

# Entrepreneurial Intention of Higher Education Graduates from Guayaquil: Validation of the Theory of Planned Action

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**Abstract** - Entrepreneurship is born from the initiative of a person to establish their business idea in a legal field to generate impact in the social and economic field. Likewise, the person's perceived level of education is a variable that can also influence the intention to start a business, an indicator of growth in the rate of entrepreneurship. The present research aims to identify what factors and attitudes graduates in higher education from Guayaquil-Ecuador have regarding the entrepreneurial approach. Being a type of exploratory and descriptive research, where the business values and intentions (VIE) questionnaire was applied as an instrument, which incorporates the factors of the theory of planned action and Schwartz's theory of personal values, to a sample of 439 professionals to correlate the dimensions that affect entrepreneurial intention, such as entrepreneurial attitude, subjective norm, entrepreneurial self-efficacy, and values; and for its estimation, structural equations were used to validate the variables of the proposed research model and the incidence of the factors on entrepreneurial intention.

**Keywords** - Entrepreneurial intention, subjective norm, self-efficacy, entrepreneurial attitude, values.

## 1. Introduction

The economic context of a country is a priority to know to decide to undertake; the analysis of financial indicators that could affect the monetary scenario of people who intend to undertake is a priority to evaluate to project the viability of undertaking in Ecuador in the future.

Several studies show that Ecuadorian entrepreneurship is in a transition process forced by the post-pandemic factors that affected the course of the business, as well as the legal changes and regulations established in the country [1]. The effects of the COVID-19 pandemic on entrepreneurship and small and medium-sized companies have been counterproductive against their sales and growth, with the magnitude of the impacts being different depending on the economic sector [2]. For Latin America and the Caribbean, in a survey conducted with 2,232 entrepreneurs from 19 countries, it is found that 80% of the enterprises indicate that they are being strongly hit by COVID-19, where their income reduced by just over two-thirds, specifically those with a shorter history, that is, up to one year of life (66%), and around 53% of those who sold stopped doing so [3].

In turn, for Ecuador, there have been effects on production and employment, where around 50% of companies have liquidity of up to 37 days, with a more significant impact on the tourism, hotel, and restaurant sectors, which is part of a perception of the complex national economy [4].

Citing what was mentioned by the authors, it can be highlighted that the changes derived from COVID-19 abruptly boosted Ecuadorian startups as they were forced to transform the traditional business model, which involved investing in innovation and

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communication technologies, being a new forced learning experience and new challenges to transform the business to digital environments by offering remote services; being the beginning of new challenges for the entrepreneur during and after the pandemic not only related to digital transformation but also facing significant changes in the legal, social, and public sphere.

Similar to the current study, research by [5] investigated the factors influencing entrepreneurial intentions in the active population of Guayaquil, Ecuador. Utilizing Ajzen's theory of planned behavior, the study examined three constructs: subjective norm, entrepreneurial self-efficacy, and perceived control, to assess their impact on entrepreneurial intent. Their findings confirmed a positive influence of attitude and self-efficacy (mediated by perceived control) on entrepreneurial intent, while subjective norms were not significant.

Study [6] highlights the significance of entrepreneurship for national economic development. This emphasis underscores the relevance of this theme for both policymakers and researchers in the socioeconomic field. Among the findings, the positive relationship between attitude towards behavior, behavioral control, and, indirectly, the subjective norm on entrepreneurial intention is confirmed. Likewise, it concludes that entrepreneurial capabilities strongly influence entrepreneurial intention through attitude toward behavior, subjective norms, and behavioral control.

The authors of study [7] aim to corroborate entrepreneurial intention in university students and if it is related to gender, entrepreneurial parents, parental education, income monthly family, and students' perceived ability. The results are that many students intend to start a business in the future despite not having entrepreneurial parents and considering that they have entrepreneurial skills.

Similar studies and the references mentioned above justify and validate the theory of planned behavior and its influence on entrepreneurial intention in various groups. There have been no in-depth studies on Ecuadorian third- and fourth-level professionals where the TAP model is applied to identify factors influencing the intention to start a business.

## 2. Literature Review

In the FORBES magazine article "Entrepreneurship: a megatrend worldwide," Gonzalez [8] states that Entrepreneurship is a global process present in all countries, which has developed since man's existence, which has explored and worked consistently to provide a livelihood.

This economic initiative is seen as an option to job uncertainty and the need to generate wealth." Citing what the author indicates, entrepreneurship drives employment and wealth in a country. It is born from the initiative of a person to establish their business idea in a legal field to generate impact in the social and economic field. It should be noted that every entrepreneurship is born out of a need or an innovation.

