

# Entrepreneurial Intention of Individuals Linked to Companies' Incubators: A Study Based on Planned Behavior

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## Abstract

Based on the theory of planned behaviour, the present study aims to understand the entrepreneurial intention of individuals linked to companies' incubators and to observe the influence of the economic context, the individual entrepreneurial orientation, and the incubator's actions over their entrepreneurial attitude. This work has a quantitative and descriptive approach, with data collected from a structured questionnaire with a 7-point Likert scale. Structural equation modelling was used to test the hypotheses using the SmartPLS software for data analysis. The practical implications point to using concrete correlation evidence among the constructs to explain the intention and the action of individuals linked to companies' incubators. Therefore, the statistical results proved that the conceptual model adopted was adequate.

**Keywords:** entrepreneurship, companies' incubators, structured equations, planned behavior

## 1. Introduction

Entrepreneurship has made great headway in the discussions on economic development (Patriotta & Siegel, 2019) and the production of wealth and income in emerging and developed countries (Hitt & Duane Ireland, 2017; Parker, 2018). As a way to seize opportunities, outlive and compete in highly competitive markets, the capability to undertake and innovate in products and processes can directly affect the improvement of indexes concerning these nations' economic and social progress (Porter, 1993).

As the search for the development of new businesses is still growing (Ayatse, Kwahar & Iyortsuun, 2017; Vasconcelos *et al.*, 2018), there comes a new research area that analyses entrepreneurial orientation (EO) as an important construct that is widely used in entrepreneurship literature (Bolton & Lane, 2012; Gupta & Dutta, 2018). EO refers to the strategic processes that provide organisations with the subsidies that are the bases for entrepreneurial decisions and actions turned to innovation capability, risk assumption, proactivity, competitiveness, and autonomy (Lumpkin & Dess, 1996; Rauch *et al.*, 2009; Covin & Lumpkin, 2011; Bolton & Lane, 2012; Lumpkin & Dess, 2015; Wales, 2016; Lomberg *et al.*, 2017; Severo *et al.*, 2019).

On an individual level, considering individual entrepreneurial orientation (IEO) may represent a precious strategy for entrepreneurs, incubators, and prospective investors (Lumpkin & Dess, 1996; Levenburg & Schwarz, 2008). As an extension, Parker (2018) and Haugh (2020) state that the incubation processes of companies and entrepreneurial development directly impact the decline of poverty, especially in developing economies.

Entrepreneurial activity boosts the process of innovation and, consequently, enables economic growth (Lalkaka, 2002; Hitt & Duane Ireland, 2017) and becomes relevant to investigate the factors which condition entrepreneurial behaviour either through entrepreneurial guidance or the development of entrepreneurial intention (Covin & Lumpkin, 2011; Gupta & Dutta, 2018; Klofsten *et al.*, 2020).

The entrepreneur's inexperience and lack of initial planning have become an obstacle that keeps companies from growing and staying in the market (Mrkajic, 2017), which sometimes causes the termination of activities of micro and small enterprises (Klofsten *et al.*, 2020).

From this perspective, companies' incubators come up with tools of support to companies by offering a place and resources to meet the needs of new enterprises (Klofsten *et al.*, 2020) and playing the strategic role of supporting new businesses in the entrepreneurial and innovation processes (Van Weele, Rijnssoever & Nauta, 2017).

Within this context, and based on the Theory of Planned Behaviour (Ajzen, 1985; Ajzen, 1987; Ajzen, 2002), this study aims to understand the entrepreneurial intention of individuals linked to companies' incubators and check the influence of the economic context, the individual entrepreneurial orientation and the incubator's actions over the entrepreneurial attitude.

The academic interest in entrepreneurship has grown in the past few years, as well as the number of studies on entrepreneurial orientation and intention (Wales, Gupta, Marino & Shirokova, 2019). Additionally, the field of study has searched for establishing a common body. Even though the entrepreneurial orientation represents a promising area for the creation of knowledge about entrepreneurship, it still lacks research that makes a correlation between the entrepreneurial attitude and the intention to become an entrepreneur (Rauch *et al.*, 2009; Gupta & Dutta, 2018; Klofsten *et al.*, 2020; Vamvaka *et al.*, 2020).

## 2. Theoretical Foundation

The benchmark is composed of four parts. The first part dealt with the economic context as a determining factor for entrepreneurship. The second part addressed entrepreneurial orientation and individual entrepreneurial orientation as bases of entrepreneurial actions. Then, we observed how the incubators' actions over companies interfere with the entrepreneurial attitude, and, finally, we showed how the attitudes, the subjective norms, and the perceived behavioural control interfere with the entrepreneurial attitude.

