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Editor

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## Student's Satisfaction in a Higher Education Context

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#### Abstract

The purpose of this study is to evaluate to what extent higher education students are satisfied with the quality of service. A quantitative investigation was conducted in a Portuguese higher education institution using a Likert-scale questionnaire in order to measure students' opinions, regarding the satisfaction to the quality of service provided. The study concluded that, overall, students were satisfied with the higher education institution. Regarding the implications of the present research, it is pointed out that the studied higher education institution may take into consideration the results of this article and use them to understand its strengths and weaknesses. Future investigations can be conducted to understand if other factors have a greater impact on customer satisfaction than the quality of service. The impact of this study will increase the public perception of the educational institution. A study similar to the one presented here is useful for any organization in the world in order to access the level of satisfaction from time to time.

**Keywords:** Student's satisfaction, Higher education, Service quality, Consumer satisfaction.

#### Introduction

The concept of customer satisfaction has been imported from the marketing area of profit-oriented organizations to higher education. With the growth of higher education institutions, the competition is increasing, therefore understanding whether students are satisfied with the institution they attend is important for student's attraction and recommendation.

The customer satisfaction study is often approached from a product consumption perspective. However, it appears that services have specific characteristics (Alves, 2003). Thus, it is important to refer to the education sector as a service.

Service is an intangible activity or benefit that one party may provide to another without the possession of any good (Kotler, Armstrong, and Opresnik, 2016). The provision of a service may or may not arise related to a physical product (Kotler, Armstrong and Opresnik, 2016).

For Kotler and Fox (1994) and Martirosyan (2015) the education service thus comprises all the programs and services that the institution can offer. Also according to these authors, most educational services include tangible and intangible elements and may not be considered pure services. These involve some physical elements, such as chairs, tables, or desks in a classroom.

It is of great importance that the quality of education is significantly high, as the competitiveness to attract, retain and promote students among higher education institutions is currently fierce. When it comes to higher education, many researchers argue that it is possible to consider a student as a client

(e.g., Alves, 2003; Alves and Raposo, 2006; 2010). It is not only the relationship between professor and student that constitutes the assessment of service quality but the full service of the higher education institution.

Educational institutions that can respond to market needs aim to create satisfaction (Kotler and Fox, 1994). Satisfaction results from a person's experiences, when a performance or outcome meets their expectations. Thus, satisfaction is related to levels of expectation and perceived performance.

The Higher School of Public Management, Communication and Tourism of the Polytechnic Institute of Bragança (EsACT-IPB), which is the subject of this study, is the youngest among the five schools that constitute the Polytechnic Institute of Bragança. However, over the past three years, EsACT-IPB has witnessed a growing number of students entering its courses compared to the remaining older schools, which reveals an awakening of student's interest in this higher education institution.

Thus, the present study aims to investigate whether EsACT-IPB students are satisfied with the quality of service. To this end, we will investigate their perceptions about the quality of service of that institution. Finally, after ascertaining student satisfaction levels, EsACT-IPB will be able to use this information to assess their strengths and weaknesses for continuous improvement. More specifically, it is the intention of this study to investigate "How satisfied are EsACT-IPB students with the quality of service?".

This research have some implications for EsACT-IPB to engage in further discussions to increase the overall level of student's satisfaction. If an educational system will strive for excellence, the implications for the practice explained below should be taken into account:

- Increased dissatisfaction may lead to an erosion of overall student, and therefore it needs to be considered closely by all responsible authorities and professionals.

- Increased satisfaction tends to increase students' engagement and subsequently induces increase class attendance and overall success (MacFarlane and Tomlinson, 2017).

The article is structured in four parts, besides the introduction. The second part presents the literature review, which explores satisfaction in higher education and the indicators related to the student satisfaction model (image, perceived value, and perceived quality). The third part describes the research methodology taken into account for empirical analysis. The analysis, presentation, and discussion of the results is presented in the fourth part. Finally, general conclusions are made.