Entrepreneurship in Ecuador is known for having one of the highest rates in Latin America in terms of intentionality to undertake; it is above Colombia and Brazil, and only Chile surpasses it, this according to the study published by GEM in 2020 [9]. The study shows an intention to undertake a business within three years or less in 53% of the surveyed population, while 36% and 2% managed to start a business. Still, it did not exceed three months of operation. As explained by the figures and the data collected from the Global Entrepreneurship Monitor (GEM), entrepreneurship in Ecuador is growing despite the situations presented during the pandemic. Businesses have sought the means to survive in the market.

Business education provides general skills based on training and knowledge, facilitating access to the labor market, and allows users to know the demand of clients and the organization of the business [10].

It is essential to establish that the level of education in entrepreneurs is very significant for the sustainability of businesses through the strengthening of the skills and knowledge that they acquire during their academic training, being a plus for their career in the labor market, as stated: Click or tap here to enter text, where it mentions that the educational level is one of the variables that effect the purpose to assume, in such a technique that the higher the academic level, the higher the rate of entrepreneurial activity.

Entrepreneurial intention is a mental state that people possess in favor of creating a new company or creating value within existing organizations [11]. It is the commitment to perform the behavior necessary for an entrepreneurial initiative. Citing what the author indicates, the intention to undertake is an initiative of the human being to consolidate its knowledge or start an economic activity out of necessity and subsistence.

Research suggests that entrepreneurial intentions are driven by a complex interplay of personal characteristics (values, motivations, personality), social influences (support, norms), and perceived opportunities and resources.

The theory of planned action builds upon the previous theory of reasoned action by incorporating an additional factor: the individual's perceived control over the desired outcome, further refining the prediction of entrepreneurial intentions [1].

In equally concepts, purpose is supposed to be the proximate precursor of comportment since, upon accomplishing absolute controller over comportment; citizens are estimated to do their objectives when the prospect develops [1]

This research will use the model proposed in the theory of planned action [1] and Schwartz's theory of personal values [2], validated and proven in previous studies, as a scientific contribution to future research. The research will consider the following constructs: entrepreneurial attitude, subjective norm, entrepreneurial self-efficacy, and values.

These are analyzed to determine their impact on the entrepreneurial intention of the target group of the study. Due to the above mentioned, it is proposed to investigate, under the context of both theories, the behavior of professionals who hold an undergraduate and/or postgraduate degree from Guayaquil in Ecuador regarding their intention to undertake and what behavior they present in the opinion of their around.

The analysis model, the research variables, and the hypotheses to be tested are presented below:

Table 1. Research constructs

Acronym	Construct	Acronym	Construct	Acronym	Construct
EI	Entrepreneurial Intention	EA	Entrepreneurial attitude	BEA	Entrepreneurial attitude, belief in the consequence of the behavior.
		SN	Subjective Norm	EEA	Entrepreneurial attitude, evaluation of the consequence of carrying out the behavior.
				BSN	Subjective Norm, normative beliefs.
		ESE	Entrepreneurial self-efficacy	MSN	Subjective Norm, motivation to accommodate significant others
		V	Values		

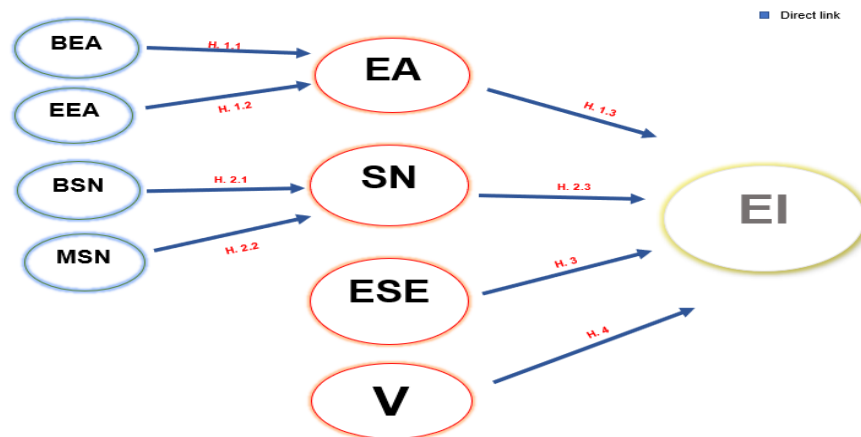


Figure 1. Theoretical model and identified hypotheses

Based on the identified hypotheses and the literature review of the theory proposed for the research, the proposal to be verified in terms of the veracity of all the statements made is presented.

- **Hypothesis 1 (H 1.1):** A strong belief in the consequences of one's actions significantly impacts an individual's willingness to engage in innovative behavior.
- **Hypothesis 2 (H 1.2):** Evaluating the consequence of carrying out the behavior straight and suggestively influences the innovative attitude.

- **Hypothesis 3 (H 1.3):** Entrepreneurial attitude directly and expressively affects innovative purpose.
- **Hypothesis 4 (H 2.1):** Normative beliefs directly and significantly influence the subjective norm.
- **Hypothesis 5 (H 2.2):** The motivation to accommodate significant others directly and significantly influences the subjective norm.
- **Hypothesis 6 (H 2.3):** The subjective norm straight and considerably affects innovative purpose.
- **Hypothesis 7 (H.3):** Entrepreneurial self-efficacy straight and considerably affects innovative intention.
- **Hypothesis 8 (H.4):** Values directly and significantly influence Entrepreneurial Intention.