### 2.1 Economic Context

Generally speaking, entrepreneurship is related to a country's economic progress (Patriotta & Siegel, 2019). On the other hand, entrepreneurs are the engine of economic development through creative destruction, in which innovations make technologies and existing products obsolete (Schumpeter, 2017). Confirming this theory, Porter (1993) emphasised that the entrepreneur's collaboration in economic progress happens through the innovation that introduces and prompts market competitiveness. Thus, entrepreneurship linked to innovation is seen as an engine of the economic system (Hitt & Duane Ireland, 2017; Schumpeter, 2017; Patriotta & Siegel, 2019; Vasconcelos & Araújo, 2020).

The economic context is a key determining factor whenever entrepreneurship is considered (Gurley-Calvez & Bruce, 2013; Parker, 2018; Wales *et al.*, 2019; Haugh, 2020). However, two alternative ways can lead individuals to become entrepreneurs: the need, represented by those with no other work alternative, and the opportunity, since they envision a business possibility, they intend to bring about (Barros & Pereira, 2008; Dencker *et al.*, 2021).

Besides the aspects mentioned previously, there is still evidence that the marginal tax rates affect the input decisions in the entrepreneurial area (Gurley-Calvez & Bruce, 2013; Dencker *et al.*, 2021).

Several reasons that lead to entrepreneurship reinforce this idea, and the economic context was highlighted as one of these variables (Vale, Correa, & Reis, 2014; Patriotta & Siegel, 2019; Haugh, 2020). It is related to income increase, the presence of capital available, unemployment, job dismissal, and, consequently, access to resources related to guarantee for the length of service and the use of voluntary redundancy programs, if any.

Such assumptions are the bases for the following hypothesis:

**H<sub>1</sub>: The economic context positively influences entrepreneurial attitude.**

### 2.2 Entrepreneurial Orientation (EO) and Individual Entrepreneurial Orientation (IEO)

Entrepreneurial Orientation (EO) is a process of designing strategies that give organisations the background of entrepreneurial decisions and actions to create a competitive advantage (Lomberg *et al.*, 2017). This process refers to the management mechanisms, practices, and style, and the taking of managerial decisions applied to lead the organisations to act in an entrepreneurship way (Lumpkin & Dess, 1996).

In the organisational context, EO comes up as a way to investigate the companies' entrepreneurial capacity, as well as to influence strategic entrepreneurial processes and, consequently, their performance (Lumpkin & Dess, 1996; Rauch *et al.*, 2009; Lumpkin & Dess, 2015; Gupta & Dutta, 2018).

Most EO considers the comprehensiveness of three dimensions: Innovativeness, Proactiveness, and Risk-Taking (Lumpkin & Dess, 1996; Miller, 2011; Bolton & Lane, 2012; Wales, 2016; Lomberg *et al.*, 2017). Innovativeness is the capacity to innovate and the tendency to support innovations (Lumpkin & Dess, 1996). Proactiveness concerns a future perspective as it anticipates opportunities to develop new products in the market to obtain a competitive advantage (Bolton & Lane, 2012; Lumpkin & Dess, 2015). Risk-taking concerns the tendency to engage in high-risk activities with high-return chances and bold actions in unstable environments (Bolton & Lane, 2012; Lumpkin &

Dess, 2015).

To reinforce this idea, two other dimensions are added to EO: competitiveness, which is the tendency to have a more aggressive attitude to act alongside competitors, and autonomy, which concerns proactiveness for market opportunities in order to carry on the development of an idea until it is concluded (Lumpkin & Dess, 2015).

Another point to be considered is the fact that entrepreneurial orientation is related to the variables concerning organisational structure, environment, strategy, and leader types and that this correlation varies systemically among the different types of organisation and highlights that, in small-sized companies, entrepreneurship is affected by the leaders' personality, their knowledge, and influence (Miller, 2011).

However, individual entrepreneurial orientation (IEO) may represent a precious strategy for entrepreneurs, companies' incubators, and prospective investors who think of encouraging new business models (Lumpkin & Dess, 1996; Lumpkin & Dess, 2015). IEO based on the entrepreneur's characteristics and attitudes contributes to the probability of involvement, or lack of it, in business and impacts the exposure of its attitudes towards business and social influences (Miller, 2011), which refer to studies concerning economic opportunities, fiscal advantages and external stimuli to start up a business (Barros & Pereira, 2008; Levenburg & Schwarz, 2008; Lomberg *et al.*, 2017). These studies lead to the following hypothesis:

**H<sub>2</sub>: Individual entrepreneurial orientation positively influences entrepreneurial attitude.**

### *2.3 Actions of Companies' Incubators*

The design and the creation of new businesses are at the core of economic growth, and entrepreneurship is the central tool to transfer new knowledge into the markets (Porter, 1993; Audretsch & Keilbach, 2007; Schumpeter, 2017; Leydesdorff, 2018). Companies' incubators came up as institutions that aim to support and prompt entrepreneurship and, thus, encourage innovation and economic growth (Mian, Lamine & Fayolle, 2016; Van Weele *et al.*, 2017; Haugh, 2020).

