

# Motivations, business planning, and risk management: entrepreneurship among university students

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## Abstract

The objective of this study was to compare motivations for entrepreneurship, business planning, and risk management between two groups of university students: those who already had a business (experienced entrepreneurs) and those intending to start one (potential entrepreneurs). A total of 424 undergraduate and graduate students participated in the survey study. Descriptive and inferential analyses were conducted to compare the groups. The results indicate that the entrepreneurial motivations of potential student entrepreneurs are higher than those of experienced student entrepreneurs. In the process of creating the business, it was shown that both groups of students are cautious about managing business risks, but the group of potential student entrepreneurs appeared more concerned with the business plan than the experienced group.

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*Keywords:* Entrepreneurial motivations; Business planning; Risk management; University students

## Introduction

Since the 1990s, interest in the entrepreneurship training of university students in Brazilian higher education institutions has been continually increasing. Politicians and university leaders have begun to realize the importance of treating entrepreneurship as an academic training area. The focus of Brazilian higher education strictly on the training of future qualified employees has already proven insufficient given the country's needs (Lima, Lopes, Nassif, & Silva, 2011).

There is evidence in the literature that entrepreneurship education has helped university students develop positive attitudes toward entrepreneurship and increased their positive perception of business viability (opportunity analysis) (Bae, Qian, Miao, & Fiet, 2014). In short, the maximum use of skills and talents,

the perception of control over the future, the positive attitude toward learning new things and putting creativity into practice, fear of unemployment, personal values, the search for autonomy, financial independence, and self-actualization, plus the ideal of fulfilling a social mission, are further individual reasons that lead university students to take on their entrepreneurial career (Barba-Sánchez & Atienza-Sahuquillo, 2012).

Although the results of research on the motivation and reasoning that leads college students to follow the entrepreneurial career path indicate a set of personal and contextual variables that, hypothetically, explain the entrepreneurial career choice of college students in general, little is known about the differences in the influence of such variables among experienced entrepreneurial students, non-entrepreneurial students, and students who are potential entrepreneurs. Behavioral and attitudinal differences between entrepreneurs and non-entrepreneurs have long been the subject of research. Empirical and theoretical research comparing experienced entrepreneurs, new entrepreneurs, non-entrepreneurs, and managers is emphasized here, considering that studies of this nature focused on university students were not located in a bibliographic search.

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The study by [Carland, Hoy, Boulton, and Carland \(1984\)](#) explores, based on [Schumpeter \(1934\)](#) and on results from other studies, the differences between entrepreneurs and small business owners, proposing a conceptual framework that differentiates them. In this framework, pro-innovation behavior is a critical factor in differentiating entrepreneurs from non-entrepreneurial managers, on the one hand, and from small business owners, on the other.

Contrary to many studies on entrepreneurship, [Gartner \(1985\)](#), a classic in the field of entrepreneurship studies, warns that in addition to the differences between entrepreneurs and non-entrepreneurs, there are also differences among the entrepreneurs themselves. Based on a bibliography review, that author identifies six activities common to entrepreneurs: finding business opportunities, accumulating resources, introducing products and services in the market, manufacturing products, establishing organizations, and responding to the requirements of society and of governments. All of these activities involve risk, demand some level of planning, and can also help reveal the diversity among entrepreneurs.

The study by [Baron and Ensley \(2006\)](#), for example, showed that experienced entrepreneurs identify and explore more business opportunities than novice entrepreneurs. The study by [Hooks \(2010\)](#) compared attitude, leadership, innovation, perceived control, and self-confidence of new and experienced entrepreneurs, and how these are related to satisfaction with life. It found that new entrepreneurs have more satisfaction with life and that the experienced ones see the failures of the past as an opportunity for growth. The study by [Walter and Heinrichs \(2015\)](#) also points out the existence of different cognitive processes before and after starting a business.

The literature shows that propensity for risk is one of the main personal attributes of the individual entrepreneur. This belief finds support in theories of personal traits, whose main proponent is [McClelland \(1961\)](#). But in spite of the wide diffusion of this vision, the research results indicate a broader picture still marked by contradictions. The work on risk propensity that became a reference, and one of the most consulted, was that of [Brockhaus \(1980\)](#). Using Kogan-Wallach's choice dilemmas questionnaire, the author concluded that risk propensity might not be a specific characteristic of entrepreneurs. In contrast, [Carland, Carland, and Pearce \(1995\)](#) compared entrepreneurs, managers, and small business owners and concluded that entrepreneurs possess a greater propensity for risk.

The results of the meta-analysis study by [Stewart and Roth \(2001\)](#) are in line with [Carland, Carland, and Pearce's \(1995\)](#) findings, suggesting that entrepreneurs' risk propensity is greater than that of managers/bosses. In addition, the results revealed differences between entrepreneurs: the risk propensity of entrepreneurs who focus on business growth as their main objective is higher than for those focused on generating family income as their main business objective.

