ENTREPRENEURIAL INTENTION, INITIAL ENTREPRENEURIAL BEHAVIOR AND SOCIAL COGNITIVE CAREER THEORY

Vanessa Nunes de Souza Alencar Vasconcelos¹
Amélia Silveira²
Cristiane Drebes Pedron³
Diego César Terra de Andrade⁴

ABSTRACT

Objective: The objective of this study was to analyze the factors explaining Brazilian undergraduate students entrepreneurial intention and its influence on the initial entrepreneurial behavior development by applying social cognitive career theory (SCCT) considering the recession economic variable.

Method: The research is a descriptive study adopting Confirmatory Factor Analysis and Structural Equations Modeling as statistical procedures for validation of the conceptual model proposed. 498 questionnaires, answered by students from a University established in the Northeast of Brazil, were analyzed.

Results: Among the main results, it is highlighted the inference that university students develop individual entrepreneurial behavior as the entrepreneurial intention increases. In addition, it is highlighted that the variable economic recession context has a direct and positive impact on the entrepreneurial interest, entrepreneurial intention and the initial entrepreneurial behavior of university student.

Theoretical contributions: Among the theoretical contributions, it was proved that the cognitive career theory is appropriate and adheres to the entrepreneurial intention research.

Practical contributions: As a practical contribution, it is expected that this work will be used by university managers to create an entrepreneurial learning environment focused on the skills and competencies needed to enter the market and face the challenges of the current environment.

Keywords: Entrepreneurial intention. Initial entrepreneurial behavior. Social Cognitive Career Theory.
INTENÇÃO EMPREENDEDORA, COMPORTAMENTO EMPREENDEDOR INICIAL E
TEORIA SOCIOCOGNITIVA DO DESENVOLVIMENTO DE CARREIRA

RESUMO

Objetivo: O objetivo deste estudo foi analisar, a partir da Teoria Sociocognitiva do Desenvolvimento de Carreira, como os fatores que explicam a intenção empreendedora de estudantes universitários de uma IES brasileira podem influenciar o desenvolvimento do comportamento empreendedor inicial, considerando a variável recessão econômica.

Método: Esta pesquisa é caracterizada como descritiva e foram adotados procedimentos estatísticos de Análise Fatorial Confirmatória e de Modelagem de Equações Estruturais para validação do modelo conceitual proposto. Foram analisados 498 questionários, respondidos por estudantes universitários de uma instituição de Ensino Superior de uma capital do Nordeste brasileiro.

Resultados: Dentre os principais resultados verifica-se a inferência de que estudantes universitários desenvolvem o comportamento empreendedor individual à medida em que a intenção empreendedora aumenta. Ademais, destaca-se que a variável contexto econômico recessão tem impacto direto e positivo no interesse empreendedor, na intenção empreendedora e no comportamento empreendedor inicial dos estudantes universitários.

Contribuições teóricas/metodológicas: Dentre as contribuições teóricas salienta-se a comprovação de que a Teoria Sociocognitiva do Desenvolvimento de Carreira é apropriada e aderente aos estudos de intenção empreendedora. Já a confirmação do modelo teórico adotado torna ainda mais relevante os achados do trabalho, uma vez que esse gap foi identificado em estudos anteriores.

Palavras-chave: Intenção Empreendedora; Comportamento Empreendedor Inicial; Teoria Sociocognitiva do Desenvolvimento de Carreira.
INTENCIÓN EMPRESARIAL, COMPORTAMIENTO EMPRESARIAL INICIAL Y TEORÍA DE LA CARRERA COGNITIVA SOCIAL

RESUMEN

Objetivo: El objetivo del estudio fue analizar, a partir de los postulados de la Teoría Socio-Cognitiva del Desarrollo de Carrera, cómo los factores que explican la intención empresarial de los estudiantes universitarios de una institución de educación superior brasileña pueden influir en el desarrollo del comportamiento empresarial inicial, considerando la recesión variable.

Método: La investigación se caracteriza por ser descriptiva y se adoptaron procedimientos estadísticos de análisis factorial confirmatorio y modelado de ecuaciones estructurales para la validación del modelo conceptual propuesto. Analizamos 498 cuestionarios, respondidos por estudiantes universitarios de una institución de educación superior en una ciudad capital del noreste de Brasil.

Resultados: Entre los principales resultados se encuentra la inferencia de que los estudiantes universitarios desarrollan una conducta empresarial individual a medida que aumenta el interés empresarial. Además, se destaca que el contexto variable de recesión económica tiene un impacto directo y positivo en el interés empresarial, la intención empresarial y el comportamiento empresarial inicial de los estudiantes universitarios.

Contribuciones teóricas: Entre las contribuciones teóricas se encuentra la prueba de que la Teoría socio-cognitiva del desarrollo profesional es apropiada y se adhiere a los estudios de la intención empresarial. La confirmación del modelo teórico adoptado hace que los hallazgos del trabajo sean aún más relevantes, ya que esta brecha se identificó en estudios anteriores.

Contribuciones prácticas: Como contribución práctica, se espera que este trabajo sea utilizado por los administradores universitarios para crear un ambiente de aprendizaje empresarial centrado en las habilidades y competencias necesarias para ingresar al mercado y enfrentar los desafíos del contexto actual.

