

Student Satisfaction Dimensions of Public and Private Higher Education Institutions in Dipolog and Dapitan Cities

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Abstract

A quantitative, descriptive-correlational design was employed, gathering data from 291 fourth-year students from five public and private HEIs in Dipolog and Dapitan Cities. Respondents were selected using disproportionate stratified random sampling to ensure institutional representation, supplemented by convenience non-random sampling for accessibility. The research tool was a modified questionnaire that underwent rigorous validation, achieving a Content Validity Index (CVI) ranging from 0.90 to 1.00, and demonstrated high reliability with Cronbach's alpha coefficients between 0.95 and 0.97. Data analysis was performed using frequency distributions, weighted means, Analysis of Variance (ANOVA) to test for significant differences, and Pearson's r correlation to determine relationships between dimensions. The findings revealed that the sample was predominantly female and enrolled in hospitality management programs; both sectors exhibited high satisfaction levels, though private institutions scored slightly higher in support services and personnel quality; significant differences in satisfaction were identified based on sex, degree program, scholarship grant, and HEI type; and a strong positive association existed among all service dimensions, suggesting that improvements in one area enhance overall perceived value. The study highlights the need for HEIs to prioritize academic facilities and conduct regular assessments to address disparities in satisfaction across diverse student profiles.

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Introduction

In the 2022 Times Higher Education (THE) Impact Ranking, fifteen (15) universities and colleges in the Philippines are internationally recognized as one of the world's top universities contributing to the United Nations' Sustainable Development Goals in terms of research, teaching, outreach, and stewardship. This is perhaps the strategic response of the Philippine universities and colleges toward creating and enhancing relevance and competitiveness in the 21st Century as the country's educational institutions need to cope in the following areas in leadership, graduate preparedness, technology, faculty readiness, massification, diversification, internationalization, and marketization of higher education (Amanquiton, 2021; Ramos, 2022, April 29).

Higher Education Institutions (HEIs) have evolved into a product, with students increasingly concerned with various aspects of their services, including facilities, classroom environments, teaching relationships, academic resources, and curriculum. Measuring student satisfaction helps administrators understand service quality performance and identify areas for improvement. Studies have shown that as HEIs improve services, student satisfaction increases. However, Teeroovengadum et al. (2019) argue that functional services do not influence student satisfaction, as students' perceptions may change as they progress through their studies.

The Commission of Higher Education (CHED) in the Philippines has mandated public and private HEIs to enhance their integrated educational programs and services. CHED's relevance to this study is rooted in its legal mandates, such as CMO No. 09 series of 2013 also known as Enhanced policies and guidelines on student affairs and services, which requires all HEIs to provide comprehensive student affairs and services, including guidance, health, and placement services. Furthermore, CHED sets critical quality standards, such as recommended faculty-to-student ratios, to ensure that both State Universities and Colleges (SUCs) and private institutions remain globally competitive and labor-ready. Despite these regulatory efforts, the problem within the Philippine HEI context is characterized by a significant disparity between sectors. Public HEIs face immense pressure due to Republic Act 10931 known as the Universal Access to Quality Tertiary Education Act, which provides tuition exemptions, leading to a massive influx of students that can strain staffing levels and facilities (Orbeta et al., 2020). Conversely, Tomada and Galido (2024) argue that private HEIs must continuously justify their value proposition through superior support services and personnel quality to remain viable in a market-driven environment. However, nationally, the country's educational quality and services system are poorly ranked compared to other countries (Bustos-Orosa & Symaco, 2024; Canivel, 2020; Orbeta et al. 2025).

The justification for selecting Dipolog and Dapitan Cities as the study sites lies in their roles as educational hubs within the Zamboanga Peninsula (Region IX). This region manages a substantial student population of over 125,000, with a unique 61% to 39% split between public and private enrollment. The Zamboanga Peninsula Regional Development Plan for 2017-2022 highlights issues with graduation rates, graduate quality, and services (Regional Development Council IX, 2017). Literature suggest that further assessment of education quality and services

is needed for the city, region, and country. A significant research gap exists because, while general literature discusses student satisfaction, there is a lack of localized, comparative evidence regarding the specific service dimensions in Dipolog and Dapitan. Existing studies often fail to examine the nexus between support services, input quality, facilities, and institutional processes within these specific cities. This study addresses the gap by providing a direct comparison between the public and private sectors in these localities, identifying whether government-funded institutions or private entities are better meeting the diverse needs of their student populations.

Knowing the conditions of the Philippine HEIs' services, this paper aimed to measure student satisfaction with HEIs in the cities of Dipolog and Dapitan. It aimed to identify areas for improvement and development in both public and private HEIs. Getting responses from public and private institution, the study could provide a general description of satisfaction with higher education services, which will be used to guide HEIs in improving the quality of their services. This research contributes directly to the United Nations Sustainable Development Goals (SDGs). By identifying areas for service improvement, the study supports Goal 4: Quality Education through the enhancement of academic facilities and resources. The focus on student profiles, which reveals a predominantly female population in certain programs, aligns with Goal 5: Gender Equality by ensuring educational environments are responsive to diverse demographic needs. Finally, by focusing on input quality and graduate readiness, the study advances Goal 8: Decent Work and Economic Growth, ensuring that HEIs effectively prepare students for the competitive global labor market.