In comparing Brazilian and Portuguese entrepreneurs, the research carried out by [Silva, Gomes, and Correia \(2009\)](#) showed that although Brazilians reject uncertainties more, they present higher risk propensity than the Portuguese. The propensity was measured by the ability to “make decisions and take actions

without the sure knowledge of results” (p. 69). Because risk propensity and aversion to uncertainty are correlated concepts, the cross-reading of these results reveals how much of the perceived uncertainty the entrepreneur accepts and exposes him/herself to (calculated risk), in exchange for a return.

In addition to risk management, business success among potential entrepreneurs or experienced entrepreneurs also depends on planning, as both can influence market analysis, return on investment, experimentation, and flexibility ([Sarasvathy, 2001](#)). Risk management and planning are little-explored concepts in research on entrepreneurship in Brazil. The international literature advances a little further in the discussion of planning, by following [Sarasvathy's \(2001\)](#) promising path, or by embracing traditional approaches to planning, which reduce it to the preparation of business plans, especially in entrepreneurship training programs.

The research whose results are presented in this article began from the premise that risk management, the motivations for an entrepreneurial career, and business planning are important variables for understanding entrepreneurship. It also supposed that studying these variables by comparing groups of potential entrepreneurs and experienced entrepreneurs, in the university context, would help to identify differences between these groups. Studies indicate that young people are the main actors of entrepreneurship in Brazil ([Global Entrepreneurship Monitor - GEM, 2015](#)). In addition, the present study goes further as it fills a theoretical gap in the interpretation of the weight of little-explored individual variables (planning, risk management) in the entrepreneurial actions ([Salusse & Andreassi, 2016](#)) of university students, who are already entrepreneurs or who reveal their intention to become entrepreneurs. In the practical context, the study contributes to the generation of recommendations for better practices and policies – including public policies – aimed at improving competencies and resources of higher education institutions to better prepare future professionals, especially those who will take on some kind of entrepreneurial initiative.

## Theoretical support

### *Motivations guiding students' entrepreneurial careers*

The motivations for starting a business have been related to economic factors ([Schumpeter, 2002](#)), the search for opportunities in the competitive market ([Shane & Venkataraman, 2000](#)), the lack of, or dissatisfaction with, job opportunities ([Kautonen & Palmroos, 2010](#)), and even to the need for self-actualization ([McClelland, 1965](#)). Although McClelland's model predicts other types of motivations such as the need for affiliation and power, various empirical studies ([Barba-Sánchez & Atienza-Sahuquillo, 2012](#); [Sivarajah & Achchuthan, 2013](#)) point out that the need for achievement is the strongest among those in their models.

The need for achievement can be defined as a pattern of motivation that reveals self-confidence, great initiative, guided by clearly established goals, assuming moderate responsibilities and risks, and favoring situations that can provide feedback for performance improvement ([McClelland, 1961](#)). Such

characteristics are strongly associated with the entrepreneurial profile (Aschuler, 1967). A few years later, McClelland (1965) proposed ways to develop the need for achievement among young people, which can be summarized on four fronts: goal setting (encouraging young people to take on responsibilities), motive syndrome (promoting the integration of thinking, action, and context, allowing young people to adjust their goals to the particular situation in which they find themselves), cognitive supports (promoting intense reflections so young people can connect their motives to their actual reality), and group supports (use the group to promote better insights and provide feedback).

University students want to achieve goals that are challenging, as well as overcome obstacles, which allow them to see their success as a result of their own actions. The successful use of skills acquired throughout their university education (Frese, Rousseau, & Wiklund, 2014; Olufunso, 2010; Padachi, 2006) heightens their personal capacity for learning a repertoire of knowledge, attitudes, and behaviors that strengthen their self-confidence. They feel uncomfortable when they fail to put this theoretical learning into effect as employees, and the opening of a new business (whether for profit, not for profit, or mixed) is a promising route to this achievement.

Although the need for achievement is perceived as the most important motivation among scholars, the current world situation leads students to include other motives, such as social ones, as a way of contributing to solidarity in the world (Omoredede, 2013), to social justice, and to protection of the environment (Bornstein, 2004). This perspective converges with what Smith and Woodworth (2012) call social entrepreneurship, which, in short, aims at improving society in general. The financial return, although it motivates the students, has not been associated with their principal motivations (Lima, Nassif, Lopes, & Silva, 2014).

Family context (Almeida & Teixeira, 2014; Sivarajah & Achchuthan, 2013) and academic context (Kacperczyk, 2013) also contribute to the decision to pursue an entrepreneurial career. The networks serve as a type of social capital (Granovetter, 2005) and are fundamental in the creation and support of the business (Vale & Guimarães, 2010), in line with McClelland's (1965) thinking, in addressing the need to belong to a group at the same time as there is concern about meeting its needs.

