

<https://doi.org/10.23913/ride.v14i27.1667>

Artículos científicos

Lealtad de los consumidores de servicios educativos de una Unidad Académica de la Universidad Autónoma de San Luis Potosí

Loyalty of consumers of educational services of an Academic Unit of the Universidad Autonoma de San Luis Potosi

Fidelização de consumidores de serviços educacionais de uma Unidade Acadêmica da Universidade Autônoma de San Luis Potosí

David Gómez Sánchez

Universidad Autónoma de San Luis Potosí, Unidad Académica Multidisciplinaria Zona Media

david.gomez@uaslp.mx

<https://orcid.org/0000-0001-7593-157X>

Héctor López Gama

Universidad Autónoma de San Luis Potosí, Unidad Académica Multidisciplinaria Zona Media

hlopez@uaslp.mx

<https://orcid.org/0000-0002-3458-6535>

Sanjuana Edith Grimaldo Reyes

Universidad Autónoma de San Luis Potosí, Unidad Académica Multidisciplinaria Zona Media

edith.reyes@uaslp.mx

<https://orcid.org/0000-0002-4078-7720>

Resumen

La presente investigación tiene como objetivo conocer el tipo de lealtad que poseen los consumidores de los servicios educativos que ofrece una Unidad Académica de la Universidad Autónoma de San Luis Potosí, así como determinar si existe correlación entre las variables sociodemográficas y la satisfacción de este para implementar estrategias que ayuden a la mejora del servicio para que los estudiantes estén satisfechos y con ello generen lealtad hacia la institución. El estudio es cuantitativo de alcance descriptivo y correlacional, de diseño transversal. La muestra se compuso de 224 participantes pertenecientes a siete programas educativos. Se implementó como técnica la encuesta y el instrumento para la recolección de datos estuvo integrado por 18 ítems: 8 para evaluar la satisfacción, 7 para el desempeño y 9 para determinar la lealtad. Además, se diagnosticaron las variables sociodemográficas y la escala AMAI para evaluar el nivel



socioeconómico con seis preguntas. En conclusión, y según el análisis multivariante de conglomerados para determinar segmentos, los consumidores muestran cuatro estados de lealtad: latente, verdadera, espuria y sin lealtad. En general, se sienten satisfechos, lo cual se asocia con la lealtad. Asimismo, la propia lealtad mostró una correlación positiva con los alumnos que trabajan además de estudiar y con el deseo de los padres por estudiar; sin embargo, el resto de las características sociodemográficas no tienen relación con la lealtad del consumidor de servicios educativos.

Palabras clave: lealtad, satisfacción, consumidores.

Abstract

The objective of this research is to establish the type of loyalty that consumers have to the educational services offered by an Academic Unit of the Universidad Autonoma de San Luis Potosi, in addition to determining if there is a correlation between the sociodemographic variables and their satisfaction. Based on that, implement strategies that help improve the service so that students are satisfied, creating loyalty to the institution. The study is quantitative with a descriptive and correlational scope, with a cross-sectional design. The sample consisted of 224 participants belonging to seven educational programs. The survey was implemented as a technique and the instrument for data collection is made up of fifteen items, eight to evaluate satisfaction, seven to evaluate performance, and three to determine loyalty, in addition to sociodemographic variables and the AMAI scale to evaluate the socioeconomic level with six questions. In conclusion, consumers show four states of loyalty, latent, true, spurious and no loyalty, according to the multivariate analysis of clusters to determine segments, they feel satisfied, and this is associated with loyalty. Likewise, loyalty showed a positive correlation with students who work in addition to studying and with the desire of parents to study, however, the rest of the sociodemographic characteristics are not related to the loyalty of the consumer of educational services.

Keywords: Loyalty, Satisfaction, Consumers

Resumo

O objetivo desta pesquisa é conhecer o tipo de fidelidade que os consumidores têm dos serviços educacionais oferecidos por uma Unidade Acadêmica da Universidade Autônoma de San Luis Potosí, bem como determinar se existe uma correlação entre as variáveis sociodemográficas e sua satisfação. Implementar estratégias que ajudem a melhorar o atendimento para que os alunos fiquem satisfeitos e assim fidelizar a instituição. O estudo é quantitativo, de abrangência descritiva e correlacional, com delineamento transversal. A amostra foi composta por 224 participantes pertencentes a sete programas educacionais. A pesquisa foi implementada como técnica e o instrumento de coleta de dados foi composto por 18 itens: 8 para avaliar satisfação, 7 para desempenho e 9 para determinar lealdade. Além disso, foram diagnosticadas as variáveis sociodemográficas e a escala AMAI para avaliar o nível socioeconômico com seis questões. Concluindo, e de acordo com a análise multivariada de cluster para determinação dos segmentos, os consumidores apresentam quatro estados de lealdade: latente, verdadeiro, espúrio e sem lealdade. Em geral, sentem-se satisfeitos, o que está associado à lealdade. Da mesma forma, a própria lealdade apresentou correlação positiva com os alunos que trabalham além de estudar e com o desejo dos pais de estudar; Porém, as demais características sociodemográficas não têm relação com a fidelização do consumidor de serviços educacionais.

Palavras-chave: fidelização, satisfação, consumidores.

Fecha Recepción: Enero 2023

Fecha Aceptación: Julio 2023

Introduction

Loyalty is an essential factor to beat the competition, since when customers become loyal to a brand, they rarely consider switching. However, if a company fails to meet consumer expectations, they will opt for other options in the market. Nyadzay and Knajehzadeh (2016), cited by Silva *et al.* (2021) highlight that customer loyalty is one of the best indicators of a company's success. Therefore, it is essential to evaluate the service provided to the customer and ensure that it is truly satisfactory.