#### **Literature Revision**

#### Satisfaction in Higher Education

The concept of satisfaction has been the subject of several studies over time. Oliver (1997 by Zeithaml, Bitner and Gremler, 2011, p.142) states that "anyone knows what customer satisfaction is until they are asked for a definition. Then, it seems no one knows what it means.". This sentence points to the challenge of defining customer satisfaction.

Services have specific characteristics (Alves, 2003). Therefore, it is important to refer to the education sector as a service.

Alves (2003, p.8) considers teaching:

as a process of making knowledge, aiming at student learning, skill acquisition, or even the enhancement or development of an existing, partially mastered or prospective ability, it implies a service. Alves (2003, p.14) states that the educating service is "the action of transferring knowledge from someone to someone else. But it also is the transfer of attitudes and behaviours, as well as making it easier for someone to acquire a new skill.".

For Elliot and Healy (2001) student satisfaction is a short-term attitude resulting from an evaluation with the education service they receive. Elliott and Shin (2002) define satisfaction based on a cognitive process in which there is a comparison of individuals' expectations with the perceived results of their academic experience, that is, satisfaction occurs when perceived performance exceeds expectations. When expectations are higher than perceived performance, dissatisfaction happens.

Student satisfaction is the overall result of the educational experience in all its perspectives, and may be just a feeling obtained by the student or a more rational knowledge (Alves, 2003; Arokiasamy and Abdullah, 2012; Nell and Cant, 2014). However, findings have been inconclusive on the dimensions that significantly contribute to students' satisfaction and require improvement in universities (Khan, Ahmed and Nawaz, 2011; Wei and Ramalu, 2011).

For a higher education student, satisfaction with the educational experience refers to how the university provides the service as well as the student's perception of the result of that service. Perceptions of value and expectations diminish as students advance their studies, as do satisfaction (Kotler and Fox, 1994; Alves, 2003).

#### Indicators Relating to Student Satisfaction Model

The literature mentions several models that attempt to relate student satisfaction with their background, as well as to clarify the impact of satisfaction on other variables. The models present a high variation in terms of the number of variables considered and in terms of the methodologies used to quantify the strength and importance of relationships (Letcher and Neves, 2010).

#### Image

Barich and Kotler (1991) define an image as a set of beliefs, ideas and impressions of a person or group concerning an object. The object may be a person, a place, a brand, a product, or a company.

The image of a higher education institution is a subject that is not much analysed in scientific research, contrary to the general concept of image, especially the image of organizations (Mackelo and Druteikiene, 2010; Schlesinger; Cervera and Pérez-Cabañero, 2016).

The image of an institution is important in the process of building student satisfaction, as it influences the behaviours of students wishing to enter higher education (Kotler and Fox, 1994; Alves and Raposo, 2007). The authors stress how important it is for higher education institutions to know their image in the labour market and ensure that it accurately and favourably reflects them. According to them, institutions that respond to their audiences understand the importance of attracting students and other resources through the exchange of programs and other benefits that their audiences want. Thus, these institutions seek to understand their audiences and improve student and community satisfaction, reflecting it in the public image of an institution (Alves and Raposo, 2007).

#### **Perceived Quality**

Teas (1993) argues that service quality precedes satisfaction and presents two concepts on service quality: the transaction-specific quality concept, which influences customer satisfaction, and the relational quality concept, which involves the relationship between business services and the long term customer.

Service quality is an important element in customer perceptions, representing a crucial component in customer evaluations and therefore important in defining customer satisfaction (Zeithaml, Bitner and Gremler, 2011).

