

Study of Organizational Image as Competitive Differential for the Institution of Higher Education

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Abstract

This article presents the results of a satisfaction survey carried out with a College located in Ponte Nova/MG-Brazil. The research in question, aimed to verify what are the factors that affect the formation of the image of a school of higher education, the perception of your target audience. Among the multivariate techniques used in this paper we can highlight the principal component analysis (PCA) and factor analysis (FA) aimed mainly to reduce a large amount of data to a smaller set, to convey as much information possible. The results achieved through the analysis of the variables obtained by the survey, can serve as a basis for establishing improvement targets for forming the image of an institution of higher education, because they represent the views of the main public that establishment.

1. Introduction

Requirements, increasing, consumers have demanded an effort to adapt and update by business. No matter what industry specifically, but it is noteworthy both their commitment to better manage their assets and resources in an attempt to preserve the market and win new customers.

One of the sectors that has been subjected to this pressure is the education. This level of demand and market potential still favoring schools, however, the benchmarks of quality of higher education institutions through the results of assessments carried out by the Ministry of Education - about the faculty level, the prestige of institution or the available infrastructure, for example - already clearly set out the factors that differentiate this sector. Thus offer products and services (courses) quality became, first of all, a condition for the survival and growth of these organizations.

To face this reality and consolidate its actions in this market segment, educational institutions need to keep up with innovations, adapt to change and seek improvements in the services provided to their students and the communities they serve. To measure, analyze and evaluate their actions and customer satisfaction, the institution must be attentive to their image and what is on positioning and market share.

By making a retrospect, it is clear that since the 50s, scholars express concern in conceptualizing the term "image" and define what their role in organizations. By way of confirming said, Boulding ensures that:

[...] Individual knowledge is the collection of images that the person has a body that it has had contact during his lifetime. Thus, the image that one has of an organization or a product or brand influences their behavior. (Boulding, 1956, p.06)

The term "image" is now used by several American companies being used in different contexts, being initially linked to the products and brands and, subsequently, more broadly, organizations and marketing. The importance of using imaging studies to support the strategies is due to the fact that the products resemble more and more, thus preventing that universities maintain a differential for long.

Given the above and considering that students play an important role in shaping the image of an institution of higher education, it was intended to seek answers to the question: what are the variables interfere in forming the image of a school of higher education, according to perception of your students?

To this end, we carried out a survey of students Administration course a university located in Nova Ponte / MG, whose objectives were: to identify the compliance of the curriculum to the needs perceived by the students, find out the expectations of this group in discharge of their teachers, detect prospects, students, compared to skills development and engagement in the labor market and verify that the reputation of the institution can be one of the relevant factors in relation to the organization's image formation in question .

It is believed that the knowledge of the results of this research is of utmost importance both for the institution concerned, as for other educational institutions, since the need to check on the image, it becomes a competitive advantage.

Since this is an exploratory character study, the results were statistically analyzed descriptively by checking the relationship between the nine key variables (Business Conduct, social conduct of the company, Services, Communication, Support, distribution channels, product, sales force and Price) in the locus of study.

The research came from the following assumptions: the student of today, due to the economic conditioning, is visibly worried about their insertion in the labor market and the school's image that frequent, so, higher education institutions must adapt its structures to these new requirements so that they can survive in an increasingly competitive space.

2 Definitions Of The Term Image And Its Relevance To The Higher Education Institutions

There are several picture settings, because its meaning is linked to the areas or sub-areas of knowledge such as semiotics, communication, philosophy, theology, economics and marketing. Based on the review of the different ways of conceptualizing image, drawn up by authors like Kotler and Fox (1994), Kazoleas, Kim and Moffitt (2001), identifies that your concept in a marketing perspective, can be summarized as: representations, impressions, beliefs and networks of meanings of an object, product, service, brand, organization or store, stored in consumer holistically memory, which is formed through sensory, cognitive, functional and emotional.

From the perspective of Schuler (2003), the image is able to influence and direct the behavior of people, so, check that the image can convey to the consumer public, is an important ally for strategic management of organizations. "The image is the result of a complex process in which the organization sends a message to your audience through social, historical, personal experiences and material factors" (Kazoleas et al., 2001, p.04).