If a customer has a bad experience, they will be dissatisfied and will not return, which will damage the brand's reputation. Although it may seem like it is always possible to acquire new customers, building loyalty provides significant benefits, as acquiring new consumers involves considerable effort and costs, while a satisfied customer is more likely to make repeat purchases.

For this reason, Landeo (2021) emphasizes that building customer loyalty is essential for companies since it is more profitable to retain a customer than to constantly search for new ones.

Today, higher education institutions face various challenges in maintaining their students. One of these challenges is increasing competition, not only from other brick-and-mortar institutions but also from online universities that have gained more presence in recent years. This represents a significant threat to those institutions that continue to offer in-person classes, as many students are opting for virtual instead of traditional options. Therefore, a study should be carried out to determine if students are satisfied with the services provided to them and if their satisfaction translates into loyalty towards the institution.

For this reason, the objective of this research is to analyze the loyalty of the students of a higher-level school in the city of Rioverde, in the middle region of the state of San Luis Potosí. Through this study, the aim is to investigate whether student loyalty is linked to their level of satisfaction and their sociodemographic characteristics, as well as to determine the degree of satisfaction with the services provided. According to Pérez and Martínez (2020), in the university context, students are satisfied when the institution cares about meeting their academic needs and their general well-being on campus. Derived from the above, the following hypotheses arise:

H_1 = Student loyalty depends on the satisfaction of consumers of educational services.

H_2 = Student loyalty is associated with the sociodemographic characteristics of the students themselves.

Conceptual framework

In this study, loyalty is defined as the level of liking for the service received, the recommendation of it, and the intention to purchase it again in the future (table 1).

Table 1. Conceptualization of *loyalty*

Author(s)	Concepts
Bustamante (2015)	The consumer intends to carry out a diverse set of behaviors that indicate a motivation to maintain a relationship with a company.
Sheng and Xie (2012) cited by Castro and Bande (2016)	The commitment that the consumer experiences with a product and/or brand and their intention to purchase it again in the future.
Parasuraman <i>et al.</i> (1988) cited by Peñalosa (2018)	It allows establishing the degree to which the customer is loyal to a company.

Source: self-made

On the other hand, satisfaction is defined as the perception that the individual consumer has about the performance of the product or service (table 2).

Table 2. Conceptualization of *satisfaction*

Author(s)	Concepts
Schiffman and Lazar (2010)	It is the perception that the individual consumer has about the performance of the product or service in relation to his or her expectations.
Zárraga <i>et al.</i> (2018)	It is the customer's evaluation of a product or service based on whether or not it meets the customer's needs and expectations.
Ramirez (2019)	It is a judgment about a feature of a product or service, or a product and service itself, that provides a pleasurable level of reward that is related to consumption.

Source: self-made

Reference frame

Background

Research carried out in Peru

In Peru, Caruajulca (2018) carried out research with the purpose of evaluating the level of customer loyalty of the Joaquim Miro Chiclayo boutique. This study focused on quantitative methodology and applied Richard Oliver's 1999 model, which includes four dimensions: cognitive, affective, conative and action. Data collection was carried out through a survey that consisted of

24 items. The results indicated that the exclusivity of the brand and the presence of innovative and formal models generate customer loyalty.

Likewise, Jiménez and Zeta (2020) determined the variables that determine perceived quality and, with it, the relationship with the satisfaction and loyalty of students in the Faculties of Administration in Peruvian universities. To do this, a survey was applied to a stratified sample of the student population from two universities: one public and one private. The analysis was carried out using the SPSS 24.0 program and the structural equation model was used. Likewise, a model was proposed in which student satisfaction is a consequence of perceived quality and value, and where loyalty is an effect of satisfaction. The model demonstrated a high relationship between service quality and the level of satisfaction, although this did not occur with perceived value. Furthermore, it was established that loyalty derives from student satisfaction, and perceived value is significantly related to perceived quality.

Likewise, Palomares and Calderón (2022) examined the impact of perceived quality on the satisfaction and loyalty of university students. For this study, academic aspects, non-academic aspects, infrastructure and accessibility were considered as components of perceived quality. A questionnaire composed of 24 items was used and was applied to students of the Service Administration degree at the University of Piura, Lima campus, from the first to the tenth cycle. The results of the study demonstrated a positive correlation between perceived quality, satisfaction, and student loyalty. Regarding the indicators of perceived quality, it was observed that accessibility and infrastructure had a strong impact on satisfaction, while academic aspects significantly influenced student loyalty. These findings pointed to possible areas of improvement in service delivery, with the potential to increase student satisfaction and loyalty both in the university in general and in the Service Management degree in particular.

Research carried out in Ecuador

In Ecuador, Sandoval (2020) carried out a quantitative study to understand consumer loyalty in category 5 and 4-fork restaurants located in Quito Canton, Pichincha province. Data from this study led to the development of strategies aimed at improving the consumer experience, increasing advertising content, and evaluating other aspects of restaurants to encourage long-term loyalty.

For their part, Salazar *et al.* (2021) analyzed the factors that affect consumer behavior and loyalty towards gastronomic establishments, especially due to the impact of COVID-19, the study was based on a quantitative approach and revealed that the efforts of food establishments in terms of *marketing mix* and the purchasing process influence customer loyalty.

Research carried out in Colombia

In Colombia, López and Jaramillo (2020) carried out research to understand the factors that influence the loyalty of EAFIT University graduates when deciding whether to continue their postgraduate studies at the same institution. This study focused on a qualitative approach and collected data through in-depth interviews. The results revealed that 83% of students, during the decision-making process, consider the three dimensions of loyalty: cognitive, affective and behavioral. However, 17% mentioned that if one of these dimensions failed, they broke their loyalty to the university.

