ENTREPRENEURIAL UNIVERSITY: ANALYSIS OF STRUCTURES AND INITIATIVES TO STIMULATE ENTREPRENEURSHIP

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ABSTRACT

The university and colleges play an important role as generators of knowledge and technologies. Even so, the volume of unsuccessful entrepreneurial initiatives is high, although the university is one of the protagonists in stimulating and supporting entrepreneurship. In this sense, this research aimed at survey and compare the structures and initiatives of higher education institutions that aim to stimulate entrepreneurship. Based on a qualitative and quantitative research, it was intended to detect how the entrepreneurial actions of universities and university centers are, in order to seek evidence that would indicate how universities act in this aspect. In addition, from the perspective of the students of the administration courses, the conditions of the universities were investigated, through the elements of teaching, research, extension, infrastructure and innovation to strengthen the entrepreneurial capacity of the students. Descriptive statistics, correlation and word cloud were applied to analyze the data. The results indicated that there is much to be done for students to carry out the involvement of professors and university senior management in supporting student entrepreneurship. It was also evident that the process of developing an entrepreneurial mindset in students represents the joint effort of institutional actors, including the very engagement of the student, which by this research, proved to be negligible. The results indicated that there is much to be done for students to carry out the involvement of professors and university senior management in supporting student entrepreneurship. It was also evident that the process of developing an entrepreneurial mindset in students represents the joint effort of institutional actors, including the very engagement of the student, which by this research, proved to be negligible. The results indicated that there is much to be done for students to carry out the involvement of professors and university senior management in supporting student entrepreneurship. It was also evident that the process of developing an entrepreneurial mindset in students represents the joint effort of institutional actors, including the very engagement of the student, which by this research, proved to be negligible.

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Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

1. INTRODUCTION

The companies have demanded prepared and qualified professionals, attentive to the market and technological changes in their area of expertise. According to Souza and Saraiva (2009), the growing competition imposes many challenges on organizations and their administrators, demanding that decisions are taken more quickly, resources are better used and managerial actions that transform information into knowledge to increase organizational competitiveness. In this sense, much has been discussed about the role of universities in stimulating entrepreneurial initiatives and in the training of professionals capable of solving problems and undertaking. For several authors (Isenberg, 2011; Mason & Brown, 2014; Tornatzky & Rideout, 2014), universities represent one of the elements, or domains, in Isenberg's terminology (2011) that make up the entrepreneurial ecosystem of a given region or territory. That is, together with public policies, support institutions, cultural characteristics, among other elements, they are responsible for creating favorable conditions for business. In the view of these authors, the contribution of university institutions to a robust ecosystem is very relevant, insofar as it generates knowledge, develops, based on the research carried out, new technologies, qualifies young people for the job market or for entrepreneurship.

Research carried out by the Brazilian Micro and Small Business Support Service - SEBRAE (2011) points out that about 1.2 million new ventures are created, 99% of which are micro and small companies. Regarding new ventures, about 73.1% survive only up to two years, that is, the vast majority of entrepreneurs are unprepared to face the difficulties inherent in the entrepreneurial process.

In this context - a large volume of unsuccessful entrepreneurial initiatives and universities as one of the protagonists in stimulating and supporting entrepreneurship - that this article is inserted. The research that was the basis for the preparation of the article aimed to survey and compare the structures and initiatives of higher education institutions that aim to stimulate entrepreneurship. From a qualitative and quantitative study, it was intended to detect the entrepreneurial actions of universities and university centers with the intention of seeking evidence to indicate how the HEIs act in this aspect. Additionally, the conditions of the HEIs were investigated, from the perspective of the students of Administration courses, through the

Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

elements of teaching, research, extension, infrastructure and innovation to strengthen the entrepreneurial capacity of students.

In general, the objective was to understand how and if higher education institutions in Belo Horizonte have assumed what Etzkowitz (2003, 2004) calls the third mission, that is, the development of more effective actions to stimulate and support entrepreneurship, having as a result, greater contribution to the social and economic development of the regions where they operate.

The article was structured in five sections, in addition to this introduction. In the second section, called "Literature review", we sought to discuss, in a nutshell, issues related to entrepreneurship and entrepreneurial university. Another section was opportune to present the methodological procedures used in the research. The fourth section was created to expose the results of the research and to discuss them. Finally, in the fifth and last section, the final considerations of the work are presented with a focus on the main conclusions of the research and on the objectives achieved, in addition to the limitations of the study and the suggestions for new works.