It is noticed that the image is formed by a set of tangible and intangible factors that man perceives the environment where they live, thus, a higher education institution is assessed for its infrastructure, quality of education, competence of its faculty, staff , laboratories, location and reputation, among other things.

Barich et al. (1991) states that under a marketing perspective, the image involves: the brand image; image of the products; marketing image and corporate image. In the context of research in question, the study focus was on the corporate image which, according to Melo and Vieira (2004, p.01), "is the impressions and opinions about a recent firm, summarizing a set of complex meanings that influence behavior and decision making "- public perception of the company.

Regarding the education sector, it is clear that today there is a greater zeal in relation to the image, because with Colleges and Universities numerous proliferating across the country, competition becomes fierce, and some

features, such as positioning before employees and the conduct in relation to the company, may be the differences that ensure the permanence and credibility of the institution in the market.

Universities and Colleges that a few years ago, acted passively in educational issues, especially in relations with the market today are being forced to be pro active in their strategic actions, especially in identifying and meeting the expectations and needs of a selective and demanding market (Vergara, 2007).

According to Franco (1998), a school that goes beyond the boundaries of materiality has the key role to develop habits, customs and attitudes centered on commitment and social responsibility, and provide general, specialized and scientific knowledge. Educational institutions can not be limited simply to be providers of knowledge ..

2.1 Variables That Influence The Image Of Formulation

Based on studies of Figueiredo and Lara (2003), the factors were selected that are considered essential to the formulation of the image of a company, in this case, a higher education institution.

In order to not be limited to describe the factors that contribute to the design image in the selected public view, the coordinates that will guide the image study will have as support the design of Figueiredo and Lara (2003), shown in Figure 01 .