Another work developed in Colombia was that of Maza *et al.* (2022), who evaluated the quality of the educational service perceived by students of undergraduate programs at the University of Córdoba and its correlation with satisfaction and future intentions. They used a quantitative methodology and administered a survey to 481 students from the institution's undergraduate programs. To verify the reliability of the instrument, Cronbach's alpha was used, which showed values between 0.7254 and 0.873, indicating good consistency. The main results showed that elements such as tangibles, responsiveness, empathy and reliability explain 65.2% of the quality perceived by students, while security did not turn out to be a factor that explained the perceived quality. Furthermore, quality explained satisfaction by 60.2%, and the latter explained future intentions by 33.6%.

Research carried out in Cuba

In Cuba, Nápoles *et al.* (2019) developed a technique to evaluate and improve the satisfaction of internal customers with the services provided by support processes in Cuban universities. It was concluded that internal customers have become more demanding in terms of service, which led to improvements in processes, greater customer focus, leadership and commitment to achieve more effective management in universities and thus maintain customer satisfaction. users.

Research carried out in Mexico

In Mexico, Gómez *et al.* (2011) carried out a quantitative approach research to verify the perceived academic performance of university students and determine if there is a relationship with variables such as gender, major and semester, as well as with the average and satisfaction with the major. Data collection was carried out through an instrument that consisted of 26 items, including sociodemographic questions, satisfaction evaluation and perceived performance. These were measured using a six-point ordinal scale. Statistical tests such as Pearson's r, Spearman's rho, t for independent samples and analysis of variance for a single factor were used. The results indicated

that academic performance is explained in part by variables such as gender and semester, as well as by the average obtained and satisfaction with the chosen career.

Likewise, Gómez *et al.* (2013) investigated the degree of loyalty, satisfaction and academic performance of students in the Bachelor's Degree in Administration, Bachelor's Degree in Marketing and Public Accounting at a university within the state of San Luis Potosí. This study was quantitative and cross-sectional in design, using descriptive and multivariate techniques for analysis. Data collection was carried out through a survey that included demographic variables, satisfaction evaluation, academic performance and loyalty measurement. The cluster analysis allowed us to determine the type of loyalty of the students, their level of satisfaction and their academic performance.

Another work from Mexico was the one developed by Mancilla *et al.* (2019), who carried out a quantitative study in Mexico with the purpose of relating the degree of satisfaction of university students with their education and retention rate at the University of Ixtlahuaca. To do this, they used a questionnaire to collect the information and the results showed that the students feel very satisfied with the work of the institution and the classrooms at their disposal. However, regarding the dimension of economic security, they expressed only satisfaction, since they considered that the institution took into account their socioeconomic condition.

For his part, Garza (2020) conducted research to identify the factors that contribute to customer satisfaction in Monterrey cafeterias and how this affects their loyalty and commitment to the services. This study was based on a quantitative approach and a survey was applied. The results revealed that both cognitive loyalty and affective commitment have a positive impact on customer behavior, which is reflected in their brand loyalty and commitment to services.

Finally, Garzón (2020) developed quantitative work with the purpose of analyzing the loyalty, trust, and purchase intention of the *post-millennial generation* in the Laguna Region. Data were collected through a questionnaire and analyzed using factor analysis. The results showed that the trust of Generation Z consumers is related to *influencers'* comments about the brand, which also influences their purchase intention and loyalty. These findings led to the formulation of the digital trust model.

Materials and methods

This research was characterized by having a quantitative approach with a descriptive and correlational scope, and a cross-sectional design. The choice of a quantitative approach is justified, as Sánchez (2019) points out, due to the nature of the measurable phenomena that were addressed in the study and the need to use statistical techniques to analyze the data collected. In this context, statistical techniques played a fundamental role to describe the variables, as described in the definition of the descriptive scope provided by Arias and Covinos (2021), which seeks to specify the properties, characteristics, profiles, groups, communities, objects, or any phenomenon under study.

Furthermore, the study sought to test two hypotheses, which gives it a correlational scope, according to the definition of Cabezas *et al.* (2018), since the degree of relationship between two or more variables within the study was evaluated. Finally, a cross-sectional design was implemented, following the conceptualization of Bernal (2010), since information was collected from the population or sample in a single specific period of time, which spanned from the first to the thirtieth of November of the year 2022.

Sample and sampling

The population was made up of 1,295 schoolchildren who belonged to seven careers of an academic unit. In this regard, Ventura (2017) defines a population as a set of elements that contain certain characteristics that are intended to be studied. To obtain the sample size, the equation of a finite population was used because the size of the population is known. To carry out this procedure, a margin of error of 6% was considered, while the probability of success was 50%; Finally, the confidence level was 95%, so the z value was 1.96, which gave a sample size of 224.

For this research, stratified sampling was used because the sample was divided according to the different educational programs. Moya (2015) mentions that in stratified sampling the population is divided into subpopulations or strata, and in each of these subgroups of individuals a sample is selected, in such a way that the total sample of individuals is made up of the union of all the samples obtained in the different strata.

Instrument

The instrument for data collection was composed of 18 items: 8 to evaluate satisfaction, 7 to evaluate performance and 3 to determine loyalty. In addition, sociodemographic variables and the AMAI scale were taken into account to evaluate socioeconomic level through 6 questions. The validity of the instrument was content and the reliability was acceptable for the three constructs: Cronbach's alpha values 0.601 for loyalty, 0.768 for satisfaction and 0.790 for academic performance. Finally, 0.837 for the 18 items considered.

Descriptive statistical techniques such as bar graphs, bubble graphs, sector graphs, as well as measures of central tendency and variation were used. Likewise, bivariate hypothesis tests such as chi-square and Cramer's V, as well as two multivariate statistical tests: discriminant analysis and cluster analysis.

Results

Sample analysis

The present study was made up of a sample of 224 students, of which 51% were men and 49% women. Each of these belonged to one of the seven academic programs offered by the university. Regarding age, the mean was 20.44 with a standard deviation of 1.698. The highest age was 25 years and the minimum was 17 years.

