


Relationships between quality of services and satisfaction, loyalty and “word of mouth” communication: Perception of students at a Higher Education Institution (HEI) during the pandemic

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ABSTRACT

The objective of this study was to evaluate the relationships between service quality, satisfaction, perceived value, loyalty and "word of mouth" in an HEI, pointing to the adoption of new practices in the HEI in question, as post-pandemic competitive alternatives. This is a descriptive and exploratory research, with a qualitative approach. The sample consisted of 100 students from different courses of a private HEI in the state of Minas Gerais, submitted to measurements and analysis of their

characteristics and opinions. The results indicated a relative positivity in relation to the HEI, and the women, undergraduates, between 21-23 years of age showed greater satisfaction in relation to the higher education institution. Of all respondents, regarding the quality of services (53%) remained neutral; perceived value in terms of students' needs (50%) in agreement; perceived value to the HEI's performance (46%) neutral; overall satisfaction (45%) equally neutral; satisfaction with the services offered (48%) neutral; option for another HEI, 39% said they would hardly choose another one; pride in the HEI in which they study (48%), “word of mouth” communication (52%); positive comments on social networks (50%). The findings showed that most students remained neutral on most questions, results attributed to the time of the pandemic, when the research was carried out.

Keywords: Satisfaction, Quality, Loyalty, Value, Pandemic.

1 INTRODUCTION

Studies show that the benefits of establishing long-term relationships between students and Higher Education Institutions (HEIs) (ROWLEY, 2003; TAPP et al., 2004; ALVES; RAPOSO, 2009; ALVES, 2011; CAVALHEIRO et al., 2014) brings competitive advantages, to the extent that students loyal to their institutions disclose their satisfaction to others, as well as to those potential, allowing the image of the HEI to be positive.

Mass higher education, the expansion of the knowledge society, the frantic, unprecedented development of information technology, the commodification of higher education, as well as the turbulence of globalization have brought revolutionary changes to the mission and purpose of universities around the world (LEKO-ŠIMIĆ; ČARAPIĆ, 2021), notably during and post-pandemic (FARAGE, 2021).

The cycle of student-teacher-HEI relations has been disrupted by the COVID-19 pandemic, which has impacted the entire world, in all sectors, especially in health and education. During the pandemic, schools at all levels have had to create alternatives to teaching on an emergency basis. I then emerged the remote teaching, and the HEIs, had to adapt, in an attempt to minimize the didactic-

pedagogical damages, as well as the risks to health, at the same time, ensuring a quality higher education (GUSSO et al., 2020).

Urgent measures had to be taken, since educational institutions represent centers of social coexistence, naturally, generate agglomerations and providing the spread of the virus in society by this route, that is, by the educational environment (AQUINO et al., 2020). In turn, the Ministry of Education (MEC) issued Ordinance No. 343, of March 17, 2020, maintaining social isolation, but authorizing the replacement of face-to-face classes by digital means, thus emerging the Emergency Remote Teaching (ERE), while the pandemic lasted (MEC, 2020).

Among so many challenges to be faced, perhaps one was the most pressing, the use of technologies by faculty, students, and staff of HEIs. Challenge, because many teachers were not familiar with technological means, saved, conventional and commonplace, and as for the students, many did not have access to the internet and technological equipment and instruments, which was a dilemma, considering the need to develop remote activities in environments outside the institution.

According to Al Samaraee (2020), in a study on medical education in the pandemic, reported that at the beginning of classes, most students complained about not accessing the school platform and/or the activities shared in Google classrooms (*Google Classroom*). Most of these students said they used laptops, cell phones and conventional computers to follow the classes, but the great difficulty was the sharing of this equipment with other family members, which significantly hindered their access to the platforms. In this sense, the perception that one has is about the quality of the services provided at the time of the pandemic, in contrast to the difficulties of students and of teachers to access the platforms – classes by remote routes.

Other variables should also be considered by the HEIs, in addition to satisfaction, perception of value, communication "word of mouth", loyalty, which were used in this research. However, it is also necessary to consider factors such as flexibility and adaptation, interaction and engagement, support and support, resources and infrastructure, transparency in communication, adoption of hybrid education, investment in new technological resources.

As for flexibility and adaptation, many HEIs, as already mentioned, needed to adapt quickly, even emergency so that they could offer the minimum necessary in remote classes, both for teachers and students and other modalities of distance learning. In this sense, the quality of services can be perceived by students from the ease of access to platforms, availability of digital resources, efficient technical support, and clarity in communication. All of these factors are closely related. However, in practice these factors are still far from acceptable.

When it comes to blended learning, many still don't understand what it means. In some cases of private HEIs, they are already adapting to this teaching modality, that is, combining face-to-face

classes with remote classes, seeking to bring and guarantee students better quality and flexibility in the teaching-learning process. Many try to invest in improving their technological apparatus, facilitating access to materials and activities, adequate technical support and effective interaction between students and teachers. These are challenges that have yet to be faced.

As for public HEIs, the scenario is even more complex, since they depend on public investments, parliamentary amendments, common sense, and good political sources. Most public HEIs are relegated to the second and third plane. You don't invest in education as you should. Successive governments take more and more percentages that should be directed to education and divert to other areas.

Corroborating with our understanding, Cavalcanti and Guerra (2021, p. 74), state that, "in Brazil, in addition to the health crisis caused by the new coronavirus, it was seen that our country lacks a project of nation, and, what is more worrying, is that it was evident that government planning, in all spheres of public power, leaves something to be desired, when it exists."

