

RESEARCH ARTICLE

# Evaluation of the Entrepreneurship in a Management Course of a Federal University in Brazil

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## Abstract

This article aims to analyse the students' entrepreneurship competences and their perceptions about the management course contribution to develop the entrepreneurship abilities. To achieve this, the results are going to be compared with the previous findings. Regarding the methods, this research is classified as bibliographic, descriptive, case study and quantitative. The survey was applied in management students' of the Federal University of Santa Catarina and it has been found, that the results of this research is strongly correlated with previous researches. The data with larger discrepancy was the entrepreneurship opportunity, being that, probably. Among these changes, the course had a discipline phase altered (from the first semester to the fourth semester), beyond increasing the number of similar disciplines offered.

**Keywords:** *Entrepreneurship; Management; Entrepreneur.*

## Introduction

Entrepreneurship and innovation are deeply bounded, both are crucial components for the economic development. The essence of the entrepreneurship is to spend resources in a creativity way, taking calculated risks and searching for opportunities to innovate. [1]

Nevertheless, who is the entrepreneur? How someone can be one? Salim et al [2] affirms, in empirical researches, the existence of competences series, common in successes entrepreneurs. In other words, through these competences it is possible to promote the entrepreneurship to anyone. Confirming this fact, Bateman and Snell [3] affirms that there is a myth which entrepreneurs born with the entrepreneurship skills, because the development of an entrepreneur occurs by accumulating relevant abilities, knowledge, experiences and the existences of "strong and weak ties". [4]

Another author, which corroborate this idea, is Dolabela [5] who defends the dissemination of the entrepreneurship via the formation process of attitudes and particular characteristics as a way to transfer this knowledge.

Accordingly, the training of the entrepreneurship activities ought capacity the entrepreneur to

imagine and identify opportunities and develop realistic aims. [2]

However whom professions are entrepreneurs? According to Drucker [6], managers is the occupation which are more linked with the entrepreneurs characteristics, being that, one of the primordial competences for the business formation, according to the National Curricular Directives for the Graduation Courses in Management, contemplated in resolution n<sup>o</sup>4, at July 13 of 2005. [7]

Pacheco [8] shows in her work, the evaluation of the entrepreneurship in a management course, namely Federal University of Santa Catarina, in addition of an appreciation of the disciplines, observing the educational plan and applying a survey with the students asking them about the contribution of the course to develop entrepreneur skills.

Although that analysis refers the curriculum of 1995, but in 2008 the educational plan was completely reformulated, inclusive, using the research information's. In this context it was heeded some suggestions about the disciplines to improve and promote entrepreneur competences.

In 2012, the first students that experimented the new curriculum graduated. In this way, this article aims to analysis the entrepreneur competences of the students and their perception about the contribution of the disciplines to improve these skills. To reach this objective, it was analyzed comparatively the results displayed in Pacheco [8] with the results of this research.

## Literature Review

To begin the theoretical bases, it is rescued the entrepreneur schools, namely the bibliographic, the psychological, the classic, the management, the leadership and the corporate school. [9]

The first one, the bibliographic school, studies the life history of grand entrepreneurs by setting the primary features, and showing those characteristics are innate and cannot be developed. The big difference of the entrepreneur and normal people is the intuition, especially the “six sense” to identify and grab one opportunity. In other words, the entrepreneur is born with the entrepreneurship. [9]

The psychological school carry in the core the innovation studies. This research line believes that the entrepreneur is whom “create” something, and not simply is born with the skills. Discovery, innovation and creativity are the subjects investigated. Accordingly, to Hashimoto [9] the base author of this school is Joseph Schumpeter.

In addition, Drucker [10] support the idea that all organizations, and not only the firms, need a key-competence: the innovation. In fact, the innovation establishes resources, even if it is not entirely something new. Beyond this, innovation can be a specific instrument of the entrepreneur; it is the action that contemplates the resources, with the new form to generate wealth.