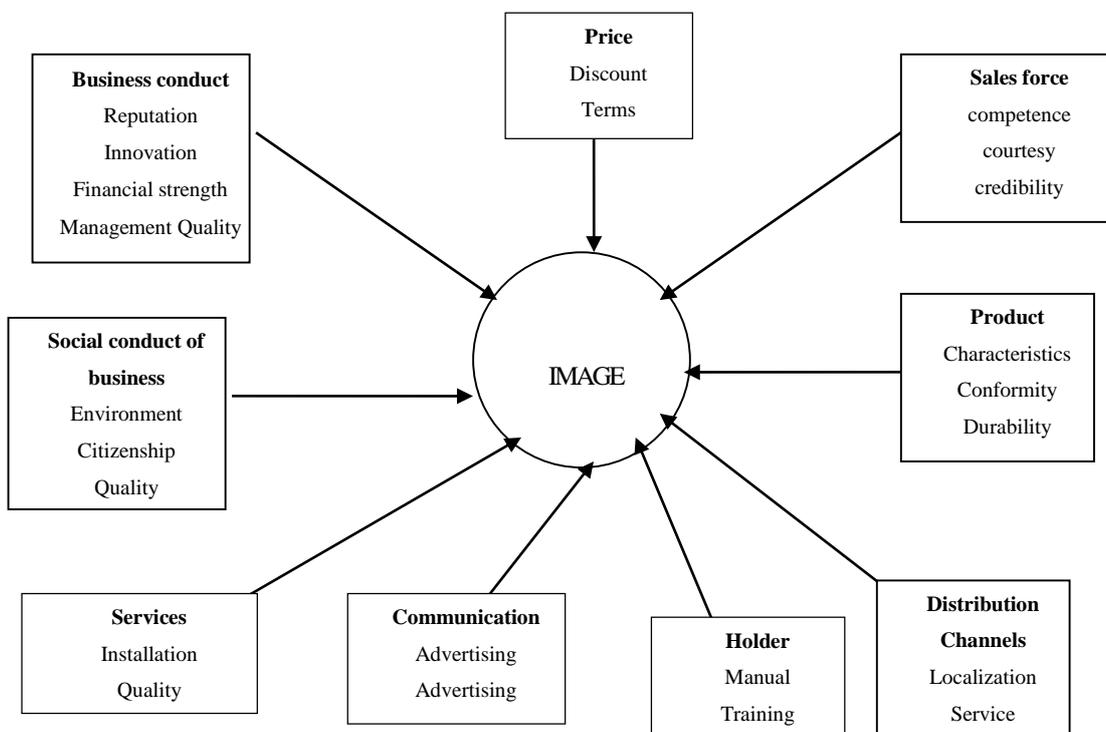


Figure 01 - Main variables for the formulation of an image Source: "The importance of the image in the local strategy: a study in the city of Belo Horizonte," Figueiredo and Lara, 2003 - (Adapted by the author)

3 Methodology

This research aims to study, analyze and obtain information regarding the undergraduate degree in Business Administration from a higher education institution in the state of Minas Gerais, making use of descriptive and exploratory research the most appropriate for considering them in preparation of this study.

Since this is a study that focuses on the image of a University in the target audience design, the use of descriptive research was the most appropriate, considering that this type of research notes, records, analyzes and correlates events or phenomena (variables) without manipulating them.

Regarding the use of exploratory research, it took into account the fact that it seek to understand the reasons and motivations implied for certain attitudes and behavior of people.

To conduct the survey used a questionnaire applied on equal terms to all respondents.

The questionnaire, in question, was in two stages. The first part was intended to seek information about the interviewee: period and that shift is attending, gender, age, data on its previous intellectual training, work and family income.

The second part brought questions concerning vocational training higher education in general, and encompass ask concerning the assessment / opinion of the student and the degree course in Business Administration and about their own educational institution in question. In this part, only in relation to the first question, it was decided to dichotomous alternatives, considering that the binomial (YES, NO) would not cause prejudice to the reliability of the data. But in other issues we opted for the use of Likert scale, the fact that it is based on the premise that the general attitude is referred to beliefs about the object attitude, the force that holds these beliefs and values linked to the subject. It points out that data collection has enabled a broad overview of the University's image in the study, as were interviewed all the students enrolled in the last two periods of the course of Directors of the institution, making a total of 55 students. Information on some aspects related to the undergraduate course in administration and were collected from the tabulation of questionnaires and analyzing the results, were raised inferences to the whole.

The sampling process of this research was used the non-probabilistic technique intentional, since it wished to obtain the views of customers on the undergraduate course in administration, ie information of a group in a specific context.

Made data collection, they were tabulated and subsequently analyzed. For such analysis techniques were adopted specific statistics according to the type of the data. , Is worked in the first phase, with descriptive statistics, ie statistical tools to describe and present data because it was necessary to outline and see what happened to the data, as well as the divergent and isolation of variables key.

Later we used two techniques of multivariate data analysis: the principal component analysis and factor analysis, and rotation factors used in conjunction with the latter. Multivariate analysis was used to be a set of statistical methods used to study a large number of variables measured simultaneously and correlated in general.

According to Hair, Tatham, Anderson and Black (2005, p.91): "The main advantage of multivariate techniques is its ability to accommodate multiple variables in an attempt to understand the complex relationships not possible with univariate methods." Among the main objectives of this form of analysis are: the classification or grouping; the reduction or simplification data; checking of dependence between variables; and prediction and hypothesis testing.

3.1 Description Of The Technical Analysis Of Multivariate

Initially, the principal component analysis (PCA) was used, since the goal is to play a lot of multivariate and correlated data.

The ACP, including all the variables, can also be understood as a factor analysis (FA) with all the variables. We analyzed the correlation of the variables in the structure of ACP and then made to an AF for a description of the data.

3.1.1 Principal component analysis

In an ACP intended to analyze the structure of a set of correlated variables, to be lowered to a new set of uncorrelated variables and quite inferior to the original number. These new variables are called principal components (PC), and are constructed using linear combinations of the original variables uncorrelated. CP are uncorrelated linear combinations of the original variables and are estimated from the structure of variance and covariance of these observed variables (covariance matrix).