Also according to the same authors,

In relation to Education, several factors contributed to the worsening of the situation, in relation to the federal HEIs, because it was found that, even having an institutional planning tool, in force for more than 15 years (Institutional Development Plan (PDI)), the existence of a contingency plan that was capable of dealing with the crisis caused by the pandemic was not detected, neither in the Federal Universities, nor in the Ministry of Education (MEC), which, so far, does not even have a Crisis Management Office caused by Covid-19, which can guide public universities, through standardized procedures and routines (CAVALCANTI and GUERRA, 2021, p. 74).

The fragmentation of Brazilian education is a fact. Previous governments, notably the last government, were against federal universities, harshly criticizing the educational process, including intervening in the management of virtually all of them. As a result, it has drastically reduced the financial resources of these institutions, with more force in the pandemic period.

Students and teachers have been and still are overwhelmed and in many cases looking for ways to offer and receive quality education, even minimally. Given this, the perception of students in a general scenario, naturally is not the best, in relation to the quality of teaching and its satisfaction, and consequently word of mouth communication is impaired.

In addition, it is worth mentioning that in the educational area, it is of paramount importance to take into account the quality of the services provided by the HEIs, given the number of offers and competitiveness existing in the current market, especially those of the private sector. In addition, the pace and dynamics of global changes in many aspects of life are changing dramatically and is noticeable also in the area of higher education. The perceived quality of services in an unsatisfactory

way can demotivate and lead to school dropout (or dropout), especially of undergraduate courses (GOUVÊA et al., 2016).

However, it was noticed that, with the pandemic (COVID-19), it accentuated even more the demotivation, the dissatisfaction, especially of the students, and, consequently, the quality of the services had a sharp drop giving space to discussions, especially about the quality of higher education.

Research in the education sector has been carried out for some time. However, regarding the quality of services, it seems, they have been more frequent, between expectation and perception of students/consumers about various aspects (such as services, satisfaction, perceived value, loyalty, and communication "word of mouth"), assuming a character of great competitive importance. Several differentials have been used as a strategy by the institutions in the competitive scenario, currently existing among the HEIs, but what has stood out the most, in practice and in the literature, is the quality of the services offered, which consequently influences the loyalty and satisfaction of students/consumers.

Higher education institutions, as well as business organizations from other sectors, that understand how customers evaluate quality, the dimensions of quality of services that are most relevant to the HEI, paying attention to customer perception, and what are the repercussions of quality on loyalty, satisfaction, perceived value and word of mouth tend to be more competitive in the market (VIEIRA et al., 2009), tend to achieve more positive results.

In view of the above, the objective of this article was to evaluate the relationships between quality of services, satisfaction, perceived value, loyalty, and word-of-mouth communication in an HEI, under a post-pandemic perspective.

2 METHODS

This is a descriptive, exploratory study with description of the methods and characteristics of the individuals using descriptive statistics, measures of position, central tendency, and dispersion. For the qualitative characterization variables, absolute and relative frequencies were used, while the mean and standard deviation were used to describe the quantitative characterization variables. To evaluate the correlation and association between the characteristics, Pearson's chi-square test was calculated.

The Chi-square test (denoted by χ^2), a statistic devised by Karl Pearson in 1899. It is a non-parametric test, that is, it does not depend on population parameters, such as mean and variance. The test is used to check whether there is an association between the row variable and variable column in a contingency table constructed from sample data. The null hypothesis is that the variables are not associated. The alternative hypothesis is that the variables are associated. If the p-value of Pearson's

Chi-Square Test (last column) is lower than the significance level of 0.05 (P-value < 0.05), we conclude that the characteristic studied has an association.

For analysis and comparison of variables, the nonparametric Kruskal-Wallis test was used. It is a non-parametric test, that is, it does not depend on population parameters, such as mean and variance. For analysis and comparison of variables, the nonparametric Kruskal-Wallis test was used, with the objective of comparing whether all samples are equal.

The research instrument was a structured questionnaire, with an estimated response time of five minutes with 15 closed questions, five of which were sociodemographic to characterize the individuals. This questionnaire was applied via *Online Survey*, indicated to surveys that express opinions, customs or characteristics of a certain target audience, in this case, students of HEIs.

The survey was conducted between July 2020 and January 2021, during the pandemic, to assess the relationships between quality of services, satisfaction, perceived value, loyalty and "word of mouth" in an HEI, pointing to the adoption of new practices in the HEI in question, as competitive alternatives post-pandemic.

3 RESULTS AND DISCUSSION

3.1 DESCRIPTIVE ANALYSIS AND CHARACTERIZATION OF INDIVIDUALS

Table 1 presents the characterization of the individuals. From it it can be verified that most of the individuals are female (56.6%). Regarding the degree of education, we can see that most of them have completed undergraduate (57%) and postgraduate (12%). And, in general, the course time (48%). As for age, they are young people between 21 and 23 years old.

Table 1. Characterization of Individuals

		Frequency	%
Degree of Education	Graduation	57	57,0%
	Postgraduate studies	12	12,0%
	Masters	2	2,0%
	Ongoing	28	28,0%
	Doctorate	0	0,0%
	Post-Doc.	1	1,0%
Sex	Female	56	56,6%
	Male	43	43,4%
Age	18-20	21	21,0%
	21-23	30	30,0%
	24-27	20	20,0%

	28-33	16	16,0%
	+34	13	13,0%
Income	1-2	58	58,0%
	3-5	33	33,0%
	6-10	8	8,0%
	11	1	1,0%
Course Time	Ongoing	48	48,0%
	1 year	14	14,0%
	2 years	7	7,0%
	3 years	9	9,0%
	4 in	10	10,0%
	5 years +	12	12,0%

Source: Research, 2022.