Both entrepreneur behavior and the entrepreneurship culture are the background to promote the innovation, to seek and identify opportunities, and to develop a creative job in order to establish in an integrated way, the organizations and the processes in a corporate, eliminating internal communication barriers, according Dornelas. [1]

The management school suggests that the entrepreneur is someone that organizes and runs the business, take the risk, the loss, and the inherent profit's, planning, controlling, overseeing, and guiding the enterprise. The business plan has an important role as an instrument of planning and to structure ideas in this line of research. [9]

The leadership school argues that the entrepreneur is a leader that mobilizes people to one direction. This research thread assumes that no success case is made alone. Foremost, it takes knowledge to construct the team, motivate them, and to build things together. [9]

The corporate school says that the entrepreneurship skills is useful in complex organizations, for specific actions as create a new market, to expand services or develop a new product. Their focus is to study the organization and its development, and gained relevance from the researches about the needs and obstacles to increase the entrepreneur climate, thought internal trainings. [9] Particularly, in this article, the pillar is the psychological school, studying entrepreneurship characteristics.

Now that was discussed the schools, it can be determined what is to be an entrepreneur. Pacheco [8] defines that the entrepreneur is not anyone that open a new business, but whom propose to change and seek opportunities and enhancements. The entrepreneurs are well informed and has the desire to learn. “Entrepreneurs are those special beings, gifted with an extreme quality to convert dreams in profitable business. Farseeing people that envision alternatives and outputs in diverse situations.” [11]

In addition, Pacheco [8] emphasizes the “Myth of the formation of entrepreneurs”. The born-entrepreneur theses have less followers in the academy, and it is near a consensus the idea of learning the entrepreneurship skills in the traditional education.

For Dolabela (1999) the reasons to instruct the entrepreneurship in schools are: high death rate in the business early ages, changes in labor relations, culture, economic development, ethics and citizenship. It is proven that firm's success is mostly related with the knowledge of the entrepreneur. Moreover, the management education is the evidence that education vastly contributes for the business development.

However even in countries whose high entrepreneurship education is structured, it is hard to convince that the entrepreneurship characteristics' can be learn in class. Since the born-entrepreneurship common sense, people usually think that just a minority could be an entrepreneur, and the majority would be bounded to others wishes and orders. Fortunately, there is a hard work, lonely many times, of professionals who believes the possibility to form executives with

entrepreneurship skills using special learning techniques. These professionals drive this role in public and private organizations, performing a silence revolution for the majority. [5]

To form new entrepreneurs Dornelas, [1] suggest focusing in the entrepreneur competences identification and knowledge, as occur in innovation education, raising the economic development, using techniques as business plan, funding sources, and management.

Although it can be affirmed that there is not a pattern of entrepreneur, but similarities, and these resemblances can be learned using a proper education. SEBRAE [12] and Geranegócios [13] list some of these characteristics as: auto motivation, opportunities seek, initiative, risk taker, commitment, control, responsibility, enthusiasm, information seek, discipline, energy, setting goals, independence, initiative, optimism, persistence, persuasion, network, planning, systematic tracking, no failing fear, holistic vision.

## Procedures and Methods

This research is classified as bibliographic, descriptive, case study and quantitative. The primary data was gathered by the Federal University of Santa Catarina management students, characterizing the study sample. The secondary data concerns to the results of Pacheco [8]

The survey population were the eighth phase regularly enrolled students, present in class in august 18 and 29 of 2011, namely in the course of Marketing Strategic and Project Management. The total numbers of interviews reached 61 students.

To compare the results of Pacheco [8], it was applied the same survey questionnaire. There were 5 questions in the survey, the first one tried to measure the entrepreneurship skills using an nominal scale, the second the entrepreneur attitude's and the measure techniques was the verbal scale.

Following, the next question sought to list the biggest problems by opening a new enterprise, trying to verify if the management knowledge has a positive effect or not. In the fourth question, the students had to assign extracurricular issues, related with the management course, sougning examine the relations with the management formation and the extracurricular activities. Both questions used the nominal scale, they ought to assign three items in the third one, and could respond all the items in the fourth.

The last question was elaborated in order to evaluate the course contributions to develop entrepreneurship. The based entrepreneur conceptual delineation was "the entire entrepreneur are also innovators, are alerted to changes and know how to grab them, making opportunities in business". This anchored choice was based in the idea that the entrepreneur is not only the one who opens a new firm. Again, it was used the verbal scale composed by: low contribution to my formation as entrepreneurship; reasonable contribution; good contribution; great contribution; and the subject was not coursed yet.