2. LITERATURE REVIEW

2.1. ENTREPRENEURIAL UNIVERSITY

Entrepreneurship includes skills that can be transmitted in the form of knowledge and it is up to higher education institutions to carry this role to society, training professionals with an entrepreneurial stance to work in the economic market (Dornelas, 2016). Higher education institutions begin to play a key role as they assume the role of generating new industries and companies, thus, their role in society is similar, in a matter of importance, to that of the government and industry (Etzkowitz & Zhou, 2017).

Volles, Gomes and Parisotto (2017) define an entrepreneurial university as one capable of creating a strategic direction to follow, formulating clear academic objectives and transforming the acquired knowledge into economic and social value. Higher education institutions present an ideal environment for innovations, knowledge and intellectual capital, in which students have great potential entrepreneurs.

For Andrade and Torkomian (2001), entrepreneurial education is a process of transformation of the human being with regard to the identification and exploitation of opportunities, which, later, will transform into reality, thus contributing to the generation of

Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

financial, social and cultural values for the whole society. According to Audretsch (2014), universities have the capacity to transmit their knowledge by assisting companies and influencing entrepreneurship in society. This transmission is due to the strategy used in the relationship between university, government and company, also known as the triple helix.

2.2. TRIPLE PROPELLER

As society integrates itself in knowledge, companies transform their characteristics, mainly in the admission of new employees, thus, becoming more and more rigorous in relation to training, which causes a constant demand for professionals who are capable to deal with different situations. According to Audy (2011), society, in turn, begins to demand more from universities and university centers a solution for social economic development, this due to their needs and requirements that the market has.

There are some models that establish the relationship between government, companies and universities. One of them, known as a static model, proposes that the government gets involved and controls the relations between universities and companies, that is, universities have no connection with industries and to implement a research, a government decision is necessary.

According to Etzkowitz and Zhou (2017), industry and the university, in this model, are subordinate to the government, and it is up to the state to take on projects and provide resources for research. From this perspective, industries and universities are seen as dependent on the government. During the military regime in Brazil, the government made heavy investments to create new technology centers, for example, areas related to militarism, technology, computer and telecommunication industries.

The "laissez-faire" modelit presupposes that the state should not interfere in the functioning of relations between the company and the university, being limited only to creating laws that protect consumers and property rights. In this scheme, the institutional spheres are individual and independent.

According to Etzkowitz and Zhou (2017), the university's role in relation to companies consists of only providing knowledge in the form of published articles, in addition to professionals already graduated with knowledge in their specific areas. On the other hand, companies do not create expectations in relation to new discoveries and technologies, which, the same, would be favored. The government's function is to regulate, but, if there is a problem

Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

in the market, it must act in order to solve the existing fault in it, thus, investing financial resources in research at universities.

In Figure 1, there is a symbiosis model between generation of innovation, in which it derives from the triple helix mentioned by Etzkowitz and Leydesdorff (2000), in which it generates a more solid and integrated knowledge base. At the intersection between the authors, the conditions for the development of a productive relationship of knowledge are established. The government begins to articulate and encourage these partnerships and, above all, not to control such relationships. This interaction in which the three authors present are important for the generation of new technologies, transmission of knowledge, economic growth and, mainly, social development.

Figure 1
Government Company and University Model Triple Helix of the UEG relationship
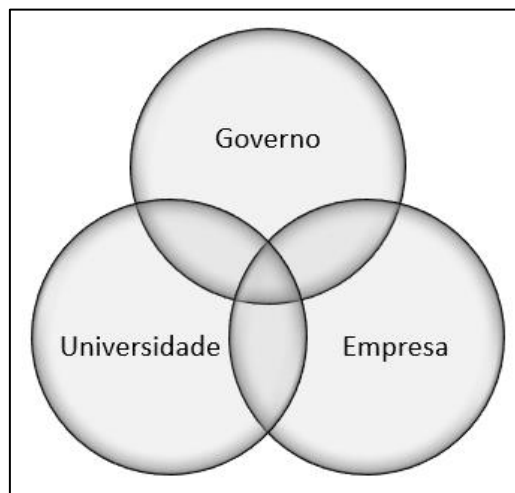
Note. Source: Prepared by the authors, from Audy (2011).

The interpretation of the triple helix model indicates that internal changes in each propeller, arising from the development of strategies, encourage cooperation between competing companies, resulting in economic and social development, as well as the responsibility for universities, and the government, passing only to articulate the market leaving control and direction of market relations.