From this perspective, the concept of companies' incubation is based on the premise of increasing the survival and growth of companies by developing tools that ensure the early identification of the companies that have high chances to succeed, but that are limited by their resources (Ayatse *et al.*, 2017; Klofsten *et al.*, 2020).

Moreover, the companies' incubators support new businesses by spreading an entrepreneurial culture and offering an environment favourable to the development and growth of new enterprises (Ayatse *et al.*, 2020). Furthermore, they can provide a structure that encompasses several agents from the entrepreneurial environment, such as government, deals, risk capital, and community, and make them interact and converge synergistically (Lalkaka, 2002; Leydesdorff, 2018; Haugh, 2020; Klofsten *et al.*, 2020).

Incubators are the main actors of the entrepreneurial ecosystem, and they connect talent, technology, capital, and know-how (Mian *et al.*, 2016; Balven *et al.*, 2018) and an environment with shared infrastructure and room that tries to add value to their incubatees through a strategy of intervention, monitoring and controlling systems and business follow-up (Hackett & Dilts, 2004; Dechamp & Horvath, 2018).

Additionally, the incubators' strategies act in three main dimensions: infrastructure, physical space, and shared services (Ratinho, 2011; Parker, 2018; Haugh, 2020); business support, that is, acceleration of the learning curve of emerging companies (Zahra, Sapienza & Davidsson, 2006; Dechamp & Horvath, 2018); and access to relationship networks, which is considered the most important factor for the success of companies' incubator programs and enables the acquisition of resources and specialised knowledge (Nijssen & Van Der Borgh, 2017; Balven *et al.*, 2019).

It is worth mentioning that the incubators' actions play a fundamental role in the entrepreneurs' attitudes (Arruda, D Rocha, & Montenegro, 2015; Montenegro, Arruda, & Vasconcelos, 2022). Among them is the need to make consistent planning of actions on the incubator's part to create a suitable environment that prompts and leads individuals to practice entrepreneurship. These discussions lead to the following hypothesis:

**H<sub>3</sub>: Incubators' actions positively influence the entrepreneurial attitude.**

### *2.4 The Theory of Planned Behaviour*

The Theory of Planned Behaviour (TPB) aims to understand human behaviour and tries to explain, in a few variables, their attitudes based on the intention for certain behaviour (Ajzen, 1985; Ajzen, 1987; Ajzen, 2002). This theory comes from the principle indication that some motivational factors may influence behaviour, as well as the measure concerning the effort of the individuals who are willing to break loose in order to perform an action and, then, how

far they would go in order to implement that (Bulgurcu, Cavusoglu & Benbasat, 2010; Miranda & Vasconcelos, 2020). TPB has been placed at the forefront of entrepreneurial intention research, for entrepreneurship can be seen as a planned behaviour (Roy, Akhtar, & Das, 2017).

Besides, intentions are led by three constructs: Attitudes, Subjective Norms, and Perceived Behavioural Control (Bailey, 2006). The importance of these constructs in predicting intentions lies in several cases of behaviours and, in some of them, only attitudes have a relevant impact on intentions; in others, attitudes and control may influence intentions and, also, in other cases, the three determining constructs are significant to the intention (Roy et al., 2017).

The TPB basis lies on the assumption that individuals make their decisions prominently rational by using all the information available (Bulgurcu *et al.*, 2010), considering their peers' perception of the behaviour suggested, and the implications of their actions and behaviours for the decision to either adopt a certain behaviour or not (Ajzen, 1985; Ajzen, 1987; Ajzen, 2002; Miranda & Vasconcelos, 2020).

Attitude (A) is a multifaceted concept that consists of three components: cognition, affect, and behaviour (Ajzen & Fishbein, 1981); it is about predisposition, which can either be favourable or not, towards the development of a specific behaviour; it is a predictor of the intention to practice it (Bailey, 2006).

Subjective Norms (SN) are defined as the beliefs the individual has about what other people or groups think, whether the individual should have a certain behaviour or not, which shows the individual's predisposition to be pushed to either adopt a certain behaviour under other people's view or not (Ajzen & Fishbein, 1981; Kashif, Zarkada & Ramayah, 2018).