3.1.2 Factor analysis

The multivariate technique of factor analysis is intended to summarize the information from a data set to a set of factors, and such an AF analyzes the structure of interrelations (correlations) variables. As are many variables jointly analyzed works is always with arrays, and the data correlation matrix denoted "R".

Such factors are present in much smaller amount than that of observed variables, thus enabling a better organization and interpretation of data by the researcher.

A factor analysis can be summed up in a few steps of paramount importance: check the adequacy of the AF data; determination of extraction technique and quantity of factors to be extracted; Factor rotation; and analysis of specific factors.

To check the adequacy of the data, certain criteria were adopted: the first provides that the ratio between the number of cases and the number of variables must be greater than 5. According Tan (2008, p.323), "for studies involving factor analysis [...] the minimum number of respondents must be equivalent to 5 times the questionnaire number of assertions and the ideal number is 10 times." The second criterion determines that the correlation between the same variables should be in the majority, greater than 0.30.

Also, to verify the suitability of the AF data, two tests are necessary: the Kaiser-Meyer-Olkin test (KMO) and Bartlett sphericity test (BTS). The KMO is an integer ranging between 0 and 1, with the best fit close to the value 1. Hair et al. (2006) suggests the cutoff point of 0.5 for the adjustment setting. Has the following adjustment range to a AF in mathematical notation: [0, 0.50) inappropriate, [0.50; 0.60) bad [0.60; 0.70) mediocre, [0, 70, 0.80) Median [0.80; 0.90) and good [0.90, 1.00] excellent. The BTS should be significant (p-value <0.05).

Most of the time the full set of observed variables not enter the AF. The extraction technique of the factors depends on the purpose of the researcher. So we worked with major components, after all, the goal is to summarize the original information.

To determine the number of factors has been used a method of Kaiser and the percentage of variance explained accumulated. The Kaiser Criteria, or self-worth of the rule suggests that only factors with eigenvalues greater than 1 are to be extracted. According to Hair et al. (2005, p.90): "eigenvalue [...] also known as latent root [...] is the amount of variance explained by a factor". The criterion of accumulated variance shows the total percentage that such factors explain together the total variance of the observed data. The minimum cutoff value should be 60%. But this minimum may be changed depending on the purpose of each study.

After performing the AF with all the original variables and obtained the minimum number of factors that explain the maximum data variability, one must identify if there are inappropriate variable within the set. To do so, one must consider the partial correlations between the variables and the measure of adequacy of the sample (MSA) to each variable. According to Hair et al. (2005, p.98): "The correlations between variables can be analyzed by computing the partial correlations between variables, that is, [...] when the effects of other variables are taken into consideration." The partial correlation and MSA may be provided by the array of anti-image correlation. Partial correlations should be small, because if they are high, the data matrix is inadequate to AF. It must then examine the values of the MSA for each variable. If there are values in the unacceptable level, variables related to those securities should be excluded.

This procedure is repeated until all the individual variables are within the acceptable level. At this time, then the correlation matrix and consequently the data matrix are longer adapted to a consistent AF.

After verification of the suitability of the data and the analysis of the anti-image correlation matrix, the next step is the interpretation of the final solution and factors which includes factors of the rotation and the analysis thereof.

It must first observe the unrotated factorial matrix which indicates the number of factors to be extracted, ie, the best linear combination of variables that explains the maximum variance of the original data. According to Hair et al. (2005, p.91): "factorial matrix: Table of factor loadings of all the variables for each factor." The factor loadings indicate the most important variables, ie those which have greater weight in each factor.

The factors are extracted in order of importance: the first factor can be understood as the best linear combination of the data explains most of the variability thereof; and the second factor as the second best linear combination of the remaining explaining data variability.

Most of the time, the analysis of the factorial matrix and factors are not easy to do or does not present a clear solution and one of the ways to solve this problem is the use of factor rotation.

The rotation factor is a technique used to improve the visualization and interpretation of the factors, preserving all the statistical properties. There are several rotational methods and, in this paper, we adopted the method of orthogonal rotation varimax factors, being the simplest and therefore the most popular.

