

Variables That Influence Students' Choice Of Distance Education *Lato Sensu* Graduate Business Programs

Abstract

Based on Scriven's User-Focused Evaluation Theory, the general objective in this study was to identify and analyze the degree of importance Brazilian students attribute to the variables that influence them when choosing distance education *lato sensu* graduate business programs. The research is classified as descriptive and an electronic questionnaire was used to survey the data, involving 354 students from distance education *lato sensu* graduate business programs distributed across different Brazilian locations. The questionnaire included 16 variables, which the students were expected to score from 0 to 10. The results indicated that 04 variables obtained a mean score superior to 9, and that flexibility was the main factor the respondents considered in the choice of a distance education program. This evidences that the possibility to structure the program according to their available time is fundamental for the students. Nevertheless, having a trained teaching staff (second most influential variable) and a curriculum appropriate to their pedagogical needs (fourth) are also essential characteristics. Finally, the respondents indicated the cost as the third most important variable. Some authors even consider it decisive in the students' choice as distance education programs are frequently cheaper than in-class programs. In addition, it was verified that women score the investigated internal variables higher than men. In addition, the location of the support hub appeared as a determinant variable in the choice of the program.

Key words: Distance Education. DE. Graduate Education. MBA.

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1. Introduction

In response to the substantial increase in the search for higher education programs (undergraduate and graduate), a social demand emerged in Brazil for a more democratic access to this education, reaching a larger number of individuals. In that context, Distance Education (DE) appears as an important tool to permit this expansion, mainly because it is a less costly teaching modality in comparison with the traditional model and is able to make the learning process more flexible (Garrison, 2000; Carr-Chellman & Duchastel, 2000; Bolliger & Wasilik, 2009; Nichols, 2010). The democratization of higher education through DE is of interest to society, as it allows those individuals distanced from educational centers to get access to high-quality and cheaper education.

With its territorial extension of 8 million square kilometers (Instituto Brasileiro de Geografia e Estatística [IBGE], 2011), Brazil is the largest country on the South American continent. Around the world, only Russia, Canada, the People's Republic of China and the United States are bigger. This circumstance alone already justifies the country's decision to invest in DE, with a view to offering high-quality education to regions that would not have this possibility due to the difficulties caused by the students' distance from educational centers of excellence.

It should also be considered that the greater access to high-quality courses results in a better qualification of managers and company management and, hence, in their longer duration. This circumstance attracts attention to business programs, which directly contribute to enhance companies' vitality, as they are linked to company management. Data from the Support Service for Micro and Small Companies in São Paulo [Sebrae-SP] (2010) indicate that, in Brazil, more than 173 thousand companies were launched in São Paulo, 27% of which close down in the same year they started their activities, and only 48% are still operating after the fifth year. Hence, granting Accounting students access to the educational reference centers in their area means allowing more than 32 thousand graduates from these programs in 2009 only (Instituto Nacional de Estudos e Pesquisas Educacionais [INEP], 2009) to gain knowledge and education to be applied in the more than 5.1 million companies that exist in Brazil (Sebrae-SP, 2010).

Thus, there has been an increased demand for management education programs to further the strategic skills of businessmen, who consider these courses as an alternative to cope with the challenges and expected performance (Brandão, 2009). As a result of the search for a distinguished curriculum and even for professional performance evolutions, around the world, billions of dollars are spent on executive education programs for knowledge development in Administration, Accounting, Economics, Law and other knowledge areas the managers should master and which are part of the so-called business school (Ruas & Comini, 2007).

Nevertheless, people interested in a distance education *lato sensu* graduate program (individuals, groups or organizations with significant interest in the institution or course) do not have appropriate mechanisms to guide their choices. Differently from what happens with *stricto sensu* programs, which are evaluated by the Ministry of Education [MEC], or even by in-class *lato sensu* programs, included in rankings elaborated by specialized journals, there is no evaluation for distance education *lato sensu* programs to guide the choice of potential course students.

In addition, as observed, the distance teaching modality has not been satisfactorily developed yet. In that sense, according to data by the MEC (2013), in 2013, 106 institutions existed in Brazil that were allowed to offer *lato sensu* graduate programs in this modality, which demonstrates that few institutions offer these programs.

In view of the factors listed, instruments are needed to evaluate the distance education *lato sensu* programs. That is so because excellence in higher education is defined as a critical element, which explains why the stakeholders need to judge the choice they need to make (Burma, 2007; Sabir, Ahmad, Ashraf & Ahmad 2013). These decisions should ideally be based on the fair and exact evaluation of an institution's programs (Scriven, 1991; Middendorf, 2009).

Many potential stakeholders are involved in a course evaluation and a range of approaches is appropriate to the situation that is to be evaluated. Therefore, in 1974, Scriven (1991) presented a model called User-Focused Evaluation, which provides users or potential users with measures for analysis. Departing from the viewpoint of the people going through the experience of taking a course or who have already gone through this experience, this model permits a judgment of the quality or merit of the course under evaluation (Scriven, 1991).

In this context and based on Scriven's User-Oriented Evaluation Theory (1991), this study aims to answer the following research question: what variables do Brazilian students take into account when choosing distance education *lato sensu* graduate business programs? Thus, the general objective in this study is to identify the degree of importance Brazilian students attribute to the variables that influence them in their choice of distance education *lato sensu* graduate business programs.

This study is justified by the importance *lato sensu* graduate business programs have gained in recent years, given their association with the idea of employability and improved organizational performance. The study is also justified by the fact that the demand for distance education courses has significantly increased in recent years. Hence, the research is expected to identify drivers for individuals and companies that intend to invest in this course modality, considering that its results will disclose the perception of the subjects who have gone through the experience of choosing one of these programs and, therefore, know the factors they considered when making their choice. In other words, the level of importance the current DE students attribute to the variables that influenced them can direct potential students' perception.

In addition, this study's results can actually influence students in their choices, permitting the maximization of all stakeholders' resource orientation and application. Finally, it should be kept in mind that the research used Scriven's evaluation method, a validated method that will also guide other studies.

2. Literature Review

2.1 Distance Education

Information and Communication Technologies (ICT) have influenced the progress and relevance of distance education for contemporary learning (Cornachione Júnior, 2004). In recent decades, significant improvements have been observed in the way distance learning is offered, keeping in mind that this alternative used to be offered to the students by mail or in another printed form, or even through means that did not permit interaction among the agents (student-teacher), like in the case of DE by radio, television and videocassette (Cornachione Júnior, 2004; Mantovani & Gouvêa, 2010).

In view of the evolution in ICT, the definition of DE itself has been questioned (Belloni, 2009). Luzzi (2007) highlights that the DE concept is adapted to the trends of each time but that, in a longitudinal analysis, it gradually evolved until culminating in the contemporary understanding of this teaching modality.

The DE concept underwent changes, clearly influenced by technological and communication developments, moving from concepts centered on the physical separation between teacher and student to the separation in time. This broader concept is observed in the definition contained in Brazilian legislation and even in the policies of Unesco (*United Nations Educational Scientific and Cultural Organization*). According to Unesco (2002, p. 22):

Distance education is any educational process in which all or most of the teaching is conducted by someone removed in space and/or time from the learner, with the effect that all or most of the communication between teachers and learners is through an artificial medium, either electronic or print.

Brazil adopted the following definition of EaD, present in Art. 1 of Decree 5.622, issued on December 19th 2005, which regulates Art. 80 of Law 9.394, issued on December 20th 1996 (Education Law):

[...] distance education is characterized as an educational modality in which the didactical-pedagogical mediation in the teaching and learning processes occurs through the use of information and communication means and technologies, with students and teachers developing educational activities at different places or times.

Therefore, it is observed that, in the contemporary society, the EaD concept involves the following elements: the student, considered an autonomous user who is able to decide on the learning (guiding principle for the courses); the use of technological-didactical materials and resources; student monitoring and support strategies (chats, monitoring, discussion groups and others); and the division of the course in modules, that is, in smaller curricular contents, which the student can choose from (Belloni, 2009).

Thus, entities like Unesco recommend that distance education courses be conceptualized as open distance learning, so as to understand them from the perspective of a physical and temporal separation and so as to qualify them as flexible and more appropriate to the society's current needs.