The factor concerning Perceived Behavioural Control (PBC) was incorporated into TPB in an attempt to analyse and deal with situations where the individual lacks volitive control when adopting a certain behaviour; lacking it does not mean the individual will not perform the actions and intentions aim to reach them (Ajzen, 2002; Roy *et al.*, 2017; Vamvaka *et al.*, 2020).

Based on this, here are the following hypotheses:

**H<sub>4a</sub>: The individuals' entrepreneurial attitude directly influences the entrepreneurial intention;**

**H<sub>4b</sub>: The subjective norms that affect the individual directly influence their entrepreneurial intention;**

**H<sub>4c</sub>: The individuals' perceived behavioural control influences their entrepreneurial intention;**

**H<sub>4d</sub>: The entrepreneurial intention positively influences the entrepreneurial action.**

Thus, the methodological aspects used in this study will be discussed based on the hypotheses outlined in the theoretical framework.

### 3. Methodology

This article consists of descriptive research, for it tried to identify and analyse the correlations among the constructs that may influence entrepreneurial intention. In this sense, descriptive studies investigate how a model's constructs correlate through a structured process of data analysis (Cooper & Schindler, 2016).

As for the approach, this is quantitative research. The quantitative methodology is used in descriptive research to identify the correlation between the variables and the casualty among the phenomena (Briand & Larivière, 2014; Creswell & Creswell, 2022). Data collection happened through the application of a questionnaire that was answered both on-site and electronically by 98 individuals linked to incubation projects in Brazil. The tool encompassed structured questions that used the 7-point Likert scale, with 7 meaning fully agree and 1 meaning fully disagree.

The structured questionnaire was divided into five sections, as seen in Table 1:

Table 1. Questionnaire structure

Sections	Construct	Description	Reference
1	Social-demographic profile	Sample characterisation	Research authors
2	Individual Entrepreneurial Orientation (IEO)	IEO Variables	Bolton & Lane (2012); Gupta & Dutta (2018)
3	Economic Context (EC)	EC Variables in Entrepreneurial Intention (EI)	Gruley-Calvez & Bruce (2013); Vale <i>et al.</i> (2014); Patriotta &

			Siegel (2019)
4	Incubator's Actions (IA)	Variables showing how IAs influence Entrepreneurial Intention (EI)	Audretsch & Keilbach (2007); Zahra <i>et al.</i> (2006); Ratinho (2011); Nijssen & Van Der Borgh (2017); Parker (2018); Haugh (2020)
5	Theory of Planned Behaviour (TPB)	Variables of entrepreneurial behaviour (SN, PBC, EI, and EA)	Ajzen & Fishbein (1981); Ajzen (1985); Ajzen (1987); Ajzen (2002); Bulgurcu <i>et al.</i> (2010).

The conceptual model suggested was designed by compiling several latent variables from the theoretical investigation presented in the theoretical framework, which shows the correlation between the independent and dependent variables (Entrepreneurial Action). Then, the hypotheses to be tested were presented (Figure 1).