To analyses the data it was used statistical inferences, the same utilized in Pacheco [8]. Regarding the entrepreneurship potential evaluation initially was sought to bind the skill points and the entrepreneurship attitudes gathered in the first question.

We highlight that was used the same points distribution for all items, this particularly choice was made because there is not a specific study of the importance of each entrepreneur skill. In the end, the highest-grade the student could get is 155 points.

Concluding, we sought divide the grade in quartiles creating four entrepreneurship rates. These classifications is displayed in the table 1.

**Table 1: Entrepreneurship potential**

Low entrepreneurship potential	0 - 29 points
Reasonable entrepreneurship potential	30 - 59 points
Good entrepreneurship potential	60 - 89 points
Great entrepreneurship potential	90 points or more.

Source: Pacheco (2005)

## Results and Data Analysis

To begin the results, we show the course contribution for the entrepreneurship potential in 2011 year.

The Table 1 shows that, Creativity and Entrepreneur Culture, Marketing Strategic, Entrepreneur and Models of Negotiation, Financial Planning and Budget were the classes that had bigger contributions to the student entrepreneurship. In other side, Sociology,

Political Science, Anthropology and Philosophy, and Business Writing had the worst contribution for the entrepreneurship skills. In Table 3 we compare the results from 2005 to 2011, showing a lower contribution for the formation of entrepreneurs.

**Table 2: Course contribution to entrepreneurship**

Disciplines/ Evaluation	1 Low contribution to my formation as entrepreneurship	2Reasonable contribution to formation entrepreneurship	3 Good contribution to my formation as entrepreneurship	4 Great contribution to my formation as entrepreneurship	Total				
Management Introduction	17	28%	18	30%	17	8%	8	13%	60
Methodology	43	74%	9	16%	6	0%	0	0%	58
Economics Introduction	16	27%	20	33%	19	2%	5	8%	60
Anthropology and Philosophy	35	64%	14	25%	5	%	1	2%	55
Business Writing	27	64%	7	17%	7	7%	1	2%	42
Calculus	28	46%	17	28%	13	1%	3	5%	61
Management Theories	15	25%	11	19%	23	9%	10	17%	59
Management Communication	22	38%	20	34%	9	6%	7	12%	58
Professional Training I	16	48%	6	18%	10	0%	1	3%	33
Accountancy	7	12%	16	27%	23	9%	13	22%	59
Management Law I	17	28%	6	10%	29	8%	9	15%	61
Statistics I	14	23%	22	36%	18	0%	7	11%	61
Political Science	26	68%	8	21%	4	1%	0	0%	38
Organization and methods	29	48%	18	30%	10	7%	3	5%	60
Management Law II	11	18%	12	20%	28	7%	9	15%	60
Statistics II	21	35%	20	33%	13	2%	6	10%	60
Financial Math's	11	18%	16	27%	24	0%	9	15%	60
Psychology	11	19%	22	37%	18	1%	8	14%	59
Creativity and Entrepreneur Culture	3	8%	5	13%	12	0%	20	50%	40
Professional Training II	13	42%	11	35%	4	3%	3	10%	31
Informatics for managers	26	46%	14	25%	14	5%	3	5%	57
Cost Management	9	16%	8	14%	28	8%	13	22%	58
Operational Research	19	34%	19	34%	15	7%	3	5%	56
Sociology	35	66%	11	21%	7	3%	0	0%	53
Professional Training III	10	33%	10	33%	9	0%	1	3%	30
Management Finances	10	18%	14	25%	23	1%	9	16%	56
Human Resources I	10	18%	15	27%	15	7%	16	29%	56
Marketing	5	9%	11	19%	19	3%	22	39%	57
Material Management	15	26%	17	30%	18	2%	7	12%	57
Management Lab I	12	41%	8	28%	7	4%	2	7%	29
Professional Training IV	15	52%	8	28%	6	1%	0	0%	29
Management Production	19	35%	15	28%	14	6%	6	11%	54
Management Finances II	9	17%	15	28%	24	4%	6	11%	54
Logistics	8	21%	16	41%	10	6%	5	13%	39
Information System	12	27%	14	32%	13	0%	5	11%	44
Management Management Lab II	6	20%	8	27%	9	0%	7	23%	30

