabriel & Patel, 2014; Hair et al., 2017).

#### **IV. Research results**

To evaluate the relation among the dimensions of the self-efficacy in higher education instruments, we propose the following hypothesis: “There is a positive and significant structural relation between self-efficacy and Entrepreneurial intention in the established context. Therefore, a paths diagram represents this research hypothesis and it shows the relations between the variables that will be examined, referring to this diagram that connects the dimensions from a logic based on the theory developed in the research (Hair et al., 2017).

The second modeling stage aims to develop a 2<sup>nd</sup> order measuring model, which represents the relations between the dimensions (latent variables) and their respective questions (indicator variables) (Hair Jr. et al., 2017; Lopes et al., 2020). The measuring model is based on what has already been discussed in theory, which is the necessary condition to obtain relevant results from PLS-SEM, using the SmartPLS® software (Figure 1).

Figure 1. 2<sup>nd</sup> order path model of the self-efficacy scale dimensions – SESHE with the dimensions from the EIQ



Source: SmartPLS® Software v. 3.3.3 (Ringle, Wende & Becker, 2015)

In Figure 1, we observe that the 2<sup>nd</sup> order measuring model presents one hypothesis (beta), which connects the five self-efficacy dimensions with the four Entrepreneurial intention dimensions (LV’s) with 54 observed variables (OV’s). According to Bido and Silva (2019), a second order dimension is measured by two or more first order dimensions and that is how it is modeled by Partial Least Squares, in the case of PLS-SEM, if the 2<sup>nd</sup> order dimension does not have latent variables (LV’s) (1<sup>st</sup> order dimensions) connected to it, the algorithm does not execute the iterations. In this sense, we present a path diagram that aims to describe the structural equations.

$$EI = \beta \cdot ASE + \varepsilon_{EI}$$

The relations between the second order dimensions and their first order LVs should be interpreted and used as factorial loads (not hypotheses) (Bido & Silva, 2019). In this model, the only hypothesis (structural relation) is between self-efficacy and Entrepreneurial intention (Figure 1).

The databank is composed of 122 observations (students of an entrepreneurial attitude course). The SmartPLS® algorithm was set for 7 ending criteria. The weighing based on the path was the parameterized system, providing higher R<sup>2</sup> value for endogenous dimensions. The number of iterations was defined as 300, the initial weights for external indicators were defined as 1.0. The algorithm stabilized after 4 iterations. After defining the parameters, the systematic evaluation of the model will be performed in two stages, evaluation of the measurement model and evaluation of the structural model (Lopes et al., 2020).

Cronbach’s Alpha ( $\alpha$ ) is often sensible to the number of questions in the scale and, usually, tends to underestimate the internal consistency reliability, being used as a more conservative measure (Hair et al., 2014). The compound reliability measure ( $\rho_c$ ) should be applied in parallel to alpha, since both vary from 0 to 1 and values between 0.70 and 0.95 are considered good and efficient (Ringle, Silva & Bido, 2014; Hair et al., 2017). Values above 0.95 are not desirable, indicating that the respondents might have redundancy or duplicity in their answers, while values below 0.60 indicate lack of internal consistency reliability. Tables 2 and 3 present the correlations, Cronbach’s alpha, compound reliability and average variance extracted for the 2<sup>nd</sup> order SESHE-EIQ measuring model.

**Table 2.** Correlation matrix, Cronbach’s alpha, Compound Reliability and  $\sqrt{AVE}$  for the SESHE-EIQ model for 1<sup>st</sup> order dimensions

Internal consistency									
Dimensions 1 <sup>st</sup> order	ASE	PA	SEAM	EI	SESI	SN	PBC	SETR	SERPA
$\alpha$	0.889	0.887	0.834	0.933	0.862	0.858	0.848	0.883	0.841
$\rho_c$	0.910	0.919	0.889	0.947	0.895	0.914	0.887	0.909	0.880
Converging Validity									
AVE	0.532	0.698	0.668	0.751	0.553	0.780	0.569	0.589	0.512
$\sqrt{AVE}$	0.729	0.835	0.818	0.866	0.744	0.883	0.754	0.768	0.716
Correlation Matrix Pearson’s									
ASE	1.000								
PA	0.196								
SEAM	0.529	0.047							
EI	0.152	0.828	0.051						
SESI	0.435	0.217	0.442	0.138					
SN	0.180	0.318	0.098	0.303	0.253				
PBC	0.314	0.516	0.083	0.615	0.183	0.253			
SETR	0.571	0.297	0.357	0.215	0.409	0.196	0.277		
SERPA	0.556	0.267	0.505	0.247	0.529	0.133	0.305	0.491	