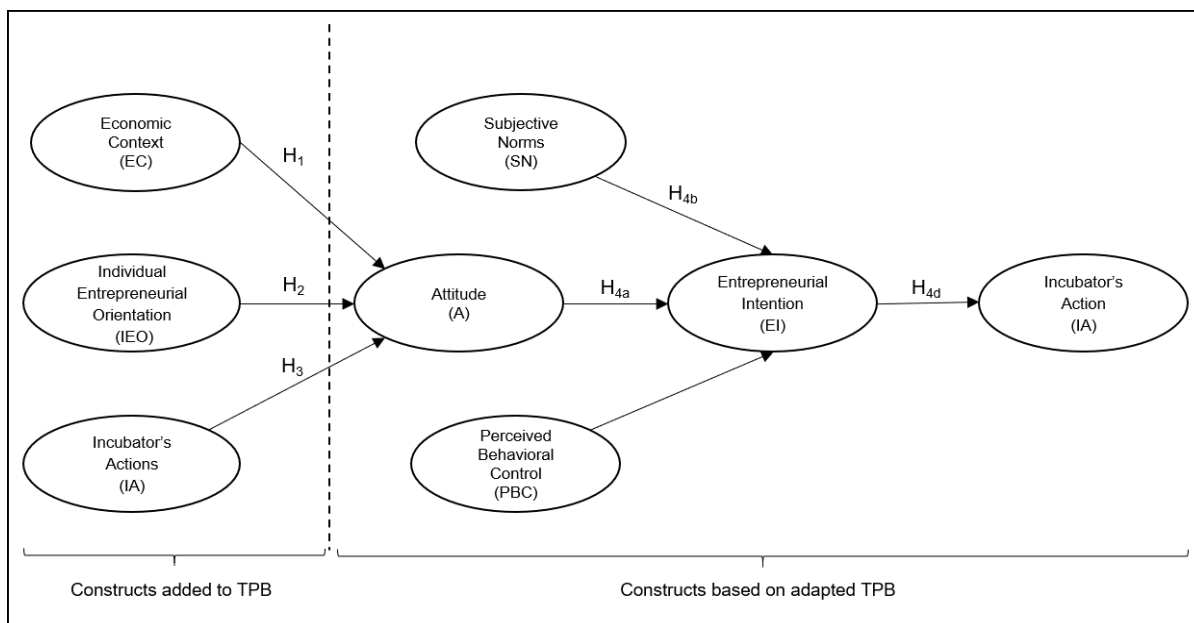


Figure 1. Conceptual Model Suggested

Structural equation modelling (SEM) was the data analysis method used to test the hypotheses and has been widely used for developing and testing theories and models (Hair *et al.*, 2018). Moreover, it is seen as a confirmatory technique guided by the theoretical perspective for building hypotheses and constructs' correlation (Hair *et al.*, 2017) and performed through the use of the approach concerning partial least squares (PLS) intending to empirically assess the existing correlations among the constructs in the model (Ringle, Da Silva & Souza Bido, 2014; Hair *et al.*, 2017).

For analysis operationalisation, the data were arranged in electronic spreadsheets with the use of the Excel® software. They were then imported to be statistically handled with the SmartPLS® 3.0 software.

### 3.1 Data Analysis

Concerning the profile of the respondents, the results showed that 79 of them are males and 19 are females. As for schooling, 93 are either going through or finished their college education, and five have finished high school, at the most. Most interviewees (76%) range from 20 to 30 years of age. Regarding their monthly family income, 61 (62%) stated they earn between 2 and 10 minimum salaries. Moreover, 62 projects are described as incubated and 36 as pre-incubation.

The first parameter checked by the SmartPLS software was the variance of inflation factor (VIF). It came up with an acceptable index and showed low multicollinearity aiming at  $VIF > 3.3$  (Kock, 2015), which is suitable for model applicability.

Then, the quality criteria suggested by Sarstedt, Ringle, and Hair (2017) were catalogued in order to assess the model's internal consistency by arranging the models of the average variance extracted (AVE), the composite reliability (CR), the Cronbach's Alpha (CA) and the Pearson Correlation (R<sup>2</sup>).

Notwithstanding, AVEs must be observed first, and variables with a factor load lower than 0.5 must be discarded to raise the index. This way, the EC construct was discarded (AVE = 0.370) (Ringle *et al.*, 2014).

After three interactions parsimoniously removing variables with lower factor loads, C2 and C8, C1 and C3 were discarded. Then, there was C7, and it was possible to obtain all the AVEs within the acceptable range ( $\geq 0.5$ ) (Hair *et al.*, 2017).

The criteria also enabled the CR evaluation to check the test's reliability, its scale, and CA, which, despite being reviewed in structural equations, is a parameter that expresses whether the sample is biased-free or the answers are reliable (Ringle *et al.*, 2014), and shows the convergent validity and satisfactory reliability for the model.

Usually, the lowest CA value to validate the questionnaire is 0.7, which shows that the constructs are consistent and suitable (Hair *et al.*, 2018). However, for studies in social areas, the lower limit of 0.6 is recommended for this index (Ringle *et al.*, 2014; DeVellis; Thorpe, 2021), which shows the tool's solidity since the research is included in social sciences.

Further on, the discriminant validity (DV) was assessed. It shows the interdependence among the constructs (Hair *et al.*, 2017) and compares individual AVEs with the AVE's square root (Pearson Correlation) for each construct (Sarstedt *et al.*, 2017).

The AVE square root values are higher than the correlation among the AVE's constructs. Thus, the correlation between the indexes and their latent variables is appropriate and does not influence the remaining variables, which ensures the model's discriminant validity (Fornell & Larcker, 1981; Kock, 2015; Sarstedt *et al.*, 2017).

The Pearson determination coefficient (R<sup>2</sup>) and the path coefficients (PC) were used to assess the hypotheses (Hair *et al.*, 2018). We should mention that R<sup>2</sup> represents the regression model's explanatory power over endogenous variables (Sarstedt *et al.*, 2017). In research on social and behavioural sciences, Cohen (1988) suggests that an R<sup>2</sup> = 2% means lower explanatory power, R<sup>2</sup> = 13% means a medium explanatory power, and R<sup>2</sup> = 26% means a high explanatory power.