Motivations may also be influenced by culture, region, gender, and ethnicity (Shane, Kolvereid, & Westhead, 1991). In the United States, for example, more men than women are starting an entrepreneurial career (Reynolds, Carter, Gartner, & Greene, 2004), unlike Brazil, whose GEM data for 2014 points to a greater presence of women at this initial stage (51%), as well as regional differences (Almeida, 2013). In Malaysia, Akmaliah and Hisyamuddin (2009) found that community support, interest, and high self-esteem motivated the entrepreneurial career of students. In China, Mexico, and the US, independence and risk-propensity were the principal motives for self-employment, particularly in the US, with individual and contextual factors more conducive to entrepreneurship (Wang, Prieto, Hinrichs, & Milling, 2012).

From the motivations listed, it is clear that the process of business creation depends on personal, social, and contextual

motivations, and their intensity (Valencia, Restrepo, & Restrepo, 2014). These motives interact with each other and guide plans and goals (Sivarajah & Achchuthan, 2013). Motivation, however, is not a static state, as the stimuli that move people change throughout life. What motivates the creation of the business, for example, may undergo changes due to acquired practical experience and adverse factors.

#### *Business creation – business planning and risk management*

Business planning usually takes place through systematization of ideas, such as the business plan, a set of written documents modeling the future of an enterprise (Carvalho, 2009; Testa & Frascheri, 2015). This also helps people to initiate, maintain, and evaluate the actions needed to achieve the goal (Frese, 2009).

The study by Santos and Silva (2012) concluded that the business plan is a guide that assists the entrepreneur in management, including a number of models adapted to different business realities. Various positive effects of the business plan were summarized by Delmar and Shane (2003), with emphasis on: speed in decision making, anticipation of information flaws, resource management, business feasibility analysis, and improvement of communication internal and external to the business. The meta-analysis by Brinckmann, Grichnik, and Kapsa (2010) also showed that the business plan increases the performance of the business.

Although studies on business planning among students are not common, there is a relative consensus that such planning is indispensable in the process of formulating and creating the business (Botha & Robertson, 2014; Sebrae, 2012). It is recognized, however, that there is a debate in the entrepreneurship field about the value of the business plan (Chandler, Detienne, Mckelvie, & Mumford, 2011; Delmar & Shane, 2003). While one group of researchers perceives it as a fundamental activity for success in creating a business, others question this assertion (Gruber, 2007), considering the high levels of uncertainty and volatility in the startups' environments.

Along these lines, two approaches to planning are discussed in the literature (Sarasvathy, 2001). One about causes (causation) takes into account the traditional paradigm of elaborating detailed plans, and its relevance to the business. The other about effects (effectuation) reverses this traditional logic and introduces the paradigm of experimentation, that is, of trying different market entry perspectives before choosing a business concept. The effectuation approach follows a logic that allows the student to take advantage of contingent opportunities, accept losses, and explore strategic alliances. There is a recognition that failures are part of business success, and realities can be reconstructed by exploring new opportunities (Sarasvathy, 2008).

Some studies conclude that successful entrepreneurs are more able to manage risk (Botha & Robertson, 2014), since the positive outcome of entrepreneurial ventures also depends on financial management and the availability of working capital (Padachi, 2006). In addition, it involves a great variety of skills in strategy, accounting, legal and technical knowledge important in running the business (Almeida, 2013).

Risk management also takes into account other aspects such as technological requirements, markets, scenarios, current and future competition, financial projections, current laws and regulatory processes, socioeconomic environment, and political interference (Braga, 2012). Although cognitive skills are assumed to be involved in risk analysis, such as assessing which losses are acceptable and when to stop in case of failure (Baron & Ensley, 2006), this process seems to be more clearly defined by experienced entrepreneurs (Matlin, 2005), suggesting that the larger social context may contribute to the development of such skills.

The arguments presented in this section emphasize the importance of planning and risk management for understanding the behavior of entrepreneurs, and justify comparative empirical studies such as what will be reported here, helping to gather evidence on diversity and heterogeneity among entrepreneurs in specific contexts, such as the university.

#### *Potential and experienced entrepreneurs*

Potential entrepreneurs are those who intend to start a new business or expect to be in the situation of owners or partners of a new company (Sieger, Fueglistaller, & Zellweger, 2014). Experienced entrepreneurs are those who have owned a business for more than four years (Hooks, 2010), or have been established for more than three and a half years (GEM, 2015). The reasons that lead to the creation of a new business appear similar between entrepreneurs intending to start their businesses and those who already have them, reasons such as financial security, independence, self-actualization, and autonomy (Reynolds et al., 2004). However, potential entrepreneurs tend to overestimate their skills, motivations, and efforts (Gartner & Shaver, 2002).