2.2 User-Focused Evaluation

The specific form of an evaluation depends on its goal and public, the nature of what is evaluated, and the organizational context the course operates in (LeBlanc & Nguyen, 1997; Piercy, 2013). The evaluation facilitates decision making when appropriate procedures are combined with points the stakeholders value. The selection of variables to measure the measuring instruments, as well as the evaluation concept depend on the type of decisions that are to be made (Oldfield & Baron, 2000; Patton, 2008). Hence, an evaluator starts with questions like: What is the purpose of the evaluation? What is the mission of the institution? What are the objectives of the course or project? What are the expected results? What are the criteria for success? What is the role of the individual in the institution and what are the expected competences and attributes for this function? What decisions need to be made? (Poth, 2008).

It is argued that, during an evaluation, the evaluator should comply with his role and take responsibility for communicating the results not only to clients, users and interested parties, but to all potential consumers. This approach plays an important role in the evaluation of higher education, given the wide range of potential users (Middendorf, 2009). Davok (2006) summarizes the concerns the evaluator needs to remind during the evaluation (planning and execution) and when reporting the results. This author considers that four aspects should permeate the evaluation process: utility, feasibility, propriety and exactness.

An evaluation has to be useful, so that the stakeholders can use it, that is, it will serve a purpose for the people who get to know this evaluation. The concern with the feasibility of an evaluation is necessary so as not to interrupt the process, so that the planning permits the complete feasibility of the process. The propriety aspect is guaranteed when the individual rights of the subjects involved are guaranteed, such as privacy, or when they are granted due wellbeing. The final aspect – exactness – is included to guarantee that the produced results are capable of revealing the aspects that determine the exact compliance with the value and merit of the object under evaluation (Davok, 2006), as presented in Figures 1 and 2.

Attribute	Standards
<p>UTILITY</p> <p>Guarantee that the evaluation attends to the information needs of the stakeholders direct or indirectly involved and interested in the evaluation process.</p>	<p>1 – Identification of the stakeholders: the people involved in or affected by the evaluation need to be properly identified so that their needs can be attended to.</p> <p>2 – Credibility of the Evaluator: with a view to granting maximum credibility and acceptance to the results, the people responsible for the evaluation should be trustworthy and competent to conduct the evaluation process.</p> <p>3 – Information Range and Selection: the collected information should be sufficiently comprehensive to address questions relevant for the course and respond to the needs and interests of the clients and other stakeholders specified.</p> <p>4 – Identification of Values: the perspectives, procedures and justification used to interpret the discoveries of the evaluation should be carefully described, so as to make the bases that support the value judgments very clear.</p> <p>5 – Clarity of the Reports: the evaluation reports should clearly describe the course under assessment and its context. They should equally describe the purposes, procedures and discoveries of the evaluation, making available essential information and making it easy understandable.</p> <p>6 – Opportunity and Dissemination of the Reports: significant discoveries made during the evaluation process and the evaluation reports should be disseminated to the preferential users, so that they can be used in due time.</p> <p>7 – Impact of the Evaluation: the evaluations should be planned, conducted and reports to encourage constant accompaniment by the stakeholders, making the effective use of the evaluation more probable.</p>
<p>PROPRIETY</p> <p>Protect the rights of the subjects involved and affected by the evaluation.</p>	<p>1 – Service Focus: the evaluations should be projected to help the organizations to effectively attend to the needs of anyone who depends on them.</p> <p>2 – Formal Agreements: the obligations of the stakeholders in the evaluation process (what should be done, how, by whom, when) should be registered in writing, so as to demand that the parties adhere to or formally renegotiate on the conditions of the agreement.</p> <p>3 – Subjects' Rights: the evaluations should be projected and conducted to respect and protect the subjects' rights and wellbeing.</p> <p>4 – Human Interactions: the evaluators should respect the dignity and human values in their interactions with the people associated with the evaluation, so as not to intimidate or hurt the participants.</p> <p>5 – Complete and Fair Verification: the evaluation should be complete and fair in its verification and register the strengths and weaknesses of the course being assessed, permitting the strengthening of its strengths and coping with its problematic aspects.</p> <p>6 – Presentation of the Results: the parties formally involved in the evaluation should guarantee that the persons affected by it have access to all discoveries and the pertinent limitations, guaranteeing their legal right to be informed about the results.</p> <p>7 – Conflicts of Interest: the conflicts of interest should be discussed openly and honestly, so that they do not compromise the evaluation processes and results.</p> <p>8 – Fiscal Responsibility: the allocation of resources and the evaluators' spending should reflect appropriate and responsible procedures, besides being prudent and ethical, with a view to appropriate and justifiable spending.</p>

Figure 1. Attributes of the Evaluator regarding Utility and Propriety

Source: Davok (2006, p. 41-42)

Attribute	Standards
<p>FEASIBILITY</p> <p>Direct the planning of evaluation designs to be operable in their natural environment, without wasting resources in the development of the evaluation.</p>	<p>1 – Practical Procedures: the evaluation procedures should be practical to reduce any problems during the search for the necessary information to a minimum.</p> <p>2 – Political Feasibility: the evaluation should be planned and conducted to take into account the different positions of the various interest groups, making it possible to obtain their cooperation, as well as to minimize and neutralize possible attempts by some of these groups to restrict the operations or misrepresent or apply the results badly.</p> <p>3 – Cost-Benefit: the evaluation should be efficient and produce sufficient and valuable information to justify the invested resources.</p>
<p>EXACTNESS</p> <p>Guarantee that the evaluation produces and reveals exact and reliable information about the determinant aspects of the value and merit of the object being assessed.</p>	<p>1 – Course documentation: the course being assessed should be described and documented clearly and exactly, so as to be identified clearly.</p> <p>2 – Contextual Analysis: the context the course exists in should be examined in detail, so as to identify its probable influences on the course.</p> <p>3 – Described Purposes and Procedures: the evaluation purposes and procedures should be monitored and described in detail, so that they can be identified and verified.</p> <p>4 – Defendable Information Sources: the information sources used in a course evaluation should be described in detail, so that the appropriateness of the information can be verified.</p> <p>5 – Valid Information: the information collection procedures should be chosen or developed and implemented to guarantee the validity of the final interpretation for the intended use.</p> <p>6 – Reliable Information: the information collection procedures should be chosen or developed and implemented so as to guarantee that the collected information is sufficiently reliable for the intended use.</p> <p>7 – Systematic Information: the information collected, processed and reported in an evaluation process should be systematically reviewed and all errors should be corrected.</p> <p>8 – Analysis of Quantitative Information: the quantitative information in an evaluation should be appropriate and systematically analyzed, so that the evaluation questions can be effectively answered.</p> <p>9 – Analysis of Qualitative Information: the qualitative information in an evaluation should be appropriate and systematically analyzed, so that the evaluation questions can be effectively answered.</p> <p>10 – Justified Conclusions: the conclusions drawn based on the evaluation should be explicitly justified, so that the stakeholder groups can verify them.</p> <p>E11 – Impartial Report: the reporting procedures should foresee safeguards against distortions produced due to personal feelings and prejudices by some of the parties towards the assessment, so that the reports fairly reflect the evaluative discoveries made.</p> <p>E12 – Meta-evaluation: the evaluation itself should be evaluated in a formative and summative manner, based on these and other standards, so that it is appropriately conducted and, once concluded, to that the stakeholders can examine its strengths and weaknesses in detail.</p>

Figure 2. Attributes of the Evaluator regarding Feasibility and Accuracy

Source: Davok (2006, p. 41-42)

Hence, each of these evaluation characteristics permits its utility for the interested parties. Essentially, this utility should be manifested through the use of the evaluation in some decision, allowing the user to obtain the information (s)he wants and finds important. An ineffective or unused evaluation does not achieve its goal and turns into a waste of resources. In that sense, the evaluator's concern should be guided.

In 1974, Scriven (1991) developed an evaluation approach called User-Focused. This type of evaluation fundamentally looks for the course users' viewpoint, departing from their experience to serve as a guide for potential users. In studies directed at that purpose, users turn into evaluators. They can draw conclusions about a course under assessment, as they receive its benefits (Hashimoto, 2009).