### 3. Methodology

In this research, the business values and intentions (VIE) questionnaire [12] was applied as an instrument, which incorporates the factors of Ajzen's theory of planned action and Schwartz's theory of personal values to correlate the dimensions that affect entrepreneurial intention, such as entrepreneurial attitude, subjective norm, entrepreneurial self-efficacy, and values in third and fourth level graduates who have their degrees recognized by Senescyt; The questionnaire is made up of 67 items of which the corresponding respondents on a Likert scale (1 being not at all decide and seven being completely decide).

The survey was applied to the sample calculated for the research of 384 university graduates; However, to expand the study results, it could be applied to a sample equal to 439 university graduates.

The data collection structure includes three (3) sections: sections 1 and 2, which are demographic and academic training variables that have been prepared based on the research requirement, and section 3 was prepared from validated instruments used in other investigations, which have been

adapted to the present one research and the constructs under analysis.

The sections are mentioned below:

Section 1: In this section, information will be extracted regarding the socio-demographic aspects of the sample under study, such as marital status, age, sex, and employment status.

Section 2: In this section, information will be extracted regarding the level of university training if they have a third and fourth-level degree and type of university student if they are 100% training students at a single institution or have approved subjects to complete at another institution other than the one where they started of studies.

Section 3: In this section, the effects of the purpose of the business values and intentions questionnaire (VIE) will be evaluated to validate the model of Ajzen's theory of planned action and Schwartz's theory of personal values which is composed of 4 dimensions such as entrepreneurial attitude, subjective norm, entrepreneurial self-efficacy, and values; This section addresses questions around the observed significance of innovative movement in household, collection of families and communal, as well as the supposed training values. The dimensions and indicators used are shown in Table 2.

Table 2. Description of the variables and Indicators

Dimension	Indicator	Reference
EA- Entrepreneurial attitude in general	EA1. Face new challenges.	[13]
	EA2. High economic income.	
	EA3. Be independent (your boss).	
BEA- Entrepreneurial attitude, belief in the consequence of behavior	BEA1. Create jobs for other people.	
	BEA2. Be creative and innovative.	
	BEA3. Have high economic income.	
	BEA4. Take calculated risks.	
	BEA5. Be my boss.	
EEA- Entrepreneurial attitude, evaluation of the consequence of carrying out the behavior	EEA1. Face new challenges.	
	EEA2. Creating jobs for other people.	
	EEA3. Creativity and innovation.	
	EEA4. Take calculated risks.	
SN- Subjective Norm in general	SN1. Having new ideas and being creative is important to them. He likes to do things in his own and original way.	
	SN2. It is important for them always to behave correctly.	
	SN3. They need to attend to the needs of others. Try to support those you know.	
	SN4. Being a businessperson is essential for them. He likes to take threats and launches his plans and opinions.	
BSN- Subjective Norm, normative beliefs	BSN1. My instantaneous family (parents and siblings).	
	BSN2. My close friends.	
	BSN3. My colleagues or colleagues.	

MSN- Subjective Norm, motivation to accommodate significant others	<p>MSN1. That of my immediate family (parents and siblings).</p> <p>MSN2. That of my close friends.</p> <p>MSN3. That of my colleagues or colleagues.</p>	
ESE- Entrepreneurial Self-Efficacy	<p>ESE1. Articulate the essence of the proposed business and formulate a winning strategy for its launch and growth.</p> <p>ESE2. Proactively mitigate risks and manage contingencies to avoid setbacks in the company creation process.</p> <p>ESE3. Leverage strong communication and negotiation skills to establish favorable terms and maintain long-term positive relationships with financial stakeholders.</p> <p>ESE4. Identify unmet needs and emerging trends to develop innovative offerings that address market gaps.</p> <p>ESE5. Develop strategic relationships with potential investors and financial institutions through targeted networking activities.</p> <p>ESE6. Establish and execute the launch of a novel business venture.</p>	[15]
EI- Entrepreneurial Intention	<p>EI1. You will likely create a company one day.</p> <p>EI2. Entrepreneurship demands everything I have, and I am ready to give it.</p> <p>EI3. I am wrestling with self-doubt about whether I can pull off building a business.</p> <p>EI4. The entrepreneurial spirit drives me, and I'm excited to build something meaningful in the future</p> <p>EI5. Entrepreneurship is the path I am determined to forge in my career.</p>	[11]
V- Values	<p>V1. Their primary motivation is financial gain and the associated lifestyle it enables.</p> <p>V2.- He subscribes to the principle of universality and equal treatment for all individuals.</p> <p>V3. They are motivated to showcase their capabilities and contributions.</p> <p>V4. He cares about living in safe places. Avoid anything that could endanger your safety.</p> <p>V5. They believe in continuous learning and trying new things to develop as individuals.</p> <p>V6. He emphasizes the importance of following instructions and fulfilling obligations.</p> <p>V7. It seems important to attend to citizens who are dissimilar from them.</p> <p>V8. They think it is important not to ask for more than you have.</p> <p>V9. Look for any opportunity to have fun. They need to do pleasurable things.</p> <p>V10. They need to make their own decisions about what they do.</p> <p>V11. They need to help the people around them. He cares about your well-being</p> <p>V12. They need to be a very successful person. He likes to impress people</p> <p>V13. The security of their country is critical to them.</p> <p>V14. He enjoys taking threats. Always looking for adventures</p> <p>V15. For them, it is important to command and tell others what they must do.</p> <p>V16. They need to be loyal to their friends. He gives himself totally to the people close to them.</p> <p>V17. He firmly believes that people should protect nature. It is important to take care of the environment.</p> <p>V18. They may find comfort and purpose in the rituals and traditions of their faith.</p> <p>V19. He cares that possessions are in order and spotless. He does not like that things are a mess at all.</p> <p>V20. His inherent inquisitiveness drives him to seek understanding and knowledge across various disciplines.</p> <p>V21. He believes that all inhabitants of Earth should live in harmony.</p> <p>V22. He emphasizes striving for excellence and continuous improvement.</p> <p>V23. He believes that it is better to do things the traditional way.</p>	[16] [17]