#### **Perceived Value**

Considering Webb and Jagun (1997) cited by Alves (2003), perceived value is an antecedent of customer satisfaction in higher education, which is understood as a relationship between the benefits received and the sacrifices made. In the model proposed by these researchers, value is influenced by two variables: customer care commitment (company cultural values related to customer care) and customer care behaviour (manifestation of cultural values in terms of customer-driven behaviours). According to this model, loyalty (willingness to say positive things about the institution and willingness to return to the institution) and complaint behaviour (internal and external complaints) stand as consequences of satisfaction. Results revealed a positive and significant relationship between perceived value and satisfaction, between satisfaction and loyalty and between customer care behaviour and the tendency to complain internally.

#### **Research Methodology**

#### **Research Framework**

The purpose of this study is to evaluate the overall satisfaction of students in a Portuguese higher education institution.

The study focused on students who attended the Higher School of Public Management, Communication and Tourism of the Polytechnic Institute of Bragança (EsACT-IPB), in the 2017/2018 school year.

EsACT-IPB is a decentralized organic unit of the Bragança Polytechnic Institute, located in Mirandela (Northern Portugal). The school teaches six Higher Professional Technical Courses (CTESP), namely: Informatics, Tourism and Culture Promotion, Digital Communication, Legal Services, Business and Management, and Sales and Marketing Management. There are eight degrees available in areas such as Public Management and Administration, Informatics and Communications, Marketing, Multimedia, Law for Solicitors, Communication Technologies, Tourism and Game Design. There are also two second cycle training courses in the scientific areas of as Local Government and Tourism Marketing.

#### **Data Collection and Processing**

Data collection was conducted through a questionnaire survey that included questions adapted from questionnaires developed by Alves and Raposo (2007). The survey was applied to 666 students from all courses and school years at EsACT-IPB institution. Data collection took place between November and December 2017.

The questionnaire is divided into three groups, starting with a short introduction to the objectives of the study in question and the instructions for completing the survey. The first group of the data collection instrument encompasses sociodemographic issues, such as gender, age and course attended.

The second group of questions focuses on indicators for measuring student satisfaction in higher education. The variables used were: image, perceived quality, perceived value and overall satisfaction. The image variable is composed of 6 items, measured on a Likert-scale from 1 to 7, with 1 "Entirely Disagree" (ED) and 7 "Entirely Agree" (EA). The perceived quality variable consists of 10 items measured on a Likert-scale from 1 to 7, with 1 meaning "Very bad" (VB) and 7 "Very good" (VG). The perceived value variable consists of 5 items. To measure each item we used the seven-point Likert-scale: 1 "Entirely Disagree" (ED) and 7 "Entirely Agree" (EA). Finally, the global satisfaction variable has 1 item t measured on a Likert-scale from 1 to 7, with 1 being "Very Dissatisfied" (VD) and 7 "Very Satisfied" (VS).

Cronbach's alpha values (equal to 0.955), used to measure the reliability of the instrument, and in the present study used to measure the latent variable (Indicators related to the Student Satisfaction Model) show that the degree of internal consistency is Very Good, as supported by Pestana and Gageiro (2014).

#### **Population vs Sample**

In the 2017/2018 school year, there were 145 CTESP students, 1134 undergraduate students and 12 master's degree students, which translate into a study population of 1291. Regarding the difference between population and sample, the one with the greatest difference is the undergraduate degree with a difference of 575 respondents. On the other hand, the one with the smallest difference is the master's degree with 3 respondents. Regarding the population of this study and analysing the population percentage per course, the CTESP with the highest percentage is Tourism and Culture Promotion (1<sup>st</sup> school year) with 16.6%, the license degree is Law for Solicitors (2nd year) with 10.9%, and the master's degree is Local Government (1<sup>st</sup> school year) with 58.3%. Regarding the sample (n) the course with the highest percentage in CTESP is Tourism and Culture Promotion with 17.5%, the license degree is Law for Solicitors with 10% and the master's degree is Local Government with 55.6%.

In CTESP, undergraduate and master's degrees, the sample is representative of the population in terms of enrolment years of each course, with no significant differences between the population and the sample taken when considering the enrolment year of each course. For CTESP the Chi-square value is 18.31 (p> 0.05), for undergraduate degrees the Chi-square value is 35.17 (p> 0.05) and for the masters the Chi-square value is 3.84 (p> 0.05).