3.2 ANALYSIS OF THE OPINION OF THE STUDENTS INTERVIEWED

Table 2 shows the opinion of the interviewees regarding the variables. It was found that the students were more in agreement with the Quality variables: quality of services (QS) (51%), "word of mouth" (BB) (52%) and perceived value (PV): HEI is concerned with the needs of students (50%). On the other hand, less concordant in relation to the variables of Satisfaction (SAT): service (19%), performance of the HEI (22%) and loyalty (LEAL): hardly considers another HEI to take another course (23%).

Table 2. Individuals' Opinions on Topics

		Frequency	%
QS	Disagree	7	7,0%
	Neuter	42	42,0%
	Agree	51	51,0%
QRP	Disagree	11	11,0%
	Neuter	53	53,0%
	Agree	36	36,0%
VP	Disagree	13	13,0%
	Neuter	37	37,0%
	Agree	50	50,0%
VPD	Disagree	22	22,0%
	Neuter	46	46,0%

	Agree	32	32,0%
SATD	Disagree	16	16,0%
	Neuter	45	45,0%
	Agree	39	39,0%
SS	Disagree	19	19,0%
	Neuter	48	48,0%
	Agree	33	33,0%
LOYAL*	Disagree	23	23,0%
	Neuter	38	38,0%
	Agree	39	39,0%
LOYAL**	Disagree	17	17,0%
	Neuter	35	35,0%
	Agree	48	48,0%
BB	Disagree	12	12,0%
	Neuter	36	36,0%
	Agree	52	52,0%
CPRS	Disagree	15	15,0%
	Neuter	35	35,0%
	Agree	50	50,0%

(QS) Quality of services; (QRP) Quality Problem Solving IES; (VP) Perceived Value IES worries students need; (VPD) Perceived Value IES Performance; (SATG) General Satisfaction IES; (SS) Service Satisfaction; Loyalty (LEAL*) Hardly considers another HEI to take another Course; (LEAL**) Loyalty: You are proud of the HEI where you took your course; (BB) Word of Mouth: Would indicate HEI; (CPRS) Positive Comments on Social Networks.
Source: Research, 2022.

Table 3 presents the descriptive scores of the students' assessments. It was found that the higher the mean evaluation, the greater their agreement. At this point, the interpretation is reiterated that students have greater agreement with the items Quality: quality of services (2.44), "word of mouth" (2.40) and Perceived Value: HEI is concerned with the needs of students (2.37).

Table 3. Descriptive Reviews

	Average	Median	Lower CL Average	Upper CL Average	Standard deviation	My	Max
QS	2,44	3,00	2,32	2,56	0,62	1,00	3,00
QRP	2,25	2,00	2,12	2,38	0,64	1,00	3,00
VP	2,37	2,50	2,23	2,51	0,71	1,00	3,00
VP	2,10	2,00	1,95	2,25	0,73	1,00	3,00
SATG	2,23	2,00	2,09	2,37	0,71	1,00	3,00
SS	2,14	2,00	2,00	2,28	0,71	1,00	3,00
LOYAL*	2,16	2,00	2,01	2,31	0,77	1,00	3,00
LOYAL**	2,31	2,00	2,16	2,46	0,75	1,00	3,00
BB	2,40	3,00	2,26	2,54	0,70	1,00	3,00
CPRS	2,35	2,50	2,21	2,49	0,73	1,00	3,00

(QS) Quality of services; (QRP) Quality Problem Solving IES; (VP) Perceived Value IES worries students need; (VPD) Perceived Value IES Performance; (SATG) General Satisfaction IES; (SS) Service Satisfaction; Loyalty (LEAL*) Hardly considers another HEI to take another Course; (LEAL**) Loyalty: You are proud of the HEI where you took your course; (BB) Word of Mouth: Would indicate HEI; (CPRS) Positive Comments on Social Networks.

Source: Research, 2022.

Table 4 shows the comparison of the measures according to the characteristics of the students interviewed. Statistically significant results were observed at the level of 5% in the comparison of gender, education, age, income, and time of course. The following significant results stand out: 1) women tend to have higher satisfactions for "Loyalty: Hardly considers another", as well as "Word of Mouth", compared to men. Findings: 2) students with the course in progress have greater tendencies of positive evaluations for the items of "Quality: IES Problem Solving", "Perceived Value: IES Performance", consequently they are the ones with the highest evaluations for "Positive Comments on Social Networks"; 3) with regard to age, it was observed that this is a factor of extreme significance for the evaluation. In practically all evaluations, statistically significant differences were observed (P-Value < 0.05); 4) In general, students with income between 1 and 5 minimum wages (MW) tend to present positive evaluations for the items "Quality: Quality of services" and "Quality: Resolution of HEI Problem". On the other hand, students with higher income above 6 MW have better ratings for "Loyalty: Hardly considers another HEI"; 5) Course time is also a factor that impacts student assessment. The longer the course time (+ 5 years) the higher the positive evaluations for the items: "Quality: Quality of services, Perceived Value: IES Performance, Satisfaction: General IES, Service Satisfaction, Loyalty: Hardly consider another HEI, Loyalty: You are proud of the HEI and Positive Comments on Social Networks."