- V24. Appreciating the preferences of life is significant to them. He likes to “pamper” himself.
- V25. He considers that he should always point his parentages and older citizens. They need to be obedient.
- V26. You want everyone to be pickled fairly, even people you do not know.
- V27. He likes surprises. Having a life full of emotions is important for them.
- V28. He is conscientious not to get sick. For them, it is essential to stay healthy.
- V29. Progressing in life is significant to them. Attempts to be better than others.
- V30. They need to forgive people who have hurt them.
- V31. They need to be independent. He likes to fend for himself.
- V32. It is important for them that there is a stable government. He is apprehensive about maintaining communal order.
- V33. It is significant for him always to be kind to everyone. Try never to annoy or aggravate others.
- V34. He/she really wants to enjoy life. Having a good time is very important for him/her.
- V35. They need to be unassuming and diffident. Try not to attract consideration.
- V36. He always wants to be the one who makes the decisions. He likes to be the leader.
- V37. They need to adjust to description and integrate into it. Considers that publics should not alter description.

### 3.1. Population and Sample

The population object of this research, the information from the higher education statistics and indicators portal managed by the Secretariat of Higher Education, Science, Technology, and Innovation (SENESCYT), has been considered, being the entity in charge of recognition of degrees obtained abroad and nationally. Therefore, according to the information on titles registered during 2023 as of October, 153,935 titles were registered, being the base population of the research.

Table 3. Titles registered in Senescyt

LEVEL OF EDUCATION	2023	%
General Total	153.935	
<b>TOTAL FOREIGN</b>	<b>10.521</b>	<b>100%</b>
Fourth level	8538	5,95%
Third level	1916	1,34%
Third Higher Technical Level	67	0,05%
Third, a Higher technological level	0	0,00%
<b>NATIONAL TOTAL</b>	<b>143.414</b>	<b>100%</b>
Fourth level	30461	21,24%
Third level	76243	53,16%
Third Higher Technical Level	7137	4,98%
Third, a Higher technological level	29055	20,26%
Third Higher University Technological Level	518	0,36%

Source: Higher Education Statistics and Indicators Portal – Senescyt

To determine the research sample, the finite population calculation formula that was applied to third and fourth-level graduates in 2023 has been considered; being the representative year of the present investigation and a margin of error of 5% was considered with a confidence level of 95%; and a standard deviation of 0.50. With the application of the formula, a sample of 384 respondents was determined who met the primary condition, having a third and/or fourth level degree. However, to strengthen the results it could be applied to 439 university graduates.

Table 4 presents the research sample's demographic aspects and academic training. Regarding sex, 73.58% are men and 26.42% are women, and the representative age of the sample is between 40 and 49 years old, making up 53.08% of the sample. Likewise, it can be seen that 46.47% have a separate marital status, followed by the status of divorced with 25.06%; regarding their employment situation, 64.92% have the status of independent professional, being a representative to evaluate their intention to undertake, later they are private employees with 33.36%. On the other hand, the academic training of the sample indicates that 96.81% only have a third-level degree and have not decided to strengthen their knowledge with fourth-level training. Likewise, regarding the perceived training, the graduates indicated that 96.36% were students who began and completed their training in a single institution, maintaining their values and stable training.