Consumer-focused evaluation aims for a survey among people who actually use or have used a product or service, that is, its users, and was developed by Scriven in 1974 as a summative evaluation. In the case of a course, the students. According to Scriven (1991) and Vieira (2009), instead of attempting to establish values that attend to the needs of internal course users (course managers and members), us-

er-oriented evaluation intends to achieve the wellbeing of the current and potential course users. “The evaluator has to identify the results of the programs and their values from the perspective of the consumers’ needs” (Vieira, 2009, p. 51).

Maccari (2008) affirms that, when an evaluation is focused on the people using the service, less importance is attributed to the course objectives. The strong point in this type of approach is the concern with the individual and the perception of what he considers important, that is, the sensitivity he had towards everything he received and its value for him.

According to Scriven (1991), outlining a course evaluation from the perspective of its users means permitting the assessment of a course from the perspective of the satisfaction caused. The users will consider all investments involved in the process, whether emotional, physical or financial, and them with the benefits achieve. Therefore, it can be considered if the course is appropriately attending to the users’ needs or even what variables play a determinant role to achieve their satisfaction (Scammacca, 2003).

In that sense, possible beneficiaries of the evaluation need to be identified, as it allows the potential users to analyze, among the available alternatives, which offers greater benefits in terms of satisfaction of their needs, to the extent that they have the analysis of someone who experiences or has experienced the course being evaluated. Therefore, in the user-focused evaluation, efforts are made to identify unexpected effects and hidden costs, as the evaluation turns into an information means that will support a future user’s decision to hire a course (Vieira, 2009).

2.3 Variables Related to the Students’ Decision

When people purchase a product, it is more objective for them to set quality standards and even distinguish the best between two similar products, that is, it is easy to establish variables that determine the choice of a product. A service, however, has four characteristics that distinguish it from goods: intangibility, perishability, inseparability between the production and consumption and heterogeneity (Leblan & Nguyen, 1997; Hill, 1995)

Intangibility derives from the fact that the service executed cannot be materialized. The perishability and inseparability between the production and consumption are associated, as they refer to the need for a service to be consumed at the moment of its delivery. Finally, a service is heterogeneous, as there may be different forms of delivering it. The latter characteristics leads to a lack of standardization, which means that the service quality can considerably vary between different service provides or that a person can deliver an identical service twice, but with different perceived quality levels (Hill, 1995).

It is also known that, when users decide on an educational program, they analyze its attributes, integrating its intrinsic and extrinsic characteristics (Veale, 2007). Intrinsic characteristics are considered as those variables related to the course itself, which the institution controls directly through the strategy and planning. Extrinsic or external characteristics should be considered as those properties that permit distinguishing between two institutions without the need to know both. It is what characterizes the institution in the market (Ahmadov, 2008). Anyway, an attribute, whether intrinsic or extrinsic, will be relevant when it signals, predicts or produces important benefits perceived by the user (Veale, 2007).

Therefore, before hiring it, who is interested in a course should make a choice based on expectations and will only be able to evaluate whether these were fully satisfied when the entire service has been delivered (LeBlanc & Nguyen, 1997). In that sense, different authors have attempted to outline quality measures to permit a better understanding of the variables students find relevant when they evaluate a course they are interested in. These variables drive the HEI to adapt their courses, which plays a determinant role to improve the quality of the education offered, to the extent that these variables correspond to the students’ needs, according to LeBlanc and Nguyen (1997).

McGorry (2003) investigated 750 students from a North-American institution that offered MBA programs through distance learning. The students had to score 1 if they completely disagreed from the

importance of the variable and 5 if they completely agreed with the importance of the variable. The items scored higher than 3 were: contact with colleagues; easy learning (in comparison with in-class education); and contact with instructors (tutors).

Johnston, Killion and Oomen (2005) developed a search in Academic Search Premier, Business Source Premier, Pre-CINAHL, CINAHL, MEDLINE, Computer Source, ERIC and other research sources for the purpose of a bibliographic survey of publications between 1999 and 2004 that disseminated research about the variables of students' satisfaction with distance-education courses. They perceived that the most cited variables were: course format, flexible times, contact with the teacher, contact among the students (chats, forums, e-mails), orientation (tutors) and funding of computer equipment.

Henckell (2007) investigated 430 North-American individuals who had taken at least one distance-education course to discover, from the graduates' perspective, whether in-class courses need greater emphasis on certain variables than a distance-education course or vice-versa, or if both (in-class and distance-education) courses need the same emphasis on these variables. The author found that the variables that need to be highlighted most in in-class courses are: communication, study environment, pedagogical style of the teacher and interaction among the students. According to the research sample, for distance-education courses, greater emphasis is needed on: technology use, course structure, course activities, exercises, technical assistance and teacher's feedback. And, finally, in both course (in-class or distance), the following variables should be emphasized: get prepared for the class, tutor, educational approach, materials and methods used, course organization and structure, active learning methods.

Penterich (2009) developed his teaching to investigate the competences a teaching institution needs to offer a DE course. Therefore, he sent a questionnaire to 1,476 undergraduate DE students at Universidade Santo Amaro to score these competences using concepts (Very Important, Important, Hardly Important and Unimportant). The variables the students scores were developed by the author based on a theoretical framework and interviews held using a semistructured questionnaire with 10 experts. Thus, the author describes that the items flexibility to study, value of monthly fees, courses recognized by the MEC, innovative courses and programs and with updated curricula were scored highest (very important). Recognition by the market, accessible in-class support hub and offering good attendance, professors holding degrees (M.Sc. and Ph.D.), classes by satellite with technical quality (image, sound and text), well-trained and graduated tutors and technical-administrative staff and better ICT were scored as important.

MEC (2007b) produced a study to recommend the variables a distance-education program should have with a view to the appropriate supply of the teaching the institution intends to offer to its students. The eight items the MEC recommends are: pedagogical orientation appropriate to the teaching modality, communication system, didactic material, evaluation, multidisciplinary team, support infrastructure, academic-administrative management and financial sustainability.

Figure 3 displays a summary of the variables used in the studies mentioned. The variables were arranged in decreasing order, considering the number of authors who investigated them, in in-class as well as distance-education courses. In addition, the operational definition of the variables is presented, based on the authors' own definition.

Variables	Authors' definition	Distance education
Curriculum	Utility of subjects for professional training; balanced distribution of disciplines and hour load during the course; quality of bibliography used; current relevance of subjects; balance between theoretical and practical subjects.	Johnston, Killion e Oomen (2005); Henckell (2007); MEC (2007b), Penterich (2009)
Technical-administrative staff	People who can help with administrative problems, such as secretaries, and technical problems, such as technical support for computer programs, which the institution makes available.	MEC (2007b); Henckell (2007); Penterich (2009)
Teaching staff	Quality and level of the classes; attention, motivation, competence, availability and accessibility of the teachers.	MEC (2007b); Penterich (2009)
Activities	Activity development (practices, examples and case studies) for learning fixation and evaluation together with other colleagues and individually.	Henckell (2007); MEC (2007b)
Accessibility to facilities	In-class support hub near the students, to avoid the need for transportation. Availability of decentralized support hubs to attend to the students, with compatible infrastructure and tutors for in-class activities.	Penterich (2009)
Use of state-of-the-art ICT	Use of modern, advanced and innovative information and communication tools to permit better interaction and learning. Use of different types of ICT (synchronous and asynchronous, such as videoconferencing, internet chats, fax, telephones, radio) to promote real-time interaction among teachers, tutors and students.	MEC (2007b); Henckell (2007); Penterich (2009)
Pedagogical methods used	Use of appropriate methods or, if necessary, adapted to the virtual learning environment.	McGorry (2003); Henckell (2007); MEC (2007b)
Contact with teacher	Information about how contact with the teacher will take place; availability for consultations and clarification of doubts. Information about the number of hours available.	Johnston, Killion e Oomen (2005); Henckell (2007)
Tutors	Flexibility in their attendance to students, offering expanded times, agile return of questions and clarification requests sent; encouragement and orientation about course performance.	McGorry (2003); Johnston, Killion e Oomen (2005); Henckell (2007); Penterich (2009)
Flexibility	Flexible class times adaptable to the students' available times.	Johnston, Killion e Oomen (2005); Penterich (2009)
Interaction among the students	Encouragement of communication and cooperation among the students, with opportunities to develop shared projects and information exchange, recognizing and respecting the different cultures and aiming to construct knowledge; encouragement to use chats, forums, e-mail and other communication forms.	McGorry (2003); Johnston, Killion e Oomen (2005)
Cost	Enrollment fee; financial assistance for students; monthly fee/lower cost.	Penterich (2009);
Didactic material	From the content as well as form perspective, didactic material perceived according to the methodological principles, so as to facilitate knowledge construction and mediate the interlocution between student and teacher, including a strict evaluation process with a view to its improvement.	Henckell (2007); MEC (2007b)
Participation of colleagues	Preliminary content study by the student, that is, before the class is offered; constructive and collaborative participation in class with timely, convenient and appropriate interventions; conclusion of scheduled activities.	Henckell (2007)
Recognized courses	Regularly registered and authorized courses recognized by the MEC.	Penterich (2009)
Financial sustainability of the institution	Strategic planning that comprises a planning of investments and costing to guarantee continuity.	MEC (2007b)
Equipment funding	Funding possibility by teaching institution or by a government program to purchase computer equipment.	Johnston, Killion e Oomen (2005)

