PRÁTICAS EDUCATIVAS, MEMÓRIAS E ORALIDADES

Rev.Pemo – Revista do PEMO

Perception of quality in higher education: student analysis of a philanthropic institution

ARTICLE

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Abstract
The objective of this study is to highlight the students' perception of the relationship between organizational management and innovation strategy indicators and the quality of teaching at a philanthropic HEI. To measure the quality of teaching, an adaptation was used with theoretical indicators on the Organizational Management Strategy and innovation with the complement of the HEDPERF model by Firdaus (2006). As a statistical model, Structural Equation Modeling (SEM) analysis techniques were applied. The results suggest that both the Organizational Management Strategy and innovation are positively associated with the perception of the Quality of teaching at the HEI. As limitations of the research, the restriction of the specific sample and the impossibility of generalizing the results stand out, since only one educational institution that falls into this category of philanthropic HEI was evaluated.
Keywords: Strategy. Management. Innovation. Teaching. HEDPERF.

Percepção da qualidade no ensino superior: análise discente de uma IES filantrópica

Resumo
O objetivo deste estudo é evidenciar a percepção dos discentes sobre a relação entre indicadores de estratégia de gestão organizacional e de inovação com a qualidade do ensino de uma IES filantrópica. Para mensuração da qualidade do ensino, utilizou-se uma adaptação com indicadores teóricos sobre a estratégia de gestão organizacional e a inovação com o complemento do modelo HEDPERF de Firdaus (2006). Como modelo estatístico, aplicaram-se as técnicas de análise da Modelagem de Equações Estruturais (MEE) (Fornell; Larcker, 1981). Os resultados sugerem que tanto a estratégia de gestão organizacional quanto a inovação estão positivamente associados à percepção da qualidade do ensino da IES. Como limitações da pesquisa, destacam-se a restrição da amostra selecionada e a impossibilidade de generalização dos resultados, uma vez que foi avaliada somente uma instituição de ensino que se enquadra nesta categoria de IES filantrópica.
Palavras-chave: Estratégia. Gestão. Inovação. Qualidade do Ensino. HEDPERF.

1 Introduction

Brazil has seen constant growth over the years in the number of higher education institutions (HEIs), with a total of 2,608 HEIs. Of this total, approximately 12% are public educational institutions and 88% are private, according to the latest census in 2019 (INEP, 2020). This shows a positive variation of approximately 7% in relation to the number of HEIs in 2017 (INEP, 2018).

With this advance in higher education institutions in Brazil, there is a need for an evaluation separate from the evaluation carried out by the Ministry of Education, which makes it possible to measure the quality of the provision of educational services. In this context, the research developed by Parasuraman *et al.* (1988); Cronin and Taylor (1992) and Firdaus (2006) stands out as methodological models for measuring the quality of a given service, given that the level of quality offered by a HEI is a preponderant factor in the competitive market.

It is worth remembering that this data includes non-profit higher education institutions, which make up the group of private HEIs, and are also part of the educational institutions defined by Law No. 12.881/2013 as "Community Higher Education Institutions - ICES" (Brasil, 2013).

Philanthropic HEIs use indicators related to organizational management strategy, which can be classified as the process of managing institutional resources, as well as the top management's strategy and planning tool (Mehta; Verma; Seth, 2014).

Innovation can be considered another relevant indicator for HEIs because, according to Asiedu *et al.* (2020), it refers to how an organization achieves and sustains innovation through the constant search for new ideas with potential commercialization. The organizational management strategy and innovation used in higher education institutions are elements that are linked to the goal of improving the quality of teaching.

This research seeks to establish the relationship between the aforementioned factors and the quality of institutional teaching, considering that, according to Durham (2018), quality is perceived by those who receive the service and must be assessed by

Rev. Pemo, Fortaleza, v. 7, e14036, 2025
DOI: https://doi.org/10.47149/pemo.v7.e14036
https://revistas.uece.br/index.php/revpemo
ISSN: 2675-519X

various indicators. The research model uses indicators of organizational management, innovation and the HEDPERF model by Firdaus (2006), offering a comprehensive assessment of institutional quality.

The educational institution in which this case study was carried out has great relevance in the central region of the state of Goiás, as it offers various courses at undergraduate, postgraduate, master's and doctoral level. The institution's mission is focused on driving social transformation and sustainable development, emphasizing the promotion of social well-being and the inclusion of underprivileged populations. As a result of its philanthropic nature, part of its revenue is invested in social benefits, such as scholarships and various social programs, and it is CEBAS certified in accordance with Law No. 12,101/2009.

Based on what Lugoboni (2017) said, considering that performance indicators in higher education institutions are still little explored, and with the requirements of the public bodies that regulate student bodies, it is understood that there is a need for efficient control in the operations of educational institutions (Zanin, 2014; Leiber, 2019).

We understand the need for a quantitative evaluation based on the perception of institutional academics about teaching quality. In other words, in order to validate a case study to be carried out in a philanthropic HEI in the state of Goiás, we are looking for the evaluation of the users of educational services regarding the level of quality of the services offered. This gave rise to the following research problem: "What is the relationship between the indicators of organizational management strategy and innovation and the quality of teaching at a philanthropic HEI, as perceived by students?" This research aims to highlight this relationship according to the perception of students.

The study enriches the theory with new information on different institutional environments, contributing to discussions on the evaluation of HEIs. The study is justified by the relevance of the topic and the importance of methods to promote innovation and quality in higher education, especially in philanthropic HEIs (Zanin, 2014). As a practical contribution, the philanthropic HEI in question has great influence in the academic and social environment of Goiás, with around 16,000 students.