Some criteria should be adopted for the significance of the factor loadings and consequently the interpretation of factors extracted, it can be cited the practical significance assurance, very conservative criteria, which should serve as a reference point.

Another criterion, too conservative, is the evaluation of statistical significance, which directs that significant factor loads are obtained based on the size of the sample, for example, with the objective of achieving a 80% power level we have a minimal factorial load 0.75 to be significant in a sample of 50 to 60 observations. According to Hair et al. (2005, p.108), "for smaller samples 100, the lower load factor to be considered significant, in most cases, within ± 0.30 . [...] A variable with several high loads is a candidate for elimination."

One should also consider the commonalities for each variable. According to Hair et al. (2005, p.90), commonality is the "full amount of variance than an original variable shares with all other variables included in the analysis [...] which represent the amount of variance explained by the factor solution for each variable" .

Most often, there are variables that have very low or commonalities that carry no factor. According to Hair et al. (2005), there are two solutions: one is to simply ignore these variables and continue the analysis, and the other suggests the elimination of these variables. The choice of these options depends on the purpose of the researcher and the importance of these variables in the study and in the present study, we chose to eliminate them, because they have little expression in factors.

4 Presentation And Discussion Of Results

Initially it used principal component analysis (PCA), in order to interpret the large amount of data obtained multivariate and subsequently applied the factor analysis (FA) not rotated and rotated for better summarization of data.

4.1 Results Of The Main Components Analysis

The present study showed 46 variables to be analyzed. For variable time and place, all respondents had the same opinion, that is, the variable was only one answer. Therefore, this variable is a constant and has no change (variance equal to zero), and for not adding absolutely no information was deleted from the study of ACP and AF. We work well with 45 variables.

By using the *Software Statistical Package for Social Sciences* (SPSS) got 12 principal components (PC) to the data studied, according to the table 01, and the following criteria were adopted to achieve these CP:

- **Cronbach Alpha** which is one of CP adjustment indicator. According Maroco (2003, p.250) is "fidelity measure for each dimension and the overall model that is the better the higher this indicator.
- "**Variance Explained (VE)** which measures how each component explains the total variability of the data.
- **Total Variance Explained (VTE)**, which indicates how all CP estimated explain the total variability of the data.
- **Eigenvalue (EV)** that are associated with the eigenvalues of correlation matrix of variables (the higher the better and more associated with certain CP); will be used for the estimation of the CP, only EV greater than 1.

Model Summary			
Dimension	Cronbach's Alpha	Variance Accounted For	
		Total (Eigenvalue)	% of Variance
1	,842	5,658	12,572
2	,829	5,278	11,729
3	,773	4,093	9,097
4	,764	3,958	8,795
5	,703	3,202	7,115
6	,685	3,030	6,734
7	,630	2,603	5,784
8	,538	2,108	4,684
9	,519	2,031	4,514
10	,474	1,865	4,144
11	,443	1,765	3,922
12	,255	1,331	2,958
Total	,995	36,921	82,048

a. Total Cronbach's Alpha is based on the total Eigenvalue.

Table 01 - extracted main components of total variables analyzed

Source: The author

They were extracted from 12 CP to explain the overall variability of the data structure. The first components are those which account for most of the variability in the data and that have larger eigenvalues and *Cronbach's alpha*, and the latter components are to explain the lower part of the variability of the data and those with smaller eigenvalues and *Cronbach's alpha*. As Table 01 above, it has 82.048% of the total variance explained by the CP 12 and an *Alpha of Cronbach's* coefficient of 0.995 indicating good reliability setting.

The *components loadings* are presented values for each variable in each of the CP, i.e., the variance explained by each variable for each dimension (components). In theory, the determinant variables of each CP are those with values greater than 0.5, but depending on the importance, other cut-off values can be adopted, then, for the analysis of components, it is adopted as 0.30 value minimum. To understand the CP, some observations are important. CP that have indexes with opposite signs is understood as a comparison between the variables with positive results and with negative indexes, therefore, high negative values indicate the prevalence of the variables with these indexes. The same applies to high positive values and values close to zero, for a component, indicate balance between variables with opposite indices.