Table 4. Demographic and academic training data of the sample

Variable	Values	Frequency	Percentage
<b>EC01 Civil status:</b>	1. Single	21	4.78%
	2. Married	94	21.41%
	3. Free Union	10	2.28%
	4. Divorced	110	25.06%
	5. Separated	204	46.47%
	6. Widower	0	0.00%
<b>SEX01 Sex:</b>	1. Man	323	73.58%
	2. Woman	116	26.42%
<b>ED01 Age:</b>	1. Between 18 and 25 years	-	-
	2. Between 26 and 30 years	42	9.57%
	3. Between 30 and 39 years old.	78	17.77%
	4. Between 40 and 49 years old.	233	53.08%
	5. Between 50 and 59 years old.	86	19.59%
	6. More than 60 years	-	-
<b>SILA01: What is your Employment Situation?</b>	1. Public employee	6	1.37%
	2. Private employee	146	33.26%
	3. Independent professional	285	64.92%
	4. Domestic Employee	1	0.23%
	5. Unemployed	1	0.23%
	6. Retired	-	-
<b>TIPE01 What type of student were you during your university studies?</b>	1. Regular Student	423	96.36%
	2. Approved Student	16	3.64%
<b>NES01 What is your level of higher education obtained?</b>	1. Higher Third Level (degree) Studies	425	96.81%
	2. Fourth Level Higher Studies (postgraduate)	14	3.19%

3.2. Data Analysis

Structural equation models (structural equation modeling, SEM) are a branch of multivariate statistical models and allow estimating relationships between multiple variables [18]. The SEM model helps simultaneously examine a series of dependency relationships and the effects of some variables over others, such as their relationship and incidence. The objective of these models is to integrate and analyze multiple linear equations, identifying dependent and independent variables within the system.

The theoretical model of the present research was predictable using structural equations with fractional least squares method (PLS-SEM) [19]; a contrast of the hypotheses identified in the model was made to determine if the constructs directly and significantly influence entrepreneurial intention. The designed model was validated under the revision of compound consistency, convergent and discriminant legitimacy, and its model adequacy measures. The software used in the present investigation is Warp-PLS 8.0 (ScriptWarp Systems, P.O. Box 452428, Laredo, Texas, 78045 USA); [www.scriptwarp.com](http://www.scriptwarp.com)

4. Results

Once the information has been collected through the application of the proposed questionnaire and adjusted to the theoretical references concerning the research constructs, the results are presented for subsequent validation of the model, after which the validity or rejection of the hypotheses identified through the consequence of the structural measurements of supposed standard. The reliability and validity of the latent factors that are part of the construct were examined.

4.1. Validation of the Proposed Theoretical Model

In this phase, the validity of the chosen scales will be evaluated, considering the model and the data obtained. For this, there are two types of validations: convergent and discriminant. For reliability, Cronbach's alpha and composite reliability are used with an adequacy criterion of 0.70 for both indices, as explained in the article Application of the PLS-SEM Technique in the Knowledge Management a technical-practical approach [20].

The first exciting check concerning the model is to know to what extent the items selected to explain each construct are genuinely representative. It should be noted that the selection of the items that make up the model in this phase is not necessarily final. It is possible that some more items can be eliminated in successive phases to achieve better levels of model fit. According to [21], measurements require an assessment exceeding 0.7 to achieve confirmation of convergent and discriminant legitimacy. On the other pointer, the consignments of the items with other constructs shown in Table 5 show that the crossing of the constructs in some variables shows greater significance. The entire result table is presented to reveal the most relevant items.