Satisfaction with life also differs between new entrepreneurs, those who are in the undertaking for less than three years, and those with experience, who have been in business for more than four years (Hooks, 2010). This is probably because of the novelty of the business, the freedom to express innovative tendencies and put acquired knowledge into practice, rather than the immediate financial return (Krueger & Carsrud, 1993).

Experienced entrepreneurs, however, take advantage of finding and creating opportunities and have a more accurate systemic view of potential risks (Baron & Ensley, 2006). New and potential entrepreneurs evaluate opportunities intuitively with a focus on novelty (Azoulay & Shane, 2001), and may fail to devote sufficient attention to various financial and commercial factors that impede the success of new ventures. Experienced entrepreneurs concentrate efforts on factors related to financial results and reject ideas for new products or services that suggest non-manageable risk (Baron & Ensley, 2006). The intense devotion of one who is beginning an entrepreneurial career can also undermine decision making, since the ability to think systematically and carefully evaluate information can be reduced (Ruder & Bless, 2003).

It is presumed, then, that potential entrepreneurs tend to be more impulsive and “fall in love with their own ideas”, sustaining their excess enthusiasm and optimism. Nevertheless, intense

affective states can contribute to creativity and to systematic thinking (Forgas, 2004). This capacity to think systematically and carefully evaluate information can be developed through learning processes related to gaining experience.

In summary, this section on theoretical support presented the main concepts used in the study and included empirical evidence on the differences between experienced and potential entrepreneurs regarding motivations, risk management, and the place of the business plan (before or after business experimentation). The comparison between new entrepreneurs and experienced entrepreneurs in the context of the university training focus of this study may help bring out new evidence about such differences, contributing to the advancement of knowledge about variables that explain the diversity of entrepreneurial behavior.

#### **Method**

This is a cross-sectional comparative study, using an electronic survey. It is an excerpt from the Global University Entrepreneurial Spirit Students' Survey – GUESSS (<http://www.guesssurvey.org/>),<sup>1</sup> an international survey that covered 34 countries in 2013/2014, including Brazil. Its main objective is to track perceptual indicators of individual and contextual level variables of the university environment related to entrepreneurship among higher education students.

The relevance of doing an excerpt of the GUESSS study stems from it being carried out with university students and because the GEM (2015) indicates that young people between 25 and 34 years are the largest group of Brazilian entrepreneurs. Thus, it is believed that the university would be the preferred context for entrepreneurial learning. Studies developed in this context would contribute to greater alignment between the theory and the practice of entrepreneurship.

#### *Participants*

The participants were students from a public university in northeastern Brazil who intended to have a business within one year ( $M = 12.42$ ;  $SD = 7.86$ ) and those who already had one for five years ( $M = 5.95$ ;  $SD = 3.44$ ), (344 and 80 respectively), totaling 424 respondents, 278 being single or divorced, 146 married, 215 were males, and with a mean age of 27 years ( $SD = 6.11$ ). As for the distribution by degree program, 18% were from medical and health sciences programs; 16% from engineering and architecture; 10% from social sciences; 6% law; 5% arts; 5% from management and business, and 40% did not specify or marked the “other” option. Regarding academic performance, 31% described it as well above average, 35% as above average, and 27.4% as around average.

<sup>1</sup> The GUESSS project is led by the Swiss Institute for Small Business and Entrepreneurship of the University of St. Gallen (KMU-HSG). For each participating country there is a representative responsible for coordinating data collection.

As to their contact with entrepreneurship courses, 77% stated they never had contact, while 23% had taken at least one course. From the same total of respondents, 32% stated that neither parent owned their own business, and 40% had at least one, or some other family member, connected to entrepreneurial activity. Also from the total, 47% reported working, averaging 31.98 hours worked per week ( $SD = 12.11$ ). Regarding educational level, 70% were undergraduates.

#### *GUESSS Brazil instrument*

The instrument has 12 blocks of questions: (a) student's personal data; (b) degree area; (c) career choice intentions; (d) reasons for career choice; (e) entrepreneurial learning environment; (f) student's entrepreneurial profile; (g) family experiences; (h) socialization processes in each country; (i) business planning; (j) general information about the business; (k) information on family businesses; (l) specific questions for each country where the study is applied.

For the purposes of this comparative study, two groups of items were considered: related to the individual business creation process (10 items) and individual motivations (18 items), with the items meant to be answered by students who had already started a venture five years before, and by those intending to start one within a year. This decision made it possible to conduct the comparative study proposed here, and whose results are presented and analyzed. The importance of the constructs chosen in the entrepreneurship field of study has already been fully explained in the introduction and in the theoretical support section.

#### *Data collection procedures*

At the end of 2012, e-mail invitations were sent to 23,000 students enrolled in a federal higher education institution in northeastern Brazil. In compliance with ethical principles, participation in the research was voluntary, with 2999 students providing responses to the instrument. Given the focus of the research and the variables studied, the sample of this comparative study included 424 students, whose profile was described in the participants section.