Figure 3. Summary of research variables

3. Method

This study is defined as a descriptive research, as it attempted to identify and analyze the perception of students from distance-education *lato sensu* graduate business programs, considering the variables they find important when choosing the course. Sampieri, Collado and Lucio (2006) conceptualize this type of research as studies that collect variables to verify the nature of the phenomenon under analysis and how it is manifested, as it intends to specify the properties, qualities and important profiles of people, groups, communities or any other research object. In other words, the descriptive studies value the data collection as a way to characterize the research phenomenon. As a method, a survey was used with the help of a questionnaire.

3.1 Hypotheses

In addition, hypotheses were established about the behavior of the study variables in order to be tested impartially. Therefore, four hypotheses were formulated, which will be presented and supported next.

The hypotheses are the researchers' predictions or expectations about the way two or more variables will relate. This expectation can emerge from a theory or speculation about the behavior of these variables (Gall, Gall & Borg, 2007). Hence, it is not relevant to investigate where the hypothesis emerges from, but it is fundamental that each hypothesis be "accompanied by a justification that explains why it is plausible, given the theory it derived from" (Gall, Gall & Borg, 2007, p. 50).

- **H₁:** *Women attribute more importance to internal variables when compared to men.*

The gender preferences are one of the most important factors, as evidenced by studies that demonstrate differences between choices made by men and women. In that sense, Michel (2010) found that male individuals pay attention to the visual, extrinsic aspects. For example, in choosing a car, men prefer vehicles that attend to their desired related to the visual, that is, they will prefer the vehicle's extrinsic attributes (color, model, price, status and others), while women tend to value the variables related to the performance and functionality of the vehicle, that is, intrinsic aspects (performance, space, utensils and others) (Bailey, 1997). Hence, women demand practicality, functionality, applicability and performance, differently from men, who value the visual aspects (Ad Hamid, 2006).

In the studies by McGorry (2003) and Henckell (2007), with a mostly female sample, and by Ford, Joseph and Joseph (1999) and Vieira (2009), with a mostly male sample, polarized opinions were observed in gender-based comparisons. In the studies that involved mostly women, the results demonstrate that the internal variables, such as the teacher and the contact between teacher and student, are more important (McGorry, 2003; Henckell, 2007). In the studies with a prevalence of men, the external variables, such as job market, ranking, reputation and employability, demonstrated a higher degree of importance (Ford *et al.*, 1999; Vieira, 2009).

- **H₂:** *Older students attribute more importance to internal variables to the detriment of external variables when compared to younger students.*

Aging causes transformations in the way people act (Motta, 2009; Silva, 2009). Over time, adults mature, and this causes deteriorations in the five senses, triggering changes that affect their perceptions and the way they process information, learn and make purchase and consumption decisions (Schein, Perin & Sampaio, 2009). It is also observed that, as the age advances, the perceived quality is also affected by the experience gained (Carvalho, 2007). In that sense, the experience lived enables people to analyze and compare, which can make them more demanding about some aspects than others when compared to younger people (Goeking, 2006).

Burt (2000) concluded that younger users are willing to take more risks when they purchase something. The author clarifies in his research that younger people sometimes privilege the variables associated with the external characteristics of a product or service, to the detriment of the internal variables.

The difference in the importance attributed to the internal or external variables of a course according to the person's age can be verified in the study by Vieira (2009). That author found a statistically significant difference when comparing teachers with students. The teachers' mean age was approximately 47 years, against 30 years for the students.

- **H₃**: *Students attribute less importance to the accessibility of the in-class support hub when compared to the other variables.*
- **H₄**: *Students living in the city where the in-class support hub is located attribute less importance to this variable when compared to the other students.*

Distance education is an educational modality that has been encouraged by the government and disseminated in teaching institutions, mainly in private ones. Between 2000 and 2008, the number of undergraduate places in distance education increased more than 260 times, 85% of which were offered at private institutions (INEP, 2010).

Distance education is considered to offer one advantage when compared to in-class teaching: the flexibility (Garrison, 2000; Carr-Chellman & Duchastel, 2000; Bolliger & Wasilik, 2009; Nichols, 2010). This advantage also refers to the geographical space (Granito, 2008; Comarella, 2009). In this respect, it is considered that students can choose courses offered by institutions in distant locations, as in-class meetings are rare and, in most cases, are held in hubs located in the student's region.

Hence, in the students' evaluation of a distance education course, the variable accessibility to in-class hubs somewhat loses its importance, as these students do not need to visit the hubs frequently. Penterich (2009) and LeBlanc and Nguyen (1997) found this evidence in their studies when they observed that the students did not find it very important, attributing lower scores.

3.2 Sample and Data Collection Instrument

The data collection instrument used in this research was the questionnaire, which can reach more people simultaneously at a lower cost, guarantee anonymity and obtain several answers to the same questions, which permits quantifying and comparing the obtained results (Duarte & Furtado, 2002; Gall, Gall & Borg, 2007). The decision was made to use this instrument because it best captures an individual's opinion or propensity to an attitude (Sampieri *et al.*, 2006). The means used for the application was the Internet, as electronic questionnaires demand a lower cost, besides guaranteeing anonymity, easy constitution of databases and less invalid answers (Kiesler & Sproull, 1986).

The questionnaire was structured in two parts. The first relates to the evaluation of the variables that most influence the new students in the choice of a DE course in the business area, departing from empirical studies that aimed to survey the variables that can influence students' choices of DE courses, that is, with the same objective as the present study. Thus, 16 variables were identified: curriculum, technical-administrative staff, teaching staff, activity, accessibility to facilities, use of state-of-the-art ICT, pedagogical methods used, contact with teacher, tutors, flexibility, interaction among students, cost, didactic material, participation of colleagues, financial sustainability of the institution and equipment funding. The course respondents were asked to score the variables between zero and ten, so as to express the degree of importance they attributed to each when they choose a distance-education graduate program. To capture the students' best perception in the answers to the questionnaires, an 11-point scale with semantic differences was chosen.

The second part of the questionnaire is related to the questions to identify the respondents' profile. Thus, the following variables were included: academic background, year of birth, gender, marital status, city and state of residence, type of employment company, number of hours per week dedicated to the course, previous specialization course and main source of income. At the end of the questionnaire, space was available for the respondents to include any comments they wanted.

To guarantee the validity, reliability and comparability of the answers, a pre-test was applied to the instrument. After the cognitive interview with the pre-test respondents, some adaptations were made for the sake of a better understanding of the questionnaire.

A non-probabilistic research sample was constituted, including higher-education institutions from distance education *lato sensu* business programs. As no database was available to define the Brazilian institutions that offer these courses, a survey was undertaken in the on-line register of the MEC (2010) on May 4th 2010, with a view to identifying the institutions authorized to offer undergraduate distance education programs. It is highlighted that the current legislation determines that HEI authorized to offer an undergraduate program can offer *lato sensu* programs in the same area, provided that both are offered in the same modality (in-class or distance). This means that, if the institution is authorized to offer an undergraduate program in a given area in the in-class modality, it can offer *lato sensu* courses in that area, provided that also in-class. The same is true for distance courses.