INTRODUCTION

Global crisis and unwinding of economics, aligned with the industrial restructuring and the downsizing of public hirings have a direct impact on available job positions (Pfeifer, Šarlija, & Zekić Sušac, 2016). Lanero, Vázquez and Muñoz-Adánez (2015) assert that many recent graduate young adults face difficulties on obtaining a hired position. In this context, Almeida (2013) affirms that, as a consequence, social and economic significant changes can be observed, such as the diminished quantity of available job positions and, consequently, the increase of self-employment demand. Thus, people are paying more attention to market signaling, aiming to identify supplies and demands related to products, services and skills. This whole situation propels creation of new enterprises, causing the number of small businesses to increase and contributes for entrepreneurship to reach a strategic position in the market economy realm.

With this perspective, entrepreneurship has become relevant for governors, researchers and society, considering the market demands competent enterprises and professionals skilled to perform their roles in an innovative, sustainable and entrepreneurial way (Almeida, 2013; Lanero et al., 2015; Souza & Silveira, 2016). Moriano, Palaci and Morales (2006) observe the number of researches about entrepreneurship and specially, the role of the entrepreneur in the available literature has grown. Furthermore, organizational realm demands associated to the necessity of finding skilled people to seize market available opportunities propel this fact. In this perspective, studies approaching entrepreneurship and the current economic situation are relevant.

Following this line of thinking, this research analyzes the entrepreneur role, considering the current economic recession experienced in Brazil and the entrepreneurial intent (EI) applied to career and self-employment. Self-employment is, therefore, defended as an individual option to develop a business, that is, entrepreneurship as means of occupation (Lanero et al., 2015) and that intention to entrepreneur is related to human behavior (Krueger, Reilly, & Carsud, 2000).

Ajzen (1991, p. 181) specifically claims that “intentions are used to capture
motivational factors influencing behavior and are indicators of how much people are willing to try or to commit themselves to execute the behavior.” From this statement, it is understood that the EI consists on the desire to create or open an enterprise (Souza, 2015).

Aligned with this context, it can be observed in international literature the existence of studies approaching enterprise creation as a career decision and adopt the Social Cognitive Career Theory (SCCT), of Lent, Brown and Hackett (1994), in the sense of investigate the EI (Liguori, Bendickson, & McDowell, 2018; Aure, Dui, Jimenez, Daradar, Gutierrez, Blasa, & Sy-Changco, 2019; Liguori, 2012; Lanero et al., 2015; Kassean, Vanevenhoven, and Liguori, 2015; Farashah, 2015; Austin & Nauta, 2015; Pfeifer et al., 2016). The SCCT is considered a reference on professional behavior literature (Liguori, 2012. Liguori et al., 2018; Aure et al., 2019) and its analyzing focus is to explain the individual processes of personal control that influence behavioral processes related to career development (Lent et al., 1994).

From this perspective, the initial decision making phase and professional behavior of youngsters preparing to access the labor market can be analyzed (Lent et al., 1994). Such theory shares with the Planned Behavior Theory (PBT), from Ajzen (1991), and with the Entrepreneurial Event Model (EEM), from Shapero and Sokol (1982) the principals establishing the linking of cognitive variables, intention and behavior as a central part of the career development process (Lanero et al., 2015).

Attempting to overcome the identified limitations in recent studies (Pfeifer et al., 2016) and contributing to consolidate and clarify this theoretical field, this study approaches EI alongside undergraduate students in a Brazilian Higher Education Institution (HEI), from the theoretical perspective explaining the career choosing process. In order to do so, the overall objective in this study is to analyze, from the SCCT postulates, how the factors explaining the entrepreneurial intention of undergraduate students from a Brazilian HEI may influence the development of initial entrepreneurial behavior, considering the economic recession variable.
This paper is structured in six parts, this being the first one, presented as introductory one. The main understandings concerning theoretical foundation, hypotheses and research model appear in sequence. The methodological procedures and results are presented on third and fourth part of the paper, respectively. Following is the discussion of results. The conclusion presents the synthesis of findings, finalizing the paper.

2 Theoretical Foundations, Hypothesis and Research Model
2.1 Social Cognitive Career Theory applied to the entrepreneurial intention study

Social Cognitive Career Theory adopts the assumptions from Social Cognitive Theory that are adherent to academic and professional choices to explain the correlation between a person and his/her career choice, observing the cognitive and interpersonal influences, as well as the internal and external factors influencing this decision (Lent, Brown, & Hackett, 2002). Complementary, the authors argue that career goals are influenced by professional interests, results expectations and self-efficiency. Besides, motivational and inhibiting environmental factors act directly upon career choosing. Self-efficiency reflects individual perception concerning the ability to develop specific activities, that is, consists on the individual belief about being capable to plan, organize and perform actions, varying between positive and negative beliefs (Bandura, 1986, 2001). The results expectations construct refers to expectations on consequences of individual actions, which may vary from the ones more favorable to the least favorable ones (Bandura, 1986, 2001).

On the career development process sequence, there is the intention, representing something someone aims to reach and is related to behavior. Ajzen (1991) claims that intentions indicate how much an individual is prone to perform a behavior. With similar reasoning, from the career perspective, Lanero et al. (2015) affirm that intentions represent dedication plans to a given career. For Lent et al. (1994), professional interests stimulate intentions that, in return, influence behavior. Furthermore, positive perceptions of self-efficiency and results expectations stimulate intentions, as well as create interests for specific performance (Bandura, 1986).
final step of the process contemplates behavior, that is, career choosing. The choosing behavior may take place in three ways: approximation or aversion behavior, performance quality and endurance to deal with challenges or experiences that contradict convictions.