According to the information analyzed, it was found that only 9.4% have a scholarship and 90.6% do not have any financial support. As for whether they have heard that their parents wanted to study a career, 74% answered yes and 26% answered no. Likewise, 53.6% were made up of those students who fulfilled their parents' wishes to study a degree and 46.4% were those who decided to study the degree without taking into account their parents' wishes.

Descriptive analysis

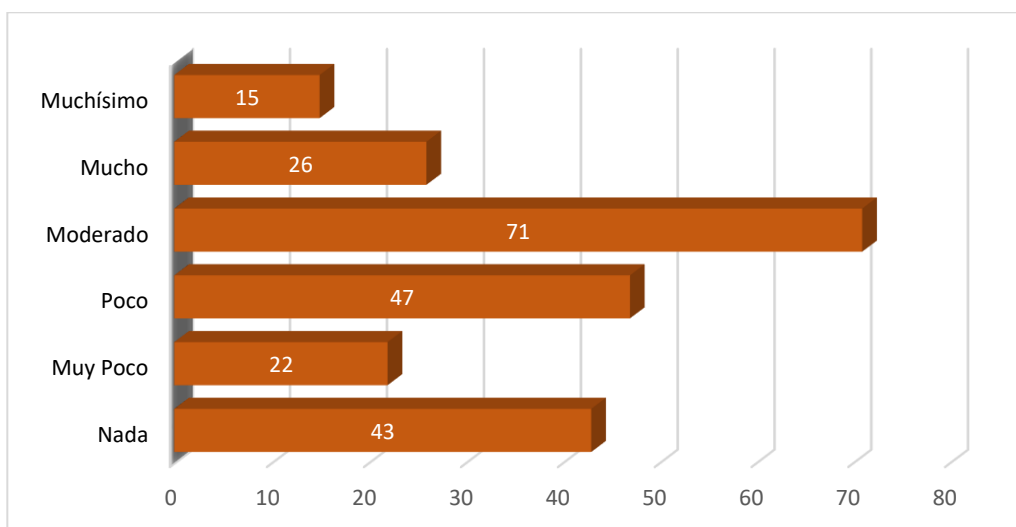
It can be seen that, according to the AMAI rule, 36.6% of the students belong to the A/B socioeconomic level, 26.3% are at the C+ level, and 19.2% are at the C level. The C-level is made up of 9.4%, 4.5% have a D+ level and 4.0% have a D socioeconomic level.

Regarding the means of transportation, 41.6% use a taxi or bus, 33.5% use a private car, 13.4% use a motorcycle, 8.0% travel on foot and, finally, 3.5% use a bicycle.

Figure 1 presents the degree of influence in the career choice process: firstly, a moderate level stands out (71 responses), secondly, a lower degree of influence (47 responses), thirdly, no

influence. in their career choice (43 responses), in fourth place a high level of influence (26 responses), in fifth place are those who allowed themselves to be influenced very little in their career choice (22 responses) and finally are the respondents who indicated having experienced a significant influence on their decision to study this career (15 responses).

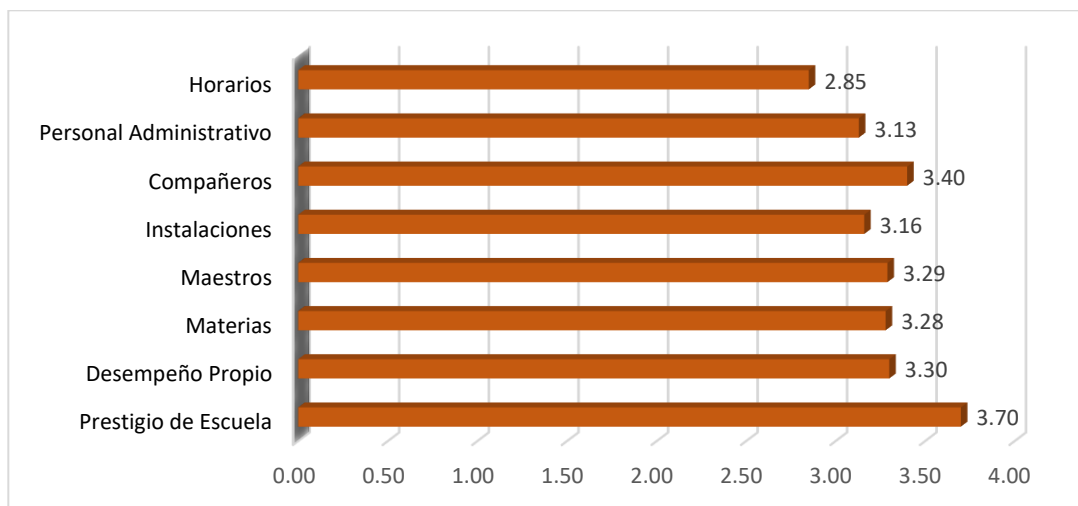
Figure 1. Degree of influence



Source: self-made

Regarding the satisfaction of consumers of educational services evaluated on a scale of one to five, Figure 2 shows that the highest-rated criterion was satisfaction with the prestige of the school (3.70), following the criterion of satisfaction with classmates (3.40), in third place satisfaction with one's performance (3.30), in fourth place satisfaction with teachers (3.29), satisfaction with subjects (3.28), satisfaction with facilities (3.16), satisfaction with administrative staff (3.13) and finally satisfaction with schedules (2.85).