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ISSN: 2675-519X

2 Theoretical framework

2.1 Management strategy in philanthropic HEIs

Within the field of HEI classification, there are philanthropic educational institutions, which fall within the third sector. These institutions have the role of providing products and/or services that would otherwise be a state obligation. In Brazil, Law No. 12.101, of November 27, 2009, created the CEBAS certification for charitable social assistance entities, which guarantees exemption from social security contributions. This certification is granted to private non-profit companies that work in the areas of health, education or social assistance (Brasil, 2009).

In this context, according to Law No. 12,881 of November 12, 2013, philanthropic educational institutions qualify according to the prerogatives of ICES. Thus, ICES have characteristics that distinguish them from other HEIs, such as: associative or foundational nature; and not-for-profit purpose (Brasil, 2013).

Psomas and Antony's (2017) framework highlights essential elements of the management strategy to ensure quality in HEI teaching, such as leadership, strategic planning, specialized staff, process management and student focus. Another important factor is the PDI, which acts as a planning tool, promoting more effective leadership practices and ensuring transparency (Silva Jr.; Silva; Viana, 2019).

In the organizational management process of HEIs, there are factors that influence teaching quality. According to Ali *et al.* (2010), ten critical factors can be observed, such as: visionary leadership; focus on the student; effective communication; competent staff; recognition and motivation; innovation and creativity.

Based on the above theory, there is a positive relationship with the quality of teaching. This led to the hypothesis: "H1: Organizational management strategy is positively associated with the perception of teaching quality in a philanthropic HEI."

2.2 Innovation in HEIs

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ISSN: 2675-519X

As stated by Cerna (2014), innovation in the provision of educational services has become a fundamental element for institutional growth. In line with educational processes, academic innovation is incorporated, which refers to transformations in the HEI landscape (Peris-Ortiz *et al.*, 2016). Moura *et al.* (2013) point out that the innovative process involves articulating actions that promote technological advances. Andrade (2017) adds to this by pointing out that HEIs play a role in technological development, creating mechanisms that transfer technological resources to society.

An example of this is laboratory practice, games, simulations and other forms of learning based on practical experiences (Leiber, 2019). In this way, innovation ensures that the learning process takes place using different techniques to achieve objectives (Valente, 2014). As a result, teaching quality is achieved through innovative techniques, such as cognitive flexibility (Moran, 2017).

Based on the relationship between innovation and teaching quality, the hypothesis is formulated: "H2: Innovation is positively associated with the perception of teaching quality in a philanthropic HEI."

2.3 Higher education institutions (HEIs) and teaching quality

When evaluating the organizational process of higher education institutions, defining quality is a complex process. Thus, assigning a single definition to the word "quality" is a difficult task (Sá, 2020).

According to Ali and Shastri (2010), the concept of quality in higher education concerns the student, family, industry and sectors of society. Quality consists of a system that unifies academic entry and exit assessments (Karahan and Mete, 2014).

Graham *et al.* (2020) assume that there is a relationship between teachers' years of experience and teaching quality. However, it is possible to demonstrate a complex relationship, where experience is only one variable (Brandenburg *et al.*, 2016).

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ISSN: 2675-519X

Leiber (2019) presents six essential principles for developing teaching quality, such as quality learning, prior knowledge, motivation and self-determination.

Lugoboni (2017) points out that the pass/fail rate of students is a determining factor. In addition, structural and academic factors, such as library, communication, qualified teachers and programs recognized in the market, influence quality (Angell; Heffernan; Megicks, 2008).

With the advent of Law No. 9.394, of December 20, 1996, the guidelines and bases of national education were established. Another important tool is the National Higher Education Assessment System (Sinaes), established by Law No. 10.861/2004 (INEP, 2015).

2.3.1 HEDPERF model for assessing quality in higher education

To meet the needs of educational institutions, Firdaus (2006) developed the HEDPERF model, which assesses quality performance in educational services. It uses six factors: non-academic aspects; academic aspects; reputation; access; program content; and understanding.

Chagas (2010) adapted the HEDPERF model for a language school. (2014) applied the model to a private HEI. A study on the African continent investigated the impact of the model on satisfaction and academic performance in private universities in Ghana (Banahene; Kraa; Kasu, 2018).

3 Methodology

The research was carried out by means of a case study at a confessional and philanthropic HEI, founded in 1947 and located in the Midwest of Brazil. This institution was chosen because it was easy to access the data for analysis and because of the organization's relevance. The HEI was also chosen because of its relevance to higher education in Goiás, as it offers 45 undergraduate courses, including bachelor's,

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technological and graduate degrees, in both face-to-face and distance learning modalities. It also offers 46 specialization courses, MBAs, 4 master's degrees, 2 doctorates and a medical residency.

The Likert scale was used to develop the data collection questionnaire. This scale was developed in its original form with a 5 (five) point division by Rensis Likert in 1932. It was therefore adapted by defining a Likert scale from 1 to 6, to avoid a middle ground between respondents and generate greater precision in the results, ranging from 1 (totally disagree) to 6 (totally agree).

The first stage of the questionnaire was a pre-test. With appropriate authorization, an initial collection was carried out with four senior students from different undergraduate courses at the philanthropic HEI in order to validate the research instrument. The valid data collection after the pre-test was carried out using a questionnaire applied to the HEI's students, with a population of approximately 16,000 students, 60% of whom were female and 40% male. The initial sample was 322 students, but after eliminating invalid responses, the final valid sample was 300 participants.

3.1 Survey instrument

We chose to use indicators from the theory on management strategy and innovation, combined with an adaptation of the axes of the Firdaus model (2006), as it is an effective tool for evaluating HEIs. In addition, the Informed Consent Form (ICF) was checked, in accordance with ethical standards, to ensure that the participants agreed. The questionnaire, divided into six blocks, sought to relate the dependent variable "teaching quality" with the independent variables "organizational management strategy and innovation".