Lanero et al. (2015) argue that in this context psychological theories explain the career choosing process by youngsters are adherent to the study of EI amongst undergraduate students. Liguori et al. (2018) assert that SCCT is an appropriate theory to explain career decision process and represents an alternative to classical models approaching the EI. In a similar direction, international studies (Liguori, 2012; Lanero et al., 2015; Pfeifer et al., 2016; Liguori et al., 2018) perceive the creation of an enterprise as a career choice and adopt the SCCT of Lent et al. (1994, 2002). In addition, it is noticeable the existence of studies approaching enterprises creating as a career decision amongst the self-employment options (Bird, 1988; Kolvereid, 1996; Souitaris, Zerbinati & Al-Laham, 2007; Liguori, 2012; Lanero et al., 2015; Pfeifer et al., 2016).

It is highlighted that career development occurs from the sequence: interest, intention and behavior. This way, it is possible to infer that entrepreneurial self-efficiency (ESE), the entrepreneurial interest and the entrepreneurial results expectancy (ERE) have a positive and direct effect on the EI (Lent et al., 1994). In this context, the Lanero et al. (2015) research checked and verified these relations. Additionally, EI is the main factor in predicting entrepreneurial behavior and, consequently, impacts it positively (Ajzen, 1991). For Lent et al. (1994), the SCCT and the EI models understand that individuals in career choosing process first develop intentions and then, afterwards, perform professional behavior. In this scenario, career choosing process consists in all the actions performed by an individual directed to entering the labor market (Lent et al., 1994). Therefore, based on this reasoning, we propose the following hypothesis:

**H1:** The EI is positively related to the initial entrepreneurial behavior.

For Farmer, Yao and Kung-Mcintyre (2011), the entrepreneurial interest is a strong indicator of individual commitment or action. In this context, entrepreneurial interest consists on professional preference regarding the entrepreneurial career
(Lanero et al., 2015). Pfeifer et al. (2016) assert that the diminishing of available job positions makes the entrepreneurial career attractive and viable for a possible unemployment situation after study completion and, consequently, increases the entrepreneurial interest. According to Pfeifer et al. (2016), interest is little approached in the SCCT. Lanero et al. (2015) corroborate affirming that interest remains unexplored on steps close to joining the labor market.

Considering that the SCCT proposes that a career is developed from the interest, intention and behavior sequence, it is possible to infer that entrepreneurial interest is associated to EI and impacts the initial entrepreneurial behavior mediated by the EI. Hence, considering the previous mentioned the following hypotheses are presented:

**H2:** Entrepreneurial interest is positively related to the EI;

**H3a:** Entrepreneurial interest impacts positively the initial entrepreneurial behavior, and is (H3b) indirectly mediated by EI.

The SCCT defines that ESE and ERE are the main predecessors of career development. In this sense, ESE refers to an individual conception concerning the capability to accomplish professional goals (Lent & Brown, 2006). ERE, however, consists on the individual belief regarding benefits associated to a given behavior (Lent et al., 1994). According to Lanero et al. (2015), SCCT shares with EI theories the basic ideas of how people develop their professional interests, as well as the perception of viability and advantages related. In this context, Bandura (1986, 2001) argues that the ERE is influenced by the ESE. On Lanero et al. (2015) study, the direct and positive effect of ESE over ERE was tested and proved. According to the aforementioned study, there is a double positive effect: it was proved that ESE impacts directly and positively the extrinsic and intrinsic ERE. Based on the mentioned studies the following hypothesis is proposed:

**H4:** The ESE is positively related to the ERE.

Zhao, Seibert and Hills (2005) study demonstrated that ESE is one of the main predecessors of EI and of the intention resulting behavior. Following this thought, researches show that ESE promotes a positive effect on EI (Shook & Bratianu, 2010; Liguori, 2012; Liguori et al., 2018; Pfeifer et al., 2016). According to Lanero et al.
(2015), ESE is approached on PBT as perceived behavior control, and on EEM as viability perception. Studies then point out that viability perception impacts ESE directly (Krueger et al., 2000; Liñán & Santos, 2007; Guerrero, Rialp, & Urbano, 2008; Shook & Bratianu, 2010). Additionally, on PBT based studies, findings demonstrate that perceived behavior control impacts EI directly (Krueger et al., 2000; Liñán & Chen, 2009; Engle, Dimitriadi, Gavidia, Schlaegel, Delanoe, Alvarado, He, Buame, & Wolff, 2010). In this context it is possible to observe that SCCT defends a different perspective from PBT and EEM. For SCCT, the ESE impacts directly and indirectly by mediation of the model predecessor cognitive variables: the interest, the intention and the behavior. The findings from Lanero et al. (2015) research point out that ESE positively and directly impacts on entrepreneurial interest, on EI mediated by interest and also, has the same impact on the entrepreneurial behavior mediated by interest and EI. However, the aforementioned study did not prove the mediator effect of ERE on the correlation between ESE and EI, nor on the correlation between ESE and entrepreneurial behavior. With this theoretical background the following hypotheses are proposed:

**H5a:** The ESE positively impacts entrepreneurial interest and *(H5b)* is indirectly mediated by ERE.

**H6a:** The ESE positively impacts EI, indirectly mediated by *(H6b)* ERE and *(H6c)* entrepreneurial interest.

**H7a:** The ESE positively impacts initial entrepreneurial behavior, and indirectly mediated by *(H7b)* ERE, *(H7c)* entrepreneurial interest and *(H7d)* EI.