The distance education *lato sensu* courses were identified in the fields of business, statistics, marketing, business management, public management, hospital management, personnel management and economics. These specialties are the areas defined by *The Association to Advance Collegiate Schools of Business* as part of the business area. Sixty-four distance education courses for business education were identified, offered all over the country. At the end of the data collection period, the sample included 361 students who answered the questionnaire between September 24th 2010 and April 28th 2011, 354 of which were considered valid to produce the research report. The seven questionnaires that were discarded included partial information, with answers only in the first or second part, making any analysis impossible. Initially, the internal consistency test of the scale was applied using Cronbach's Alpha, resulting in a coefficient of 0.9311, and Student's t-test to verify the significance of the difference of means, with a view to rejecting the hypotheses or not, considering that the normal distribution test of the sample was statistically significant, in view of the Shapiro-Wilk ($p=0.0000$) and Shapiro-Francia ($p=0.00001$) tests.

4. Results

In view of the respondents' answers, the following profile was identified for the students in the distance education *lato sensu* graduate business programs: women (60%), married (47%), mostly working in the public sector (75%), graduated in Business Administration (25%), taking their first *lato sensu* graduate program (69%) and with a mean age of 36 years. This result confirms what seems to be the DE students' profile, considering that, in earlier studies, they chose this educational modality in search of greater flexibility, so as to be able to conciliate their daily activities with their studies, as verified in Table 1.

Therefore, this result indicates that the age of the individuals who sought a *lato sensu* program through distance education is older than that of the students who take an in-class *lato sensu* specialization program, in accordance with the research by INEP (2010) and the research results by Vieira (2009). In her study, Vieira (2009) found that the mean age of the in-class *lato sensu* graduate students was 29 years, for students who had concluded up to two thirds of their credits, and 31 years for new students. Penterich (2009) considers that the individuals who prefer DE are older than students in in-class programs. The possibility to adapt the study times in accordance with the available time, according to the author, is the determining factor for those who choose distance education, as they aim to improve their professional training without needing much time available.

The preponderant participation of women in the research seems to translate the Brazilian reality. According to INEP, in 2009, 76% of the people who concluded a distance education course were female, with a mean age of 31 years. This result approximates the findings by Penterich (2009), who observed that women represented 70% of the 1,037 respondents in that study. According to the author, women have a greater constant presence in DE courses, as they seek the necessary flexibility in these programs to conciliate their studies with their other activities.

As to the high participation of professionals whose income source is affiliated with a public institution (75%), in 2009, the federal government established the National Training Program in Public Management, which aims to encourage specialization courses in public management and health management. Therefore, courses with this focus are expected to attract individuals who are economically related to the public power. Although the research was not concentrated on any specific business program, according to information by *Universidade Aberta do Brasil* published on its website, among the 269 distance education specialization programs registered on May 12th 2011, 97 were offered in the field of public management. It should also be taken into account that professionals affiliated with the public administration normally gain salary incentives to take graduate programs.

As regards to degree of importance the students attributed to the variables, a ranking of the 16 research variables was elaborated in view of the students' scores. The variables' mean scores are divided in three groups: the first with means up to 7.9; the second with means between 8 and 8.9; and the third with means higher than 9. The largest number of variables ranked in the group between 8 and 8.9 (9 variables), followed by the groups with means higher than 9 (4 variables) and the group with means inferior to 7.9 (3 variables).

Table 1

Identification of Students

Identification	Frequency	%	
Marital status	Married	168	47%
	Divorced/Separated	28	8%
	Single	141	40%
	Fixed Partner	16	5%
	Widowed	1	0%
	Total	354	100%
Gender	Female	211	60%
	Male	143	40%
	Total	354	100%
Paid Work	No Paid Work	12	3%
	Private Sector	72	20%
	Public Sector	265	75%
	Third Sector	5	1%
	Total	354	100%
Conclusion of Earlier Specialization Course	No	243	69%
	Yes, but in-class	67	19%
	Yes, in-class and distance	14	4%
	Yes, distance education as well	30	8%
	Total	354	100%
Educational background	Business	88	25%
	Accountancy	41	12%
	Law	51	14%
	Economics	7	2%
	Engineering	10	3%
	Other	157	44%
	Total	354	100%

The respondents' scores reveal high scores, as the variable with the lowest score obtained 72% of the maximum score possible (2,808 out of 3,540 possible points), which also resulted in high averages. Despite this performance, none of these variables obtained the maximum score or average 10. The variable flexibility obtained the highest mean score (9.2). The standard deviations and variances of the scores were low, which means that the scores are distributed around the mean. The greatest difference was observed for equipment funding and the smallest for curriculum. Despite this limited variability, all variables received scores zero and ten.

In view of the research results, the following ranking was established of the variables that influence Brazilian students in their choice of a distance education *lato sensu* graduate business program, according to their degree of importance, in decreasing order: (1) flexibility (score 3,255), (2) teaching staff (3,219), (3) cost (3,204), (4) curriculum (3,189), (5) pedagogical methods used (3,152), (6) tutors (3,146), (7) didactic material (3,145), (8) use of Information and Communication Technology (3,122), (9) financial sustainability (3,032), (10) accessibility to facilities (2,995), (11) activities (2,971), (12) contact with teachers (2,904), (13) technical-administrative staff (2,903), (14) participation of colleagues (2,808), (15) interaction among students (2,679) and (16) equipment funding (2,575).

The fact that the students considered the flexibility variable as the most important confirms the results by Johnston, Killion and Oomen (2005) and Penterich (2009) as the theoretical indication that this is the main advantage of distance education courses (Garrison, 2000; Carr-Chellman & Duchastel, 2000; Bolliger & Wasilik, 2009; Nichols, 2010). In addition, in the space for comments, the students informed that they value flexibility extremely highly, to the extent of asking that there be no in-class meetings: “flexibility to participate in the course from anywhere without the need for transportation”.

In that sense, one student suggests the “possibility of videoconferencing from the same city, without the need to travel to the hub”. The students also consider the possibility of further extending the activity deadlines: “establish a weekly deadline to hand in papers/activities, (...) allowing the students to do the activities at weekends”. This shows that some students use the weekend for these activities, as confirmed by one student’s demand for “availability to answer doubts at weekends”, while another student justifies that this “(...) would allow the students to participate more”, as “(...) the majority works”. As one student summarized: “a distance education course favors students who are unable to go to college each day, as they can study at home in their free time”.

Perhaps due to the extreme valuation of the flexibility variable in DE courses, it is common for students to want no in-class meetings, even if they live in the same city as the in-class support hub. This desire reveals that, although few meetings are held, DE students would prefer no meetings at all. It should be observed that current legislation requires some meetings, which the respondents do not seem to know.

The variable teaching staff ranked second, scoring 3,219 (91% of maximum score). This variable was expected to stand out among the others, due to the number of studies that indicated it as an important selection criterion for students when choosing a course. Research focused on in-class (LeBlanc & Nguyen, 1997; Oldfield & Baron, 2000; Gallifa & Batallé, 2010) as well as distance education courses (MEC, 2007b; Penterich, 2009) revealed the fundamental importance of this variable.

Studies treat the variable teaching staff differently for distance education courses as, according to MEC (2007b), one should not imagine that teachers have less work in this educational modality. On the opposite, in distance education courses, the teachers’ functions are broadened, also demanding qualifications that are not required from teachers in in-class programs. The teaching staff particularly needs to work so as to motivate, drive, monitor and assess the students, adapting to the teaching and learning process in the form the distance education method requires (MEC, 2007b).

Third in the ranking comes the cost. The respondents attributed score 3,204 (91% of the maximum score) to the cost variable. As observed in other empirical studies, the cost is sometimes considered more important, like in the results by Ford, Joseph and Joseph (1999), and sometimes less important, like in the research by Vieira (2009).

Some authors discuss the cost of distance education as one of the factors that influence the students’ decision, as DE tends to be relatively less costly for the students (Penterich, 2009). According to Nascimento (2009), this type of teaching uses technological means that allow the minimization of program development and application costs. In addition, as Luzzi explains (2007), distance education courses are offered to more students, allowing the institution to maximize volume gains.

Finally, among the variables with a mean score superior to nine, comes the curriculum, which received score 3,189 (90% of the maximum score). In previous studies on the theme, this is one of the variables with the highest frequencies (Hill, 1995; LeBlanc & Nguyen, 1997; Johnston, Killion & Oomen, 2005; MEC, 2007b; Henckell, 2007; Vieira, 2009, Penterich, 2009)

The MEC (2007b) considers the following about the curriculum of a DE course, recommending that it should guide the structure and organization of the course and establish the link with the pedagogical project.