The conceptual model of the triple helix has the following characteristics:

a) Each helix represented recognizes its influence on the actions of the others. They can mention the transfer of technology and innovation by universities and university centers,legislation and regulation in the areas of intellectual property by the government;

Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

b) New forms of relationship created between company, government and universities, for example, strategic alliances, cooperation network and others;

c) The interaction between university, government and business, generatingbenefits for the society.

According to Audy (2011), universities are no longer just educational institutions and become institutions that combine their potential resources in the research area with a new mission, focused on the economic and social development of the place where they operate, thus promoting an environment innovations and technology transmission, stimulating the production of entrepreneurial knowledge.

2.3. QUALITY IN TECHNOLOGY TRANSFER

Technological and scientific advances in recent decades have created humanity's involvement in technologies. According to authors such as Rodrigues and Tontini (1997), the advances and evolution of production systems caused changes in the focus of organizations, mainly in the process of developing products and services. Today, several universities and university centers, as well as all other organizations, are being affected by the advanced pace of globalization, technological evolution and increased demand from customers for the quality to be acquired in products or services. Several higher education institutions are offering distance courses via a computer network, expanding their market to different regions and countries, however, competition for highly qualified professors and researchers is increasingly fierce due to the breaking down of barriers between such borders. According to Rodrigues and Tontini (1997), it is necessary to include new entrepreneurial characteristics, mainly in an in-depth understanding of their role in the economic development of society.

One of the main components of the value perceived by consumers in relation to universities and university centers, according to Rodrigues and Tontini (1997), is the quality of teaching. An excellent transmission of knowledge, technology in the products and services provided by institutions of higher education revert to research and consultancy for companies and the government, in addition to generating a greater number of enrollments, qualified and prepared students for the market, enabling the collection higher monthly fees due to the service provided to society. For higher education institutions, quality is perceived as added value to the extent that their customers are willing to invest and pay for their services. In this sense, quality can be presented by two basic dimensions:

According to Rodrigues and Tontini (1997), when composing these two elements in orthogonal axes, it is possible to classify higher education institutions in four levels as shown in figure 2.

Figure 2
University typology by quality or added value
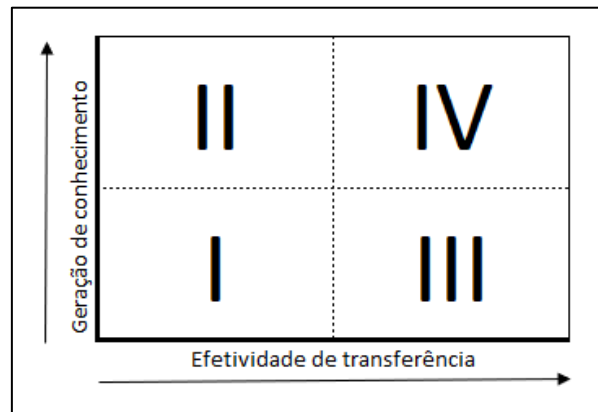
Note. Source: Prepared by the authors, from Rodrigues and Tontini (1997).

With regard to the first quadrant, higher education institutions are centered only on teaching, with no structure or emphasis on research, little teacher training and low technology in the transmission of knowledge. With technological advances, such institutions are inertia, remaining outdated (compared to competitors), so they are considered of low added value by their direct and indirect consumers.

Regarding the second quadrant, the authors Rodrigues and Tontini (1997) present the educational institutions that develop research. These, in turn, generally comprise a cadre of qualified teachers, good structures for research and understand that such a practice is of paramount importance for the institution. However, the institutions do not present modern methods of teaching transmission, in addition to not having efficient devices for the transmutation of technology and the knowledge developed by it through research for the society where it operates.

In the light of the interpretation contained in the third quadrant, Rodrigues and Tontini (1997) expose institutions with little emphasis on research, however, they present modern means of transmission, mainly by instructed and prepared teachers. Despite its success in the past, such a teaching model shows signs of weakness, such a blemish is due to the speed and evolution of knowledge, which currently requires a more specialized erudition from professionals. This cognition can only be acquired through research and that have relations with society, as well as the economic market.

Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

In the fourth quadrant, there are the categories of institutions with good capacity and knowledge generation. These institutions have great successful relationships with research and teaching, in addition to being highly efficient in transmitting knowledge to society. Such institutions promote investigations aimed at the needs of customers and the market, in addition to being considered of high added value. The institutions allocated to this division have the following characteristics of entrepreneurship indicators:

a) Entrepreneurial culture: they work according to the institution's rules, encourage the search for resources, respect entrepreneurial behavior and carry out activities outside university centers (Clark, 2003). These institutions are more proactive in solving problems, accepting the present risks and taking advantage of the opportunities that arise in their environment.

b) Extension: a project in which universities transmit their knowledge acquired in research and teaching to the external public.

c) Innovation: it is a continuous fruit of research with the intention of obtaining new knowledge and technologies (Audy, 2017).

d) Adequate infrastructure: it is one of the indicators that allow the educational institution to carry out research and develop activities.

e) Financial investment: research and innovative initiative require institutions to make a financial investment, thus covering all costs and expenses spent on it.

The characteristics pointed out by higher education institutions give students an entrepreneurial and qualified capacity for the market. According to a survey conducted by Endeavor together with the Brazilian Micro and Small Business Support Service (2016), 5.7% of students are already entrepreneurs, 21% are thinking about entrepreneurship in the future and 73.3% have no interest in opening a business . According to Bronoski (2008), the reason most cited by students from higher education institutions, who opted to open their own business was the freedom to make their decisions, apply the knowledge obtained during the undergraduate period, refusal of the hierarchy and the possibility greater financial gains.

3. METHODOLOGICAL ROUTE

This work aimed to survey and compare the structures and initiatives of higher education institutions that aim to stimulate entrepreneurship. To fulfill theproposed objective, the qualitative and quantitative research approach was adopted. With regard to the first,

Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

bibliographic research based on scientific articles was carried out, which enabled an enlightening theoretical framework, as well as a search for information in the media and websites of the investigated institutions, about entrepreneurial initiatives.

In order to obtain data and information regarding the problem in which answers are sought, field research was carried out to obtain primary data. For Vergara (2000), the field research takes place at the site of the occurrence of a certain phenomenon. The information from the field research is correlated and linked to the established problem that the HEIs offer elements that stimulate the entrepreneurial behavior of their students.

Data collection was carried out at university centers and universities in the Belo Horizonte region that offer a face-to-face Administration course, namely: Centro Universitário Estácio de Sá, Centro Universitário Metodista Izabela Hendrix, Centro Universitário Newton Paiva, Centro Universitário Una, Centro Universitário Unihorizontes , Belo Horizonte University Center (UNIBH), Pontifical Catholic University of Minas Gerais (PUC Minas) and FUMEC University.

In a universe of 6,903 students enrolled in face-to-face Administration courses at university centers and universities located in the city of Belo Horizonte - Minas Gerais (Brazil, 2017), probabilistic sampling was applied, with a confidence interval of 90% and a margin of error of 5%, generating a sample of 270 students.

The data collection instrument was composed of 22 objective and discursive questions presented to the interviewees, in order to compose the material necessary for data analysis. The issues addressed included aspects such as support for university entrepreneurship, IES infrastructure, entrepreneurial posture of the student and the teacher.

One of the main phases of any research is data analysis, which, for Dencker (2000), has the objective of gathering observations in a coherent and organized manner, so that it is possible to answer the research problem. Interpretation seeks a broader sense of the data collected, bridging the gap between them and existing knowledge. Data analysis for this research was performed using descriptive statistics, analysis of the correlation between factors and word clouds. According to Bussab and Morettin (2013), descriptive statistics is used to describe and summarize the data in order to better interpret them. The correlation, according to Martins and Domingues (2019), determines the strength of the relationshipbetween two factors. Finally, the "word clouds" tool highlights the font size according to the frequency at which a word was mentioned by different respondents.

The following caption was prepared for the purpose of presenting the results.

Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

Table 1
Legend for data presentation

Code	HEI	Code	HEI
X1	STATUS	X5	PUC MINAS
X2	FUMEC	X6	UNA
X3	IZABELA HENDRIX	X7	UNI BH
X4	NEWTON PAIVA	X8	UNIHORIZONTES

Note. Source: Elaborated by the authors (2020).

4. PRESENTATION AND DISCUSSION OF RESULTS

The research was carried out with 270 students of the administration course of higher education institutions in the Belo Horizonte region, of which 131 are female, 138 male and 1 preferred not to declare their gender.

Table 2 shows the perspective of the students in relation to the involvement with entrepreneurial initiatives.

Table 2
Support for university entrepreneurship

Issue addressed	Yea	No	I do not know
In general, do students at your University exercise or are they involved in entrepreneurial activities?	30.74%	22.96%	46.30%

Note. Source: Research data.