#### *Handling of the item groups: business creation and motivations*

The 10 items related to the *business creation* (see Table 1) were submitted to exploratory factor analysis (EFA) and grouped into two dimensions: business plan (5 items) and risk management (5 items), explaining 55.60% of the variance. The Kaiser–Meyer–Olkin coefficient ( $KMO = 0.762$ ) and Bartlett's test of sphericity [ $\chi^2(45) = 1303.399$ ;  $p < 0.01$ ] indicate that the measure is factorable.

The 18 items related to *individual motivations* (see Table 2) were also submitted to EFA (Exploratory Factor Analysis) and grouped into four dimensions, defined as: social motivations (6 items), group motivations (5 items), financial motivations (4 items), and managerial motivations (3 items), explaining

67.64% of the variance, with the Kaiser–Meyer–Olkin coefficient ( $KMO = 0.854$ ) and Bartlett's test of sphericity [ $\chi^2(153) = 3247.842$ ;  $p < 0.01$ ].

#### *Data analysis procedures*

Descriptive analysis, exploratory factor analysis, and comparative analyses were run using SPSS (Statistical Package for the Social Sciences, version 21). Measurements of central tendency (mean) and standard deviation (SD) were used in the descriptive analyses. For the comparative analysis, the *t*-test was used for independent samples. Pearson bivariate correlations evaluated the strength of the relationships between variables.

#### **Results**

The results are divided into sections, according to the objectives of the study. First, descriptions are presented that characterize the two groups (potential and experienced) in relation to the variables. Then, the comparisons between groups.

#### *Principal motivations, business planning, and risk management of potential and experienced entrepreneurs*

Table 3 presents the means, standard deviations, and correlations between the study variables.

The study variables are positively correlated. Management motivations (developing personal management skills) present higher means among all surveyed college students (potential and experienced) than the means for social (make the world better), financial (make money and get rich), and group (support and develop my group) motivations, cited in descending order of the value of their means. On the two dimensions of business creation, risk management has a higher mean (higher mean signifies less risky behavior at the start of the business) than planning.

#### *Comparing potential and experienced entrepreneurs in their motivations and in business creation*

Table 4 presents the results of motivations and business creation, comparing potential entrepreneur students and experienced ones.

It is observed that the motivations oriented toward entrepreneurship (social, group, financial, and managerial) of potential entrepreneurs present higher mean values than those of experienced entrepreneurs. It is also observed that the *t*-test showed differences between groups, reaffirming that potential entrepreneurs are more motivated than experienced ones: social motivations ( $t_{(420)} = 4.57$ ;  $p < 0.001$ ), group motivations ( $t_{(417)} = 3.49$ ;  $p < 0.001$ ), financial motivations ( $t_{(418)} = 4.46$ ;  $p < 0.001$ ), managerial motivations ( $t_{(413)} = 3.58$ ;  $p < 0.001$ ). The effect sizes, Cohen's *d* (1988), were considered average and differ mainly in relation to social ( $d = 0.651$ ) and financial ( $d = 0.624$ ) motivations.

Regarding the creation of the business, risk management did not differ between the two groups ( $t_{(415)} = 1.71$ ;  $p < 0.033$ ),

Table 1  
Factor structure of the business creation measure.

Items	Factors	
	1	2
I am careful not to invest more resources than I could afford to lose	<b>0.810</b>	0.148
I adapt what I'm doing to the resources I have	<b>0.808</b>	0.359
I am careful not to risk more money than I am willing to lose	<b>0.807</b>	0.152
I am flexible and take advantage of opportunities as they arise	<b>0.657</b>	0.338
I let business evolve as opportunities arise	<b>0.651</b>	0.259
I research and select target markets and do competitive analysis	0.245	<b>0.855</b>
I establish and plan production and marketing efforts	0.244	<b>0.848</b>
I establish and plan business strategies	0.332	<b>0.812</b>
The planned product/service is substantially different from what I initially imagined	0.114	<b>0.561</b>
I am trying different approaches until I find a business model that works	0.243	<b>0.490</b>
Cronbach's Alpha	0.80	0.76
Eigenvalues	3.7	1.8
Explained variance	36.97	18.63
Skewness	−0.933	−0.355
Kurtosis	0.653	−0.232
Mean of the factors	5.57	4.47

Note: Extraction: principal axis analysis. Rotation: Oblimin. 1: Risk management; 2: business planning.

Table 2  
Factor structure of the individual motivations measure.