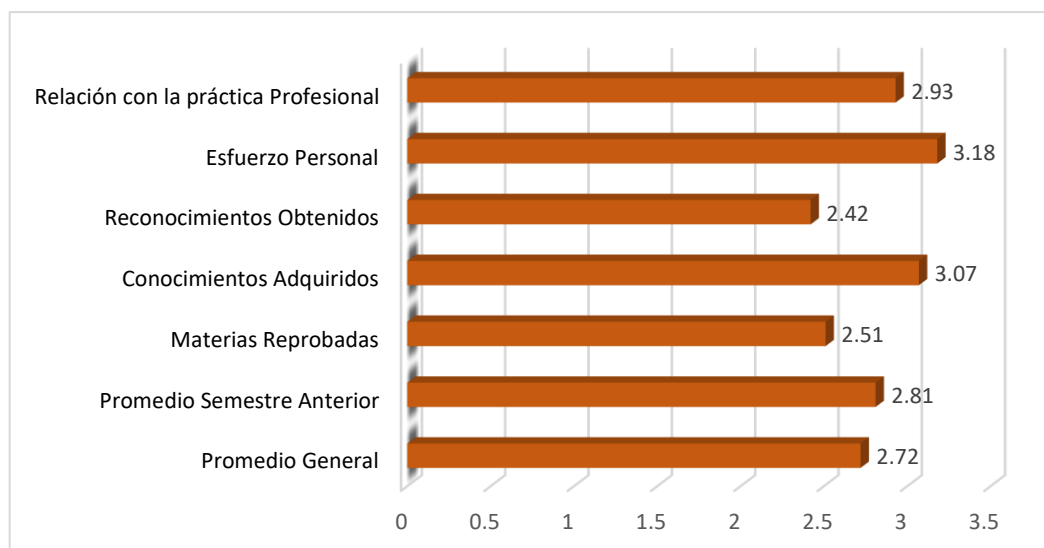
Figure 2. Satisfaction towards the career



Source: self-made

As seen in Figure 3, for the *academic performance construct*, evaluated on a scale from one to five, the highest rated criterion was personal effort (3.18), followed by acquired knowledge (3.07), the relationship with professional practice. (2.93), the average of the previous semester (2.81), the general average (2.72), the subjects failed (2.51) and finally the recognitions obtained (2.42).

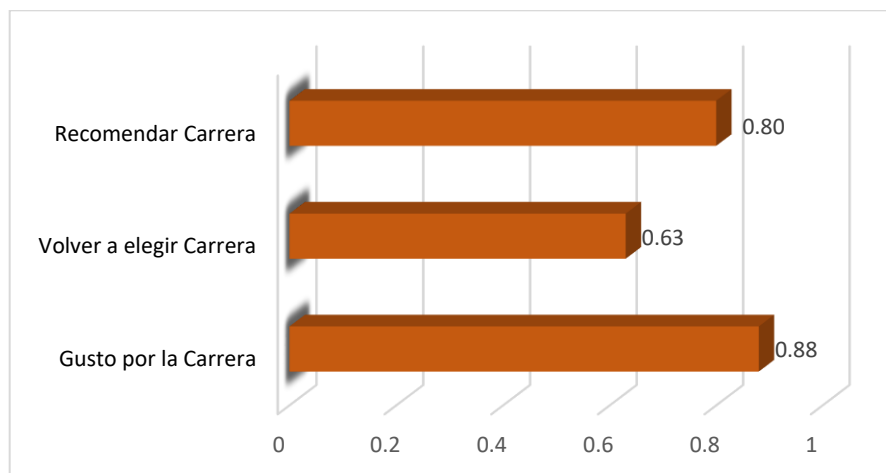
Figure 3. Factors that influence academic performance



Source: self-made

About loyalty, evaluated on a scale from zero to one, in Figure 4 it can be seen that the first place is occupied by liking the career (0.88), followed by recommending the career (0.80) and choosing again. the race (0.63).

Figure 4. Loyalty towards the career



Source: self-made

Types of loyalty

To obtain the typology regarding loyalty, the multivariate statistical technique of cluster analysis was used, the hierarchical technique to determine the number of clusters and the k-means method to find the final centers that establish the characteristics of each segment formed through this analysis. The variables considered were loyalty, satisfaction and academic performance.

Table 3 shows the name and percentage of each cluster. Cluster 1 are individuals with spurious loyalty (32.6%), cluster 2 are individuals with latent loyalty (27.2%), cluster 3 are non-loyal individuals (18.6%), and cluster 4 are individuals with true loyalty (21.6%). %).

Table 3. Names and sizes of the clusters

Conglomerate	Number of cases	Percentage	Name
1	72	32.6%	Spurious loyalty
2	60	27.2%	latent loyalty
3	41	18.6%	Not loyal
4	48	21.6%	True loyalty
Valid	221	100%	
Lost	3		

Source: self-made

Table 4 shows four different groups based on their loyalty, satisfaction and performance. Group 1 is characterized by having exceptionally high loyalty, marked as 1.00, although their level of satisfaction is moderate, registering 3.12, suggesting that these individuals possess a spurious

form of loyalty. In contrast, group 2 exhibits a loyalty of 0.00, that is, zero, but its satisfaction is considerable, with a score of 3.40, which suggests latent loyalty. Furthermore, its performance is located at 3.04. Group 3 presents a loyalty with a value of 0.24 and a satisfaction of 2.60, which indicates an absence of loyalty. Furthermore, its performance is the lowest among the four groups, with a score of 1.89. Finally, group 4 is characterized by expressing genuine loyalty, with a value of 0.85, and its satisfaction is the highest, reaching a score of 3.91. Furthermore, its performance is solid, with a value of 3.73.