3.2 Quantitative analysis method

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ISSN: 2675-519X

This study used statistical practices such as means, medians, modes, standard deviation, frequencies, and minimum and maximum values of the sample. In addition, linearity and multicollinearity analysis were conducted using the Pearson correlation test. Factor analysis was applied to validate convergence, discriminant validity (FISHER Z), and reliability (Cronbach's Alpha). For data analysis, multivariate techniques were employed, including Structural Equation Modeling (SEM). The software programs Microsoft Excel and SmartPLS 4.0 were used for statistical analysis and modeling.

4 Presentation of Results

4.1 Data Processing and Analysis

The survey included 300 students, 204 of whom were female, 94 male, and 2 identified as other. Most of the participants were between the ages of 18 and 29, and the institution covers 26 municipalities in Goiás, with a predominance of students from Anápolis. The responses came from students in 20 out of the 26 undergraduate face-to-face courses, with the Law course standing out, having 65 respondents. The highest participation was observed among students from the initial semesters of undergraduate courses.

4.2 Descriptive data analysis

For each group of operational variables, an acronym representing the axis of the HEDPERF model to be observed was defined. Thus, the questions regarding the Reputation, Access, Non-Academic Aspects, Programmatic Content, and Academic Aspects axes were represented by the following acronyms: REP; ACE; NACAD; PROG; and ACAD, respectively.

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Table 1 – Descriptive statistics of innovation

Item	Question	Mean	Median	Mode	Standard Deviation
REP-1	The facilities, laboratories, and software provided by the institution are adequate and necessary.	5,113	6,000	6,000	1,135
REP-2	The virtual classes and remote services meet the needs of the students.	4,437	5,000	6,000	1,525
REP-3	The institution supports and encourages the production of scientific and technological research.	4,920	5,000	6,000	1,339
REP-4	The higher education institution (HEI) stimulates and supports new initiatives and the creation of new businesses or products by students.	4,533	5,000	6,000	1,417
REP-5	The institution's library has an adequate and comfortable space for reading and study, with a wide availability of books and magazines.	5,713	6,000	6,000	0,729
REP-6	The institution is in constant improvement, with new courses, new processes, new technologies, and an innovative image.	5,037	6,000	6,000	1,234
REP-7	The HEI encourages students to seek practical solutions for problem-solving, adapting students to new events beyond academic life.	4,743	5,000	6,000	1,353
REP-8	The institution is constantly improving its technology to enhance the quality of services provided to students.	4,957	5,000	6,000	1,276

Source: Research Data (2022)

Given this, with the descriptive statistics of the responses for the independent variable Innovation, the mean, median, mode, and finally the standard deviation was analyzed. Analyzing the responses based on the students' perception, it was observed that the average innovation score was 4.93. However, there is a notable highlight for the operational variable REP-5, where the average response is 5.713, having the lowest standard deviation among all the variables. Therefore, it is evident that there is a consensus among respondents, indicating that the institutional library is at an adequate level for study.

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Table 2 – Descriptive statistics of organizational management strategy

Item	Question	Mean	Median	Mode	Standard Deviation
ACE-1	The team of staff members at the HEI is efficient and competent.	4,953	5,000	6,000	1,213
ACE-2	The institution is always developing internal processes and its organizational structure to meet the needs of the students.	4,853	5,000	6,000	1,326
ACE-3	Professors/staff members are always satisfied and motivated to carry out their work.	4,747	5,000	6,000	1,357
NACAD-1	The top management (Managers/Coordinators) demonstrates commitment to the development of the students.	4,773	5,000	6,000	1,413
NACAD-2	The administrative staff show interest and have good communication in solving students' problems.	4,677	5,000	6,000	1,397
NACAD-3	The staff members at the HEI are qualified for educational services.	5,100	5,000	6,000	1,142

Source: Research Data (2022)

Through descriptive statistics, it was observed in Table 2 that there was proximity between the mean responses. Thus, the overall average of the responses obtained in this stage of the questionnaire is 4.85. The students' evaluation is similar across all operational variables, especially regarding internal processes and the professional competence of the HEI staff, classifying the institutional team's work as reasonable according to the provided evaluation scale, which ranges from 1 to 6.

Table 3 – Descriptive statistics of teaching quality

Item	Question	Mean	Median	Mode	Standard Deviation
PROG-1	The professors encourage prior reading, meaning they provide materials and references for study outside of class hours.	5,253	6,000	6,000	1,072
PROG-2	The institution promotes practical skills in teaching.	4,963	6,000	6,000	1,367
PROG-3	The institution offers extracurricular activities that help organize students' knowledge.	4,650	5,000	6,000	1,497

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ACAD-1	The institution has qualified and competent professors to teach the classes.	5,207	6,000	6,000	1,073
ACAD-2	Professors with more experience have a better mastery of the content compared to other faculty members.	4,513	5,000	6,000	1,597
ACAD-3	Professors always assess students' learning levels individually (tests, exams, assignments).	5,167	6,000	6,000	1,169
ACAD-4	The methodology used by professors allows for easy learning.	4,687	5,000	6,000	1,263
ACAD-5	Students from this institution are well accepted in the job market.	5,130	6,000	6,000	1,083

Source: Research Data (2022).

In the analysis of the latent variable Teaching Quality, the mean responses are close, with an overall mean of 4.95. However, the operational variable ACAD-2 showed the lowest mean (4.513) and the highest standard deviation (1.597), indicating that the teachers' experience is not necessarily seen as a determining factor for teaching quality. The mode of all operational variables was 6, revealing that most students rated the institutional indicators satisfactorily.