Table 4. Bivariate Analysis (a) Notes Opinions Individuals

		QS	QRP	VP	VPD	SATG	SS	LOYAL	LOYA L	BB	
Sex	FM	2,4	2,2	2,3	2,0	2,1	2,1	2,0	2,2	2,2	2,3
	M	2,6	2,3	2,4	2,2	2,4	2,2	2,4	2,4	2,7	2,4
	P-Value	0,210	0,328	0,451	0,102	0,165	0,687	0,002	0,205	0,002	0,704
Trainin g	Ongoing	2,5	2,5	2,4	2,4	2,3	2,3	2,3	2,4	2,3	2,6
	Graduation	2,5	2,3	2,2	2,0	2,2	1,9	2,1	1,8	2,7	2,0
	Postgraduate studies	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0
	Masters	2,3	1,8	2,4	1,6	2,2	2,0	1,9	2,4	2,5	2,0
	Post-Doc.	2,0	2,0	2,0	2,0	2,0	3,0	2,0	2,0	2,0	2,0
	P-Value	0,193	0,000	0,631	0,001	0,790	0,247	0,086	0,127	0,271	0,002
Age	18-20	2,0	1,8	2,2	1,9	1,9	2,1	1,9	2,3	2,0	1,9
	21-23	2,4	2,3	2,0	2,0	2,0	1,6	2,0	1,7	2,5	1,9
	24-27	2,4	2,9	3,0	2,4	2,1	2,8	2,2	2,6	2,5	2,9
	28-33	3,0	2,2	2,7	2,0	3,0	2,0	2,4	3,0	2,9	3,0
	+34	2,5	2,0	2,3	2,5	2,5	2,5	2,5	2,5	2,0	2,5
	P-Value	0,000	0,000	0,000	0,105	0,000	0,000	0,104	0,000	0,000	0,000
Income	1-2	2,3	2,1	2,3	2,0	2,1	2,0	2,0	2,2	2,2	2,2
	3-5	2,5	2,4	2,6	2,0	2,4	2,3	2,2	2,6	2,7	2,5
	6-10	3,0	2,8	2,1	2,9	2,6	2,1	3,0	1,8	2,5	2,6
	11	3,0	2,0	2,0	3,0	2,0	2,0	3,0	1,0	2,0	2,0
	P-Value	0,009	0,004	0,052	0,007	0,064	0,286	0,002	0,008	0,066	0,245
Course Time	Ongoing	2,2	2,2	2,1	1,9	1,9	2,0	2,0	2,0	2,3	1,9
	1 year	2,5	2,4	2,7	2,5	2,5	2,5	2,5	2,7	2,5	2,5
	2 years	2,3	2,3	2,1	2,0	2,1	1,4	2,0	1,7	2,9	2,0
	3 years	2,3	3,0	3,0	2,0	1,9	2,4	1,3	2,3	2,3	3,0
	4 in	3,0	2,0	2,8	2,0	3,0	2,0	2,4	3,0	3,0	3,0
	5 years +	3,0	2,1	2,5	2,7	3,0	2,6	3,0	3,0	2,1	3,0
	P-Value	0,000	0,002	0,000	0,009	0,000	0,003	0,000	0,000	0,004	0,000

a. P-Value Kruskal Wallis Test

Source: Research, 2022.

Tables 5, 6, 7 and 8 present the evaluation of the association of the items with the characteristics of the students. It is noticed that there is a statistically significant association at the level of 5% between the level of education of the students with the evaluations of "Quality: Resolution Problem IES, Perceived Value: IES Performance, Satisfaction: General IES, Loyalty: Hardly considers another HEI to take another Course, Positive Comments on Social Networks.