Management Production II	14	29%	12	24%	15	1%	8	16%	49
Human Resources II	9	16%	12	21%	15	7%	20	36%	56
Market Research	7	13%	14	25%	17	0%	18	32%	56
Management Lab III	12	41%	7	24%	7	4%	3	10%	29
Financial Planning and Budget	7	25%	4	14%	5	8%	12	43%	28
Projects	2	8%	4	15%	10	8%	10	38%	26
Management Marketing Strategic	3	13%	3	13%	6	5%	12	50%	24
Human Resources III	9	32%	7	25%	7	5%	5	18%	28
Management Lab IV	1	8%	4	33%	5	2%	2	17%	12
Capital Market	8	25%	8	25%	10	1%	6	19%	32
Decision-Making Process	17	40%	11	26%	12	9%	2	5%	42
Strategic Management	3	17%	2	11%	10	6%	3	17%	18
Entrepreneur and Models of Negotiation	2	11%	3	17%	5	8%	8	44%	18
Course completion assignment	1	14%	1	14%	5	1%	0	0%	7
<b>TOTAL</b>	<b>697</b>	<b>31%</b>	<b>573</b>	<b>25%</b>	<b>652</b>	<b>9%</b>	<b>337</b>	<b>15%</b>	<b>2259</b>

**Table 3: Comparing the Course contribution, years 2005 and 2011**

Grade/Year	2005		2011	
	Frequency	Percentage	Frequency	Percentage
Low Contribution	760	25.20%	697	30.85%
Reasonable Contribution	880	29.18%	573	25.37%
Good Contribution	797	26.43%	652	28.86%
Great Contribution	579	19.20%	337	14.92%
Total	3016		2259	100%

It can be verified that the great contribution decreased from 19.20% to 14.92%. However, the classes that had a good contribution slightly raised 2 percent points. The reasonable contribution decreased from 29.18% to 25.37%. Lastly, the low

contribution increased from 25.20% to 30.85% another analysis can be made by comparing the students extra-curricular activities, these results are represented in Table 4.

**Table 4: Comparing students extra-curricular activities**

Acitivitie/Year	2005		2011	
	Frequency	Percentage	Frequency	Percentage
Internship in a public company	32	52.46%	39	54.17%
Internship in a Private company	44	72.13%	56	77.78%
Junior Enterprise	14	22.95%	17	23.61%
Student Central	5	8.20%	14	19.44%
Research Project	8	13.11%	7	9.72%
Others	5	8.20%	13	18.06%

The students mainly activities were the internship in private enterprises (72.13%) in 2005 and 77.78% in 2011. Worth mentioning the raise of students participating in the student central and in other

activities like exchange program. Lastly it can be analyzed the final students entrepreneurship grade in Table 5.

**Table 5: Students entrepreneurship grade**

Grade/Year	2005		2011	
	Frequency	Percentage	Frequency	Percentage
Reasonable entrepreneurship potential	2	2.80%	0	0
Good entrepreneurship potential	62	86.10%	41	67.21%
Great entrepreneurship potential	8	11.10%	20	32.79%
Total	72	100%	61	100,00%

Regarding the comparative study, the table 4 shows the highest results variation. In 2005, 86.10% of the students had an classification of good entrepreneurship potential, and 11.10% great potential. However in 2011, was obtained 67.21% with good entrepreneurship skills and 32.79% with great potential. These increase can be explained by the curricular changes, as adding more classes and raising the extra-curricular activities hours.

## Conclusion

This study aimed to verify the Federal University of Santa Catarina students' entrepreneurship development. To answer this problem the researchers identified the students' perceptions comparing with the results of Pacheco (2005).

Regarding these perceptions, it was found that the course contributions to form entrepreneurship

managers got a low grade in both years with 45% of good and great perceptions in 2005 and 44% in 2011.

About the students' evaluation of entrepreneurship knowledge, abilities and attitudes, it reveals a considerable difference between 2005 and 2011, increasing the entrepreneurship potential. However, the students extra-curricular activities did not suffered a huge alteration, just the expansion of exchange trade programs.

Concluding, the results of this research shows similarities with Pacheco (2005) study. The information with higher discrepancy was the entrepreneurship student potential, probably caused by the change in the curricular course.

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