4.3 Evaluation of the measurement model

The analysis was conducted using the G*Power software version 3.1 developed by Faul *et al.* (2009), which showed that an analysis based on two independent variables with a significance level of 5% and an effect size of 0.70, with a statistical power of 99%, above the recommendation by Hair *et al.* (2014), requires a minimum sample size of 132 respondents. Since this study gathered 300 valid responses from undergraduate students at the surveyed HEI, it is understood that the sample power exceeds the recommended minimum and ensures the validity of the research.

The initial analysis was based on the measurement theory outlined by Hair *et al.* (2014), where the evaluated criteria for a reflective model include: the analysis of the factor loadings of the indicators (first-order variables); average variance extracted (AVE); composite reliability indexes (CC); and discriminant validity. To verify the existence of relationships between the operational variables in the sample collected at the HEI, the

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factor loading matrix was used. Therefore, the Confirmatory Factor Analysis (CFA) helped in this verification.

Table 4 – Matrix with factor loadings (Discriminant Validity)

Indicator	Innovation	Organizational Management Strategy	Teaching Quality
REP-3	0.781	0.600	0.602
REP-4	0.853	0.647	0.655
REP-6	0.843	0.626	0.628
REP-7	0.864	0.715	0.670
REP-8	0.866	0.717	0.661
ACE-1	0.637	0.844	0.632
ACE-2	0.779	0.850	0.690
ACE-3	0.630	0.806	0.706
NACAD-1	0.713	0.866	0.704
NACAD-2	0.541	0.824	0.636
NACAD-3	0.647	0.841	0.668
PROG-2	0.707	0.719	0.894
PROG-3	0.694	0.686	0.872
ACAD-1	0.532	0.677	0.780
ACAD-4	0.543	0.649	0.786

Source: Research Data (2022)

The factor loadings of the indicators that determine the latent variables were high, while the other items presented lower loadings. To evaluate the measurement model, convergent validity and composite reliability analyses were performed. The average variance extracted (AVE) was above 0.5 for all latent variables, and composite reliability (CR) reached the recommended minimum value of 0.7, as per Hair *et al.* (2014). After analyzing the data, it was found that both criteria for discriminant validity were met. The first criterion, from Fornell and Larcker (1981), requires that the square root of the AVE be higher than any other indicator loading in the same row and column. This distinction between the constructions was observed, fulfilling the discriminant validity criterion. The square root of the AVE was higher than the correlations between all latent variables, confirming discriminant validity.

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Table 5 – Structural Relationships of CFA

Indicator	Factor Loading	Standard Error	t-Value	p-Value
ACAD-1 <- Teaching Quality	0,780	0,032	24,687	0,000
ACAD-4 <- Teaching Quality	0,793	0,027	29,670	0,000
ACE-1 <- Organizational Management Strategy	0,846	0,021	39,830	0,000
ACE-2 <- Organizational Management Strategy	0,849	0,022	37,784	0,000
ACE-3 <- Organizational Management Strategy	0,807	0,028	29,283	0,000
NACAD-1 <- Organizational Management Strategy	0,864	0,019	44,986	0,000
NACAD-2 <- Organizational Management Strategy	0,822	0,024	34,661	0,000
NACAD-3 <- Organizational Management Strategy	0,844	0,021	39,618	0,000
PROG-2 <- Teaching Quality	0,869	0,017	51,422	0,000
PROG-3 <- Teaching Quality	0,825	0,024	33,999	0,000
REP-3 <- Innovation	0,779	0,030	25,769	0,000
REP-4 <- Innovation	0,851	0,020	42,659	0,000
REP-6 <- Innovation	0,844	0,020	41,198	0,000
REP-7 <- Innovation	0,864	0,018	49,024	0,000

Source: Research Data (2022)

According to the analysis, the model has an adequate level of consistency and internal reliability, convergent and discriminant validity, and is conditioned to the evaluation of the structural model.

4.4 Evaluation of the structural model

For the evaluation of the structural coefficients, the SmartPLS 4 software was used. The hypothesis tests for validating the regression coefficients (r) were conducted using the Student's t-test. Thus, with a sample of 300 respondents, a significant level of 5%, and a confidence interval of 95%, the t-value is approximately 1.96. To perform the tests outlined, a resampling procedure called bootstrapping was used, which is classified as a random resampling technique where the original data from the survey is repeatedly sampled.

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Table 6 – Statistics of Structural Relationships (Hypothesis Testing)

Indicator	Hypothesis	VIF	F2	Structural Coefficient	Standard Error	t-Value	p-Value	Adjusted R2
Organizational Management Strategy -> Teaching Quality	H1 (+)	2,625	0,535	0,619	0,052	11,843	0,000	0,727
Innovation Development -> Teaching Quality	H2 (+)	2,625	0,105	0,275	0,057	4,847	0,000	

Source: Research Data (2022)

Based on the survey conducted with the students of the researched higher education institution (HEI), the dependent variable "Teaching Quality" was best explained by the independent variable "Organizational Management Strategy," as the t-statistic found was 11.843. Furthermore, the latent variable Innovation had a t-statistic of 4.847, indicating that both independent variables in the study exert a positive effect and strong influence on the dependent variable.

However, in this study, control variables were not applied in the evaluation of the structural model, as the responses were of a discursive nature and, when converted into numerical data, they diminished the significance of the structural equation modeling. Nonetheless, the control variables served as parameters for characterizing the respondents, defining social factors and institutional reach.

4.5 Hypothesis Validation

H1: The organizational management strategy is positively associated with the perception of teaching quality in a philanthropic HEI. This hypothesis was corroborated, as according to the perceptions of undergraduate students at the philanthropic HEI in the state of Goiás, the indicators raised in the theory regarding Organizational Management Strategy, which configure teaching quality, had a significant influence.