Table 5. Analysis Correlation Degree of Education and Opinions Individuals

		Degree of Education						P-Value
		Graduation	Postgraduate studies	Masters	Ongoing	Doctorate	Post-Doc.	
		n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	
Quality: Quality of services	Disagree	3 (5,3%)	0 (0,0%)	0 (0,0%)	4 (14,3%)	0 (0,0%)	0 (0,0%)	0,2720
	Neuter	20 (35,1%)	6 (50,0%)	2 (100,0%)	13 (46,4%)	0 (0,0%)	1 (100,0%)	
	Agree	34 (59,6%)	6 (50,0%)	0 (0,0%)	11 (39,3%)	0 (0,0%)	0 (0,0%)	
Quality: IES Problem Solving	Disagree	2 (3,5%)	0 (0,0%)	0 (0,0%)	9 (32,1%)	0 (0,0%)	0 (0,0%)	0,0000
	Neuter	24 (42,1%)	9 (75,0%)	2 (100,0%)	17 (60,7%)	0 (0,0%)	1 (100,0%)	
	Agree	31 (54,4%)	3 (25,0%)	0 (0,0%)	2 (7,1%)	0 (0,0%)	0 (0,0%)	
Perceived Value: IES worries need	Disagree	4 (7,0%)	3 (25,0%)	0 (0,0%)	6 (21,4%)	0 (0,0%)	0 (0,0%)	0,1390
	Neuter	24 (42,1%)	4 (33,3%)	2 (100,0%)	6 (21,4%)	0 (0,0%)	1 (100,0%)	
	Agree	29 (50,9%)	5 (41,7%)	0 (0,0%)	16 (57,1%)	0 (0,0%)	0 (0,0%)	
Perceived Value: IES Performance	Disagree	6 (10,5%)	6 (50,0%)	0 (0,0%)	10 (35,7%)	0 (0,0%)	0 (0,0%)	0,0000
	Neuter	25 (43,9%)	0 (0,0%)	2 (100,0%)	18 (64,3%)	0 (0,0%)	1 (100,0%)	
	Agree	26 (45,6%)	6 (50,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	
Satisfaction: General IES	Disagree	12 (21,1%)	0 (0,0%)	0 (0,0%)	4 (14,3%)	0 (0,0%)	0 (0,0%)	0,0280
	Neuter	17 (29,8%)	10 (83,3%)	2 (100,0%)	15 (53,6%)	0 (0,0%)	1 (100,0%)	
	Agree	28 (49,1%)	2 (16,7%)	0 (0,0%)	9 (32,1%)	0 (0,0%)	0 (0,0%)	
Service Satisfaction	Disagree	4 (7,0%)	5 (41,7%)	0 (0,0%)	10 (35,7%)	0 (0,0%)	0 (0,0%)	0,0090
	Neuter	34 (59,6%)	3 (25,0%)	2 (100,0%)	9 (32,1%)	0 (0,0%)	0 (0,0%)	
	Agree	19 (33,3%)	4 (33,3%)	0 (0,0%)	9 (32,1%)	0 (0,0%)	1 (100,0%)	
Loyalty: Hardly consider another HEI p do another Course	Disagree	16 (28,1%)	3 (25,0%)	0 (0,0%)	4 (14,3%)	0 (0,0%)	0 (0,0%)	0,0000
	Neuter	7 (12,3%)	5 (41,7%)	2 (100,0%)	23 (82,1%)	0 (0,0%)	1 (100,0%)	
	Agree	34 (59,6%)	4 (33,3%)	0 (0,0%)	1 (3,6%)	0 (0,0%)	0 (0,0%)	
Loyalty: You are proud of the HEI where you took the course	Disagree	8 (14,0%)	4 (33,3%)	0 (0,0%)	5 (17,9%)	0 (0,0%)	0 (0,0%)	0,1440
	Neuter	18 (31,6%)	6 (50,0%)	2 (100,0%)	8 (28,6%)	0 (0,0%)	1 (100,0%)	
	Agree	31 (54,4%)	2 (16,7%)	0 (0,0%)	15 (53,6%)	0 (0,0%)	0 (0,0%)	
Word of mouth: Indicataria IES	Disagree	8 (14,0%)	0 (0,0%)	0 (0,0%)	4 (14,3%)	0 (0,0%)	0 (0,0%)	0,2120
	Neuter	23 (40,4%)	4 (33,3%)	2 (100,0%)	6 (21,4%)	0 (0,0%)	1 (100,0%)	
	Agree	26 (45,6%)	8 (66,7%)	0 (0,0%)	18 (64,3%)	0 (0,0%)	0 (0,0%)	

Emerging Issues Related to the Corona

Relationships between quality of services and satisfaction, loyalty and “word of mouth” communication: Perception of students at a Higher Education Institution (HEI) during the pandemic

Positive Comments on Social Networks	Disagree	5 (8,8%)	2 (16,7%)	0 (0,0%)	8 (28,6%)	0 (0,0%)	0 (0,0%)	0,0020
	Neuter	13 (22,8%)	8 (66,7%)	2 (100,0%)	11 (39,3%)	0 (0,0%)	1 (100,0%)	
	Agree	39 (68,4%)	2 (16,7%)	0 (0,0%)	9 (32,1%)	0 (0,0%)	0 (0,0%)	

a. P-Value Pearson's chi-square test.

Source: Research, 2022.

There is a statistically significant association at the level of 5% between the sex of the students with the evaluations of Satisfaction: General HEI, Loyalty: Hardly consider another HEI to take another Course and Word of Mouth: Would indicate HEI.

Table 6. Analysis, Correlation, Sex and Student Opinions

		Sex		P-Value
		Female	Male	
		n (%)	n (%)	
Quality: Quality of services	Disagree	7 (12,5%)	0 (0,0%)	0,055
	Neuter	22 (39,3%)	19 (44,2%)	
	Agree	27 (48,2%)	24 (55,8%)	
Quality: IES Problem Solving	Disagree	9 (16,1%)	2 (4,7%)	0,1989
	Neuter	28 (50,0%)	25 (58,1%)	
	Agree	19 (33,9%)	16 (37,2%)	
Perceived Value: IES worries students need	Disagree	10 (17,9%)	3 (7,0%)	0,2665
	Neuter	19 (33,9%)	18 (41,9%)	
	Agree	27 (48,2%)	22 (51,2%)	
Perceived Value: IES Performance	Disagree	13 (23,2%)	9 (20,9%)	0,0730
	Neuter	30 (53,6%)	15 (34,9%)	
	Agree	13 (23,2%)	19 (44,2%)	
Satisfaction: General IES	Disagree	15 (26,8%)	1 (2,3%)	0,002*
	Neuter	19 (33,9%)	25 (58,1%)	
	Agree	22 (39,3%)	17 (39,5%)	
Service Satisfaction	Disagree	11 (19,6%)	8 (18,6%)	0,8919
	Neuter	28 (50,0%)	20 (46,5%)	
	Agree	17 (30,4%)	15 (34,9%)	
Loyalty: Hardly consider another HEI p do another Course	Disagree	18 (32,1%)	4 (9,3%)	0,008*
	Neuter	22 (39,3%)	16 (37,2%)	

	Agree	16 (28,6%)	23 (53,5%)	
Loyalty: You are proud of the HEI where you took your course	Disagree	11 (19,6%)	6 (14,0%)	0,4328
	Neuter	21 (37,5%)	13 (30,2%)	
	Agree	24 (42,9%)	24 (55,8%)	
"Word of mouth": would indicate IES	Disagree	12 (21,4%)	0 (0,0%)	0,002*
	Neuter	21 (37,5%)	14 (32,6%)	
	Agree	23 (41,1%)	29 (67,4%)	
Positive Comments on Social Networks	Disagree	10 (17,9%)	5 (11,6%)	0,6666
	Neuter	18 (32,1%)	16 (37,2%)	
	Agree	28 (50,0%)	22 (51,2%)	

a. P-Value Pearson's chi-square test.
Source: Research, 2022.