The results from studies carried out by Liguori (2012), Liguori et al., (2018) and Pfeifer et al. (2016) demonstrated that results expectancy holds a direct and positive effect on the EI. According to the SCCT, the central construct “results expectancy” corresponds to the “perceived wish” of EEM from Shapero and Sokol (1982) and to the “attitude” construct from Ajzen (1991) PBT, according to Lanero et al. (2015). In this sense, EEM based studies pointed out that the “results expectancy” construct positively influences the EI (Krueger et al., 2000; Liñán & Santos 2007; Guerrero et al., 2008; Shook & Bratianu, 2010). In the same way, researches performed from the PBT perspective pointed out that the results expectancy construct positively influences the EI (Krueger et al., 2000; Liñán & Chen, 2009;
Engle et al., 2010).

The work carried out by Pfeifer et al. (2016) confirmed that students with high ESE, high ERE and high interest also have high EI. Following this reasoning, Liguori (2012) and Liguori et al., (2018) assert that for the SCCT, ESE and ERE are determinant constructs of EI. Besides, the authors also advocate that these constructs act directly and positively on the EI (Liguori, 2012). Based on what was reviewed so far, the following hypotheses are presented:

H8: The ERE is positively related to entrepreneurial interest;
H9a: The ERE positively impacts the EI; and (H9b) indirectly mediated by the entrepreneurial interest;
H10a: The ERE positively impacts on initial entrepreneurial behavior and indirectly mediated by the (H10b) entrepreneurial interest and (H10c) EI.

2.2 Economic recession context

Researches approaching the relation between contextual factors and entrepreneurship are frequently presented in entrepreneurship literature. These researches approach factors such as capital availability, unemployment and socioeconomic conditions (Lüthje & Franke, 2003; Franke & Lüthje, 2004). According to the aforementioned studies, it is noticeable that these factors may encourage or inhibit entrepreneurship, for people evaluate pros and cons related to pursue or not and entrepreneurial career. In this sense, the environmental conditions of the economic context present one of the most relevant factors (Nabi & Liñán, 2013).

Stangler (2009) argues that business environmental perception may be positive or negative, during recession periods, considering the decision to entrepreneur. It is possible to perceive the environment in a negative way and the creation of a new business as unfavorable, due to some barriers such as reduced capital availability and reduced demand. However, during recession periods, it is also possible to observe opportunities and/or consider the best moment to entrepreneur, due to the lack of available job positions and the elevated number of unemployed graduate individuals (Nabi & Liñán, 2013; Stangler, 2009).
From this perspective, the impact of environmental variables on entrepreneurial behavior may be verified with a higher precision though individual perception (Stangler, 2009). It is also highlighted that, when the economy goes through a recession period, characterized by its shrinking in size and by reducing the number of available job positions, individuals may develop a positive or negative perception concerning entrepreneurial activity. Such observation is supported by Nabi and Liñán (2013) study, where was evidenced how the recessive economic context impacts risk perception and entrepreneurial intention.

The current Brazilian context is going through a recession period. The economic situation in the country is marked by reduced tax collect, high inflation, unemployment and public expenses raise (Cury & Caoli, 2016). Thus, the economic recession in Brazil may influence career decisions of undergraduate students, considering that every year thousands of students graduate aiming to find an occupation in the labor market. This way, this study on EI embodies the economic recession context construct to the investigative model on entrepreneurial career, based on the SCCT postulates.

Nabi and Liñán (2013) research has analyzed the correlation between recessive economic context and EI, pointing out the impact of economic recession context on risk perception and EI. Following the same path, the findings from Lüthje and Franke (2003) indicate that economic context marked by recession is directly related to the EI. Therefore, based on the aforementioned studies, the last hypotheses to be tested are configured as follows:

**H11a** – The economic context – recession – positively impacts entrepreneurial interest, (**H11b**) on EI and (**H11c**) on initial entrepreneurial behavior.

The theoretical model supporting this research is found in Figure 1.
3 Methodological Procedures

This research was applied, descriptive and quantitative. As for the time dimension, it is considered transversal, being the data collecting period October of 2016. The analyzed unit was a private HEI with social and economic relevance in the State of Piauí, located on its capital city Teresina. The social subjects researched, graduate students were chosen by the accessibility and availability to answer the research instrument criteria. Therefore, the sample was of the non-probabilistic type, for convenience. The members of the selected population were, thus, the most accessible ones (Malhotra, 2012).

Concerning the sample size, as indicated by Hair Júnior, Black, Barin, Anderson and Tratam (2009), it was considered that this type of research must reach between five and ten repliers by inserted items in the questionnaire. The data collection instrument had 44 items, so the expected was a minimum of 220 answered questionnaires. The interest on answering the data collection instrument, from the students, assured the number of 498 valid questionnaires for the research, meeting
the aforementioned recommendation. This data collection process was carried out by applying a survey, being the data collection instrument a self-answered questionnaire. The findings helped the researchers to describe and explain the studied populations and are indicated as investigative tools for information collection (Malhotra, 2012). The aforementioned instrument was structured in seven sessions. The first session approached demographic data, as for the other ones versed on the variables comprised in the study. Chart 1 presents the goals of each session, the used scales and questions from the questionnaire.