Table 5. Structural loads and cross loads of the research constructs

	BEA	EEA	BSN	MSN	V	ESE	SN	EA	EI
BEA1	0.704	0.440	0.139	0.106	0.322	0.523	0.299	0.436	0.468
BEA2	0.809	0.406	0.305	0.188	0.319	0.452	0.265	0.458	0.410
BEA3	0.820	0.336	0.314	0.182	0.304	0.457	0.240	0.514	0.380
BEA4	0.862	0.443	0.260	0.193	0.283	0.525	0.257	0.559	0.511
BEA5	0.853	0.426	0.174	0.112	0.262	0.475	0.245	0.552	0.381
EEA1	0.261	0.713	0.050	-0.015	0.140	0.374	0.197	0.475	0.234
EEA2	0.379	0.784	0.081	-0.016	0.289	0.468	0.258	0.547	0.421
EEA3	0.395	0.834	0.218	0.115	0.252	0.407	0.222	0.669	0.400
EEA4	0.512	0.740	0.254	0.158	0.297	0.455	0.259	0.759	0.377
BSN1	0.249	0.165	0.962	0.580	0.177	0.237	0.159	0.228	0.153
BSN2	0.320	0.216	0.962	0.574	0.218	0.269	0.156	0.273	0.217
MSN1	0.159	0.050	0.600	0.974	0.115	0.122	0.092	0.121	0.059
MSN2	0.218	0.106	0.569	0.974	0.148	0.136	0.094	0.169	0.111
V10	0.233	0.237	0.121	0.081	0.753	0.310	0.638	0.257	0.254
V16	0.302	0.244	0.193	0.121	0.747	0.328	0.634	0.299	0.272
V20	0.306	0.231	0.138	0.072	0.767	0.312	0.643	0.248	0.272
V23	0.394	0.316	0.221	0.136	0.737	0.371	0.627	0.323	0.424
V24	0.281	0.241	0.133	0.091	0.767	0.280	0.669	0.256	0.288
V26	0.254	0.206	0.081	0.059	0.769	0.274	0.677	0.216	0.242
V28	0.230	0.216	0.158	0.138	0.730	0.261	0.654	0.199	0.197
V29	0.259	0.188	0.128	0.070	0.781	0.307	0.650	0.245	0.294
V31	0.268	0.251	0.156	0.115	0.747	0.297	0.663	0.268	0.252
V32	0.296	0.273	0.193	0.125	0.778	0.346	0.678	0.269	0.286
V33	0.218	0.232	0.178	0.139	0.781	0.274	0.658	0.234	0.237
V34	0.286	0.259	0.184	0.133	0.758	0.311	0.628	0.278	0.276
V36	0.288	0.249	0.188	0.102	0.795	0.309	0.731	0.227	0.313
V37	0.292	0.276	0.127	0.067	0.784	0.356	0.689	0.293	0.312
ESE1	0.329	0.438	0.172	0.085	0.320	0.690	0.401	0.405	0.342
ESE2	0.401	0.326	0.236	0.109	0.256	0.718	0.250	0.335	0.400
ESE3	0.475	0.357	0.258	0.108	0.332	0.705	0.264	0.437	0.489
ESE4	0.488	0.389	0.184	0.133	0.306	0.750	0.263	0.457	0.486
ESE5	0.491	0.427	0.168	0.083	0.261	0.733	0.234	0.471	0.532
ESE6	0.268	0.375	0.050	0.013	0.199	0.543	0.262	0.255	0.487
SN1	0.141	0.251	0.065	0.012	0.598	0.338	0.733	0.165	0.257
SN2	0.274	0.220	0.180	0.091	0.702	0.347	0.795	0.262	0.282
SN3	0.292	0.241	0.083	0.074	0.659	0.288	0.804	0.271	0.261
SN4	0.279	0.236	0.179	0.116	0.726	0.273	0.777	0.239	0.257
EA1	0.477	0.471	0.098	0.092	0.263	0.554	0.346	0.504	0.367
EA2	0.489	0.672	0.225	0.121	0.279	0.434	0.205	0.884	0.361
EA3	0.523	0.702	0.256	0.133	0.267	0.433	0.221	0.889	0.367
EI1	0.329	0.335	0.146	0.090	0.236	0.457	0.246	0.308	0.759
EI2	0.374	0.329	0.219	0.120	0.198	0.375	0.146	0.385	0.564
EI3	0.438	0.336	0.130	0.056	0.257	0.515	0.193	0.330	0.832
EI4	0.470	0.396	0.120	0.027	0.257	0.576	0.230	0.375	0.867
EI5	0.141	0.251	0.065	0.012	0.598	0.338	0.733	0.165	0.257

Source: Results PLS-SEM



4.2. Convergent Validity

Table 6 presents the composite reliability indices and Cronbach's alpha coefficients for each latent variable. All values exceed 0.7, indicating strong internal consistency and convergent validity of the research instruments.

In terms of convergent validity, the average variance extracted (AVE) is measured, observing that values greater than 0.50 demonstrate convergence; these pointers explicate more than half of the variability of the hypotheses, as seen in Table 6.

Table 6. Internal consistency and reliability of the estimated model, assessed using composite reliability and Cronbach's alpha

Variables	Composite Reliability	Cronbach's alpha	Average Variance Extracted (AVE)
BEA	0.906	0.869	0.659
EEA	0.852	0.768	0.592
BSN	0.961	0.918	0.925
MSN	0.974	0.946	0.949
V	0.952	0.945	0.584
ESE	0.846	0.781	0.48
SN	0.860	0.782	0.605
EA	0.815	0.655	0.609
EI	0.806	0.693	0.481

Likewise, to determine the model adequacy of the estimated model, the subsequent results were interpreted, indicating the acceptance of the model in terms of the reference values and results obtained from the application of the model.