When asked about the involvement of students in entrepreneurial activities, only 30.74% agreed with the statement presented. On the other hand, 22.96% of the interviewed students disagree and 46.30% did not know how to give their opinion. It is noted that there is a low involvement of students with entrepreneurial initiatives. A fact that seems surprising, since it refers to an environment, which is that of the HEI, in which it is expected to find contrary behavior, even more in the case of students in an Administration course,who are encouraged, in their training, to develop the ability to create and manage new businesses or to innovate in existing businesses. This observation leads to an important reflection: to what extent have the HEIs been working to raise awareness for a change in the student's mindset, considering the future of work and organizations? On the other hand, why have students, even though aware of the benefits that an entrepreneurial attitude can bring, have not been active in this ecosystem?

According to Bronoski (2008), the students of the Administration course have a higher average of entrepreneurial vocation in relation to the other higher courses, because, the subjects presented during the course address specific content related to knowledge, skills and

Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

competences, with emphasis on business areas, in addition to specific themes related to entrepreneurship.

Only 6.67% of the students fully agree that the institution had a fundamental participation in the growth of projects carried out by the students. Another relevant fact is that only 11.85% of the students fully agree with the statement that the HEI in which they study positively influenced their entrepreneurial posture. At the other extreme, only 1.5% say that the institution had no relationship in their entrepreneurial stance. Such results seem to converge to a neutral position, in which the role of the HEI is indifferent in the education of the student, with regard to the development of an entrepreneurial mindset.

When asked about the attitude of their teachers, 18.89% of the interviewed students totally agreed that they have an entrepreneurial, dynamic and bold attitude, while 1.48% of the students totally disagree with the statement presented. Innovative and creative thoughts, in the view of the students, account for only 8.14% in total agreement with the proposed statement.

According to Rodrigues and Tontini (1997), the HEI infrastructure is responsible for helping students to perform well in research, in addition to collaborating with them in their own professional development. Through the use of the 5-point scale, which 1 represents the adjective "terrible" and 5 "excellent", the opinion of the students about the infrastructure provided by higher education institutions was obtained. Table 3 shows the results.

Table 3
HEI infrastructure

Attributes / Institutions	X1	X2	X3	X4	X5	X6	X7	X8	Average by attribute	Standard deviation
Open or living spaces	3.17	4.48	4.33	4.00	3.87	3.46	4.19	4.04	3.94	0.41
Restaurant or cafeteria	1.00	4.24	4.80	3.42	3.36	3.08	3.94	4.25	3.51	1.09
Internet access speed	2.00	3.13	3.83	3.80	2.58	2.54	3.92	3.29	3.13	0.66
Computer lab	3.26	4.38	4.00	4.56	3.60	3.29	4.20	4.30	3.95	0.47
Classrooms	3.16	4.48	3.33	4.45	3.64	3.51	3.78	4.11	3.81	0.46
Library	3.62	4.36	4.50	4.50	4.13	3.58	4.06	4.46	4.15	0.35
Research and experimentation laboratory	2.89	4.40	4.17	4.55	3.71	3.26	4.09	4.39	3.93	0.56
Internet access available	2.20	3.46	3.83	3.90	2.94	3.02	4.03	3.79	3.40	0.59
General Average by HEI	2.66	4.12	4.10	4.15	3.48	3.22	4.03	4.08	3.73	-

Note. Source: Research data.

It is observed that the open or living spaces obtained an overall average of 3.94, that is, the HEIs are with a good evaluation of the students in this regard. In relation to restaurants and

snack bars, we can highlight the institutions X1, which had the lowest grade (1.00), and X3, which obtained an average of 4.80, which is considered an excellent grade.

The topics "speed of internet access" and "availability of internet access" presented the lowest overall averages, among all aspects investigated about the HEI infrastructure. In a "hyper" connected world, internet access and speed will be elements that are increasingly demanded by the entire academic community. In this sense, the HEI must be concerned with providing this infrastructure, since it is a point of constant observation and quite sensitive with regard to the level of satisfaction.

When it comes to classrooms, institutions with good infrastructure in this regard, provide more comfort to students, who tend to perform better in the development of their activities (Satyro & Soares, 2007). Students from all the HEIs surveyed considered this question satisfactory, with a general average of 3.81, reaching approximately 80% of satisfaction.