The organization in discipline, module, theme, area reflects the choice made by the subjects involved in the project. The understanding of the evaluation, the instruments to be used, the conceptions of the tutor, the student, the teacher, in short, they should be coherent with the theoretical-methodological option defined in the pedagogical project.

The innovative use of technology applied to education, and more specifically to distance education, should be based on a learning philosophy that grants the students the opportunity to interact, to develop shared projects, to acknowledge and respect different cultures and construct knowledge. (MEC, 2007b, p. 8)

Among the variables with a mean score between 8.0 and 8.9, two were expected to figure among the highest scores, in view of earlier study results by other authors: technical-administrative staff (LeBlanc & Nguyen, 1997; Oldfield & Baron, 200; Gallifa & Batallé, 2010; MEC, 2007b; Henckell, 2007; Penterich, 2009) and tutors (Mcgorry, 2003; Johnston, Killion & Oomen, 2005; Henckell, 2007; Penterich, 2009)

The variable technical-administrative staff was the second most frequent in research and demonstrates to be a determinant factor in the students' satisfaction. Based on the results, however, this variable's score was 2,903 (82% of the possible score), corresponding to place 13, at the lower limit of the variables ranked in the second group. This variable stood out in earlier studies as, according to Oldfield and Baron (2000), due to the students constant contact with the individuals who support them, they are expected to demand more from them.

The score of the variable tutors equaled 3,146 (89% of the possible score), ranking sixth. According to MEC (2007b), the tutors represent a very important aspect of distance education, as they participate actively in the students' learning process. Whether at a distance or during in-class meetings, the tutor acts and contributes to the development of teaching and learning and is important for the monitoring and evaluation of the pedagogical course project.

It is acknowledged that the students consider the tutor's participation in their learning very important. Nevertheless, as students and tutors interact more through interactive media (e-mail, chat, forum), this related can be affected. This assertion is illustrated by one student's comments, according to whom "distance education tutors give very vague answers about the papers required in a graduate program); and also by another student's example, who says: "I needed help from a tutor and his response was delayed, and that made me lose the deadline. I did not do the activity."

4.1 Test of Research Hypotheses

To test the hypotheses about the variables' behavior, Student's t test was applied, using the software Stata 10⁷.

To test hypotheses 1 and 2, initially, main components analysis was applied. This technique involves "explaining the variance and covariance structure of a random vector, composed of random p-variables, through the construction of linear combinations of the original variables" (Mingoti, 2005, p. 59). Hence, this technique reduces a set of variables to a smaller set, permitting the analysis and testing of the main components in that original group. To test the hypothesis, one or various components are chosen that most represent the variance of the original data.

The analysis of the main components produced for the research variables, presented in Table 2, indicated that, for the internal and external variables, component 1 in each group represents more than 50% of the variance of all factors, and separately is the most representative. Thus, it was observed that no other components obtained such a high indicator or presented the same high degree of correlation among the variables (considering the internal variables, the correlation of component 1 varied from 0.6567 for flexi-

bility to 0.7973 for tutors and, for the external variables, from 0.5892 for the cost variable to 0.8246 for the financial sustainability of the institution). Based on the above, component 1 was chosen, for the external as well as the internal variables, to proceed with the difference of means tests.

Table 2

Main components of the variables

		<i>Eigenvalue</i>	% da Variância	Variância Acumulada
Variáveis Internas	Componente 1	6,87	0,5724	0,5724
	Componente 2	1,11	0,0924	0,6648
	Componente 3	0,66	0,0546	0,7194
	Componente 4	0,61	0,0508	0,7703
	Componente 5	0,52	0,0432	0,8135
	Componente 6	0,46	0,0381	0,8516
	Componente 7	0,39	0,0325	0,8841
	Componente 8	0,38	0,0315	0,9157
	Componente 9	0,34	0,0283	0,9439
	Componente 10	0,26	0,0220	0,9660
	Componente 11	0,23	0,0194	0,9853
	Componente 12	0,18	0,0147	1,0000
Variáveis Externas	Componente 1	2,17	0,5418	0,5418
	Componente 2	0,79	0,1971	0,7390
	Componente 3	0,58	0,1461	0,8850
	Componente 4	0,46	0,1150	1,0000

The first hypothesis is based on the Theory of Sexism, which declares that a behavioral difference exists between men and women. In this research, it was admitted that women valued the internal or intrinsic variables more when they chose a course in comparison with men. Therefore, the first hypothesis was described as follows:

- **H₁:** *Women attribute more importance to the internal variables when compared to men.*

Using the main component of the internal variables, it was verified that the difference between the mean scores of the women (0.57, mean produced by main component) and men (-0.84) corresponded to 1.4 in favor of the women. The results of Student's t-test demonstrated that the women's mean score is significantly higher than the men's, showing that the women value the internal variables of the DE *lato sensu* specialization courses more than the men ($p=0.0000$). Therefore, the first research hypothesis was confirmed, supporting the results of Ford, Joseph and Joseph (1999), McGorry (2003), Henckell (2007) and Vieira (2009).

The second hypothesis related to the possible difference in behaviors between older and younger people, as the former would search the intrinsic aspects of the course, while the latter supposedly value the extrinsic aspects. Hence, the following hypothesis was formulated:

- **H₂:** *Older students attribute more important to the internal variables to the detriment of the external variables when compared to younger students.*

To determine the group of the oldest and that of the youngest students, the students aged 45 years or older (oldest) and those aged 27 years or younger (youngest) were identified. This distribution was based on the sample's mean age (36 years) plus a standard deviation (9 years) for the oldest group and minus a standard deviation for the youngest group. In this procedure, the age distribution was considered normal. It is expected that approximately 68% of the observations figure between the mean plus one standard deviation and the mean minus one standard deviation, leaving approximately 16% of the observations in the interior and approximately 16% in the superior tail of the distribution (Fávero, Silva, Chan & Belfiore, 2009).

The group of the oldest students (mean -0.38) consisted of 75 respondents, while the group of the youngest students (mean 0.06) included 61. The verification of the difference of means revealed a difference of 0.45 (considering the main component) in favor of the youngest students. When Student's t-test was applied, however, this difference was not statistically significant ($p=0.3909$), which led to the rejection of the second research hypothesis. Therefore, it cannot be affirmed that differences exist between the valuation the oldest and the youngest students attribute to the internal variables (accessibility of facilities, cost, financial sustainability of the institution and equipment funding).

The results found for this hypothesis differed from Vieira (2009). That author found a statistically significant difference between the mean scores attributed to the variables by the students, with a mean age of 30 years, and by the teachers, with a mean of 47 years.

The third and fourth hypotheses refer to the flexibility a DE course offers to the students, as they can attend it from anywhere, without the need for frequent traveling to the teaching hubs when not located in the students' city of residence. Hence, the researchers thought that the accessibility variable would not be very important for the students, and even less for students living in the same city where the in-class support hub is located. Therefore, the hypotheses were formulated as follows:

- **H₃**: *The students attribute less importance to the accessibility of the in-class support hub when compared to the other variables.*
- **H₄**: *Students living in the city where the in-class support hub is located attribute less importance to this variable when compared to other students.*

As regards the third hypothesis, it was verified that the mean degree of importance of the accessibility of the support hub variable corresponded to 8.5, ranking tenth among the variables. This mean score already reveals that this variable was more important than six other variables. The difference of means test indicated that the mean score attributed to the accessibility variable was higher than the mean scores for contact with the teacher ($M = 8.2$, $p\text{-value} = 0.0435$), technical-administrative staff ($M = 8.2$, $p\text{-value} = 0.0353$), participation of colleagues ($M = 7.9$, $p\text{-value} = 0.0001$), interaction among students ($M = 7.6$, $p\text{-value} = 0.0000$) and equipment funding ($M = 7.3$, $p\text{-value} = 0.0000$), with significance set at 0.05. For the other variables, no significant differences were found among the mean scores.

Hence, the third research hypothesis was rejected, as more importance was attributed to the accessibility of the support hub than to the six other variables, as confirmed by Student's t-test for five of them (Table 3).