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H2: Innovation is positively associated with the perception of teaching quality in a philanthropic HEI. This hypothesis was corroborated, as the findings indicate an influence of Innovation on institutional Teaching Quality.

5 Results and Discussions

Hypothesis 1 (H1), which states that "The organizational management strategy is positively associated with the perception of teaching quality in a philanthropic higher education institution," sought evidence based on the students' perceptions of the organizational management strategy elements that were associated with the quality of teaching at the institution. The research results indicated a significant relationship between the two latent variables of the study. This finding can be justified by the philanthropic nature of the institution, which prioritizes collaboration and democratic participation in decision-making processes (Fioreze, 2019), reflecting its commitment to transparency and the involvement of different stakeholders in management.

According to the students' perception, the indicator ACE-1 (efficiency and competence of the team in educational activities) of the researched institution is considered one of the most relevant indicators of management strategy in achieving teaching quality, given its factor load of 0.844. In this sense, the results align with the analysis by Ali *et al.* (2010). Similarly, students' perceptions of indicator ACE-2 (continuous improvement of the institution's internal processes) showed its positive influence on achieving teaching quality (Psomas; Antony, 2017).

Another relevant indicator for validating the research is the students' perception of indicator ACE-3 (level of satisfaction and motivation presented by teachers/staff in performing their work). Thus, due to its factor load of 0.806 in the measurement model, this indicator has a positive influence in validating the hypothesis. This result supports the findings of Psomas and Antony (2017) and Ali *et al.* (2010).

Subsequently, based on the findings of Psomas and Antony (2017) and Ali *et al.* (2010), visionary leadership and the commitment of senior management to students are

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important management elements for achieving teaching quality in higher education. In accordance with this theory, it stands out that the students' opinions significantly raised the indicator NACAD-1 (level of commitment and leadership of senior management) to a factor load of 0.866.

Lastly, students' perceptions of indicators NACAD-2 (effectiveness of the institution's internal communication) and NACAD-3 (qualification level of the professionals working in educational services) showed a high influence on the statistical model, with factor loads of 0.824 and 0.841, respectively. These results are consistent with the views of Psomas and Antony (2017), Calvo-Mora *et al.* (2006), and Ali *et al.* (2010), as they highlight management and the proper selection of collaborators as strategic indicators for achieving teaching quality in higher education.

Hypothesis 2 (H2), which states that "Innovation is positively associated with the perception of teaching quality in a philanthropic higher education institution," identified the elements of innovation that denote the quality of teaching based on the perceptions of the students who participated in the research. Innovation arises from technological progress and the development of new methods (Andrade, 2017) and requires financial investments. This means that even philanthropic institutions, focused on social welfare, are not exempt from economic pressures, which may impact their ability to achieve the social goals that define them.

Based on the students' perspective, the indicator REP-3 (the institution's ability to encourage and advance scientific and technological research production) stands out, as it is the item with the lowest significance among the selected indicators for this hypothesis, with a factor load of 0.781. However, it holds sufficient relevance to assist in confirming the hypothesis, supporting the views of Moura *et al.* (2013) and Andrade (2017), who highlight scientific and technological production as fundamental indicators in assessing innovation in educational institutions.

The indicator REP-4 (stimulating and supporting entrepreneurship) proved significant for the statistical model, with a factor load of 0.853. Therefore, it is inferred that

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DOI: https://doi.org/10.47149/pemo.v7.e14036
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ISSN: 2675-519X

encouragement and support for new ventures are essential factors for improving the quality of educational services (Faedo *et al.*, 2019).

According to the students' perspective, as evidenced by indicator REP-6 (new approaches, proposals, and marketing programs), the institution is in constant technological improvement, implementing new approaches, new courses, and innovative marketing proposals, given that the factor load obtained for REP-6 was 0.843.

According to Moran's findings (2017), cognitive flexibility is a relevant indicator for achieving active and innovative learning. In this regard, the statistical results indicate the significant relevance of the indicator REP-7 (cognitive flexibility), with a factor load of 0.864, showing that, according to the opinion of the students who participated in the research, the institution encourages students to seek practical solutions in problem-solving.

The indicator REP-8 (continuous improvement and innovation in educational processes) was the most significant in confirming the hypothesis, with a factor load of 0.866. This result confirms the research by Venkatraman (2007), which classifies innovation and continuous improvement as essential for quality in higher education. Thus, according to the students' perception, the studied philanthropic higher education institution presents a considerable level of teaching quality.

6 Final considerations

Philanthropic higher education institutions (IES) have objectives distinct from those of other private sector entities and require effective management to maintain their philanthropic nature and achieve the performance expected by the users of their services (Zanin, 2014). Therefore, the aim of this study was to highlight the students' perception of the relationship between organizational management strategy indicators and innovation with the quality of teaching in a philanthropic IES.

A confessional and philanthropic IES from the Midwest region, founded in 1947, was chosen for the study due to the ease of access to data, its relevance in academic and professional education, and its importance for higher education in Goiás. The adapted

Rev. Pemo, Fortaleza, v. 7, e14036, 2025
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ISSN: 2675-519X

analysis model combined management and innovation indicators proposed by Firdaus (2006), which improves the evaluation of educational quality. An electronic questionnaire was applied to 45 undergraduate courses at the institution, with 300 valid responses obtained.

When examining the relationship between organizational management strategy and teaching quality, the evidence suggests that students perceive the IES as having a motivated and qualified team of collaborators, as well as a management committed to establishing effective communication aimed at student development. Such evidence corroborates the findings of Psomas and Antony (2017) and Ali *et al.* (2010).