Table 7. The adequacy of the estimated model

Coefficient	Value	Criterion
Average path coefficient (APC)	0.258	P<0.001
Average R-squared (ARS)	0.425	
Adjusted average R-squared (AARS)	0.421	
Average VIF (AVIF)	1.596	bearable if <= 5, preferably <= 3.3
Average Full Collinearity VIF (AFVIF)	2.676	
Tenenhaus Gof (GoF)	0.527	small >= 0,1, medium >= 0,25, large >= 0,36
Sympson's Paradox Relation (SPR)	0.875	bearable if >= 0.7, preferably = 1
R-squared contribution ratio (RSCR)	0.997	bearable if >= 0.9, preferably = 1
Statistical suppression ratio (SSR)	1	bearable if >= 0.7
Nonlinear bivariate causality direction relationship (NLBCDR)	0.938	bearable if >= 0.7
Standardized Root Mean Square Residual (SRMR)	0.101	bearable if <= 0.1
Standardized Mean Absolute Residual (SMAR)	0.068	bearable if <= 0.1
Standardized chi-square with 1080 degrees of freedom (SChS)	38.603	P<0.001
Standardized threshold difference count ratio (STDCR)	0.956	bearable if >= 0.7, preferably = 1
Standardized threshold difference sum ratio (STDSR)	0.788	bearable if >= 0.7, preferably = 1

Once the proposed research model and defined constructs have been verified and validated, it can be stated that the results obtained are adequate and justified for their validity and applicability.

Table 8. Evaluation of the proposed hypotheses

Hypotheses	Standardized regression coefficients	P Values	Supported (YES/NO)
H 1.1 BEA - EA	0.267	< 0.001	YES
H 1.2 EEA - EA	0.636	< 0.001	YES
H 1.3 EA - EI	0.096	0.021	YES
H 2.1 BSN - SN	0.313	< 0.001	YES
H 2.2 MSN - SN	-0.032	0.249	NO
H 2.3 SN - EI	0.014	0.385	NO
H 4 ESE - EI	0.567	< 0.001	YES
H 5 V - EI	0.134	0.002	YES

Path analysis (Path Analysis, from now on PA) is a technique that permits evaluating the fit of theoretic simulations in which a set of dependency associations among variables are suggested. It should be noted that this method does not prove connection but only helps to select or infer among fundamental assumptions [22].

Table 8 shows the divergence with the limited likelihood of each proposed hypothesis association. These coefficients explain the track and strength of the causal relationship contemplated in the proposed theoretical model. Standardized regression coefficients offer a valuable tool for dissecting the individual and combined effects of independent variables on the dependent variable. Notably, this analysis revealed weak relationships between "Subjective Norm" and "Entrepreneurial Intention" and between "Behavior towards others" and "Subjective Norm" in this specific study.

Below, the trend in the behavior of the constructs whose combination to validate the hypothesis does not show a significant relationship is graphically displayed.

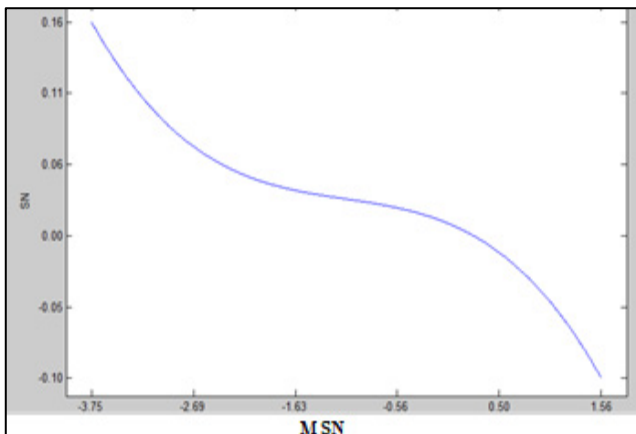


Figure 2. Relationship between the subjective norm (SN) and the normative expectation of other people (MSN)  
Source: SEM Results Obtained

Figure 2 shows the relationship between the subjective norm variable (normative belief) with the normative expectations of other people, that is, what the social groups to which the subject belongs expect of him, where it can be observed that the more importance the individual gives to third parties, the belief of their bases decreases, that is, the opinion of third parties positively influences decision making, and this influences the intention to undertake.

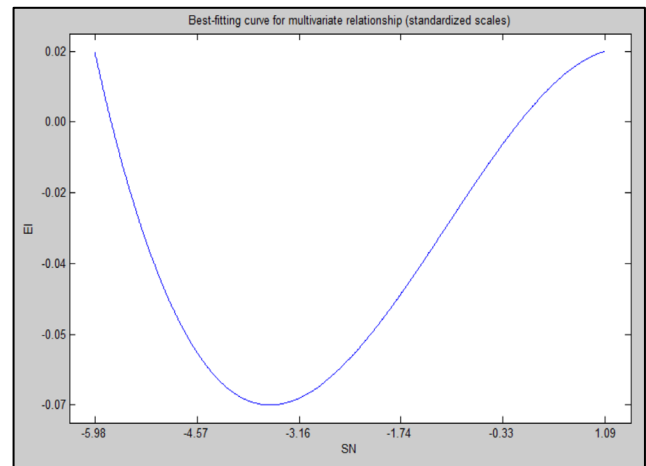


Figure 3. Relationship between entrepreneurial intention (EI) and subjective norm (SN)  
Source: SEM Results Obtained

Figure 3 shows the relationship between entrepreneurial intention and subjective norm (normative belief). It explains that although people are influenced by their family environment and group of friends, among others, the trend line shows that there is a variation in their behavior when intending to undertake, being significant for the relationship, it is essential to prevail that pinions influence the final decision.