Next, the obtained components are presented:

- The first component may be understood as a general index, it explains a large proportion of the total variability (12.572%). This component includes 9 variables being 7 with negative indexes and 2 with

positive results. Variables with negative indices involve: teaching supplies, personal realization, third-party influence, Community Involvement, Skill, Domain and Resources. Labor market and Monitoring have positive results;

- b) The second component also explains much of the total variance (11.729%) and comprises only variables with positive results, they are: Receiving criticism by the administrator, Compensation, moral behavior, skills development and availability;
 - c) The third component explains 9.097% of the total variability and understand the variables: Secretariat, Library, compatibility assessments and dissemination of the results, all showing positive and significant indices;
 - d) The fourth component explains 8.795% and involves variables: Lunch, Harmony between subordinates and superiors, adequacy evaluation, with negative indexes, and Price, Respect for the environment and criticism with positive results;
 - e) The fifth component explains 7.115% and covers the following variables: Status, curricular component and clarity, all with positive results;
 - f) The sixth component explains 6.734% and includes the following variables: quality and Sex;
 - g) The seventh part explains 5.784% and can be understood as an index which explains the views of students on the classrooms, since this component comprises only this variable. The same applies to the eighth, eleventh and twelfth components, and we indices: 4.684% for Good quality 3.299% to 2.958% for Age and communication Influence;
 - h) Said ninth component 4.514% and is basically a comparison of laboratory and stimulus, respectively with positive and negative numbers;
 - i) The tenth component explains 4.144% and involves the level of education and curriculum relevance;
 - j) The eleventh component explains 3.922% and is indicative of the Age;
 - k) And the twelfth component explains 2.958% and is indicative of the communication influences.
- The ACP is just an initial analysis to have an initial view of the variables.

4.2 Results Of Factor Analysis

Prior to execution of AF, it is necessary to verify the adequacy of the data according to the criteria adopted in this work.

Several AF were adjusted by starting with the 45 variables (ACP) until it reached the best fit containing only 6 variables among all analyzed, all of the low partial correlations and values of Sample adequacy measure (MSA > 0.5) above the minimum for a good AF setting.

The ratio of the number of cases and the number of variables is 9.167 (> 5) satisfying the criterion for suitability. As table 02, the Bartlett test statistically significant (BTS = 0.003 > 0.05) indicating that the correlations are significant in at least some of the variables. The Kaiser-Meyer-Olkin test showed a value within the acceptable for an adjustment factor (KMO = 0.627 > 0.50).

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,627
Bartlett's Test of Sphericity	Approx. Chi-Square	34,095
	DF	15
	Sig.	,003

Table 02 - Criteria for verifying the adequacy of the data

Source: The author

According to Table 03, the communities associated with each of the variables, the three extracted factors explain 80.3% of variance Laboratories, 70.5% of the variance of credibility of information search, 69% of the remuneration of variance, 68, 3% of the variance of First Professional Option, 67.2% of the variance Assessment Miscellaneous Systems and 63.3% of the variance match between superiors and subordinates. All values of the commonalities are above the minimum adopted (0.5 or 50%).

Communalities		
	Initial	Extraction
PRIM_OPCAO_PROF	1,000	,683
BUSCA_INFOR_CREDIB	1,000	,705
HARMONIA_SUPXSUB	1,000	,633
LABORATORIOS	1,000	,803
REMINERAÇÃO	1,000	,690
SISTEMA_VARIADO_AVALIAÇÃO	1,000	,672

Table 03 - communalities

Source: The author

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,971	32,855	32,855	1,971	32,855	32,855	1,686	28,097	28,097
2	1,246	20,762	53,617	1,246	20,762	53,617	1,428	23,794	51,890
3	,968	16,131	69,747	,968	16,131	69,747	1,071	17,857	69,747
4	,675	11,243	80,991						
5	,640	10,670	91,661						
6	,500	8,339	100,000						

Table 04 - variance explained by each factor and the total explained variance

Source: The author

Factor analysis showed the results as shown in Table 04. Initially, according to the Kaiser criteria, extracted 3 factors with eigenvalues close to or greater than 1, and the same at the discretion of the accumulated variance, explain 69.747% of the total variance. After making the varimax rotation, it is clear that all eigenvalues are greater than 1, indicating good extraction of components.