Source: SmartPLS® Software v. 3.3.3 (Ringle, Wende & Becker, 2015)

**Table 3.** Correlation matrix, Cronbach’s alpha, Compound Reliability and AVE for the SESHE-EIQ model for 2<sup>st</sup> order dimensions

Dimensions 2 <sup>st</sup> order	ASE	EI
Internal consistency		
$\alpha$	0.932	0.939
$\rho_c$	0.941	0.945
Converging Validity		
AVE	0.562	0.538
$\sqrt{AVE}$	0.750	0.733
Correlation		
ASE	1.000	

EI	0.317	1.000
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\*The main diagonal if the AVE square root

Source: SmartPLS® Software v. 3.3.3 (Ringle, Wende & Becker, 2015)

Parallel to the reliability measures, the converging validities obtained by AVE's, which explain the variability captured by a dimension in relation to the variance due to measurement error, should be analyzed (Ringle, Silva & Bido, 2014).

In Tables 2 and 3, we present the AVE's values for the measuring model dimensions. A possible convergence of the model is observed, since every dimension presents AVE's > 0.50. As explained by Ringle, Silva and Bido (2014), AVE is the average of the factorial loads squared, thus, Hair et al. (2017) and Lopes et al. (2020) state that factorial loads lower than 0.6 should be removed from the dimensions, improving reliability values, which is not the case of these data; therefore, no indicator will be removed from the data set.

The next analysis is related to converging validity. In Tables 2 and 3, we can observe the Fornell-Larker criterion, which compares the AVE square root (main diagonal) with Pearson's correlations between first and second order dimensions. It is observed that the values of the correlations do not surpass the values of the main diagonal of the matrix.

The evaluation of the structural model is systematic approach, which, according to Hair et al. (2017) and Lopes et al. (2020), can be measured by: collinearity analysis (Variance Inflation Factor - VIF); R<sup>2</sup> significance level; effect size *f*<sup>2</sup>; evaluation of the significance and relevance of the structural model betas (Student's t test); and lastly, the evaluation of predictive relevance *Q*<sup>2</sup>.

Variance Inflation Factor – VIF indicates if there is potential collinearity problem in the model, thus, the VIF value for the EIE-EIF structural model second order dimensions was 1.0. In this sense, we can affirm that collinearity does not reach critical levels in terms of dimensions, not being a problem in the assessment of the EA-EAE structural model.

Next, we present the values for structural coefficient (β), R<sup>2</sup> and *f*<sup>2</sup>, accompanied by the significance of 5.000 subsamples through the bootstrapping method, and the value for *Q*<sup>2</sup> through the blindfolding method. Table 4 presents the results for the SESHE-EIQ structural model.

**Table 4.** Results for the SESHE-EIQ structural model

Structural Relationship	β	Standard deviation	T test (p-value)	R <sup>2</sup>	<i>f</i> <sup>2</sup>	<i>Q</i> <sup>2</sup>
Self-efficacy 2 <sup>nd</sup> → Entrepreneurial Intention 2 <sup>nd</sup>	0.967	0.089	3.772 (0.003)	0.934 (0.000)	0.312 (0.000)	0.345

Source: SmartPLS® Software v. 3.3.3 (Ringle, Wende & Becker, 2015)

In Table 5, we observe that the structural relation presents a medium and moderate effect (*f*<sup>2</sup> e R<sup>2</sup>), the structural coefficient value is significant (p < 0.005). Considering the *Q*<sup>2</sup> value, the model presents predictive relevance, since *Q*<sup>2</sup> > 0 (strong accuracy).

At the end of the stages proposed by Hair Jr. et al. (2017), we can consider that the measuring model presented satisfactory measures for internal consistency, with Cronbach's alpha and compound reliability coefficients above 0.70 for all model dimensions. The converging validity (AVE's) indicated the convergence of the model with all dimensions presenting AVE's > 0.50.

Regarding the structural model, VIF presented value inferior to 5, indicating that collinearity does not reach critical levels. For the evaluation of the structural model coefficient, we observed that beta value is significant.