The structural model of the research had an R<sup>2</sup> = 0.465 and an adjusted R<sup>2</sup> = 0.450 for  $p < 0.001$ , which can mean that the regression model significantly explains the endogenous constructs of the Entrepreneurial Action (EA), Attitude (A), and Entrepreneurial Intention (EI) since in research in areas concerning social sciences, the value of R<sup>2</sup> = 0.26 is considered as representative (Cohen, 1988).

In a continuous pattern, the analysis was performed through the re-sampling process (bootstrap) and the Student's t-test using the "Bootstrapping" module in the SmartPLS software. This index must present values higher or equal to 1.96 for the correlation to be considered statistically significant. Thus, the paths concerning PBC->EI (1.945) and SN->EI (0.799) are not considered significant (Hair *et al.*, 2017).

#### 4. Results Discussion

Based on the structural model adjustment through the analysis of the quality criteria, Figure 2 shows the adjusted variables that mention the model with its respective factor loads, which are PC and R<sup>2</sup>. They enable the constructs of the adjusted model to explain approximately 64% of the Entrepreneurial Action (EA).

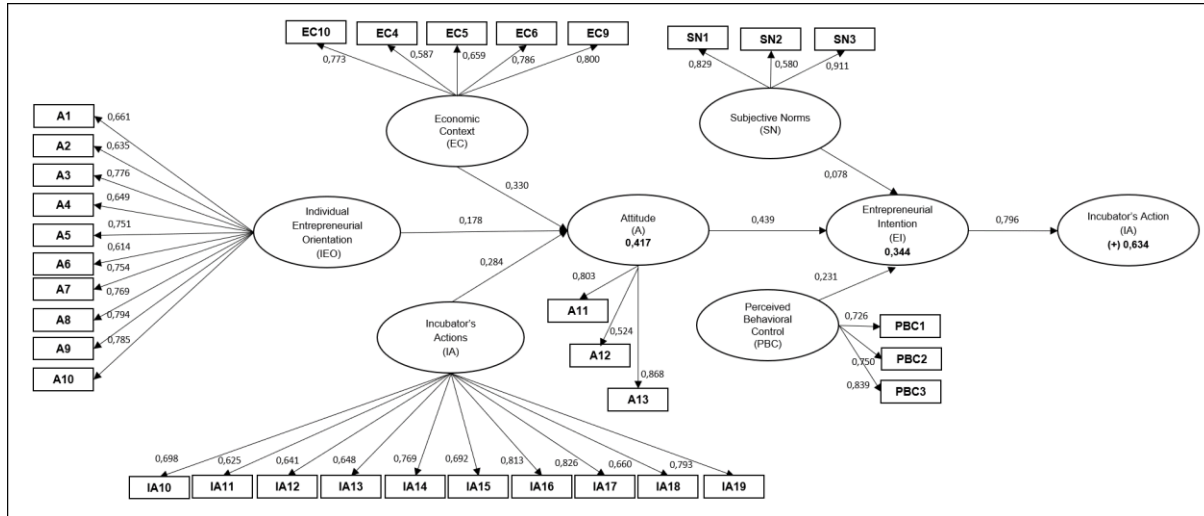


Figure 2. Adjusted structural model – SmartPLS

Meeting the minimum requirements projected to determine the internal consistency and the adjusted model’s quality was highlighted, as it met all expectations through the summary of the adjustment indexes, which suit the values recommended by the literature (Table 2).

Table 2. Summary of the adjustment quality criteria

	EA	IA	A	PBC	EC	EI	SN	IEO	Quality Criteria	References
VIF		1.98	1.27	1.22	1.92	1.00	1.48	1.12	VIF < 3.33	Kock, (2015)
AVE	1.00	0.52	0.56	0.60	0.53	0.89	0.62	0.52	AVE > 0.50	Ringle <i>et al.</i> , (2014); Hair <i>et al.</i> , (2017)
CR	1.00	0.91	0.78	0.82	0.85	0.96	0.82	0.92	CC > 0.70	Hair <i>et al.</i> (2018)
CA	1.00	0.90	0.65	0.67	0.77	0.94	0.72	0.90	CA > 0.70	Sarstedt <i>et al.</i> , (2017)
R <sup>2</sup>	0.63		0.40			0.32			R <sup>2</sup> = 26%	Cohen (1988)
Adjusted R <sup>2</sup>	0.63		0.42			0.34			R <sup>2</sup> = 26%	Cohen (1988)
DV	1.00	0.72	0.75	0.77	0.73	0.94	0.79	0.72	AVE square roots higher than the constructs’ correlations	Fornell & Larcker (1981); Hair <i>et al.</i> , (2017); Sarstedt <i>et al.</i> , (2017)

Through the structural equation analysis and partial least squares, the results were found to evaluate the hypotheses addressed in this research (Table 3).