Regarding the relationship between Innovation and Teaching Quality, the results show that students perceive the IES as capable of producing science and technology, implementing new approaches, courses, processes, and innovative marketing strategies, with a focus on continuous improvement and innovation in educational processes. These actions positively impact the quality of teaching, aligning with the research of Moura *et al.* (2013), Andrade (2017), Moran (2017), Venkatraman (2007), and Leiber (2019).

Thus, both hypotheses of the study were accepted, meaning that both Organizational Management Strategy and Innovation are positively associated with the perception of Teaching Quality in a philanthropic IES. Therefore, it is concluded that, from the students' perspective, the IES studied has a considerable level of teaching quality. However, it should be noted that, although the elements achieved significant relevance in the statistical measurement model, none of the indicators reached the maximum influence on teaching quality.

This research contributes to the literature by providing evidence on the measurement of quality in higher education in Brazil from the students' perspective, focusing on organizational management and innovation criteria in philanthropic institutions. It is pioneering in establishing the relationship between measured variables with theoretical indicators and the HEDPERF method in the national context. The research also makes practical contributions by identifying areas for improvement in institutional management, with statistical data that help identify positive and negative aspects of the IES, which are

Rev. Pemo, Fortaleza, v. 7, e14036, 2025
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https://revistas.uece.br/index.php/revpemo
ISSN: 2675-519X

important for faculty and administrative staff. Additionally, it serves as a benchmark for future analyses of similar institutions.

In terms of limitations, the restriction of the selected sample is highlighted, as well as the impossibility of generalizing the results, since only one institution fitting this category of philanthropic IES was evaluated. Another limitation concerns the factor investigated, as the study exclusively considered the student perspective.

For future research, the following suggestions are made: conducting complementary qualitative research to analyze the perception of the same elements of this study, but from the perspective of the IES managers; empirically investigating other higher education institutions that fit the category of philanthropic IES; and investigating other possible indicators applicable to IES, given the complexity in defining the quality of institutional teaching.

References

ALI, N. A.; MAHAT, F.; ZAIRI, M. Testing the criticality of HR-TQM factors in the Malaysian higher education context. **Total Quality Management & Business Excellence**, v. 21, n. 11, p. 1177-1188, 2010. Disponível em: http://dx.doi.org/10.1080/14783360701349534. Acesso em: 20 jan. 2024.

ALI, M.; SHASTRI, R. K. Implementation of Total Quality Management in Higher Education. **Asian Journal of Business Management**, v. 2, n. 1, p. 9-16, 2010. Disponível em: https://maxwellsci.com/print/ajbm/v2-9-16.pdf. Acesso em: 24 mai. 2024.

ANDRADE, E. **Sistema de mensuração de desempenho em inovação para universidades públicas no Brasil**. 2017. Dissertação (Mestrado em Engenharia Industrial). Programa de Pós-Graduação em Engenharia Industrial da Universidade Federal da Bahia, Salvador, 2017. Disponível em: https://repositorio.ufba.br/bitstream/ri/21701/1/ANDRADE_ERON_PASSOS_novo.pdf Acesso em: 17 jun. 2024.

ANGELL, R. J.; HEFFERNAN, T. W.; MEGICKS, P. Service quality in postgraduate education. **Quality Assurance in Education**, v. 16, n. 3, p. 236-254, 2008. Disponível em: http://dx.doi.org/10.1108/09684880810886259. Acesso em: 10 set. 2023.

ASIEDU, M.; ANYIGBA, H.; OFORI, K.; AMPONG, G.; ADDAE, J. Factors influencing innovation performance in higher education institutions. **The Learning Organization, Emerald Publishing Limited**, 0969-6474, 2020. Disponível em: http://dx.doi.org/10.1108/TLO-12-2018-0205. Acesso em: 05 fev. 2024.

BANAHENE, S.; KRAA, Jj.; KASU, Pa. Impacto do HEdPERF na Satisfação dos Estudantes e Desempenho Acadêmico nas Universidades de Gana; Papel Mediador da Atitude em relação à Aprendizagem. **Open Journal of Social Sciences**, v. 6, p. 96-119, 2018. Disponível em: http://dx.doi.org/10.4236/jss.2018.65009. Acesso em: 10 jun. 2024.

BRANDENBURG, S.; MCDONOUGH, J.; BURKE, S.; WHITE (Eds.). **Teacher education:** innovation, intervention and impact. Springer, 2016.

Brasil. L**ei nº 12.101, de 27 de novembro de 2009**. Dispõe sobre a certificação das entidades beneficentes de assistência social; regula os procedimentos de isenção de contribuições para a seguridade sócia. Disponível em: http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2009/lei/l12101.htm. Acesso em: 23 out. 2023.

Brasil. **Lei nº 12.881, de 12 de novembro de 2013**. Dispõe sobre a definição, qualificação, prerrogativas e finalidades das Instituições Comunitárias de Educação Superior - ICES, disciplina o Termo de Parceria e dá outras providências. Disponível em: http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2013/lei/l12881.htm. Acesso em: 24 mar. 2024.

Brasil. **Lei nº 9.394, de 20 de dezembro de 1996**. Estabelece as diretrizes e bases da educação nacional. Disponível em: http://www.planalto.gov.br/ccivil_03/leis/l9394.htm. Acesso em: 15 nov. 2023.

CALVO-MORA, A.; LEAL, A.; ROLDAN, J. L. Using enablers of the EFQM model to manage institutions of higher education. **Quality Assurance in Education**, v. 14, n. 2, p. 99-122, 2006. Disponível em: http://dx.doi.org/10.1108/09684880610662006. Acesso em 04 abr. 2024.