There is a statistically significant association at the level of 5% between the age of the individuals with all assessments.

Table 7. Analysis Correlation Age and Opinions Individuals

		Age					P-Value
		18-20	21-23	24-27	28-33	+34	
		n (%)	n (%)	n (%)	n (%)	n (%)	
Quality: Quality of services	Disagree	7 (33,3%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	6 (28,6%)	18 (60,0%)	12 (60,0%)	0 (0,0%)	6 (46,2%)	
	Agree	8 (38,1%)	12 (40,0%)	8 (40,0%)	16 (100,0%)	7 (53,8%)	
Quality: IES Problem Solving	Disagree	11 (52,4%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	4 (19,0%)	21 (70,0%)	2 (10,0%)	13 (81,3%)	13 (100,0%)	
	Agree	6 (28,6%)	9 (30,0%)	18 (90,0%)	3 (18,8%)	0 (0,0%)	
Perceived Value: IES worries need	Disagree	8 (38,1%)	5 (16,7%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	1 (4,8%)	21 (70,0%)	1 (5,0%)	5 (31,3%)	9 (69,2%)	
	Agree	12 (57,1%)	4 (13,3%)	19 (95,0%)	11 (68,8%)	4 (30,8%)	
Perceived Value: IES Performance	Disagree	8 (38,1%)	14 (46,7%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	7 (33,3%)	3 (10,0%)	13 (65,0%)	16 (100,0%)	7 (53,8%)	
	Agree	6 (28,6%)	13 (43,3%)	7 (35,0%)	0 (0,0%)	6 (46,2%)	
Satisfaction:	Disagree	8 (38,1%)	4 (13,3%)	4 (20,0%)	0 (0,0%)	0 (0,0%)	,000*

General IES	Neuter	7 (33,3%)	22 (73,3%)	10 (50,0%)	0 (0,0%)	6 (46,2%)	
	Agree	6 (28,6%)	4 (13,3%)	6 (30,0%)	16 (100,0%)	7 (53,8%)	
Service Satisfaction	Disagree	5 (23,8%)	14 (46,7%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	9 (42,9%)	13 (43,3%)	4 (20,0%)	16 (100,0%)	6 (46,2%)	
	Agree	7 (33,3%)	3 (10,0%)	16 (80,0%)	0 (0,0%)	7 (53,8%)	
Loyalty: Hardly considers another HEI	Disagree	8 (38,1%)	7 (23,3%)	8 (40,0%)	0 (0,0%)	0 (0,0%)	,002*
	Neuter	7 (33,3%)	15 (50,0%)	1 (5,0%)	9 (56,3%)	6 (46,2%)	
	Agree	6 (28,6%)	8 (26,7%)	11 (55,0%)	7 (43,8%)	7 (53,8%)	
Loyalty: You are proud of IES	Disagree	5 (23,8%)	12 (40,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	4 (19,0%)	16 (53,3%)	9 (45,0%)	0 (0,0%)	6 (46,2%)	
	Agree	12 (57,1%)	2 (6,7%)	11 (55,0%)	16 (100,0%)	7 (53,8%)	
Word of mouth: Indicataria IES	Disagree	8 (38,1%)	4 (13,3%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	4 (19,0%)	6 (20,0%)	11 (55,0%)	2 (12,5%)	13 (100,0%)	
	Agree	9 (42,9%)	20 (66,7%)	9 (45,0%)	14 (87,5%)	0 (0,0%)	
Positive Comments on Social Networks	Disagree	8 (38,1%)	7 (23,3%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	7 (33,3%)	19 (63,3%)	3 (15,0%)	0 (0,0%)	6 (46,2%)	
	Agree	6 (28,6%)	4 (13,3%)	17 (85,0%)	16 (100,0%)	7 (53,8%)	

a. P-Value Pearson's chi-square test.
Source: Research, 2022.

There is a statistically significant association at the level of 5% between students' income and the evaluations of Quality: Quality of services, Quality: IES Problem Solving, Perceived Value: IES worries students need, Perceived Value: IES Performance, Loyalty: Hardly considers another HEI p do another Course, Loyalty: You are proud of the HEI where you took your course and Word of Mouth: I would indicate HEI.