Table 3. Hypotheses results

Hypotheses	Path	Path Coefficient	Path sign	t Test	P Value	Hypothesis Accepted
H <sub>1</sub>	EC -> A	0.330	+	2.642	0.008	Yes
H <sub>2</sub>	IEO -> A	0.178	+	2.156	0.032	Yes
H <sub>3</sub>	IA -> A	0.284	+	2.608	0.009	Yes
H <sub>4a</sub>	A -> EI	0.439	+	3.410	0.001	Yes
H <sub>4b</sub>	SN -> EI	0.078	+	0.799	0.425	No
H <sub>4c</sub>	PBC -> EI	0.231	+	1.945	0.052	No
H <sub>4d</sub>	EI -> EA	0.796	+	19.018	0.000	Yes

Economic Context (EC) has PC = 0.330 ( $p \leq 0.01$ ) and a great positive influence over Attitude (A), which confirms hypothesis H<sub>1</sub>.

The EC result confirms statements by Vale *et al.* (2014) and Patriotta and Siegel (2019). They stated that the motivation to undertake goes beyond need/opportunity and may be associated with other factors, such as the external environment connected to the economy and job market. Moreover, entrepreneurial motivation is linked to several factors related to the economic context, such as income availability and lack of job options (Moreover & Parker, 2018; Dencker *et al.*, 2021).

The Individual Entrepreneurial Orientation (IEO) had a slight influence over the A explanation (0.178) for a significance level of 5% ( $p \leq 0.05$ ), which confirms hypothesis H<sub>2</sub>. This result complies with Lumpkin and Dess (1996), Lumpkin and Dess (2015), and Wales *et al.* (2019), showing that Entrepreneurial Orientation (EO) reflects the tendency to support innovations and experiences that allow the appearance of businesses, products, or services.

Research by Bolton and Lane (2012), carried out with business and education students, validates the measuring factors concerning individual orientation and confirms that these factors lead individuals to entrepreneurial susceptibility and company performance improvement (Miller, 2011). This fact supports the validation of hypothesis H<sub>2</sub> since the research was done with individuals who have projects in companies' incubators that are turned to the area concerning management and business (Balven *et al.*, 2019) and are close to teaching institutions that are similar to the research environment of Bolton and Lane (2012).

Incubator Actions (IA) have a great positive influence over A and present a path coefficient (PC) of 0.284 ( $p \leq 0.01$ ), which validates hypothesis H<sub>3</sub>. This result is supported by Arruda *et al.* (2015) and Montenegro, Arruda, & Vasconcelos (2022). In their research, the actions taken by the incubators play a fundamental role in the entrepreneurial attitude and are responsible for explaining a great share of the entrepreneurial attitude (0.691).

Still concerning IAs, being in a company's incubator helps solve problems and provides positive evidence for improving the entrepreneurial attitude (Ratinho, 2011; Parker, 2018; Balven *et al.*, 2019; Klofsten *et al.*, 2020).

A is a construct the model very well explains based on its  $R^2 = 0.417$ , which explains 42% of the model.  $R^2 = 26\%$  represents a great explanatory power of the model (Cohen, 1988). This way, the predictor constructs' hypotheses concerning A, H<sub>1</sub>, H<sub>2</sub>, and H<sub>3</sub> explain 33%, 17%, and 28% of the correlation among the constructs, respectively, and they are all statistically significant. Indeed, even though an explanatory index lower or equal to 23% is considered low, the hypothesis should not be rejected because it is statistically significant and complies with the proposition that there is a correlation between the constructs (Ha & Im, 2012).

Upon evaluating the constructs that are part of the model concerning the Theory of Planned Behaviour, the one that most influences Entrepreneurial Intention (EI) is Attitude (A), which presents a path coefficient (PC) of 0.439 ( $p \leq 0.01$ ) and represents an explanation of 44% over EI. Research supports these constructs' correlation by Hecke (2011), who checked the attitude of administration students with an explanation of up to 47.2% of EI, as well as the research by Arruda *et al.* (2015) and Montenegro, Arruda, & Vasconcelos, (2022), which attested an explanation of 47%. Therefore, hypothesis H<sub>4a</sub> was confirmed.