Finally, to test the fourth hypothesis, the students were divided in two groups: students living in the same city as the support hub (153 students) and students living in a different city (201). The mean score was 8.4 for the students living in the same city and 8.5 for those who did not. The difference of means test indicated no significant difference between the mean scores of the two student groups ($p=0.5088$). Therefore, the hypothesis that differences exist between the degree of importance attributed to the accessibility variable between students living in the cities where in-class support hubs are located and those living in other cities could not be confirmed, leading to the rejection of the fourth hypothesis.

Table 3

Difference in the degree of importance for the accessibility variable

Variável	Diferença	Média
Flexibilidade	0,7	1,0000
Corpo docente	0,6	1,0000
Custo	0,6	1,0000
Currículo	0,5	1,0000
Metodologias pedagógicas utilizadas	0,4	0,9997
Tutores	0,4	0,9991
Material didático	0,4	0,9995
Uso TIC	0,3	0,9974
Sustentabilidade financeira	0,1	0,7868
Atividades	-0,1	0,3102
Contato com professores	-0,3*	0,0435
Pessoal técnico-administrativo	-0,3*	0,0353
Participação dos colegas	-0,6*	0,0001
Interação entre estudantes	-0,9*	0,0000
Financiamento de equipamentos	-1,2*	0,0000

*Significante a 0,05

It was expected that students who did not need to travel from their city to participate in the in-class meetings of the DE courses would attribute less importance to the accessibility variable than those who did. This was due to the fact that, for the first group, the cost and time spent would be considerably lower and, therefore, it would not be costly to participate in any in-class meeting.

Nevertheless, the opposite was found: accessibility is a relatively important factor for the respondents in general, which seems to be related to the students' comments, who mostly considered it difficult to participate in the in-class meetings, even if not that frequently. According to the respondents, distance education courses should involve no in-class meetings, as they considered that the flexibility this kind of course offers should not require physical, but only virtual presence. Hence, it can be inferred that, for the students, the flexibility of DE courses is associated with the non-existence of in-class meetings and that, therefore, demanding their presence, even if occasionally, requires great effort.

5. Conclusion

Course evaluation is a method that allows the stakeholders to actually dimension the variables influencing the quality. Scriven (1991) developed a method to evaluate the courses from the perspective of the main user according to the author: the student. The method developed allows the students to evaluate the course, allowing the stakeholders to visualize shortages and identify the variables that influence the choice of the course.

Departing from Scriven's theory (1991), the general objective in this research was to identify and analyze the degree of importance Brazilian students attribute to the variables that influence them in their choices of distance education *lato sensu* graduate business courses. Based on the theoretical framework used, it was identified that 16 variables were possible determinants in the students' choice. Hence, through the application of a questionnaire, it was verified that, for a sample of 354 students from different Brazilian locations, these variables exert significant influence. This conclusion was reached when verifying that the score of the variable that least influenced the students corresponded to 73% of the maximum.

In view of the research results, the 16 variables ranked in decreasing order of importance according to the students were: flexibility, teaching staff, cost, curriculum, pedagogical methods used, tutors, didactical material, use of state-of-the-art information and communication technology, financial sustainability of the institution, accessibility of facilities, activities, contact with teachers, technical-administrative staff, participation of colleagues, interaction among students and equipment funding.

The research data showed that 4 variables obtained a mean score superior to 9: flexibility, teaching staff, cost and curriculum. This result reveals that the possibility to structure the course according to one's available time is fundamental for the students. But having a trained teaching staff and curriculum appropriate to one's pedagogical situation is also important. Therefore, one should not imagine that the impact of teachers' work and pedagogical support can be minimized in this teaching modality. On the opposite, in distance education program, the teachers' functions are broadened, demanding qualifications that are not required from teachers in in-class programs. As regards the cost variable, some authors consider it essential in the students' decisions, as the DE courses are frequently cheaper than in-class programs.

Evidence was found that, for the women in the sample, the internal variables analyzed are more important than the external ones when compared to the mean scores attributed by the men (H_1). In addition, it was verified that there is no significant statistical difference between the scores the oldest and youngest students attribute to the external or internal variables (H_2); and that the location of the support hub should be considered an important factor in the students' decision, without any distinction between the students living in the same city as the hub or in another city (H_3 and H_4).

Finally, future studies are suggested to identify the students' pedagogical needs, considering them as non-autonomous agents, with greater needs than students taking in-class programs, demanding a didactical teaching structure that goes beyond the didactical material and which the course needs to offer. In addition, studies are suggested about the drop-out rates of DE students, looking not only for quantitative evidence, but also for its causes.

6. References

- Ad Hamid, N. R. (2006). *An Assessment of the Internet's Potential in Enhancing Consumer Relationships*. Thesis (Doctor of Philosophy). Victoria University of Technology. Melbourne.
- Bailey, S. (1997). *Household Decision Making: Relative Influence of Husbands and Wives in the 1990's*. Thesis (Masters of Management Studies School of Business). Faculty of Graduate Studies and Research of Carleton University. Ottawa.
- Belloni, M. L. (2009). *Educação a distância*. Campinas: Autores Associados.
- Bolliger, D. U. & Wasilik, O. (2009). Factors Influencing Faculty Satisfaction with On-line Teaching and Learning in Higher Education. *Distance Education*, 30(1), 103-116.
- Brandão, H. P. (2009). *Aprendizagem, contexto, competência e desempenho: um estudo multinível*. Tese (Doutorado em Psicologia Social, do Trabalho e das Organizações) – Programa de Pós-Graduação em Psicologia Social, do Trabalho e das Organizações da Universidade de Brasília, Brasília.
- Burma, S. (2007). *Art Education Faculty and Administrators Experiences with and Perceptions of Distance Education: A Mixed Methods Study*. Dissertation (Doctor of Philosophy) – Graduate School of The Ohio State University, Ohio.
- Burt, S. (2000). The Strategic Role of Retail Brands in British Grocery Retailing. *European Journal of Marketing*, 34(8), p.875-890.
- Carr-Chellman, A. & Duchastel, P. (2000). The Ideal On-line Course. *British Journal of Educational Technology*, 31(3), p. 145-158.

- Carvalho, C. G. (2007). *Satisfação dos consumidores de terceira idade nos meios de hospedagem de Balneário Camboriú/SC*. Dissertação (Mestrado em Administração) – Centro de Educação de Biguaçu, Universidade do Vale do Itajaí, Biguaçu.
- Comarella, R. L. (2009). *Educação superior a distância: evasão discente*. Dissertação (Mestre em Engenharia e Gestão do Conhecimento) – Programa de Pós-Graduação em Engenharia e Gestão do Conhecimento, Universidade Federal de Santa Catarina, Florianópolis.
- Cornachione Júnior, E. B. (2004). *Tecnologia da educação e cursos de Ciências Contábeis: modelos colaborativos virtuais*. Tese (Livre-Docência) – Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, São Paulo.
- Davok, D. F. (2006). *Modelo de meta-avaliação de processos de avaliação da qualidade de cursos de graduação*. Tese (Doutorado em Engenharia de Produção) – Programa de Pós-Graduação em Engenharia de Produção, Universidade Federal de Santa Catarina, Florianópolis.
- Decreto 5.622, de 19 de dezembro de 2005. (2005). Regulamenta o art. 80 da Lei nº 9.394, de 20 de dezembro de 1996, que estabelece as diretrizes e bases da educação nacional.
- Duarte, S. V. & Furtado, M. S. V. (2002). *Manual para elaboração de monografias e projetos de pesquisas*. (3. ed.) Montes Claros: Unimontes.
- Fávero, L. P. L., Silva, F. L. da S., Chan, B. L. & Belfiore, P. P. (2009). *Análise de Dados: Modelagem Multivariada para Tomada de Decisões*. São Paulo: Saraiva.
- Ford, J. B., Joseph, M. & Joseph, B. (1999). Importance-performance Analysis as a Strategic Tool for Service Marketers: The Case of Service Quality Perceptions of Business Students in New Zealand and the USA. *The Journal of Services Marketing*, 13(2), p. 171-186.
- Gallifa, J. & Batallé, P. (2010). Student perceptions of service quality in a multi-campus higher education system in Spain. *Quality Assurance in Education*, 18(2), p.156 - 170
- Gall, M. D., Gall, J. P. & Borg, W. R. (2007). *Educational Research: An Introduction*. 8. ed. Boston: Pearson Education.
- Garrison, R. (2000). Theoretical Challenges for Distance Education in the 21st Century: A Shift from Structural to Transactional Issues. *International Review of Research in Open and Distance Learning*, 1(1), p.1-17.
- Goeking, O. H. P. (2006). *Comparação de teorias da ação para explicar interações comportamentais e comportamentos reais correspondentes*. Dissertação (Mestrado em Administração) – Centro de Pós-Graduação e Pesquisa em Administração do Departamento de Ciências Administrativas, Faculdade de Ciências Econômicas, Universidade Federal de Minas Gerais, Belo Horizonte.
- Granito, R. A. N. (2008). *Educação a distância e estilos de aprendizagem: elaboração de um protocolo de qualidade para ambientes virtuais de ensino*. Dissertação (Mestrado em Administração Organizacional) – Programa de Pós-Graduação em Administração de Organizações, Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, Ribeirão Preto.
- Henckell, M. M. (2007). *Evaluating Distance Education: The Student Perspective*. Dissertation (Doctor of Education) – The Faculty of the Graduate School, University of Missouri, Columbia.
- Hashimoto, K. (2009). *An Evaluation Framework for Educational Reform Projects for Teacher Quality Improvement in Developing Countries: A Case Study of Egyptian Education Reform*. Doctor of Philosophy. School of Professional & Learning Studies Faculty of Education Queensland University of Technology. Brisbane.
- Instituto Brasileiro de Geografia e Estatística (IBGE). (2011). *Resultados preliminares do universo do Censo Demográfico 2010*. Recuperado em 11 julho, 2011 de http://www.ibge.gov.br/series_estatisticas/.