The questionnaires were distributed and applied to the 16 courses at EsACT-IPB in different academic years. The total number of answers was 666 questionnaires, translating into a sample error of 2.64% and a significance level of 5%, which corresponds to a response rate of approximately 52%.

#### **Results Presentation and Empirical Analysis**

#### Sample Characterization

652 answers were obtained for the gender variable with 342 (51.4%) females and 310 (46.5%) males answering the questionnaire. Numbers show that most of the students attending EsACT-IPB are female.

Regarding the age variable, the 665 answers obtained revealed that 401 students (60.2%) are aged 20 years old or less, 239 students (35.9%) are between 21 and 30 years old, 18 students (2.7%) are between 31 and 40 years old and 7 students (1.1%) are over 41 years old. Based on these values, it can be concluded that most students attending EsACT-IPB are aged 20 or less.

Regarding the variable course, the CTESP with the largest number of respondents is Tourism and Culture Promotion with 25 respondents (3.8%), followed by the Legal Services and Digital Communication with 21 respondents each (3.2%), Sales and Marketing Management with 15 (2.3%), Informatics with 11 (1.7%), and lastly Business and Management with 4 respondents (0.6%).

In bachelor degrees, the Law for Solicitors course is the one with the highest number of respondents with 138 students (20.7%), followed by Game Design course with 90 respondents (13.5%), Tourism with 82 (12.3%), Public Management and Administration with 81 (12.2%), Multimedia with 64 (9.6%), Marketing with 59 (8.9%), Informatics and Communications with 26 (3.9%), and Communication Technologies with 20 student respondents (3%).

The master's degree with the largest number of respondents was Local Government (0.8%). The Master's degree in Tourism Marketing obtained 4 respondents (0.6%).

#### Indicators on Student Satisfaction Model

This section consists of an exploratory descriptive analysis of the second group of questions of the questionnaire. The purpose of this group of questions was accessing student satisfaction with EsACT-IPB using variables such as image, perceived quality, perceived value and overall satisfaction. Mean and standard deviation were calculated for each of the items analysed.

Mean values bigger than four points indicate a degree of agreement with the variable under study, while mean values below four points indicate a degree of disagreement with the same variable.

The image-related variable was analysed by 6 items (Table 1), as:

- Respondents answered positively to the question "Is it a good school to study" (5.90 average; 1.169 standard deviation), with 33.9% answering "Mostly Agree" and 36.9% "Entirely agree".
- In answering the question "Is it a ground breaking and forward-looking school" students claimed to agree with the statement (5.63 average; 1.272 standard deviation), 32.1% "Mostly agree" and 28.4% "Entirely agree".
- Regarding the question "Provides good preparation for students" it can be seen that respondents answered positively to this item (5.63 average; 1.263 standard deviation), with 34.2% "Mostly Agree" and 27 % "Entirely Agree", ie 61.2% of respondents feel that EsACT-IPB provides good preparation for students.
- Respondents' answer to the question "EsACT-IPB is a school with ethics" reflects agreement with the item (5.78 average; 1.181 standard deviation), where 34.4% "Mostly agree" and 32.1% "Entirely Agree".
- Respondents answered positively to the statement "EsACT-IPB has social responsibility" (5.80 average; 1.164 standard deviation), where 35.3% "mostly agree" and 31.7% "entirely agree".
- Regarding the question "Overall EsACT-IPB has a good image" it is clear that respondents consider that EsACT-IPB has a good global image (5.75 average; 1.260 standard deviation), 30.2% "Mostly Agree" and 33.8% "Entirely Agree".