Chart 1: Summary of session goals, scales and questionnaire questions

<table>
<thead>
<tr>
<th>Session goals</th>
<th>Scales used</th>
<th>Questionnaire questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure Entrepreneurial Intent</td>
<td>Based on Thompson (2009) study and adopted by Liguori (2012) and Pfeifer et al. (2016).</td>
<td>Is it true that you think of... Likert type scale of 7 points, being 0 (totally false) and 6 (totally true).</td>
</tr>
<tr>
<td>Verify the Initial Entrepreneurial Behavior</td>
<td>Based on the McGee, Peterson, Mueller and Siqueira (2009), Souitaris et al. (2007) studies and applied by Lanero et al. (2015).</td>
<td>Is it true that you are involved in... Likert type scale of 7 points, being 0 (totally false) and 6 (totally true).</td>
</tr>
<tr>
<td>Measure Entrepreneurial Interest</td>
<td>Based on Liao, Armstrong and Rounds (2008) study.</td>
<td>Is it true that you are interested in... Likert type scale of 7 points, being 0 (totally disagree) and 6 (totally agree).</td>
</tr>
<tr>
<td>Measure the Recession Economic Context</td>
<td>Based on Nabi and Liñán (2013) study.</td>
<td>Give a degree of agreeance / disagreeance... Likert type scale of 7 points, being 0 (totally disagree) and 6 (totally agree).</td>
</tr>
</tbody>
</table>
| Measure the Entrepreneurial Results Expectancy | Based on Krueger (2007) study and tested by Liguori (2012) and Lanero et al. (2015). | Starting your own business, you expect to achieve...
Likert type scale of 7 points, being 0 (totally disagree) and 6 (totally agree). |

Source: Developed by the authors.

The items contemplated by the constructs Entrepreneurial Intent, EI and initial entrepreneurial behavior were, respectively: IMTEMP 1 – Learn basic economic principles, IMTEMP 2 – Develop ways to meet needs, IMTEMP 3 – Plan business systems, IMTEMP 4 – Develop market product/service, IMTEMP 5 – Sell customer product/service, IMTEMP 6 – Develop publicity strategies, IMTEMP 7 – Keep relationships with suppliers/distributors, IMTEMP 8 – Keep relationships with investors, IMTEMP 9 – Understand business management, IMTEMP 10 – Organize and supervise human resources, IMTEMP 11 – Learn to manage a business, EI 1 – Intents to create an enterprise in the future, EI 2 – Seeks a business opportunity, EI 3 – Saves to start an enterprise, EI 4 – Reads books on how to create an enterprise, EI 5 – Has plans to create an enterprise, EI 6 – Is dedicated to learn on how to create an enterprise, IEB 1 – Participate of courses/conferences on entrepreneurship, IEB 2 – Develop a business idea, IEB3 – Gather resources to start an enterprise, IEB 4 – Start the enterprise creation process.

The ESE, ERE and economic recession context constructs contemplated the following items, respectively: ESE 1 – Think and debate about new product ideas, ESE 2 – Identify the need for a new product or service, ESE 3 – Design products or services to meet customer needs, ESE 4 – Estimate client needs for new products or services, ESE5 – Define competitive prices for a new product or service, ESE 6 – Estimate the needed amount to create my enterprise and for circulating capital, ESE 7 – Define a marketing campaign for a new product or service, ESE 8 – Engage people with my vision and plans related to a new business, ESE 9 – Use networking of information exchange, ESE 10 – Explain clearly and cohesively (written and verbally) my business ideas on daily basis, ESE 11 – Supervise employees, ESE 12 – Recruit and hire collaborators, ESE 13 – Delegate tasks and responsibilities for my employees, ESE 14 – Handle problems and crisis effectively on daily basis, ESE 15
– Inspire, encourage and motivate collaborators, ESE 16 – Train collaborators, ESE 17 – Organize and maintain financial records, ESE 18 – Manage the financial assets, ESE 19 – Read and interpret financial records, ERE1 – Financial reward, ERE 2 – Financial autonomy/independence, ERE 3 – Personal reward/acknowledgement, ERE 4 – Family security, CTXT 1 – I am comfortable to start a new business in the current economic period (recession), CTXT 2 – I consider the current economic period (recession) a significant barrier to start a new business, CTXT 3 – I believe starting a new business in the current economic period (recession) encompasses significant financial difficulties and CTXT 4 – I consider the current economic period (recession) unfavorable for starting a new business.

For data collection we used the Monkey Survey online software to create the questionnaires and collect data through the web. The access link was made available for all the students of the HEI using the institution educational website from October 1\textsuperscript{st} to the 15\textsuperscript{th} of 2016. Afterwards, model adjustment analyses were performed in two steps; then the pathway model was evaluated. In order to do so, the confirmatory factorial analysis (CFA) with structural equations modeling (SEM) was performed using the Smart PLS 2.0 M3 software (Ringle, Silva, & Bido, 2014). To perform the mediations in the study the Sobel test (Sobel, 1982) was adopted.