Following a strand of satisfactory evaluations, the general average for libraries was 4.15, which represents an excellent score. IES X6 and X1 stand out negatively, which had the lowest evaluations, respectively, and positioned themselves below the average.

It is important to highlight that 34.44% of the students surveyed did not know whether their Institution has a research and experimentation laboratory and 15.93% are unaware of the existence of a computer laboratory. Regarding research and experimentation laboratories, the X1 institution had an average well below the others. According to the authors Rodrigues and Tontini (1997), according to their model of knowledge and technology transmission, researches are extremely important tools, mainly for generating knowledge and benefits for society. It is noteworthy that institutions X4 and X2, respectively, obtained the highest averages in that regard.

Finally, it is noteworthy that the institutions X4 and X2 had the highest overall averages, that is, in the students' view their infrastructure is superior.

With regard to the student's perspective on his entrepreneurial posture, table 4 presents the average of the responses, on a scale of 1 to 5, where 1 represents "I totally disagree" and 5 "I totally agree".

Table 4
Entrepreneurial attitude of students

Attributes / Institutions	X1	X2	X3	X4	X5	X6	X7	X8	Average by attribute	Standard deviation
Support for entrepreneurial initiatives	2.74	2.93	2.83	3.60	3.54	2.95	3.06	3.54	3.15	0.33
Ease of communication of ideas and sociability	3.39	3.85	3.83	3.50	3.69	3.54	3.11	3.68	3.57	0.23
Curiosity	3.29	3.37	3.67	3.70	3.81	3.27	3.14	3.79	3.50	0.25
Courage to take risk	2.55	2.59	2.00	3.30	3.37	2.39	3.03	3.61	2.85	0.52
Innovative and creative thinking	2.81	2.93	2.67	3.30	3.64	3.22	3.03	3.68	3.16	0.35
Vision for opportunities	2.97	2.85	2.83	3.30	3.54	3.24	3.03	3.75	3.19	0.31
Nonconformity with reality and willingness to transform it	2.90	2.96	3.17	3.60	3.26	3.27	2.69	3.79	3.21	0.34
General Average by HEI	2.95	3.07	3.00	3.47	3.55	3.13	3.01	3.69	3.23	-

Note. Source: Research data.

The students of the Administration course at institutions X5, X8 and X4 presented themselves as supporters of entrepreneurial activities, demonstrating that they are engaged with the ecosystem and that they also feel responsible for collaborating with its evolution. The attribute "ease of communication of ideas and sociability" had the highest overall average of 3.57, demonstrating the agreement of the students. Regarding the courage to take risks, we can highlight the institution X3, in which students do not consider themselves to have this entrepreneurial characteristic, causing the institution's average to become lower than that of the other HEIs.

With regard to the presence of innovative and creative thinking, students from institutions X8 and X5, respectively, presented the highest averages. Regarding visions for opportunities, the students of the researched institutions had a general average of 3.19, that is, the students maintained a neutral stance in relation to the proposed statement, which may show that there is space to make better use of the gaps presented by market and society. Even neutral behavior, with a slight tendency to agree, happens with the attribute "non-conformity with reality and willingness to transform it". Such a stance is remarkable in entrepreneurs and in the reality studied, it needs to be worked and encouraged in students by the entire academic community.

In general, students from institutions X8, X5 and X4 stand out, respectively, with regard to the adoption of an entrepreneurial stance, that is, they are more engaged with the ecosystem, with activities related to entrepreneurship, they are more daring, dynamic, unhappy with reality than those of the other institutions surveyed.

Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

It is noteworthy that the averages of all attributes tended towards a "weak" agreement, indicating that there is a gap to be addressed in the university environment, with regard to the adoption of an entrepreneurial posture by the students.

It was also sought to know the students 'perception in relation to their teachers' entrepreneurial posture. Table 5 shows the average in relation to the computed responses, considering the scale from 1 to 5, where 1 "totally disagree" and 5 "totally agree".