Item	1 (ED)	2 (MD)	3 (SD)	4 (NA/ND)	5 (SA)	6 (MA)	7 (EA)	Mean	Standard deviation
It is a good school to	3	8	18	46	117	226	246	5.90	1.169
study (n=664)	0.5%	1.2%	2.7%	6.9	17.6	33.9	36.9		
Is it a ground	7	10	22	73	147	214	189		
breaking and forward-looking school (n=662)	1.1%	1.5%	3.3%	11%	22.1%	32.1%	28.4%	5.63	1.272
Provides good	7	11	20	73	142	228	180	5.63	1.263
preparation for the students (n=661)	1.1%	1.7%	3%	11%	21.3%	34.2%	27%		
EsACT-IPB is a	4	4	15	82	116	229	214	5.78	1.181
school with ethics (n=664)	0.6%	0.6%	2.3%	12.3%	17.4%	34.4%	32.1%		
EsACT-IPB has	7	2	6	83	117	235	211		
social responsibility (n=661)	1.1%	0.3%	0.9%	12.5%	17.6%	35.3%	31.7%	5.80	1.164
Overall. EsACT-IPB	6	12	10	76	134	201	225	5.75	
has a good image (n=664)	0.9%	1.8%	1.5%	11.4%	20.1%	30.2%	33.8%		1.260

#### Table 1: Descriptive results - Indicators related to the model of student's satisfaction: image

Note: ED- Entirely Disagree, MD- Mostly Disagree, SD- Somewhat Disagree, NA/ND- Neither Agree/Nor Disagree, SA- Somewhat Agree, MA- Mostly Agree and EA- Entirely Agree.

The perceived quality variable consists of 10 items (Table 2):

- Respondents showed agreement with the item "Perceived quality in relation to teachers' capabilities" (5.65 average; 1.147 standard deviation), with 37.8% answering "Mostly Good" and 24.2% "Very Good". That is, 62% consider that EsACT-IPB has quality as regards teachers' capabilities.
- Regarding the question "Perceived quality concerning teacher expertise", the students' answers indicate a positive attitude (5.79 average; 1.090 standard deviation), with 38% saying "Mostly good" and 28.5% "Very good", ie a percentage of 66.5%.
- In the question "Perceived quality concerning the syllabus of the curricular units that make up the course you attend" students reveal agreement with the item (5.48 average; 1.149 standard deviation), as 25.7% responded "Somewhat good", 38.3% "Mostly Good" and 17.3% "Very good".
- In the question "Perceived quality of computer platforms for the availability of resources/study material", 34.1% considered "Mostly Good" and 26.1% "Very good" (5.58 average; 1.277 standard deviation), which indicates that students consider EsACT-IPB has quality computer platforms for rendering resources/study material available.
- On the question "Perceived quality regarding the relationship between teachers and students", the respondents presented positive answers (5.74 average; 1.158 standard deviation), as 36% answered "Mostly good", and 28,7% answered "Very Good".
- The question "Perceived quality of the relationship among students" reflects a good student outcome (5.72 average; 1.154 standard deviation), with 36.3% evaluating it as "Mostly Good" and 27.6% as "Very good", that is, 63.9% of the students state there is a quality relationship among them.
- Respondents' answers to the question "Quality perceived regarding the competence and efficiency of services provided by EsACT-IPB (computer services, academic services, library, ...)" indicate that 24.6% consider the quality of services provided by EsACT-IPB in terms of efficiency and competence is "Somewhat good", 29.1% "Mostly good" and 18.8% "Very good" (5.23 average; 1.396 standard deviation).
- In the question "Perceived quality of EsACT-IPB facilities" students agree with this item (5.77 average; 1.169 standard deviation), with 34.2% answering "Mostly good" and 30.8% "Very good".
- Regarding the "Availability of spaces to work/study" (5.49 average; 1.321 standard deviation) 32.4% of respondents rate them as "Mostly good" and 24.3% as "Very good".
- Regarding the question "Overall perceived quality" it can be concluded that students consider that the EsACT-IPB has a global level of quality (5.70; 1.057 standard deviation), as 42.6% responded "Mostly Good" and 22.2% "Very good".