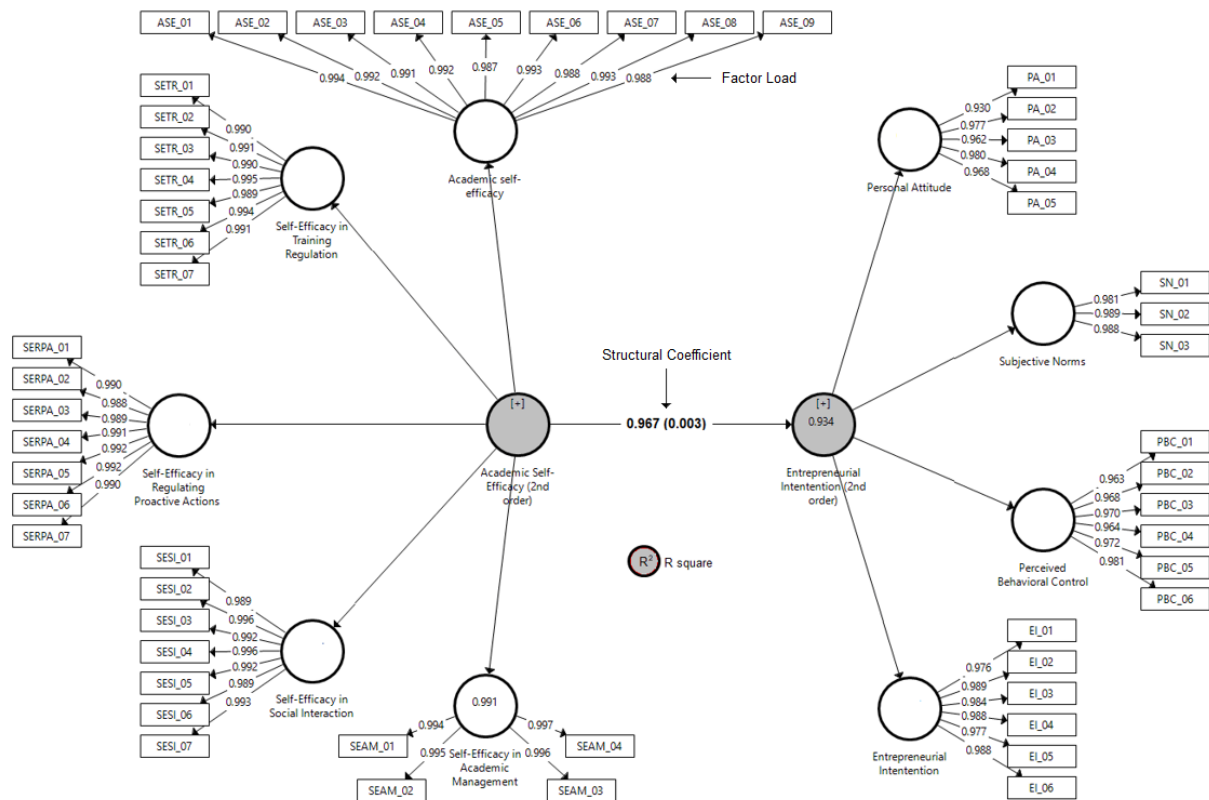
Lastly, through the blindfolding procedure, we calculated the predictive validity measure *Q*<sup>2</sup>, which evaluates the accuracy of the adjusted model, obtaining values above zero with the identification of the relevance of the SESHE-EIQ model.

The final paths diagram for the structural equations was defined as follows:

$$EI = 0.967 * ASE + \epsilon_{EI}$$

Having presented the final paths diagram, Figure 2 shows the final paths model for the second order Self-Efficacy Scale and the Entrepreneurial intention Scale.

Figure 2. Final EA-EAE paths model



Source: SmartPLS® Software v. 3.3.3 (Ringle, Wende and Becker, 2015)

### V. Result discussion

The present study aimed to investigate, through second order structural equations, self-efficacy as a predictor of Entrepreneurial intention among undergraduate students from a Brazilian public higher education institution, participants of an entrepreneurship education course, with a multidisciplinary approach, outlining an hypothesis: “There is a positive and significant structural relation between self-efficacy and Entrepreneurial intention”.

The results showed that self-efficacy in higher education has a positive and significant correlation with Entrepreneurial intention  $\beta = 0.967$  ( $p = 0.0001$ ) of students who took part in the research. These results reinforce the theory that self-efficacy predicts Entrepreneurial intention, suggesting that it is adequate for higher education institutions to offer students the opportunity of practicing entrepreneurship, encouraging them to engage in activities that not only will improve self-efficacy in higher education, but also allow real experiences related to entrepreneurship. Previous research found that self-efficacy is of critical importance in the individual search for enterprising (Mauer, Neergaard & Linstad, 2017; Prabhu et al., 2012).

The present investigation also reveals the mechanism through which self-efficacy leads to EI, confirming the research hypothesis and corroborating the results of recent studies, showing that an elevated self-efficacy leads individuals to perceive enterprises as more desirable and, therefore, are more inclined to express intentions regarding entrepreneurship (Mauer, Neergaard & Linstad, 2017; Bazy, Smith & Harrison, 2019; Guo, Yin & Lv, 2022).