Moreover, Subjective Norms (SN) and Planned Behaviour Control (PBC) were checked and they have an influence over the explanation of Entrepreneurial Intention (EI), with PC = 0.078 ( $t$ -value = 0.799;  $p$ -value = 0.425) and 0.231



( $t$ -value = 1.945;  $p$ -value = 0.052), respectively, since the  $t$ -test doesn't surpass the value of 1.96, as pointed out by Hair *et al.* (2014).

Thus, hypotheses H<sub>4b</sub> and H<sub>4c</sub> were not accepted. Besides, when the individuals are entrepreneurs and are in an innovative environment, the ease or difficulty of behaviour achievement is put aside (Arruda *et al.*, 2015; Montenegro, Arruda & Vasconcelos, 2022).

A similar result was found in the research by Veiga *et al.* (2010), where SN and PBC did not influence EI, possibly due to the low impact that social pressure has on innovative individuals. Generally speaking, these individuals have different profiles and are less susceptible to the influence of relatives and friends.

EI is the factor with the lowest explanatory power of the model and presents  $R^2 = 0.344$ . However, it has explanatory power (34.4%) above  $R^2 = 26\%$  (Cohen, 1988). Behavioural intention is the predictive construct of the behaviour that represents the individual's willingness to have a certain behaviour (Ajzen, 1985; Ajzen, 2002).

Finally, EI predicts its impact before the Entrepreneurial Action (EA), with  $PC = 0.796$  ( $p < 0.01$ ), and a high explanatory power ( $R^2 = 0.63$ ), which explains approximately 64% of this construct and enables the confirmation of hypothesis H<sub>4d</sub> for a significance of 0.1% ( $t$ -value = 19.018;  $p$ -value = 0.000).

## 5. Final Remarks

This study aimed to understand the entrepreneurial intention of individuals linked to companies' incubators based on the theory of planned behaviour and observe the influence of the economic context, the individual entrepreneurial orientation, and the incubator's actions over the entrepreneurial attitude. By identifying variables and constructs extracted from the theoretical framework (Figure 3), it was possible to design a theoretical model through the structural equation modelling technique.

Hypothesis H<sub>1</sub> was confirmed through the identification of a great positive influence of the Economic Context (EC) over the Entrepreneurial Attitude (EA) ( $PC = 0.330$ ), with  $p < 0.01$ . Concerning the influence of the Individual Entrepreneurial Orientation (IEO) over EA, it was possible to identify that the construct concerning IEO positively influences EA, representing an explanation of approximately 18% (0.178) and enabling the confirmation of hypothesis H<sub>2</sub>. Hypothesis H<sub>3</sub> was also validated through the analysis of PC indexes (0.284) and the statistical  $t$ -test ( $p < 0.01$ ), which shows that the Incubator Actions (IA) have a great positive influence over EA.

Concerning the evaluation as to how the Theory of Planned Behaviour (TPB) influenced Entrepreneurial Actions (EA), hypotheses H<sub>4b</sub> and H<sub>4c</sub> were not accepted because Subjective Norms (SN) and Planned Behaviour Control (PBC) do not have any influence on explaining EI, which shows non-significant indexes. As for hypotheses H<sub>4a</sub> and H<sub>4d</sub>, they presented high PC values (0.439 and 0.794, respectively) for  $p < 0.01$ , which confirms the hypotheses, that is, A influences approximately 44% of EI (H<sub>4a</sub>) and EI can predict about 80% of the Entrepreneurial Actions (EA) (H<sub>4d</sub>). Thus, it can be stated that TPB influences EA.

In conclusion, the practical implications extracted from this article pointed out concrete evidence of correlation among the constructs. The statistical results showed that the conceptual model suggested was suitable to explain the EI and EA of individuals who have projects linked to companies' incubators.

The results of this study can contribute to incubators' managers by highlighting the importance of the incubators' actions over the entrepreneurial intention, which emphasizes the need for consistent planning of actions from the incubator and the establishment of an environment that fits and encourages entrepreneurs.

In the academic environment, this study brought empirical evidence and contributed to a better comprehension of the constructs' correlations and their effects on the intention and the entrepreneurial action of the individuals linked to incubators. This study brings empirical evidence concerning the relevance of governmental entities and teaching institutions in acting as entrepreneurship boosters and facilitators by promoting incentive policies to companies' incubators.

Moreover, this research was limited by its application to incubated individuals of 98 incubators and by the definition of a non-probabilistic sample. Thus, for a broader comprehensiveness, here is the suggestion for this research to be expanded with probabilistic samples, enabling the comparison among different results and providing a better comprehension of the topic under study.

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