Item	1 (VB)	2 (MB)	3 (SB)	4 (NG/NB)	5 (SG)	6 (MG)	7 (VG)	Mean	Standard deviation
Perceived quality in relation to teachers' capabilities	1	10	23	61	156	252	161	5.65	1.147
(n=664)	0.2%	1.5%	3.5%	9.2%	23.4%	37.8%	24.2%		
Perceived quality concerning	2	5	13	59	139	253	190	5.79	1.090
teacher expertise (n=661)	0.3%	0.8%	2%	8.9%	20.9%	38%	28.5%	5.79	1.090
Perceived quality concerning the syllabus of the curricular	3	7	28	82	171	255	115		
units that make up the course you attend (n=661)	0.5%	1.1%	4.2%	12.3%	25.7%	38.3%	17.3%	5.48	1.149
Perceived quality of computer platforms for the availability	6	12	27	73	145	227	174		
of resources/study material (n=664)	0.9%	1.8%	4.1%	11%	21.8%	34.1%	26.1%	5.58	1.277
Perceived quality regarding the relationship between	3	7	18	62	139	240	191	5.74	1.158
teachers and students (n=660)	0.5%	1.1%	2.7%	9.3%	20.9%	36%	28.7%		
Perceived quality of the relationship among students	3	7	12	80	133	242	184	5.72	1.154
(n=661)	0.5%	1.1%	1.8%	12%	20%	36.3%	27.6%	5.72	1.134
Quality perceived regarding the competence and	12	16	47	104	164	194	125		1.396
efficiency of services provided by EsACT-IPB (computer services, academic services, library,) (n=662)	1.8%	2.4%	7.1%	15.6%	24.6%	29.1%	18.8%	5.23	
Perceived quality of EsACT-	5	4	19	57	143	228	205	5.77	1.169
IPB facilities (n=661)	0.8%	0.6%	2.9%	8.6%	21.5%	34.2%	30.8%		1.169
Availability of spaces to	8	10	41	69	156	216	162	5.49	1.321
work/study (n=662)	1.2%	1.5%	6.2%	10.4%	23.4%	32.4%	24.3%		1.321
Overall perceived quality	2	4	13	69	142	284	148	5.70	1.057
(n=662)	0.3%	0.6%	2%	10.4%	21.3%	42.6%	22.2%		1.037

Table 2: Descriptive results - Indicators for the student's satisfaction model: perceived quality

Note: VB- Very Bad, MB- Mostly Bad, SB- Somewhat Bad, NG/NB- Neither Good Nor Bad, SG- Somewhat good, MG- Mostly Good, VG- Very Good.

The perceived value variable was analysed based on 5 items (Table 3):

- Respondents' answers to the question "Studying at EsACT-IPB will enable you to get a good job" reflects their agreement with the item (5.29 average; 1.158 standard deviation), where 24.8% "Somewhat Agree", 31.8% "Mostly Agree" and 15.2% "Entirely Agree".
- Respondents answered positively (5.62 average; 1.105 standard deviation) to the question "Studying at EsACT-IPB is a good investment for your working career" with 33.3% stating "Mostly Agree" and 24, 2% "Entirely Agree".
- Regarding the question "ESACT-IPB is valued by employers", students' answers show agreement with the item (5.06 average; 1.234 standard deviation), with 23.3% who "somewhat agree", 26% who "Mostly agree", 12.9% who "entirely agree" and 30% who "neither agree nor disagree".
- Respondents answered positively to the question "The effort you spend at EsACT-IPB is commensurate with the skills and qualifications you are acquiring" (5.47 average; 1.167 standard deviation), with 36.6% "Mostly agree" and 17.7% "Entirely Agree".
- In the question "Considering the value of tuition, fees and emoluments, do you believe that EsACT-IPB provides quality services", 33.3% "Mostly Agree" and 38.1% "Entirely Agree" (5.93 average; 1.177 standard deviation), which indicates that students, taking into account tuition, fees and emoluments, believe that EsACT-IPB provides quality services.