4 Research Results

498 questionnaires were processed. No question had missing data. Initial data exploits indicate no data multicollinearity. In all of the items the o VIF (\textit{Variance Inflation Factor}) was under 5. Data distribution was observed and its non-normality was identified (p<0,001). The conceptual model was initially tested on the general base with all of the organizations. According to Hair \textit{et al.} (2009), all items with a load inferior to 0,7 should be eliminated for the conceptual model to be able to have ideal conditions loading. This way, to seek model convergent validity seven items with factorial load under 0,7 were taken out. Three items from the EI dimension were eliminated, as well as two items from the Entrepreneurial Interest and two items from the Economic Context dimension. The convergent validity adjustment indicators may be observed on Table 1.
Table 1 – Convergent Validity

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>AVE</th>
<th>Composed Reliability (CR)</th>
<th>R²</th>
<th>Cronbach Alpha (CA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESE</td>
<td>0,6627</td>
<td>0,9709</td>
<td>0</td>
<td>0,9681</td>
</tr>
<tr>
<td>Initial entrepreneurial behavior</td>
<td>0,8025</td>
<td>0,942</td>
<td>0,508</td>
<td>0,9175</td>
</tr>
<tr>
<td>Economic context</td>
<td>0,5989</td>
<td>0,7336</td>
<td>0</td>
<td>0,4194</td>
</tr>
<tr>
<td>ERE</td>
<td>0,6481</td>
<td>0,8802</td>
<td>0,1563</td>
<td>0,8191</td>
</tr>
<tr>
<td>EI</td>
<td>0,7878</td>
<td>0,8812</td>
<td>0,4179</td>
<td>0,7347</td>
</tr>
<tr>
<td>Entrepreneurial interest</td>
<td>0,672</td>
<td>0,9485</td>
<td>0,4358</td>
<td>0,9388</td>
</tr>
</tbody>
</table>

Source: Developed by the authors.

The discriminatory validity was also observed through the square roots of the AVES of the superior variables and their correlation to the other variables, as observed on Table 2, confirmed by crossloading items that were higher on their respective variables than on the others (crossloadings).

Table 2 – Discriminatory Validity

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>ESE</th>
<th>Initial Entrepreneurial Behavior</th>
<th>Economic Context</th>
<th>ERE</th>
<th>EI</th>
<th>Entrepreneurial Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESE</td>
<td>0,814*</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Initial Entrepreneurial Behavior</td>
<td>0,5121</td>
<td>0,895*</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Economic Context</td>
<td>0,2882</td>
<td>0,3384</td>
<td>0,773*</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ERE</td>
<td>0,3953</td>
<td>0,2551</td>
<td>0,0835</td>
<td>0,805*</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Entrepreneurial Intention, Initial Entrepreneurial Behavior And Social Cognitive Career Theory

<table>
<thead>
<tr>
<th>EI</th>
<th>0,512</th>
<th>0,5997</th>
<th>0,277</th>
<th>0,3101</th>
<th>0,887*</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI</td>
<td>0,6405</td>
<td>0,6569</td>
<td>0,3186</td>
<td>0,3201</td>
<td>0,6194</td>
<td>0,819*</td>
</tr>
</tbody>
</table>

Source: Developed by the authors.
Note: *AVE square root.

The structural relations of the conceptual model were proven adequate, explaining 43,5% of entrepreneurial interest varying, 41,7% of EI varying and 50,8% of initial entrepreneurial behavior varying, according the previously established criteria (Hair et al., 2009), and confirming the H1, H2, H3, H3a, H4, H5a, H6a, H8, H9a and H11a hypotheses. These indicators may be observed on Table 3.

Table 3 – Structural Relations

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Relation</th>
<th>Path coefficient (Γ)</th>
<th>Average of 1000 subsamples</th>
<th>Standard error</th>
<th>Test T</th>
<th>p-value</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Entrepreneural Intent -&gt; Initial Entrepreneurial behavior</td>
<td>0,283</td>
<td>0,280</td>
<td>0,052</td>
<td>5,418</td>
<td>0,001</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H2</td>
<td>Entrepreneurial interest -&gt; Entrepreneurial intent</td>
<td>0,466</td>
<td>0,467</td>
<td>0,059</td>
<td>7,915</td>
<td>0,001</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H3a</td>
<td>Entrepreneurial interest -&gt; initial entrepreneurial behavior</td>
<td>0,393</td>
<td>0,395</td>
<td>0,054</td>
<td>7,243</td>
<td>0,001</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H4</td>
<td>Entrepreneurial self-efficiency -&gt; Entrepreneurial results</td>
<td>0,395</td>
<td>0,399</td>
<td>0,055</td>
<td>7,231</td>
<td>0,001</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>
### Table 1: Hypothesis Test Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Direction</th>
<th>Coefficient</th>
<th>Significance</th>
<th>p-Value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H5a</td>
<td>Entrepreneural self-efficiency -&gt; Entrepreneural interest</td>
<td>0.564</td>
<td>0.050</td>
<td>11.26</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H6a</td>
<td>Entrepreneural self-efficiency -&gt; Entrepreneural intent</td>
<td>0.155</td>
<td>0.066</td>
<td>2.353</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H7a</td>
<td>Entrepreneural self-efficiency -&gt; Initial entrepreneural behavior</td>
<td>0.084</td>
<td>0.064</td>
<td>1.312</td>
<td>Not confirmed</td>
</tr>
<tr>
<td>H8</td>
<td>Entrepreneural results expectancy -&gt; Entrepreneural interest</td>
<td>0.085</td>
<td>0.047</td>
<td>1.815</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H9a</td>
<td>Entrepreneural results expectancy -&gt; Entrepreneural intent</td>
<td>0.093</td>
<td>0.044</td>
<td>2.103</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>
Entrepreneurial Intention, Initial Entrepreneurial Behavior And Social Cognitive Career Theory

The mediation of ESE and ERE was also observed. The Sobel test (1982) was performed on the general sample. These results may be observed on Table 4 and confirm the H3b, H5b, H6b, H6c, H7c, H7d, H9b, H10b and H10c hypotheses.