CARDOSO JÚNIOR L. D. **Análise da percepção da qualidade em serviços em uma instituição de ensino superior: aplicação do método HEDPERF**. 2014. Dissertação (Mestrado em Engenharia de Produção) – Centro Universitário de Araraquara, São Paulo, 2014. Disponível em: https://m.uniara.com.br/arquivos/file/ppg/engenharia-producao/producao-intelectual/dissertacoes/2014/leuter-duarte-cardoso-junior.pdf. Acesso em: 12 fev. 2025.

CERNA, L. **The Governance of Innovation in Education**. Novembro, p. 5-21, 2014.

Rev. Pemo, Fortaleza, v. 7, e14036, 2025
DOI: https://doi.org/10.47149/pemo.v7.e14036
https://revistas.uece.br/index.php/revpemo
ISSN: 2675-519X

CHAGAS, L. R. **Mapeamento da percepção dos alunos de uma escola de idiomas: uma adaptação ao modelo HEDPERF**. 2010. Dissertação (Mestrado em Sistemas de Gestão) – Universidade Federal Fluminense, Rio de Janeiro, 2010. Disponível em: https://app.uff.br/riuff/bitstream/handle/1/17394/Dissertacao%20%20Leila%20Chagas.pdf?sequence=1&isAllowed=y. Acesso em: 12 fev. 2025.

CRONIN, J.; TAYLOR, S. A. Measuring service quality: reexamination and extension. Journal of Marketing, v. 56, n. 3, julho, 1992. Disponível em: http://dx.doi.org/10.2307/1252296. Acesso em: 07 nov. 2023.

DURHAM, E. R. A qualidade do ensino superior. **Revista @mbienteeducação**, São Paulo, v. 2, n. 1, p. 09–14, 2018. Disponível em: https://publicacoes.unicid.edu.br/ambienteeducacao/article/view/475. Acesso em: 19 jun. 2024.

FAEDO, J.; SILVA, M.; RESCH, S.; FIGUEIREDO, J. Fatores facilitadores de inovação em universidades: contribuições de casos brasileiros. IJKEM, International Journal of Knowledge Engineering and Management, v. 8, n. 20, Florianópolis, SC, mar./jun., 2019. Disponível em: https://doi.org/10.47916/ijkem-vol8n20-2019-3. Acesso em: 30 jul. 2023.

FAUL, F.; ERDFELDER, E.; BUCHNER, A.; LANG, A.-G. Statistical power analyses using G*Power 3.1: tests for correlation and regression analyses. **Behavior Research Methods**, v. 41, p. 1149-1160, 2009. Disponível em: https://link.springer.com/content/pdf/10.3758/BRM.41.4.1149.pdf. Acesso em: 30 set. 2023.

FIOREZE, C. A gestão das IES privadas sem fins lucrativos diante dos tensionamentos da mercantilização da educação superior e o caso das universidades comunitárias regionais: a caminho do hibridismo?. **Revista Brasileira de Estudos Pedagógicos**, v. 101, n. 257, 18 jun. 2019. Disponível em: https://doi.org/10.24109/2176-6681.rbep.101i257.4356. Acesso em 18 jun. 2024.

FIRDAUS, A. The development of HEdPERF: a new measuring instrument of service quality for the higher education sector. **International Journal of Consumer Studies, Malden**, v. 30, n. 6, p. 569-581, 2006. Disponível em: http://dx.doi.org/10.1111/j.1470-6431.2005.00480.x. Acesso em: 01 out. 2023.

FORNELL, C.; LARCKER, D. F. Modelos de Equações Estruturais com Variáveis Não Observáveis e Erro de Medida: Álgebra e Estatística. **Journal of Marketing Research**, v. 18, p. 382-388, 1981. Disponível em: http://dx.doi.org/10.2307/3150980. Acesso em: 12 jun. 2024.

Rev. Pemo, Fortaleza, v. 7, e14036, 2025
DOI: https://doi.org/10.47149/pemo.v7.e14036
https://revistas.uece.br/index.php/revpemo
ISSN: 2675-519X

GRAHAM, L.; WHITE, S.; COLOGON, K.; PIANTA, R. Do teachers' years of experience make a difference in the quality of teaching? Teaching and Teacher Education, v. 96, 103190, 2020. Disponível em: http://dx.doi.org/10.1016/j.tate.2020.103190. Acesso em: 04 dez. 2023.

HAIR, J. F.; HULT, G. T. M.; RINGLE, C. M.; SARSTEDT, M. **A primer on partial least squares structural equation modeling (PLS-SEM)**. Thousand Oaks: SAGE, 2014.
HOFMANN, M.; MCSWAIN, D. Financial disclosure management in the nonprofit sector: A framework for past and future research. **Journal of Accounting Literature**, p. 61-87, 2013. Disponível em: https://doi.org/10.1016/j.acclit.2013.10.003. Acesso em: 10 jan. 2024.

INEP. **O que é o Sinaes**. 20 de Outubro de 2015. Disponível em: http://inep.gov.br/sinaes. Acesso em: 15 nov. 2023.

INEP. **Censo da educação superior**. Setembro de 2018. Disponível em: http://portal.mec.gov.br/index.php?option=com_docman&view=download&alias=97041-apresentac-a-o-censo-superior-u-ltimo&Itemid=30192. Acesso em: 15 nov. 2023.

INEP. **Censo da educação superior 2019**. Outubro de 2020. Disponível em: https://download.inep.gov.br/educacao_superior/censo_superior/documentos/2020/Apresentacao_Censo_da_Educacao_Superior_2019.pdf. Acesso em: 10 jun. 2024.

KARAHAN, M.; METE, M. Examination of total quality management practices in higher education in the context of quality sufficiency. In: Second World Conference on Business, Economics and Management. **Procedia – Social and Behavioral Sciences**, v. 109, p. 1292-1297, 2014. Disponível em: http://dx.doi.org/10.1016/j.sbspro.2013.12.627. Acesso em: 20 fev. 2024.