Items	Factors			
	1	2	3	4
Make the world a better place	<b>0.815</b>			0.403
Solve social problems that private companies usually cannot handle	<b>0.788</b>	0.273		−0.121
Play a proactive role by changing the way the world works	<b>0.787</b>	0.254		−0.123
Be a citizen who is highly responsible for our world	<b>0.718</b>			0.466
Convince others that private enterprise is truly fit to deal with the type of social challenge my business is about	<b>0.692</b>	0.257		0.188
Have a strong focus on what my business can achieve for society in general	<b>0.556</b>	0.445		0.326
Have a strong focus on the group of people with whom I strongly identify	0.146	<b>0.877</b>		0.140
Support and advance the group of people with whom I strongly identify	0.302	<b>0.795</b>		0.213
Offer a product/service that is useful to a group of people with whom I strongly identify	0.161	<b>0.735</b>		0.247
Solve a specific problem for a group of people with whom I strongly identify	0.479	<b>0.595</b>	0.174	−0.277
Play a proactive role in shaping the activities of a group of people with whom I strongly identify	0.481	<b>0.566</b>	0.213	−0.149
Make money and get rich			<b>0.785</b>	
Advance my career in the business world			<b>0.764</b>	0.192
Establish a strong competitive advantage and perform significantly better than other businesses in the same area of activity		0.132	<b>0.723</b>	0.291
Have a strong focus on what my business can manage to do versus the competition		0.194	<b>0.700</b>	0.411
To have fully analyzed the financial possibilities for my business	0.114	0.116	0.273	<b>0.789</b>
Run my business based on sound management practices		0.130	0.381	<b>0.684</b>
Be able to express to my clients that I fundamentally share the same values, interests, and way of understanding things as they do	0.434	0.258	0.165	<b>0.485</b>
Cronbach's Alpha	0.87	0.84	0.77	0.74
Eigenvalues	6.5	3.0	1.63	1.15
Explained variance	36.08	16.11	9.03	6.40
Skewness	−0.866	−0.627	−0.823	−1.16
Kurtosis	0.111	−0.103	0.441	1.30
Mean of the factors	5.11	4.91	5.06	5.67

Note: Extraction: principal axis analysis. Rotation: Varimax. 1: Social motivations; 2: Group motivations; 3: Financial motivations; 4: Managerial motivations.

showing that both are cautious in conducting business, avoiding risk. Potential entrepreneurs invest more in planning actions ( $t_{(417)} = 4.73$ ;  $p < 0.001$ ;  $M = 4.64$ ;  $SD = 1.32$ ) than do those with experience ( $M = 3.69$ ;  $SD = 1.63$ ) (Table 4).

## Discussion

The results of the  $t$ -test clearly indicate that there are differences between the group of university students who are potential

Table 3  
Correlations between factors, including mean and standard deviation.

	Mean	SD	1	2	3	4	5	6
1. Social motivations	5.11	1.54	–					
2. Group motivations	4.91	1.51	0.623 <sup>a</sup>	–				
3. Financial motivations	5.06	1.39	0.195 <sup>a</sup>	0.330 <sup>a</sup>	–			
4. Management motivations	5.67	1.25	0.398 <sup>a</sup>	0.399 <sup>a</sup>	0.511 <sup>a</sup>	–		
5. Risk management	5.57	1.21	0.163 <sup>a</sup>	0.218 <sup>a</sup>	0.344 <sup>a</sup>	0.400 <sup>a</sup>	–	
6. Business Planning	4.47	1.43	0.293 <sup>a</sup>	0.327 <sup>a</sup>	0.340 <sup>a</sup>	0.349 <sup>a</sup>	0.323 <sup>a</sup>	–

Note: Business Creation (5 and 6). <sup>a</sup> $p < 0.001$ . Values between 1 and 7. Risk management: Higher mean signifies cautious behavior.

Table 4  
Comparison between potential and experienced entrepreneurs.

Dimensions	t-Test						Effect Cohen's <i>d</i>
	T	Df (gl)	Potential		Experienced		
			M	SD	M	SD	
1. Social motivations	4.57 <sup>a</sup>	102.66	5.29	1.43	4.32	1.77	0.651
2. Group motivations	3.49 <sup>a</sup>	101.29	5.05	1.43	4.31	1.71	0.493
3. Financial motivations	4.46 <sup>a</sup>	102.14	5.22	1.31	4.37	1.54	0.624
4. Management motivations	3.58 <sup>a</sup>	96.64	5.79	1.17	5.15	1.44	0.522
5. Risk management	1.71	90.71	5.63	1.10	5.30	1.57	0.273
6. Business planning	4.73 <sup>a</sup>	98.0	4.64	1.32	3.69	1.63	0.685

Note: Business Creation (5 and 6).

<sup>a</sup>  $p < 0.001$ .

entrepreneurs and the group who are experienced entrepreneurs, with regard to motivation and to business planning.