Table 05 presents the factor loadings for each variable in the 3 factors extracted, before rotation. Note that the first factor encompasses four variables, the search for information on higher load credibility. Since the variable First professional option has high factor loadings in three components. The second factor includes only the Harmony variable between superiors and subordinates. The third factor just Laboratory.

Component Matrix			
	Component		
	1	2	3
PRIM_OPCAO_PROF	,534	-,491	,395
BUSCA_INFOR_CREDIB	,700	,425	
HARMONIA_SUPXSUB	-,459	,650	
LABORATORIOS	-,411	,388	,695

REMUNERAÇÃO	,664	,466	
SISTEMA_VARIADO_AVALIAÇÃO	,612		,513

Table 05 - factorial loadings not rotated
Source: The author

Following the consummation of the *varimax* rotation, interpretation of factor loadings for each variable becomes more clear and simple. Table 06 shows the factor loadings after rotation and, consequently, the final interpretation of AF. It shows a better distribution of the factor loadings for each variable in each of the factors, mainly for professional First Variable option that previously presented next load factor on each of the three factors.

Rotated Component Matrix			
	Component		
	1	2	3
PRIM_OPCAO_PROF		,823	
BUSCA_INFOR_CREDIB	,830		
HARMONIA_SUPXSUB		-,698	0,3803
LABORATORIOS			,866
REMUNERAÇÃO	,826		
SISTEMA_VARIADO_AVALIAÇÃO	,528	0,48645	,396

Table 06 - factorial loadings after rotation
Source: The author

Faced with the AF adjusted, it is noted that the first factor includes, after the rotation, only 03 variables, as follows: Search for information about credibility and Compensation (both with high factor loadings) and various evaluation systems (with lower factor loadings) . This factor can be understood as a vision of the students on what the course of administration may offer its students (in terms of credibility and Compensation Professional Administration) throughout their professional lives as managers. This factor also expressed, to a lesser extent, students' views on the assessment of the various systems.

In conclusion, this first factor is an overview of the students interviewed about their own business course, their learning while students and the factors that motivated this choice.

The second factor, which once encompassed only one variable, after the rotation, now has the variable First professional option with high factor loading and harmony between superiors and subordinates with less load. Therefore, this factor can be interpreted as a comparison, made by the students, from the very course of administration and human resources of the institution they attend.

The third factor encompasses only the variable laboratories with high factor loading, and can be understood as the views of respondents about the facilities and equipment of the university in question.

5 Final

Map and draw conclusions about the opinion of individuals is a complex task because it involves data that are not easily measured in this way, to make this check, this study used statistical techniques of multivariate analysis. Among these techniques, we can cite the principal component analysis (PCA) and factor analysis (FA), which were chosen because the data are very extensive and require short, without that occurred great loss of important information.

Data analysis began with the ACP, which allowed an overview of the variance and covariance structure before being eliminated some variables. Then, several AF were tested, in order to synthesize a better fit the data,

and set to aid the visualization and interpretation of the results of the AF applied, the better this adjustment, the orthogonal varimax rotation technique.

From the above in this paper, we found that the multivariate analysis, above, proved to be important tools for the study of data not readily measurable, confirming the potential of these techniques in support of research that involves a lot of variables.

From the analysis of the interviews, it was found that most respondents had the course of Directors as a first career choice. In the case of this image undergraduate degree at the University in question, we can see a concern on the part of students, with the credibility of this institution and the remuneration of these professionals in the labor market. The participants of this research consider it important that the institution has different evaluation systems and believe it is essential to have good relationships among professionals of the institution and its students. Finally, we see the importance of the institution has an appropriate framework, both in its physical part, as investments in laboratories and computer equipment.

Given the above factors and based on the information obtained, it is suggested that improvement targets are set so that the image of this institution can become the best possible before its main target audience, their students.

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