Item	1 (ED)	2 (MD)	3 (SD)	4 (NA/ND)	5 (SA)	6 (MA)	7 (EA)	Mean	Standard deviation
Studying at EsACT-IPB	3	5	19	158	165	212	101	5.29	
will enable you to get a good job (n=663)	0.5%	0.8%	2.9%	23.7%	24.8%	31.8%	15.2%		1.158
Studying at EsACT-IPB is a	2	1	15	94	169	222	161	5.62	
good investment for your working career (n=664)	0.3%	0.2%	2.3%	14.1%	25.4%	33.3%	24.2%		1.105
ESACT-IPB is valued by	5	11	26	200	155	173	86	5.06	1.234
employers (n=656)	0.8%	1.7%	3.9%	30%	23.3%	26%	12.9%		
The effort you spend at	7	6	16	95	174	244	118	5.47	1.167
EsACT-IPB is commensurate with the skills and qualifications you are acquiring (n=660)	1.1%	0.9%	2.4%	14.3%	26.1%	36.6%	17.7%		
The effort you spend at	5	7	13	50	111	222	254	5.93	1.177
EsACT-IPB is commensurate with the skills and qualifications you are acquiring (n=662)	0.8%	1.1%	2%	7.5%	16.7%	33.3%	38.1%		

Table 3: Descriptive results - Model indicators student's satisfaction: perceived value

Note: ED- Entirely Disagree, MD- Mostly Disagree, SD- Somewhat Disagree, NA/ND- Neither Agree/Nor Disagree, SA- Somewhat Agree, MA- Mostly Agree and EA- Entirely Agree.

Global satisfaction variable was analysed through 1 item (Table 4):

- Regarding the item "Overall satisfaction with EsACT-IPB", it was observed that respondents are satisfied with the institution (5.72 average; 1.075 standard deviation), where 46.4% is "Mostly Satisfied" and 20.6% "Entirely satisfied"

#### Table 4: Descriptive results - Indicators for student's satisfaction model: global satisfaction

Item	1 (ED)	2 (MD)	3 (SD)	4 (NS/ND)	5 (SS)	6 (MS)	7 (ES)	Mean	Standard deviation
Overall satisfaction with EsACT-IPB (n=655)	5	7	12	47	138	309	137	5.72	1.075
	0.8%	1.1%	1.8%	7.1%	20.7%	46.4%	20.6%		

Note: ED- Entirely Dissatisfied, MD- Mostly Dissatisfied, SD- Somewhat Dissatisfied, NS/ND- Neither satisfied/ Neither dissatisfied, SS- Somewhat Satisfied, MS- Mostly Satisfied, ES-Entirely Satisfied.

This study researches student's satisfaction in higher education. From the results, it is clear that students are satisfied with higher education at EsACT-IPB, though there naturally is room for improvement. The variables image, perceived value and perceived quality demonstrate positive outcomes concerning student satisfaction.

According to the results of this study, EsACT-IPB is a good school to study, with perceived quality concerning teachers' knowledge, and considering the value of tuition, fees and emoluments, students believe that EsACT-IPB provides quality services. This means that the stated variables contribute to improving student satisfaction in higher education.

In light of the results above, some suggestions and recommendations for improving student satisfaction are presented. As these variables are directly related to education and educational quality, it may be wise for EsACT-IPB to engage in further discussions to increase the overall level of satisfaction. The results are relevant to EsACT-IPB's leadership and management. EsACT-IPB leaders should consider this when planning further improvements in service quality. As with all investigations, this study has its limitations. Results can be compared with other studies in the context of IPB. More specifically, future research could aim to establish relationships between different groups of students (CTESP, Bachelors and Masters).

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