Researchers on Entrepreneurial intentions highlight that individuals should see themselves as capable, that is, keep a high self-efficacy belief and be psychologically prepared if they want to become entrepreneurs (Hsu et al., 2019; Urban, 2020). On the other hand, some people believe that they have the knowledge and skills required to start and manage a company, but have no intention of doing so. The Entrepreneurial intention can emerge for different factors, external or extrinsic, including family and social environment, opportunities and education. According to Bandura (2012), some people perceive structural characteristics in their environment as obstacles, and others see it a opportunities, which also influences the course of human action, including in the direction of entrepreneurship (Huang, Wang & Lai, 2022; Wasin et al., 2023).

Studies by Şahin, Karadağ, and Tuncer (2019) considered self-efficacy as one of the main individual predictors for Entrepreneurial intention. Therefore, consolidating entrepreneurial education programs and courses



in universities, focused on students' self-efficacy, can elevate their Entrepreneurial intentions. We highlight that the way individuals learn to deal with the uncertainty of getting involved in new entrepreneurial activities requires an understanding of how they adapt their behaviors to changes in self-efficacy perception (Markowska & Wiklund, 2020; Ciptono, Anggadwita & Indarti, 2023). These authors affirm that exploratory learning, especially through experimentation, formal learning and learning through the example of others are important to increase self-efficacy beliefs and Entrepreneurial intention. Thus, the results of this research are aligned with previous research that indicate that self-efficacy affects Entrepreneurial intention.

## VI. Conclusion

The objective of the present study was to investigate, through second order structural equations, self-efficacy as a predictor of Entrepreneurial intention among undergraduate students from a Brazilian public higher education institution, participants in an entrepreneurship education course, with a multidisciplinary approach.

There is a vast literature about self-efficacy and Entrepreneurial intention that point to the relevance of these constructs to enter the entrepreneurship world (Schlaegel & Koenig, 2014; Gieure, Benavides-Espinosa & Roig-Dobón, 2020; Guo, Yin & Lv, 2022; Ciptono, Anggadwita & Indarti, 2023), and to predict subsequent entrepreneurial actions (Liñán & Fayolle, 2015; Faruk, Karadağ & Tuncer, 2019; Meoli et al., 2019; Urban, 2020; Wang et al., 2023).

Though scarce in Brazil, Newman et al. (2019), through a systematic literature review on theoretical fundamentals and self-efficacy measuring in relation to entrepreneurship, showed that the perspective present in self-efficacy research (Bandura, 1997, 2001) has been increasingly used to comprehend Entrepreneurial intentions and actions related to beliefs. The results suggest that students with a higher self-efficacy belief are more likely to launch an enterprise. Therefore, more self-efficient entrepreneurs might have a relatively higher probability of guiding a new business to better performance (Mcgee et al., 2009; Mcgee & Peterson, 2019; Karimi et al., 2023), also relevant for the entrepreneur's commitment with entrepreneurial behavior (Newman et al., 2019; Markowska & Wiklund, 2020).

However, Markowska and Wiklund (2020) warn to the risk that high self-efficacy might lead individuals to an excessive confidence in their ability to manage the complexity of entrepreneurial tasks. Although excessive confidence increases the individuals desire to get involved in entrepreneurial activities (Engel, 2015), more confidence, in itself, is not enough to guarantee better performance in the long-term (Mcgee & Peterson, 2019).

Considering this, we identify, as the main contribution to the theme, the demonstration of the prediction logic for Entrepreneurial intentions, through actions that increase self-efficacy in higher education that directly influence the beliefs in one's own ability to perform tasks inherent to entrepreneurship.

Some limitations of this study should be discussed, such as the fact of it being applied in the Brazilian context, focused on higher education students enrolled in an entrepreneurial education course, indicating the need for adaptations to embrace the peculiarities of other countries. We also highlight that there are several other variables, besides self-efficacy, that can influence Entrepreneurial intention (such as family history, previous experience, personal attitude, etc.). The study was also limited to investigate individuals in the conception stage of a new enterprise, with no follow-up.

Despite these limitations, the study showed that self-efficacy beliefs can predict Entrepreneurial intentions, determining how and for how long people will persist in a task, perform more challenging tasks, use resources creatively, think strategically and seek possible solutions before quitting, - much like successful entrepreneurs - presented as beliefs that are worth nurturing in students (Delahunty, 2016). This protagonist attitude in pursuing goals, for Alhadabi and Karpinski (2020), is even more important in higher education, having their objectives in mind, such as multidimensional education, encompassing academic, personal, interpersonal and professional education, aspects that are also relevant for entrepreneurs' education. As a suggestion for future studies, we consider the comparison of the results with individuals from universities from different countries that present similar courses, using structural regression models.

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