Table 5
Entrepreneurial attitude of teachers

Attributes / Institutions	X1	X2	X3	X4	X5	X6	X7	X8	Attribute average	Standard deviation
Support for entrepreneurial initiatives	3.29	3.33	3.83	4.45	3.84	3.56	3.28	3.89	3.68	0.38
Ease of communication of ideas and sociability	3.81	4.11	4.00	4.35	3.93	4.49	3.31	4.21	4.03	0.34
Curiosity	3.61	3.48	3.67	4.40	3.77	4.00	3.25	4.21	3.80	0.36
Courage to take risk	3.10	2.30	3.67	4.50	3.64	3.20	3.36	4.00	3.47	0.61
Ability to perform	3.35	3.11	3.50	4.65	3.83	3.68	3.36	4.00	3.69	0.45
Innovative and creative thinking	3.52	3.04	3.83	4.40	3.83	4.20	3.44	4.07	3.79	0.42
Vision for opportunities	3.35	3.37	4.17	4.50	4.01	4.02	3.22	4.00	3.83	0.43
Nonconformity with reality and willingness to transform it	3.55	3.56	4.17	4.40	3.72	3.76	2.81	4.00	3.74	0.45
General Average by HEI	3.45	3.29	3.86	4.46	3.82	3.86	3.25	4.05	3.75	-

Note. Source: Research data.

In the attribute "support for entrepreneurial initiatives" by teachers, the institution X4 achieved a positive highlight in relation to the others. On its official website, this institution highlights that the Administration students trained by it have entrepreneurial characteristics to work in various sectors of public and private companies.

Regarding the ease of communication of ideas and sociability by teachers, students agree that teachers have a good transmission of knowledge. Regarding the courage to take risks, characteristic of the entrepreneur, the teachers obtained an overall average of 3.47, that is, the students presented a neutral view about the statement.

Regarding the ability to perform, the teachers at the institution X8 had an average higher than the other HEIs. Regarding innovative and creative thinking, studentsfrom institution X4 demonstrated to agree with the statement, presenting an average of 4.40, which was higher than the other HEIs.

Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

The average obtained for the attribute "teachers' vision for opportunities" was 3.83, that is, it can be considered that students partially believe that teachers have a visionary posture to identify gaps in the market and in society. Such behavior can influence the student's posture, since he has the teacher as a reference during his training process.

Regarding the item "non-conformity with reality and their willingness to transform it", the students' perception of the teachers at the institution X7 was much lower than the others (average of 2.81), that is, the students do not believe that teachers have this entrepreneurial characteristic.

Another analysis carried out in this research was the verification of the correlation between the variables surveyed. Initially, all correlations were calculated and those between -0.50 and 0.50 were not analyzed, as they point to a low correlation. In addition, the factors belonging to the same dimension were also disregarded, as these are obvious results. For example, it is quite predictable that the student's "courage to take risk" is highly correlated with his "support for entrepreneurial initiatives". It is worth noting that no negative correlation was found below -0.50. From the pointed filters, the correlations presented in Table 6 were analyzed.

Table 6
Main correlations between the factors raised

Attributes	The university ecosystem positively influenced the development of my entrepreneurial posture	Vision for opportunities (student)	Achievement Capacity (student)	Courage to take risk (student)	Support for entrepreneurial initiatives (student)
University offers flexible curriculum	0.5598	0.5285	0.5580	0.6042	0.5443
The curriculum contributes to the development of entrepreneurial skills	0.5221				
Achievement capacity (student)	0.5149				
Courage to take risk (student)	0.5083				
Support for entrepreneurial initiatives (student)	0.5157				
Courage to take risk (teacher)	0.5001		0.5479	0.5254	
Support for entrepreneurial initiatives (teacher)			0.5130		0.5062

Note. Source: Research data.

OThe factors that most correlated with others were "the university ecosystem positively influenced the development of my entrepreneurial posture" and "my University offers a flexible

Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

curriculum so that I can engage in extracurricular activities". In addition to the correlation between them, which indicates that the flexible curriculum and the influencing ecosystem are related, these factors were also correlated, simultaneously, with "capacity for achievement", "courage to take risk" and "support for entrepreneurial initiatives", all referring to students. Here the question arises: do the ecosystem and the flexible curriculum attract students with a more entrepreneurial profile or do students with such characteristics encourage these aspects at the University?

Another point worth mentioningis that teachers' entrepreneurial characteristics, such as "courage to take risk" and "support for entrepreneurial initiatives" correlate with aspects related to students, for example "capacity for achievement", "courage to take risk" and "support for entrepreneurial initiatives" . At this point, a question is also raised: do teachers stimulate entrepreneurship in students or do they demand a more innovative attitude from teachers?

Particular issues of the type of permanence in the institution and the degree of influence of the institutions for a possible enrollment were also addressed in the research. For the analysis of these questions, the tool called "word cloud" was used. The larger the font size of the word, the more often it was cited as an answer to the question. The figure3 presents the reasons that lead students to remain in an HEI.