Table 8. Analysis Correlation Income and Opinions Individuals

		Income				P-Value
		1-2	3-5	6-10	11	
		n (%)	n (%)	n (%)	n (%)	
Quality: Quality of services	Disagree	7 (12,1%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0,024*
	Neuter	27 (46,6%)	15 (45,5%)	0 (0,0%)	0 (0,0%)	
	Agree	24 (41,4%)	18 (54,5%)	8 (100,0%)	1 (100,0%)	
Quality: IES Problem Solving	Disagree	6 (10,3%)	5 (15,2%)	0 (0,0%)	0 (0,0%)	0,001*
	Neuter	41 (70,7%)	9 (27,3%)	2 (25,0%)	1 (100,0%)	
	Agree	11 (19,0%)	19 (57,6%)	6 (75,0%)	0 (0,0%)	
Perceived Value: IES worries students need	Disagree	10 (17,2%)	3 (9,1%)	0 (0,0%)	0 (0,0%)	0,010*
	Neuter	22 (37,9%)	7 (21,2%)	7 (87,5%)	1 (100,0%)	
	Agree	26 (44,8%)	23 (69,7%)	1 (12,5%)	0 (0,0%)	
Perceived Value: IES Performance	Disagree	15 (25,9%)	7 (21,2%)	0 (0,0%)	0 (0,0%)	0,012*
	Neuter	26 (44,8%)	19 (57,6%)	1 (12,5%)	0 (0,0%)	
	Agree	17 (29,3%)	7 (21,2%)	7 (87,5%)	1 (100,0%)	
Satisfaction: General IES	Disagree	15 (25,9%)	1 (3,0%)	0 (0,0%)	0 (0,0%)	0,059
	Neuter	24 (41,4%)	17 (51,5%)	3 (37,5%)	1 (100,0%)	
	Agree	19 (32,8%)	15 (45,5%)	5 (62,5%)	0 (0,0%)	
Service Satisfaction	Disagree	15 (25,9%)	4 (12,1%)	0 (0,0%)	0 (0,0%)	0,101
	Neuter	26 (44,8%)	14 (42,4%)	7 (87,5%)	1 (100,0%)	
	Agree	17 (29,3%)	15 (45,5%)	1 (12,5%)	0 (0,0%)	
Loyalty: Hardly consider another HEI p do another Course	Disagree	14 (24,1%)	9 (27,3%)	0 (0,0%)	0 (0,0%)	0,001*
	Neuter	30 (51,7%)	8 (24,2%)	0 (0,0%)	0 (0,0%)	
	Agree	14 (24,1%)	16 (48,5%)	8 (100,0%)	1 (100,0%)	
Loyalty: You are proud of the HEI where you took your course	Disagree	11 (19,0%)	0 (0,0%)	5 (62,5%)	1 (100,0%)	0,000*
	Neuter	23 (39,7%)	12 (36,4%)	0 (0,0%)	0 (0,0%)	
	Agree	24 (41,4%)	21 (63,6%)	3 (37,5%)	0 (0,0%)	

Emerging Issues Related to the Corona

Relationships between quality of services and satisfaction, loyalty and “word of mouth” communication: Perception of students at a Higher Education Institution (HEI) during the pandemic

Word of mouth: Indicataria IES	Disagree	12 (20,7%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0,046*
	Neuter	20 (34,5%)	11 (33,3%)	4 (50,0%)	1 (100,0%)	
	Agree	26 (44,8%)	22 (66,7%)	4 (50,0%)	0 (0,0%)	
Positive Comments on Social Networks	Disagree	13 (22,4%)	2 (6,1%)	0 (0,0%)	0 (0,0%)	0,2380
	Neuter	19 (32,8%)	12 (36,4%)	3 (37,5%)	1 (100,0%)	
	Agree	26 (44,8%)	19 (57,6%)	5 (62,5%)	0 (0,0%)	

Source: Research, 2022.

There is a statistically significant association at the level of 5% between the Course Time of the individuals with all assessments.

Table 9. Analysis Correlation Course Time and Opinions Individuals

		Course Time						
		Ongoing	1 year	2 years	3 years	4 in	5 years +	
		n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	
Quality: Quality of services	Disagree	7 (14,6%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	24 (50,0%)	7 (50,0%)	5 (71,4%)	6 (66,7%)	0 (0,0%)	0 (0,0%)	
	Agree	17 (35,4%)	7 (50,0%)	2 (28,6%)	3 (33,3%)	10 (100,0%)	12 (100,0%)	
Quality: IES Problma Resolution	Disagree	9 (18,8%)	2 (14,3%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	22 (45,8%)	5 (35,7%)	5 (71,4%)	0 (0,0%)	10 (100,0%)	11 (91,7%)	
	Agree	17 (35,4%)	7 (50,0%)	2 (28,6%)	9 (100,0%)	0 (0,0%)	1 (8,3%)	
Perceived Value: IES worries students need	Disagree	13 (27,1%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	19 (39,6%)	4 (28,6%)	6 (85,7%)	0 (0,0%)	2 (20,0%)	6 (50,0%)	
	Agree	16 (33,3%)	10 (71,4%)	1 (14,3%)	9 (100,0%)	8 (80,0%)	6 (50,0%)	
Perceived Value: IES Performance	Disagree	19 (39,6%)	0 (0,0%)	3 (42,9%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	15 (31,3%)	7 (50,0%)	1 (14,3%)	9 (100,0%)	10 (100,0%)	4 (33,3%)	
	Agree	14 (29,2%)	7 (50,0%)	3 (42,9%)	0 (0,0%)	0 (0,0%)	8 (66,7%)	
Satisfaction:	Disagree	12 (25,0%)	0 (0,0%)	0 (0,0%)	4 (44,4%)	0 (0,0%)	0 (0,0%)	,000*

Emerging Issues Related to the Corona

Relationships between quality of services and satisfaction, loyalty and "word of mouth" communication: Perception of students at a Higher Education Institution (HEI) during the pandemic