- Instituto Nacional de Estudos e Pesquisas (INEP). (2009). *Sistema Nacional de Avaliação da Educação Superior: da concepção à regulamentação*. (5. ed.) Brasília: Inep.
- _____. (2010). *Censo da educação superior*. Recuperado em 10 março, 2010 de <http://www.inep.gov.br/superior/censosuperior/default.asp>.
- Johnston, J., Killion, J. & Oomen, J. (2005). Student Satisfaction in the Virtual Classroom. *The Internet Journal of Allied Health Sciences and Practice*, 3(2), p. 1-7.
- Kiesler, S. & Sproull, L. S. (1986). Response Effects in the Electronic Survey. *Public Opinion Quarterly*, 50(3), p. 402-413.
- LeBlanc, G. & Nguyen, N. (1997). Searching for Excellence in Business Education: An Exploratory Study of Customer Impressions of Service Quality. *International Journal of Educational Management*, 11(2), p. 72-79.
- Lei nº 9.394, de 20 de dezembro de 1996. (1996). Estabelece as Diretrizes e Bases da Educação Nacional.
- Luzzi, D. A. (2007). *O papel da educação a distância na mudança de paradigma educativo: da visão dicotômica ao continuum educativo*. Tese (Doutorado em Educação) – Programa de Pós-Graduação em Educação, Faculdade de Educação, Universidade de São Paulo, São Paulo.
- Mantovani, D. M. N. & Gouvêa, M. A. (2010). Sistemas de informação na educação: o uso de uma plataforma de educação a distância no ensino de estatística aplicada à administração. 7º International Conference on Information Systems and Technology Management (CONTECSI). *Anais*. São Paulo.
- McGorry, S. Y. (2003). Measuring Quality in On-line Programs. *The Internet and Higher Education*, 6, p. 159-177.
- MEC - Ministério da Educação. (2007). *Referenciais de Qualidade para Educação Superior a Distância*. Brasília: MEC.
- _____. (2010). *Instituições de Educação Superior e Cursos Cadastrados*. Recuperado em 04 maio, 2010 de <http://emec.mec.gov.br/>.
- _____. (2013). *Instituições de Educação Superior e Cursos Cadastrados*. Recuperado em 27 dezembro, 2013 de <http://emec.mec.gov.br/>.
- Michel, L. M. (2010). *Value-added Poultry Product Development: A Consumer Driven Approach*. Thesis (Master of Science) – Department of Agricultural, Food, and Nutritional Science of the Faculty of Graduate Studies and Research of the University of Alberta. Alberta.
- Middendorf, B. J. (2009). *Evaluating Department Chairs' Effectiveness Using Faculty Ratings*. Dissertation (Doctor of Philosophy) – Department of Curriculum and Instruction College of Education, Kansas State University, Manhattan.
- Mingoti, S. A. (2005). *Análise de dados através de métodos de estatística multivariada: uma abordagem aplicada*. Belo Horizonte: Editora UFMG.
- Motta, S. L. S. (2009). *Estudo sobre segmentação de mercado consumidor por atitude e atributos ecológicos de produtos*. Tese (Doutorado em Administração) – Departamento de Administração, Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, São Paulo.
- Nichols, M. (2010). Student Perceptions of Support Services and the Influence of Targeted Interventions on Retention in Distance Education. *Distance Education*, 31(1), 93-113.
- Oldfield, B. M. & Baron, S. (2000). Student Perceptions of Service Quality in a UK University Business and Management Faculty. *Quality Assurance in Education*, 8(2), 85-95.
- Patton, M. Q. (2008). Utilization-focused Evaluation. *Evaluation in Education and Human Services*. (4. ed.) Sage Publications: Thousand Oaks.

- Penterich, E. (2009). *Competências organizacionais para a oferta da educação a distância no ensino superior: um estudo descritivo-exploratório de IES brasileiras credenciadas pelo MEC*. Tese (Doutorado em Administração) – Programa de Doutorado em Administração do Departamento de Administração, Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, São Paulo.
- Piercy, N. (2013). Online service quality: Content and process of analysis. *Journal of Marketing Management*. 46. doi: 10.1080/0267257X.2013.839571
- Poth, C. A. N. (2008). *Promoting Evaluation Use Within Dynamic Organizations: a case study examining evaluator behavior*. Thesis (Doctor of Philosophy) – Faculty of Education, Queen's University, Ontario.
- Ruas, R. & Comini, G. M. (2007). Aprendizagem e desenvolvimento de competências: articulando teoria e prática em programa de pós-graduação em formação gerencial. *Cadernos EBAPE.BR*, 5, Edição Especial.
- Sabir, R. I.; Ahmad, W.; Ashraf, R. U. & Ahmad, N. (2013). Factor Affecting University and Course Choice: a comparison of undergraduate engineering and business students in Central Punjab, Pakistan. *Journal of Basic and Applied Scientific Research*. 3(10), 298-305.
- Sampieri, R. H., Collado, C. F. & Lucio P. B. (2006). *Metodologia de pesquisa*. 3. ed. São Paulo: McGraw-Hill.
- Schein, M., Perin, M. G. & Sampaio, C. H. (2009). O comportamento da compra de serviços de turismo na terceira idade. *Revista Turismo Visão e Ação*, 11(3), 341-357.
- Scriven, M. (1991). *Evaluation Thesaurus*. (4. ed.) California: Sage Publications, 1991.
- Serviço de Apoio às Micro e Pequenas Empresa de São Paulo (Sebrae-SP). (2010). *12 anos de monitoramento da sobrevivência e mortalidade de empresas*. São Paulo: Sebrae-SP.
- Silva, L. A. da. (2009). *Atitude do consumidor em relação às marcas próprias de supermercados: um estudo exploratório*. Dissertação (Mestrado em Administração de Organizações) – Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, Ribeirão Preto.
- Unesco – United Nations Educational, Scientific and Cultural Organization. (2002). *Open and Distance Learning: Trends, Policy and Strategy Considerations*. Paris: Division of Higher Education.
- Veale, R. (2007). *Investigating the Simultaneous Influence of Intrinsic and Extrinsic Cues: An Examination of the Interaction between Country of Origin, Price and Select Sensory Variables*. Thesis (Doctor of Philosophy) – The University of Adelaide, Adelaide.
- Vieira, S. S. da C. (2009). *Avaliação de programas de educação continuada: análise da percepção do aluno e do seu modelo de decisão para escolha de programas de especialização para executivos no Brasil*. Tese (Doutorado em Ciências Contábeis) – Departamento de Contabilidade e Atuária, Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, São Paulo.