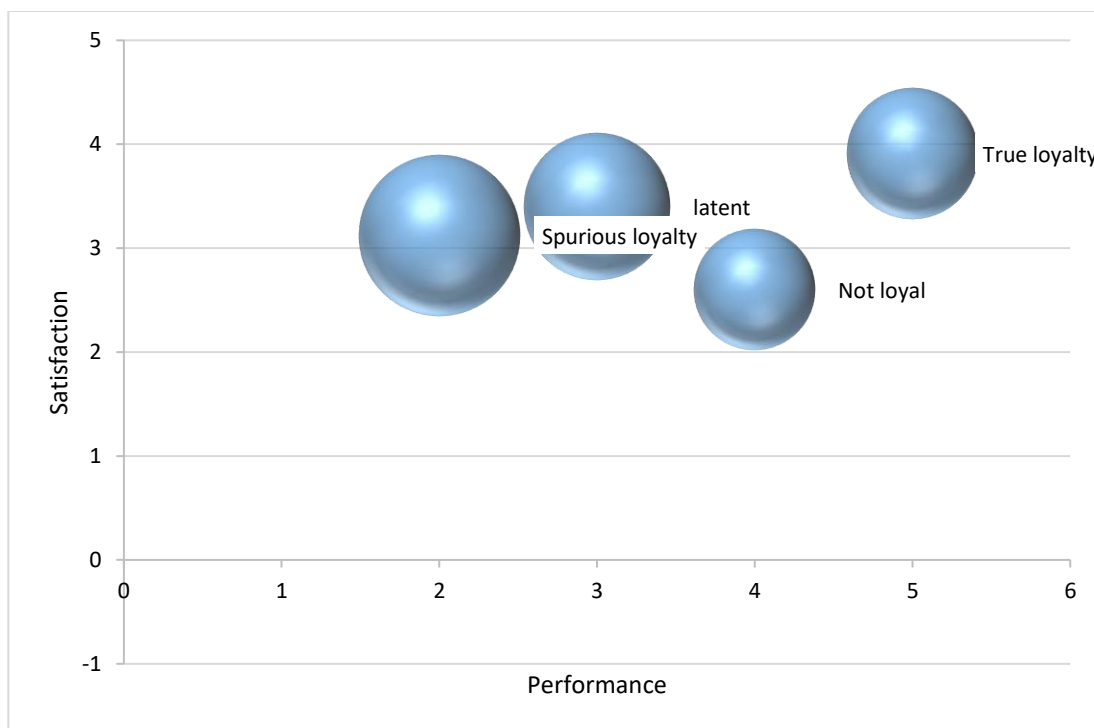
Table 4. Characteristics of the segments

Variable/cluster	1	2	3	4
Loyalty	1.00	0.00	0.24	0.85
Performances	2.68	3.04	1.89	3.73
Satisfaction	3.12	3.40	2.60	3.91

Source: self-made

According to the information presented above, figure 5 could be generated, where the X axis represents performance and the Y axis shows satisfaction. The size of the conglomerates is represented by the volume of the spheres and the name defines the type of loyalty.

Figure 5. Type of loyalty



Source: self-made

Correlational analysis

For this analysis it is important to return to the first of the hypotheses in this study, which is established as follows:

H_1 = *Student loyalty depends on the satisfaction of consumers of educational services.*

Table 5. Association between loyalty and student satisfaction

Loyalty variables	Average satisfaction Yeah	Average satisfaction No	P value	Wilks lambda value
Taste for the race	3.3112	2.9259	Sig. = 0.002	$\lambda=0.958$
Would you choose to study your degree again?	3.2779	3.2454	Sig. = 0.706	$\lambda=0.999$
Would you recommend the career you are studying?	3.3385	2.9722	Sig. = 0.000	$\lambda=0.943$

Source: self-made

Table 5 analyzes the loyalty associated with student satisfaction using the multivariate statistical technique of discriminant analysis. Based on the data obtained, a relationship can be observed between the student variable called *taste for the career and satisfaction* ($\lambda=0.958$, Sig.=0.009), and *recommend studying your career* ($\lambda=0.943$, Sig.= 0.000); However, *choosing to study the degree again* does not show a relationship with satisfaction ($\lambda=0.999$, Sig.=0.706). Therefore, based on the results, it can be said that there is evidence that the loyalty of university students is associated with their satisfaction as consumers of educational services, except for the variable choosing to study *again*. Thus, the proposed hypothesis is accepted.

On the other hand, the analysis of the second hypothesis is carried out, which is described as follows:

H_2 = *Student loyalty is associated with their sociodemographic characteristics.*

Table 6. Summary loyalty and sociodemographic characteristics

Variable	Technique	P value	Test Value
Sex	Chi-square	Sig.=0.075	$\chi^2=3.176$
Scholarship	Chi-square	Sig.= 0.210	$\chi^2=1.575$
Works	Chi-square	Sig.=0.019	$\chi^2=5.528$
Parents' desire to study a career	Chi-square	Sig.=0.368	$\chi^2=0.810$
Influence of parental desire	Chi-square	Sig.=0.016	$\chi^2=5.848$
Academic program	Cramer's V	Sig.=0.375	V= 0.170
Transfer method	Cramer's V	Sig.=0.256	V=0.155
Semester	Cramer's V	Sig.=0.768	V=0.071
Degree of influence	Cramer's V	Sig.=0.232	V=0.175
SES	Cramer's V	Sig.=0.117	V=0.198
Average	Discriminant analysis	Sig.=0.089	$\lambda=0.987$
Age	Discriminant analysis	Sig.=0.771	$\lambda=1,000$

Source: self-made

Table 6 analyzes loyalty and its relationship with the sociodemographic characteristics of the students. Based on the data obtained, a relationship can be observed with the variable *students who work while studying* ($\chi^2=5.528$, Sig.=0.019), and *parents' desire to study a career* ($\chi^2=5.848$, Sig.= 0.016).