General IES	Neuter	30 (62,5%)	7 (50,0%)	6 (85,7%)	2 (22,2%)	0 (0,0%)	0 (0,0%)	
	Agree	6 (12,5%)	7 (50,0%)	1 (14,3%)	3 (33,3%)	10 (100,0%)	12 (100,0%)	
Service Satisfaction	Disagree	14 (29,2%)	0 (0,0%)	5 (71,4%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	20 (41,7%)	7 (50,0%)	1 (14,3%)	5 (55,6%)	10 (100,0%)	5 (41,7%)	
	Agree	14 (29,2%)	7 (50,0%)	1 (14,3%)	4 (44,4%)	0 (0,0%)	7 (58,3%)	
Loyalty: Hardly consider another HEI p do another Course	Disagree	16 (33,3%)	0 (0,0%)	1 (14,3%)	6 (66,7%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	17 (35,4%)	7 (50,0%)	5 (71,4%)	3 (33,3%)	6 (60,0%)	0 (0,0%)	
	Agree	15 (31,3%)	7 (50,0%)	1 (14,3%)	0 (0,0%)	4 (40,0%)	12 (100,0%)	
Loyalty: You are proud of the HEI where you took your course	Disagree	14 (29,2%)	0 (0,0%)	3 (42,9%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	22 (45,8%)	4 (28,6%)	3 (42,9%)	6 (66,7%)	0 (0,0%)	0 (0,0%)	
	Agree	12 (25,0%)	10 (71,4%)	1 (14,3%)	3 (33,3%)	10 (100,0%)	12 (100,0%)	
Word of mouth: Indicataria IES	Disagree	12 (25,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	11 (22,9%)	7 (50,0%)	1 (14,3%)	6 (66,7%)	0 (0,0%)	11 (91,7%)	
	Agree	25 (52,1%)	7 (50,0%)	6 (85,7%)	3 (33,3%)	10 (100,0%)	1 (8,3%)	
Positive Comments on Social Networks	Disagree	14 (29,2%)	0 (0,0%)	1 (14,3%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	,000*
	Neuter	23 (47,9%)	7 (50,0%)	5 (71,4%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	
	Agree	11 (22,9%)	7 (50,0%)	1 (14,3%)	9 (100,0)	10 (100,0%)	12 (100,0%)	

a. P-Value Pearson's chi-square test.

According to Alves and Raposo (2009), HEIs could benefit greatly in establishing lasting relationships with their students. The authors understand that a long-term relationship with students could provide the institution with a certain competitive advantage, mainly at a positive level of word-of-mouth with current and future students, as well as through a positive collaboration with the institution, especially after graduation, contributing to the placement of new graduates. However, to establish long-term relationships with students it is necessary, first, to obtain their satisfaction and understand the factors that influence them, since the absence of satisfaction by students can have harmful consequences for both HEIs and students. This can cause poor performance, cause students to drop out or transfer, and negatively influence word-of-mouth communication, harming the future of HEIs. Therefore, it is the responsibility of institutions to understand the process of formation of student

satisfaction and to find reliable ways of measuring satisfaction. Only in this way can institutions know their reality, comparing it with that of other institutions and analyzing its evolution over time.

For Cavalheiro et al. (2014), satisfaction, loyalty, and communication "good to mouth", are tools of great competitive strategic advantages to higher education institutions. However, addressing the challenges in higher education associated with the pandemic should perhaps be based on disaster management principles: mitigation, preparedness, response, and recovery (Al SAMARAE, 2020).

When it comes to higher education in times of pandemic, COVID-19 has resulted in school closures at all levels of education, leaving millions of students and teachers out of classrooms. Therefore, education has undergone a significant change, with the increase, to a large extent, of *e-learning*, through which teaching has come to be carried out in the remote modality on digital platforms (SANTOS et al., 2021).

This study aimed to measure satisfaction, loyalty, and communication "word of mouth", targeting students of an HEI, held during the pandemic. Several authors understand that for higher education to be and have quality, it is necessary that the institution knows its students, levels of satisfaction and loyalty.

In this sense, the results showed a relative positivity in relation to the HEI, and the women, undergraduates, between 21-23 years of age showed greater satisfaction in relation to the institution of higher education. Of all the interviewees, regarding the quality of services (53%) remained neutral; perceived value regarding students' needs (50%); perceived value to HEI performance (46%) were neutral; overall satisfaction (45%) equally neutral; satisfaction with the services offered (48%) neutral; option for another HEI, 39% said they would hardly choose another; pride in the HEI in which they study (48%), communication "word of mouth" (52%); positive comments on social networks (50%). The findings showed that the students remained neutral in most of the questions, results attributed to the time of the pandemic, when the research was conducted.

The neutrality of the students is perhaps due to insecurity, even embarrassment in answering the questions, because they study at the institution and want to graduate and get a decent job. At the same time, in daily practice we perceive great difficulties on the part of students and challenges to be faced by teachers in this current conjuncture of the country.

4 CONCLUSION

Although the pandemic (COVID-19) has interfered in higher education, as in other levels of education, still, the perception is that this may be an opportunity for the HEI to reflect on the new directions of services, in its entirety, that can be offered. The remote classes, until then offered, must contain innovative themes, motivating, both for students and teachers. Another point that can be

explored is the student-teacher-HEI relationship. After all, competitiveness is increasingly fierce. The technologies used, the means of posting content on platforms, the modalities of classes (remote, distance) are irreversible. Therefore, it is of fundamental importance adaptations to maintain the satisfaction of students in course and conquer the potentials.

It should be noted this research was limited to just one private sector HEI, and a reduced number of students, due to the social isolation imposed by the pandemic. It is noteworthy that the variables studied here do not exhaust the theme. Thus, it is appropriate to continue this research, which can be expanded and/or modified, proposing new studies in sequence to the current findings, suggesting the inclusion of the perception of post-pandemic students, from other institutions, which would be interesting and possibly give a contribution, to private HEIs.

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