Table 4 – Mediation Relations

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Relation</th>
<th>Sobel test</th>
<th>p-value</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>H3b</td>
<td>Interest→Intent→Behavior</td>
<td>4.481</td>
<td>0.001</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H5b</td>
<td>Entrepreneurial self-efficiency→Expectation→Interest</td>
<td>1.753</td>
<td>0.079</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H6b</td>
<td>Entrepreneurial self-efficiency→Expectation→Intent</td>
<td>2.027</td>
<td>0.042</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>
5 Results discussion

This study has confirmed the positive impact EI has on initial entrepreneurial behavior. This finding corroborates Azjen (1991), where it is asserted that EI impacts entrepreneurial behavior positively, being its main predecessor. Following this reasoning, De Noble, Jung and Ehrich (1999) affirm that ESE aids on understanding the factors influencing potential entrepreneurs when guiding their initial actions to act on a new business opportunity. Lanero et al. (2015) research shows that EI directly and positively affects initial entrepreneurial behavior. It is understood that from research results that EI positively and significantly influences initial entrepreneurial behavior, complementing quantitative results and corroborating the findings presented by Ajzen (1991), De Noble et al. (1999) and Lanero et al. (2015).

The research has also confirmed the direct impact of entrepreneurial interest on EI and on initial entrepreneurial behavior, as well as the direct impact of entrepreneurial interest on initial entrepreneurial behavior mediated by the EI.

This result adheres to the findings of Farmer et al. (2009) and Lanero et al. (2015) regarding perception of influence on entrepreneurial interest on individual professional preference for the entrepreneurial career. In this context, SCCT is
observed to point out the sequence of interest, intent and behavior as steps on career development (Lent et al., 1994) and that on the entrepreneurship field the aforementioned sequence corresponds to entrepreneurial interest, intent and initial entrepreneurial behavior (Lanero et al., 2015), it is also confirmed that the entrepreneurial interest directly impacts entrepreneurial intent and initial entrepreneurial behavior, and indirectly impacts entrepreneurial interest, mediated by entrepreneurial intent.

With similar argument, research results from Liguori (2012), Lanero et al. (2015) and Pfeifer et al. (2016) proved that students with strong entrepreneurial interest presented high levels of EI. Lanero et al. (2015) study pointed out that the entrepreneurial interest impacts initial entrepreneurial behavior. It is noticeable that from the study findings the entrepreneurial interest directly and positively influences both EI and initial entrepreneurial behavior, complementing the quantitative results and corroborating the findings presented by Farmer et al. (2009), Liguori (2012), Lanero et al. (2015) and Pfeifer et al. (2016).

ESE was also confirmed to be positively related to ERE. According to Lanero et al. (2015), both ESE and ERE enact as predecessors in career development. Moreover, the authors also affirm SCCT shares with EI theories the basic principles related to how individuals develop their professional interests as well as their convictions concerning benefits and related viability of a given behavior. From this perspective, Bandura (1986, 2001) affirms that ESE impacts ERE. In this context, aligned with the entrepreneurship field, Lanero et al. (2015) study demonstrated that ESE positively and directly affects ERE, adhering to the result found on this research.

Concerning the direct and indirect impact of ESE on the constructs contemplated by SCCT concerning entrepreneurship, the findings of this investigation confirm the direct and positive impact ESE has on entrepreneurial interest, on EI mediated by entrepreneurial interest and indirectly on initial entrepreneurial behavior, mediated by the entrepreneurial interest and by EI. These findings corroborate the research results obtained by Lanero et al. (2015), supporting the claim that ESE directly and positively influences not only entrepreneurial interest
Vanessa Nunes De Souza Alencar Vasconcelos, Amélia Silveira, Cristiane Drebes Pedron, Diego César Terra De Andrade

but also EI mediated by interest, and also impact initial entrepreneurial behavior mediated by entrepreneurial interest and by EI.

This study supports the indirect impact ESE has on initial entrepreneurial interest, mediated by the ERE. However, this relation was not confirmed on the study of Lanero et al. (2015), therefore on this aspect this research differs from the aforementioned study. Still regarding the impact of ESE on constructs contemplated by SCCT, this study tested the impact of ESE on initial entrepreneurial behavior; however, our findings do not confirm this correlation. This result is also presented in Lanero et al. (2015).

Additionally, this study verified the direct impact of ESE on EI and the indirect impact on initial entrepreneurial behavior mediated by ERE. These relations, however, are supported by Lanero et al. (2015). In this context, McGee et al. (2009) argues that ESE is a strong predecessor of EI. Conforming to this reasoning, De Noble et al. (1999) suggest that ESE is positively and significantly correlated to intent and to undergraduate students availability to create or start their own business. Zhao et al. (2005) advocate that individuals who decide to become entrepreneurs develop strong ESE.

Findings resulting from this investigation confirm the direct and indirect impact of ERE on the constructs contemplated by the SCCT in the entrepreneurship field. It may also be observed that the results presented are adherent to Liguori (2012) and Pfeifer et al. (2016) studies and point out that ERE directly and positively impacts EI. In a similar way, studies carried out by Liguori (2012), Liguori et al. (2018) and Aure et al. (2019) confirm that ESE and ERE impact EI. Additionally, the impact of ERE on initial entrepreneurial behavior was verified; however it could not be confirmed by this study.

The economic recession variable context was contemplated on this study due to the crisis Brazil has undergone on the past few years. In this sense, according to the Labor Market Bulletin, from the Applied Economics Research Institute (IPEA,
2016), the unemployment rate registered a considerable growth in 2016, being accompanied by deteriorations on proceedings and informality (p.05).