On the other hand, it can be seen in the same table 6 that loyalty is not determined by the sex of the students ($\chi^2=3.176$, Sig.=0.075) and whether they have a scholarship ($\chi^2=1.575$, Sig.= 0.210). The same occurs with the variable of *whether students have heard that their parents wanted to study a career* ($\chi^2=0.810$, Sig.=0.368). Likewise, loyalty has no correlation with the educational program (V= 0.170, Sig.=0.375), the form of transfer (V=0.155, Sig.=0.256) and the semester they are studying (V=0.071, Sig.= 0.768). Regarding the degree of influence (V=0.175, Sig.=0.232) and socioeconomic level (V=0.198, Sig.=0.117) they did not present a relationship with loyalty. Finally, loyalty has no association with the average ($\lambda=0.987$, Sig.=0.089) as does the age of the students ($\lambda=1.000$, Sig.=0.771). Therefore, based on the results, it can be said that the loyalty of university students does not depend on the sociodemographic characteristics of themselves as consumers of educational services, except for the variables already mentioned above. Thus, the proposed hypothesis is rejected.

Discussion

The results of this research coincide with several previous findings. For example, Maza *et al* . (2022) found that consumers of university educational services have future repurchase intentions and that this is related to student satisfaction. This observation aligns with the study by Gómez *et al* . (2013), which highlights a significant relationship between student satisfaction and student loyalty. Similarly, Palomares and Calderón (2022) suggest that the improvement of services provided to consumers is directly related to student loyalty and satisfaction.

However, there are some discrepancies in the literature, since Garzón (2020) establishes that consumer loyalty is strongly linked to purchase intention, unlike the results of this study, where the lack of repurchase intention is the factor. determinant of the decrease in loyalty. Furthermore, Mancilla *et al* . (2019) indicate that consumer loyalty is related to the socioeconomic level of individuals, a finding that contrasts with the results of this research.

Conclusions

It can be concluded that the majority of consumers of higher-level educational services in the municipality of Rioverde, San Luis Potosí, show a spurious loyalty towards their careers, which suggests that students are not completely satisfied. One of the aspects in which students show less satisfaction is schedules. Therefore, the institution could implement a strategy that allows students to choose them, which could improve this factor and, consequently, increase loyalty by increasing satisfaction.

Furthermore, it was observed that latent loyalty is another aspect that could be improved, since this group shows high levels of satisfaction, but it does not translate into loyalty. Regarding the correlational analysis, it was found that student loyalty does not depend largely on sociodemographic variables, except for the circumstances in which students work while studying and the desire of their parents. These two variables show an association with loyalty.

In summary, any effort to improve consumer satisfaction of educational services will have an impact on student loyalty, ensuring the survival or growth of the institution.

Future lines of research

It is important to note that the present study has evaluated satisfaction and loyalty in face-to-face educational services. However, currently, a large part of these are provided in other modalities: distance, online, virtual or mixed, so they must be evaluated as digital learning

environments. Therefore, we must delve deeper into the digital environments themselves, the skills of the teachers who teach in these modalities, and the satisfaction and loyalty of the consumers who receive these services.

References

- Arias, J. and Covinos, M. (2021). *Research design and methodology*. EIRL Consulting Approaches.
- Bernal, C. (2010). *Research methodology* (3rd^{ed}). Pearson. <https://abacoenred.com/wp-content/uploads/2019/02/El-proyecto-de-investigaci%C3%B3n-FG-Arias-2012-pdf.pdf>
- Bustamante, J. (2015). Use of mediating and moderating variables in the explanation of consumer loyalty in service environments. *Management Studies*, 31(136), 299-309. <https://www.redalyc.org/articulo.oa?id=21241145007>
- Cabezas, E., Andrade, D. and Torres, J. (2018). Introduction to the methodology of scientific research. ESPE Armed Forces University. <https://repositorio.espe.edu.ec/bitstream/21000/15424/1/Introduccion%20a%20la%20Metodologia%20de%20la%20investigacion%20cientifica.pdf>
- Caruajulca, M. (2018). Evaluation of the loyalty of the recurring customer to the Joaquim Miro boutique at CC Real Plaza Chiclayo (degree work). Santo Toribio de Mogrovejo Catholic University. https://tesis.usat.edu.pe/bitstream/20.500.12423/1658/1/TL_CaruajulcaGonzalesMiguel.pdf
- Castro, S. and Bande, B. (2016). Influence of emotions on the relationship between Corporate Social Responsibility and consumer loyalty. *Esic Market*, 47(3), 397-421. <https://revistasinvestigacion.esic.edu/esicmarket/index.php/esicm/article/view/212/438>
- Garza, I. (2020). Behavior-Apostle: Factors that associate consumer loyalty in services (doctoral thesis). Autonomous University of Nuevo León. <http://eprints.uanl.mx/19592/1/1080314253.pdf>
- Garzón, G., Ruiz, G. and Juárez, B. (2020). Analysis of trust, loyalty and digital purchase intention of post-millennial consumers. *Espacios Magazine*, 41(34), 141-154. <http://www.revistaespacios.com/a20v41n34/a20v41n34p10.pdf>
- Gómez, D., Martínez, E. and Oviedo, R. (2020). Factors that influence the academic performance of the university student. *Technoscience Chihuahua*, 5(2), 90-97. <https://vocero.uach.mx/index.php/tecnociencia/article/view/699>