#### 4.3. Convergent Validity

A brief discussion is addressed below with previous research as methodological support to validate the hypotheses analyzed in this investigation.

The findings of this research validate Hypothesis (H3) related to (Entrepreneurial Self-Efficacy->Entrepreneurial Intention); this can be compared in other previous research where the significance of entrepreneurial self-efficacy on entrepreneurial intention is evidenced; In their research, [12] applied the questionnaire based on the Theory of Planned Action to a sample of Colombian university students, where the positive and significant effect of entrepreneurial self-efficacy on entrepreneurial intention can be validated; also the research applied by [25] contributes to this discussion, and the one related to the Theory of Planned Action, that applied to a sample of Chilean university students. Their results support the positive impact of entrepreneurial self-efficacy on entrepreneurial intention, being associated with the findings found in this research.

The research by [26] with high school students in Colombia, and the study by [27] with Chilean university students, yielded results consistent with the present research.

This convergence of findings in different populations and educational levels reinforces the robustness of hypothesis (H3) and suggests a fundamental relationship between self-efficacy and entrepreneurial intention that transcends cultural and educational boundaries.

Regarding hypothesis (H4), which examines the relationship between personal values and Entrepreneurial Intention, the results align with more in-depth research. [28] that personal values are fundamental predictors of attitudes and behaviors, including entrepreneurial propensity. This theoretical perspective finds partial empirical support in the work of [29] who identified that certain values, such as achievement and self-direction, which are positively related to entrepreneurial intention. However, [30] warn about the need to consider the cultural context when evaluating this relationship, since the relative importance of values may vary between societies or cultures.

The findings at the time of evidencing the positive effect of both entrepreneurial self-efficacy and personal values on entrepreneurial intention, are coherently integrated into the broader panorama of entrepreneurship research. However, it is essential to recognize that these relationships are neither universal nor static. Factors such as the economic environment, public policies, and cultural norms can moderate or mediate these relationships.

In conclusion, while the research results support and expand knowledge about the factors that influence entrepreneurial intention, they also open new fields for future research. It is suggested that we address these topics and relate them to cultural and economic contexts, as well as investigate possible interaction effects between self-efficacy, personal values and other contextual factors in the formation of entrepreneurial intention.

## 5. Conclusion

This research analyzed the entrepreneurial intention of professionals who graduated from the third and fourth levels of higher education in Guayaquil, Ecuador. For this purpose, the dimensions that affect the entrepreneurial intention of the group under investigation were correlated using the questionnaire as an instrument, which was aligned to the TAP model and values and demographic aspects of relevance to the researcher. It should be noted that several studies show that Ecuadorian entrepreneurship is in a transition process forced by the post-pandemic factors that affected the course of the business, as well as the changes and legal regulations established in the country. Previous studies justify and validate the proposed theory.

However, there have been no in-depth studies on Ecuadorian third- and fourth-level professionals where the TAP model is applied to identify which factors influence the purpose to start a business. Founded on the results obtained below, the most representative conclusions regarding the analysis of the hypotheses are detailed.

Entrepreneurial self-efficacy directly and significantly influences entrepreneurial intention. Due to the degree of significance and validity of the adjusted model, the variables have a direct and very significant relationship. Self-efficacy has as its central element the perceptions that the individual has of their ability to act and to control these actions. From the perspective of social cognitive theory, the perception of self-efficacy is one of the personal factors determining motivation and performance. Affirming what the author indicates, the evaluated group has shown in their responses that they intend to start from their conviction, thinking they will always succeed in their projects.

Additionally, which validates that values directly and significantly influence entrepreneurial intention explains that value is a notion, precise or implied, characteristic of a singular or specific of an assembly, about what is necessary, which effects the choice of existing forms, means and ends of act. Citing what the author indicates in the sudden of the consequences obtained for the group object of the investigate, it shows that their value base influences decision-making, especially at the time of undertaking.

The research employed the theory of planned action (TPB) and value constructs to assess the factors influencing individuals' behavioral intention to undertake a specific action. This approach allowed the study to identify the impact of these factors on the formation of that intention. The results have validated that self-efficacy, values, and entrepreneurial attitude are the main variables of incidence and most strongly related to the intention to undertake. Likewise, validating the proposed model through its discriminant analysis allowed us to observe which variables are most predominant and less predominant to the proposed model. All these indicators met the proposed critical ratios.

Future research should be directed to already defined business groups and social groups, among others, to expand research and correlating types of groups using the theory of planned action model. This research will allow us to deepen the relationships that predominate in people's behavior when they want to undertake, making it evident that entrepreneurship is the driver of improvements in a country's economy; without entrepreneurship, there would be no job opportunities and economic growth.

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