Figure 3
Reasons for the permanence of students in the current HEI
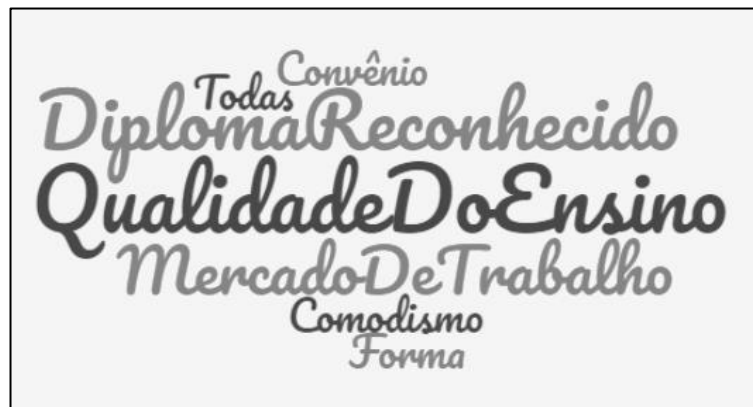
Note. Source: Research data.

It is noted that the quality of teaching, a recognized diploma and the labor market are factors that determine the permanence of students in their respective institution. The grades obtained by the HEIs in the assessments of the Ministry of Education - MEC or other assessments, such as the Folha University Ranking - RUF, may represent the reason for the student's permanence or not in the institution, since they attest to the quality of teaching and signal the market the good reputation of the aforementioned HEI.

Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

HEI students were also asked about the ideal teaching methodology and the responses were condensed into a "word cloud" (Figure 4).

Figure 4
Ideal teaching methodology

Note. Source: Research data (2018).

From the perspective of the students, they believe that dynamic classes positively influence entrepreneurship due to their way of encouraging learning. According to Rosa (2012), dynamic classes allow students to stop being just listeners, interacting with the proposed activities and developing a better performance in their learning. This conclusion is in line with the result presented in the correlation of the flexible curriculum with other factors influencing the entrepreneurial posture.

5. FINAL CONSIDERATIONS

As established in the introduction to this article, the objective of this research was, from the students' perception, to survey and compare the structures and initiatives of higher education institutions in Belo Horizonte, which aim to stimulate entrepreneurship. The establishment of this central objective was based on the finding that, more and more, Universities are being encouraged to create internal structures to support entrepreneurial student initiatives, adopt more active teaching methodologies, develop extracurricular actions for the formation of entrepreneurial skills and, in addition of all this, establish extramural relationships that facilitate the creation of new businesses.

In general, the results showed that much remains to be done for students to realize the involvement of teachers and university senior management in supporting and encouraging student entrepreneurship. However, some aspects of the results deserve to be highlighted as

they indicate that the process of developing an entrepreneurial mindset in students is not the result of individual effort by the teacher or institution, but represents a joint effort by institutional actors. For example, the institution X4, which had the highest score in the university infrastructure, also showed the best results in terms of entrepreneurial attitude of teachers and students.

On the other hand, the data showed that the involvement of students in the search for knowledge about entrepreneurship is small, as well as the strategies of universities to disseminate and emphasize the importance of developing entrepreneurial skills for the professional performance of students. This can be proven to the extent that more than 50% of the interviewees were unable to say whether the HEIs in which they study have incentives or support for entrepreneurship. Still in relation to the students' posture, it was observed that some students do not invest in the development of entrepreneurial skills, either because they do not think it is important or because they were not sensitized by the HEI to the relevance of this posture in the job market.

When analyzing the perception of students in relation to the attitude of their teachers in relation to the theme of entrepreneurship, it is observed that there is an expectation of evolution in the attitude of teachers for a better transmission of their knowledge, which results in encouraging an entrepreneurial attitude.

The research results point to the need for greater investment by HEIs in structures and projects that stimulate the creative and entrepreneurial capacity of students. At the same time, it is clear that the faculty must also seek and adopt methods that motivate students to develop entrepreneurial skills, thus signaling, more clearly, their engagement in the training of entrepreneurial professionals. In short, it is up to HEIs, through effective practices, to build an entrepreneurial culture, capable of encouraging students and teachers to invest in their development, in line with the demands of organizations, which inhabit an environment of constant change.

It is suggested for future research that the topic of entrepreneurial university be investigated in other locations do Brasil, in the context of other courses, such as those in the area of technology, and also in the reality of federal universities.

Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

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Entrepreneurial university: analysis of structures and initiatives to stimulate entrepreneurship

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