The social and financial motivations are what most differentiate the groups of university students under study. Social motivation guides the potential entrepreneur more than the experienced one. This may mean that although social motivations and social entrepreneurship are on the rise (e.g., [Bornstein, 2004](#); [Omored, 2013](#); [Smith & Woodworth, 2012](#)), the ideal of contributing to social justice, for example, diminishes to the extent necessary to ensure survival of the business (financial motivation). This is in keeping with the studies by [Azoulay and Shane \(2001\)](#) that highlight the idealization of the potential entrepreneur, who evaluates opportunities based on intuition, focusing on their novelty, as compared to the experienced entrepreneur, who has dealt with the problems of business management in practice.

Corresponding with the findings of [Lima et al. \(2014\)](#), factors related to career advancement and social contributions outweigh the financial interests of the potential entrepreneur, an argument supported by [McClelland \(1965\)](#), stating that people engaged in actions that achieve results, such as socio-environmental change, are not motivated by money in itself, but use money as a good method for sustaining the level of their achievements.

Potential entrepreneurs modestly idealize financial returns, but the students who have already undertaken a venture (the experienced) more fully grasp the challenges of staying in business in practice, and thus tend to focus effort on financial success factors and reject ideas for new products or services for being associated with non-manageable risks ([Baron & Ensley, 2006](#)). They take a concrete approach to competition and productivity, and recognize that immediate financial return does not

occur as idealized, since there are a number of external factors, in addition to well-designed and implemented working capital management, that can positively contribute to the value of the business ([Padachi, 2006](#)). This interpretation suggests that the need for self-actualization is associated more with potential entrepreneurs than with those who are experienced.

The positions occupied by managerial and group motivation do not change in the two groups (first and fourth position respectively). Both groups are more strongly motivated by management, suggesting that the university environment (contextual variable) helps create the expectation that what one learns must be tested when one creates or develops one's own business. It also provides conditions for information to circulate, allowing management practices to be disseminated, in addition to creating shared expectations ([Lima et al., 2014](#); [Olufunso, 2010](#)). This interpretation converges with the statement by [Frese et al. \(2014\)](#) that the exchange and the pursuit of information by university students helps in the development of skills to lead people and manage businesses.

Group motivation, however, does not have the same appeal as managerial motivation, which can be explained by the dubious type of socialization related to entrepreneurship: a mixture of individualism and collectivism. Evidence in the literature (e.g., [Almeida & Teixeira, 2014](#); [Granovetter, 2005](#); [Kacperczyk, 2013](#); [Lima et al., 2014](#); [McClelland, 1961](#); [Vale & Guimarães, 2010](#)) points to the strategic role of the social network (family, friends, community) in the creation of the business, by exercising a double role: support and information dissemination. This helps in providing models to be followed and in identifying new and attractive opportunities.

Moreover, although the university environment facilitates trades and exchanges, the entrepreneurial culture is more individualistic than group oriented. Those who motivate themselves to exercise business and management skills likely wish to demonstrate their individual results and success, even when for contributing a social benefit. This interpretation is echoed in the fact that the differences between the social, financial, and group motivations are less marked among the group of experienced entrepreneurs than the group of potential ones. Business experience makes personal characteristics of the manager of the business gain emphasis, leaving other motivations in the background.

Management requires a wide variety of skills in strategy, accounting, finance, legal and technical expertise important in running the business (Almeida, 2013). As the students are presumed to be eager to put their managerial skills into practice, aspiring for self-actualization, such aspects gain strength in this process, especially among those who intend to become entrepreneurs (the potential ones).

With respect to the creation of the business, the *t*-test results show there is no difference between the groups regarding risk management ( $t_{(417)} = 1.71$ ;  $p < 0.033$ ), indicating that both groups are cautious in investing resources (higher means, less risky behavior), even though studies point out (Baron & Ensley, 2006; Gruber, 2007) that more experienced entrepreneurs deal with risk in a manner different from novices. The study by Chandler et al. (2011), however, shows that a conservative profile exists among students, who invest less resources than they could in order to not lose much, and who expect to adapt to opportunities that arise.

The GEM (2013) also indicates that, although 50% of the Brazilian population perceive good opportunities in the region where they live and consider themselves capable of exploiting them, their risk propensity (57.3%) is generally lower than the population of other countries (e.g., China, USA, India, and Mexico). One of the possible explanations may be the instability of the Brazilian economy, which makes financial risk in fact something dangerous and fatal to the business, as Braga (2012) points out.