- Gómez, D., Martínez, E., Recio, R. and López, H. (2013). Loyalty, satisfaction and academic performance in UASLP-UAMZM students. *Sophia*, 1(9), 11-25.
<https://revistas.ugca.edu.co/index.php/sophia/article/view/55/267>
- Jiménez, R. and Zeta, A. (2020). Service quality, satisfaction and loyalty of Peruvian university students. *Scientific Magazine of the University of Cienfuegos*, 21(51), 292-301.
<https://rus.ucf.edu.cu/index.php/rus/article/view/1788/1784>
- Landeo, J. (2021). Relationship marketing and customer loyalty of the Hemavigsa company, Villa El Salvador-2021 (degree work). Autonomous University of Peru.
<https://repositorio.autonoma.edu.pe/bitstream/handle/20.500.13067/1385/Landeo%20Mac%20huca%20Joselyn%20Margoth.pdf?sequence=1&isAllowed=y>
- López, P. and Jaramillo, J. (2020). The influence of the elements of loyalty in the decision-making process of the students of the EAFIT metro line, to continue with their postgraduate studies at this university (degree work). EAFIT University.
https://repository.eafit.edu.co/bitstream/handle/10784/24381/Paula_LopezUpegui_Juliana_JaramilloPosada_2020.pdf?sequence=2&isAllowed=y
- Mancilla, A., Ángeles, J. and Orosco, P. (2019). Satisfaction of university students with their education and retention rate at UICUI. *Academic Integration in Psychology*, 7(21), 71-81.
- Moya, P. (2015). Estimation of the capacity index of a process through stratified sampling. 19th International Congress on Project Management and Engineering. Granada, Spain.
http://dspace.aeipro.com/xmlui/bitstream/handle/123456789/633/CIDIP2015_03005.pdf?sequence=1&isAllowed=y
- Maza, F., Vergara, J., Pacheco, I. and Medrano, P. (2022). Service quality and satisfaction among students at the University of Córdoba, Colombia. *Pedagogy and Sociology of Education*, 17(2), 429-450. <https://revistas.unilibre.edu.co/index.php/saber/article/view/9338/8397>
- Nápoles, L., Moreno, M. and Tamayo, P. (2019). Evaluation and improvement of internal customer satisfaction with support processes in Cuban Universities. *Journal of Latin American Research in Organizational Competitiveness (RILCO)*(2), 1-13.
<https://dialnet.unirioja.es/servlet/articulo?codigo=7832508>
- Palomares, A. and Calderón, M. (2022). The impact of perceived quality on student satisfaction and loyalty: Service Administration Case at the University of Piura, Lima Campus. (degree work). University of Piura. <https://renati.sunedu.gob.pe/handle/sunedu/3123786>
- Peñalosa, M. (2018). Influence factors on consumer loyalty of services purchased through the Internet in Mexico. *CPMark - Caderno Profissional de Marketing - UNIMEP*, 6(1), 119-

128.

<https://expeditiorepositorio.utadeo.edu.co/bitstream/handle/20.500.12010/8705/8344.pdf?sequence=1&isAllowed=y>

Pérez, D. and Martínez, A. (2020). Factors that influence the generation of student loyalty and their impact on the generation of the university brand (degree work). University of Saint Bonaventure. <https://bibliotecadigital.usb.edu.co/server/api/core/bitstreams/295cbd7f-82d5-4a6c-a2ae-cda98cdea253/content>

Ramírez, I. (2019). Study of customer satisfaction in the collection service of electro oriente SA of the city of Iquitos, year, 2017 (degree work). National University of the Peruvian Amazon. https://repositorio.unapiquitos.edu.pe/bitstream/handle/20.500.12737/6486/Ike_Tesis_Titulo_2019.pdf?sequence=1&isAllowed=y

Sánchez, F. (2019). Epistemic foundations of qualitative and quantitative research: Consensus and dissent. Digital Journal of Research in University Teaching, 13(1), 102-122. http://www.scielo.org.pe/scielo.php?pid=s2223-25162019000100008&script=sci_arttext

Sandoval, K. (2020). Investigation of consumer loyalty in category 5 and 4-fork restaurants, located in the Canton of Quito, Province of Pichincha (degree work). UTE University. http://repositorio.ute.edu.ec/bitstream/123456789/20965/1/72839_1.pdf

Schiffman, L., & Lazar, L. (2010). Consumer Behavior (10th ed.). Pearson Education.

Silva, J., Macías, B., Tello, E. and Delgado, J. (2021). The relationship between service quality, customer satisfaction and customer loyalty: a case study of a commercial company in Mexico. UAT Science, 15(2), 85-101. <https://www.scielo.org.mx/pdf/cuat/v15n2/2007-7858-cuat-15-02-85.pdf>

Ventura, J. (2017). Population or sample?: A necessary difference. Cuban Journal of Public Health, 43(3), 648-649. <https://www.redalyc.org/articulo.oa?id=21453378014>

Zárraga, L., Molina, V. and Corona, E. (2018). Customer satisfaction based on service quality through staff efficiency and service efficiency: An empirical study of the restaurant industry. Journal of Studies in Accounting, Administration and Informatics (RECAI), 7(18), 46-65. <https://recai.uaemex.mx/article/view/9268>

Contribution Role	Author(s)
Conceptualization	David Gómez Sánchez “main” Sanjuana Edith Grimaldo Reyes “same”
Methodology	David Gómez Sánchez “main” Héctor López Gama “who supports”
Software	David Gómez Sánchez “main” Sanjuana Edith Grimaldo Reyes “who supports”
Validation	David Gomez Sanchez
Formal Analysis	David Gómez Sánchez “main” Sanjuana Edith Grimaldo Reyes “who supports”
Investigation	David Gómez Sánchez “main” Sanjuana Edith Grimaldo Reyes “same” Héctor López Gama “who supports”
Resources	David Gómez Sánchez “main” Héctor López Gama “same” Sanjuana Edith Grimaldo Reyes “same”
Data curation	David Gómez Sánchez “main” Sanjuana Edith Grimaldo Reyes “same”
Writing - Preparation of the original draft	David Gómez Sánchez “main” Sanjuana Edith Grimaldo Reyes “same”
Writing - Review and editing	David Gómez Sánchez “main” Héctor López Gama “same” Sanjuana Edith Grimaldo Reyes “same”
Display	David Gómez Sánchez “main” Héctor López Gama “same” Sanjuana Edith Grimaldo Reyes “same”
Supervision	David Gomez Sanchez
Project management	David Gomez Sanchez
Fund acquisition	David Gómez Sánchez “main” Héctor López Gama “who supports”