According to this reasoning, it is observed that when there is data segregation based on age, IPEA asserts that there was a great leap of unemployment of younger individuals, ages ranging from 14 to 24, that went from 19.3% on the first semester of 2015 to 26.5% on the same semester in 2016, presenting a difference of 7.2 pp. Still according to the institute (IPEA), when considering regions, the Northeast region presented the highest unemployment rates on the first semester in 2016, 13%. It is possible to remark that the researched population felt the reflexes of the social economic situation during the crisis.

Considering the career development model proposed by the SCCT, this new variable is established as predecessor of SCCT essential constructs. This way, after tests were made, the hypotheses of economic context impact – recession – on entrepreneurial interest, on EI and on initial entrepreneurial behavior were confirmed. These results conformed to the ones from Nabi and Liñán (2013), where the impact of the economic context – recession on the EI was analyzed. Following this reasoning, Lüthje and Franke (2003) also mentioned that the economic context – recession – is related to the EI.

6 Conclusions

EI consists on a key factor stimulating the development of new businesses, as well as representing the beginning of a new enterprise creation process, contemplating the initial characteristics for implementing entrepreneurial activity. Considering the relevance of the aforementioned theme, the goal of this study was to analyze the factors explaining EI of undergraduate students aiming to develop initial entrepreneurial behavior from SCCT postulates and comprising the variable economic context recession.

Firstly, the impact of the predecessor variables (ESE and ERE) was investigated, considered by the SCCT as the constructs that for career development
process (entrepreneurial interest, EI and initial entrepreneurial behavior). Aligned with the economic period experienced by Brazil, the impact of a new context variable on the constructs forming the entrepreneurial career decision process, according to the SCCT, was explored. This way, it was possible to observe that the general model explained 43.5% of entrepreneurial interest, 41.7% of EI and 50.8% of initial entrepreneurial behavior. These findings hold an excellent phenomena explanatory view, characterizing the scope of these research goals. The use of EEM enable to evaluate the significance of relation among the constructs, being supported in all cases a positive and significant relation.

Additionally, this study, innovatively, incorporated the construct economic context – recession – to the investigative model on entrepreneurial career based on the SCCT postulates due to the economic period Brazil has undergone. According to Nabi and Liñán (2013) when the scenario is understood as favorable, it enacts as stimulant to entrepreneurship and increases entrepreneurial intent; however, when the economic context is perceived as unfavorable, this perception enacts as a barrier to entrepreneurship and reduces entrepreneurial intent. In this sense, it is possible to infer that during an economic crisis the credit offering, return expectancy and, consequently, the number of opportunities diminishes and, therefore, they have a negative impact on the students will to entrepreneur.

However, the findings of this research demonstrated that the economic context recession directly and positively impacts entrepreneurial interest, entrepreneurial intent and initial entrepreneurial behavior of undergraduate students. Hence, it is possible to affirm that students, even during recession periods, wish to entrepreneur. Such a fact is justified when observed the difficulties to find a position, as well as the high number of unemployed youngsters. Furthermore, the ever growing appreciation of entrepreneurs and the increase of programs to promote entrepreneurship encourage youngsters to entrepreneur. It is worth to highlight that this finding is relevant to students, governing authorities and university managers, for in a crisis, creating new businesses means new investments, new available positions and more money circulating, factors contributing for personal support, reducing school evasion and economy recovery.
The results obtained in this study support the use of SCCT in the entrepreneurship field, similarly to the researches of Liguori (2012), Lanero et al. (2015), Kassean et al. (2015), Farasha (2015), Austin e Nauta (2015) and Pfeifer et al. (2016). In this context, adopting the aforementioned theory in the entrepreneurship field is considered to be appropriate, adherent and innovative, being this another field where SCCT may be applied.

As a contribution, it is expected that the findings obtained during this investigation may be found relevant for both practitioners and academics. For the academy, it contributes to the theoretical development of the EI research field in Brazil, through the development of an explanatory sophisticated and integrated model approaching the multiple relations between constructs, considering the economic recession Brazil has undergone and the immediate entrepreneurial behavior in short term. As a practical contribution, it is expected that this study may be used by university managers to create a learning environment towards entrepreneurship focusing on needed competencies and skills to enter the labor market and face the challenges arising from the difficult period Brazil has undergone.

One of the limitations of the presented study is associated to a sample by convenience. Therefore, the results reached on this study relate to the HEI studied. The research measured linear and unidirectional relations, ignoring the existence of mutual, exponential and moderator relations (Lanero et al., 2015).

Considering that this study has proved the applicability of SCCT to studies of EI, it is suggested for future researches to regard entrepreneurial behavior and intent adopting SCCT postulates to solidify the use of this theory on entrepreneurship field.

From this discussion, it is noticeable that SCCT represents an advance for the theoretical field and innovates by adopting a short term perspective for measuring the relation between EI and entrepreneurial behavior, considering the existence of a temporal lapse between graduating and creating an enterprise (Lanero et al., 2015). The authors emphasize that developing and starting a business consist on a long term goal, demanding time to prepare oneself and gain experience. Based on what
was exposed, it is possible to realize that SCCT is a career theory adherent to the entrepreneurship field and, specially, to the study of undergraduate students EI.

References


Entrepreneurial Intention, Initial Entrepreneurial Behavior And Social Cognitive Career Theory