The results also suggest that the university environment may be offering few experiences that allow the student to dare, innovate, and learn to deal with risk and failure. Although the study did not explore these aspects, the teaching methodologies with less creative content and practices in the university environment favor an orientation more toward compliance than risk, reaffirming the study by Testa and Frascheri (2015), in which it was found that curriculum formats that involve entrepreneurial education are limited to building a business plan, which does not always reflect the real interests of the students or is constructed before they even develop entrepreneurial skills. The curricula could include the development of these competencies through theoretical and practical content, as well as include the effectual approach to entrepreneurship (Sarasvathy, 2008), so that students understand that the initial tolerance for risks and losses can be important for the business results, and that opportunities can be created instead of discovered. In short, train students who can discern when it is best to be cautious or to take risks. This would

be in agreement with what McClelland (1965) and Aschuler (1967) had said about the importance of curricula stimulating the need for achievement among young people, based on four major development fronts: goal setting; integration of thought, action, and context; group support for feedback; and intense reflection among young people to develop a critical sense and to adjust their goals to current realities.

The potential entrepreneurs of this study differed from other early-stage Brazilian entrepreneurs, who generally risk more (GEM, 2013). One possible reason is that students in this study sample are more engaged in planning actions, which include evaluating and analyzing different approaches to the business model they aspire to, including evaluating the resources that will be invested. This can make them more cautious. The excessive focus on prior planning (causation approach) can cause future failure to be feared, since it raises awareness of the innumerable risk factors that would be ignored in the case of improvisation. It is emphasized that while it is prudent to assess which losses are acceptable and when to stop in the event of failure, any attempt at success and innovation is subject to failures, and entrepreneurial success has been associated with persistence and the mitigation of obstacles (Sarasvathy, 2008).

What has been observed in this study is that potential entrepreneurs are more involved in planning actions when they wish to create a business, because they tend to face a greater level of uncertainty than those who are experienced, since the latter are able to base their plans on past performance, on historical tendencies, and other information that can help reduce uncertainty (Gruber, 2007). It is also not surprising that they are more enthusiastic about planning, given their high motivation with their entrepreneurial career and the desire to put into practice the knowledge acquired throughout their training (Frese et al., 2014). However, while the academic and professional literature emphasize the importance of business planning, students who have already undertaken a venture seem to redirect their actions to running the business on a day-to-day basis. This may mean that the greater the experience, the greater the use of intuition and already available resources will be. Therefore, the lower the level of adoption of the causation approach (prior planning) will be. It is recognized, therefore, that planning logic as a cause for good business or an effect (planning as a consequence of what works or does not in practice) (Sarasvathy, 2001) are not exclusive, and can be combined for greater success in establishing and operating new enterprises (Chandler et al., 2011).

## Conclusions

The objective of this study was to compare entrepreneurial motivations, business planning, and risk management between two groups of university students: those who already had a business (experienced) and those who intended to start one (potential entrepreneurs). The study brings important contributions to theorists and practitioners in entrepreneurship, as well as for instruction in entrepreneurship.

Four main conclusions can be drawn from this study. The first is that potential student entrepreneurs are more motivated than those who are experienced. The second is that the



main motivation for the entrepreneurial career, between the two groups in this study, is managerial, that is, both groups desire to put into practice their personal skills and capabilities to run their own business. The third conclusion is that the main differences between potential and experienced entrepreneurial students refers to the positioning of social and financial motivations. While in the first group the social and financial motivations occupy the second and third positions respectively, in the experienced group this order is inverted, which allows one to infer that when actually running a business, financial motivation becomes more pressing to ensure survival, leaving social ideals somewhat to the side.

The fourth conclusion is that potential and experienced entrepreneurs differ in one of the dimensions of business creation. Both are cautious in the use of resources, risking less, perhaps out of fear of failing to manage the business. However, potential entrepreneurs invest more in planning, probably because they are still at the level of idealization, less concerned with practical management issues.

Regarding the limitations of the text, it should be noted that it was not possible to analyze differences in entrepreneurial motivations among students from different degree programs. Also, variables from the family contexts of the groups were not explored enough to allow inferring their influence on potential and experienced entrepreneurs. Another limitation is the lack of proportionality between groups. The creation of the variables, although based on the specialized literature, may be a new source of limitation, although revised research results indicate that the design of instruments of risk-propensity measures, in particular, do not explain the differences in research results concerning this personal trait of entrepreneurs.

On the contributions of the study, it is emphasized that from the theoretical point of view, the study contributes to the theory of motivations, going beyond the widely studied reasons of opportunity and necessity. It also contributes to planning theories as a cause or as an effect of doing business, as elements are found in their results that suggest that both types of planning logic are complementary. This finding highlights the need to further explore experimentation and flexibility in the entrepreneurial training process of these young people. It also points to the fact that developing entrepreneurial skills in college students is not just about teaching how to draw up business plans.

The study also contributes to evaluating the weight of the individual variables analyzed (planning, risk management, and motivation) in the intentions and actions of potential and experienced entrepreneurs. The variables show low diversity among the groups studied, revealing that there is a pattern in the sample that deserves to be more carefully explored, especially in light of research results that show differences in behavioral and attitudinal patterns among entrepreneurs.

### Conflict of interest

The authors declare no conflicts of interest.

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