LEIBER, T. A general theory of learning and teaching and a related comprehensive set of performance indicators for higher education institutions. **Quality in Higher Education**, v. 25, n. 1, p. 76-97, 2019. Disponível em: https://doi.org/10.1080/13538322.2019.1594030. Acesso em: 22 mai. 2024.

LUGOBONI, L. F. **A relação entre os sistemas de gestão por indicadores e o desempenho das instituições de ensino superior**. 2017. Tese (Doutorado em Administração) - Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, São Paulo, 2017. https://doi.org/10.11606/T.12.2017.tde-13062017-153450. Acesso em: 10 maio 2024.

MEHTA, N.; VERMA, P.; SETH, N. Total quality management implementation in engineering education in India: an interpretive structural modelling approach. **Total**

Rev. Pemo, Fortaleza, v. 7, e14036, 2025
DOI: https://doi.org/10.47149/pemo.v7.e14036
https://revistas.uece.br/index.php/revpemo
ISSN: 2675-519X

Quality Management & Business Excellence, v. 25, n. 1/2, p. 124-140, 2014. Disponível em: https://doi.org/10.1080/14783363.2013.791113. Acesso em: 22 fev. 2024.

MORAN, J. **Tecnologias digitais para uma aprendizagem ativa e inovadora**. Papirus, 5 ed., cap. 4, 2017.

MOURA, E.; SUZART, V.; CASTRO, P.; QUINTELLA, C.; ALMEIDA, L.; EMBIRUÇU, M.; MARQUES, L. **A importância da política de inovação e análise de desempenho dos institutos de ensino superior (IES) federais do estado da Bahia**. In: XV Congreso Latino-Iberoamericano de Gestión Tecnológica, 2013.

PARASURAMAN, A.; ZEITHAML, V.A.; BERRY, L.L. SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. **Journal of Retailing**, vol. 64, n. 1, p. 12-40, New York University, Spring, 1988.

PERIS-ORTIZ, M.; GÓMEZ, J. A.; MERIGÓ-LINDAHL, J. M.; RUEDA-ARMENGOT, C. Entrepreneurial Universities: Exploring the Academic and Innovative Dimensions of Entrepreneurship in Higher Education. **Springer**, 2016. Disponível em: http://dx.doi.org/10.1007/978-3-319-47949-1. Acesso em: 20 nov. 2023.

PSOMAS, E.; ANTONY, J. Total quality management elements and results in higher education institutions: The Greek case. **Quality Assurance in Education**, v. 25, n. 2, p. 206-223, 2017. Disponível em: https://doi.org/10.1108/QAE-08-2015-0033. Acesso em: 30 jan. 2024.

SÁ, P. M. O e S. **A Gestão da Qualidade no Ensino Superior em Portugal**. RepositóriUM, Universidade do Minho, 2020. Tese (Doutorado em Engenharia Industrial e de Sistemas). Escola de Engenharia da Universidade do Minho, Portugal, 2020. Disponível em:https://repositorium.sdum.uminho.pt/bitstream/1822/76795/1/Paula%20Maria%20Oliveira%20e%20Silva%20Sa.pdf. Acesso em: 27 mai. 2024.

SILVA JÚNIOR, J. T.; SILVA, F. R. M. D.; VIANA, T. D. A. **Transparência, Participação e Governança como Estratégia de Gestão Pública Universitária:** O Caso da Universidade Federal do Cariri (UFCA). In: XLIV ENCONTRO DA ANPAD. Fortaleza, 2019.

VALENTE, J. Blended learning e as mudanças no ensino superior: a proposta da sala de aula invertida. **Educar em Revista**, Curitiba, Brasil, Edição Especial n. 4, p. 79-97, 2014. Disponível em: https://doi.org/10.1590/0104-4060.38645. Acesso em: 22 nov. 2023.

Rev. Pemo, Fortaleza, v. 7, e14036, 2025
DOI: https://doi.org/10.47149/pemo.v7.e14036
https://revistas.uece.br/index.php/revpemo
ISSN: 2675-519X

VENKATRAMAN, S. A framework for implementing TQM in higher education programs. **Quality Assurance in Education**, v. 15, n. 1, p. 92-112, 2007. Disponível em: http://dx.doi.org/10.1108/09684880710723052. Acesso em: 17 jun. 2024.

ZANIN, A. **Definição de painel de indicadores de desempenho para instituições comunitárias de ensino superior**. 2014. Tese (Doutorado em Engenharia de Produção) – Universidade Federal do Rio Grande do Sul, Porto Alegre, 2014. Disponível em: https://lume.ufrgs.br/bitstream/handle/10183/101176/000930606.pdf?sequence=1&isAllowed=y. Acesso em: 20 mai. 2024.

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Responsible publisher: Genifer Andrade

***Ad hoc* specialist:** Adriane Corrêa da Silva, Marcos Carvalho and Eduardo Pinto e Silva.

How to cite this article (ABNT):
ASSUNÇÃO, Artur Ribeiro de.; ARAÚJO, Kleber Domingos.; PINHEIRO, Ana Claudia Santo Lima. Percepção da qualidade no ensino superior: análise discente de uma IES

filantrópica. **Rev. Pemo**, Fortaleza, v. 7, e14036, 2025. Available at: https://revistas.uece.br/index.php/revpemo/article/view/14036

Received on September 14, 2024.
Accepted on February 13, 2025.
Published on April 24, 2025.

Rev. Pemo, Fortaleza, v. 7, e14036, 2025
DOI: https://doi.org/10.47149/pemo.v7.e14036
https://revistas.uece.br/index.php/revpemo
ISSN: 2675-519X