Research Objective

The study aimed to achieve the following objectives:

1. To determine student's profile in terms of sex, enrolled program, scholarship grant, and type of HEIs to serve as a foundational context for analyzing satisfaction disparities;
2. To measure the student satisfaction levels on HEIs services across support services, input quality, academic facilities and resources, and institution environment, procedures and processes;
3. To analyze the significant difference of student satisfaction on HEIs services when analyzed according to sex, enrolled program, scholarship grant, and type of HEIs; and
4. Examine the interrelationships and mutual influences among these service dimensions to determine how they collectively reinforce and shape the overall institutional service spectrum.

Hypotheses

Hypothesis 1: There is no significant difference of the student satisfaction when analyzed according to sex, enrolled program, scholarship grant, and type of HEIs.

Hypothesis 2: There is no significant relationship between support services, input quality, academic facilities and resources, and institution environment, procedures, and processes.

Literature Review

HEIs provide tertiary education to prepare students for the real world and are crucial for a nation's individual, social, and economic development. They aim to create knowledge through innovation and creativity. Institutions must prioritize meeting student expectations and needs in a competitive environment. In the 21st century, internationalization and regionalization have increased competition, forcing institutions to adopt market-oriented strategies to attract students and meet their needs. ASEAN aims to improve human resources, form a regional identity, and contribute to economic growth. Regionalization of higher education profiles is crucial for community building. However, competition among institutes is intensified by international universities seeking to attract a larger student market, posing a challenge. The CHED in the Philippines regulates higher education institutions (HEIs) to improve coordination, effectiveness, governance direction, and academic freedom. CHED mandates state universities and colleges (SUCs) to implement integrated educational programs for global competitiveness and labor readiness. Institutions, including those in the Zamboanga Peninsula, align their service practices with internationalization to become internationally recognized colleges/universities. They view higher education as a product driven by competition, focusing on quality services and satisfaction to build a competitive image.

Student Satisfaction

Student satisfaction is described as a short-term attitude arising from an appraisal of the educational experience, services, and facilities of students (Weerasinghe & Fernando, 2017). This short-term attitude stems from an assessment of a student's educational experiences. It is a favorable predictor of student loyalty and the consequence of an educational system. Student satisfaction is also defined as students' attitude toward educational achievements and experiences based on subjective judgment. Student satisfaction can thus be described as a consequence of relative level of experiences and perceived performance regarding educational service during the study period (Carey et al., 2002; Mukhtar, 2015).

Students are the primary recipients of educational services, and customer satisfaction is crucial for a firm's success. In higher education, high-quality services are essential for student retention. Research suggests that perceived higher education service quality increases satisfaction. Therefore, institutions must continuously improve their services to meet student expectations. Onditi and Wechuli (2017) found that service quality significantly influences student satisfaction, and institutions should collect student feedback to identify service quality dimensions of interest. Chandra, et al. (2018) confirmed that service quality positively influences student satisfaction, and this finding is supported by various authors. This highlights the importance of continuous improvement in higher education institutions to meet students' expectations and demands in a competitive market.

Student satisfaction is a crucial indicator of quality services in Philippine Higher Education Institutions (Pamatmat et. al, 2018). It correlates with five SERVQUAL dimensions: reliability, assurance, tangibles, empathy, and responsiveness. Key areas predicting satisfaction include

laboratories, security and janitorial services, and guidance and clinic services. By assessing student satisfaction, HEIs can continuously improve academic and administrative services, identifying areas for maintenance and development.

HEI's Service Dimensions

Most of the instruments used in measuring the student satisfaction were SERVQUAL. There were researchers such as Afridi et al. (2016); Arambewela and Hall (2006); Calvo-Porral et al. (2013); Kanakana (2014) as well as Yousapronpaiboon (2014) who used five dimensions to measure service quality. There were some authors who proposed Higher Education Service Quality (HESQUAL) Scale but not as the measurement for student's satisfaction for HEIs. However, others such as Abdullah (2006); Alves and Raposo (2009); and Duarte et al. (2012) considered SERVQUAL or SERQUAL as less precise and recommended to identify services dimensions which capture the needs of the HEIs. Accordingly, establishing the essential services dimension comes first. It is critical to analyze and seek out service components that are relevant to the needs of both students and the institution.

Based on a critical literature review, the following were identified as service dimensions of HEIs:

Support Services. Support services at HEIs are those for student development. Universities should try to create support systems that increase recruiting, development, and retention services, hence enhancing overall graduation rates (Benitez & Testa, 2024). These services would compel students to stay at the university until they completed their degrees. In the Philippines, the CHED issued a memorandum order (Commission on Higher Education, 2013) titled "Enhanced policies and guidelines on student affairs and services" referring to improved rules and guidelines on student affairs and services, requiring each HEI to provide student support services. Admission services, academic advising services, guidance and counselling services, admission services, health services, scholarship and financial assistance, career and job placement services, sports, culture, and the arts program services, and other services should be provided by the institution. According to Dugenio-Nadela (2023), the role of support services is to support and enhance the student experience in the aspect of academic, social, welfare and support.

Input Quality. Input quality in HEI services refers to the knowledge and competence of faculty, academic, and non-academic personnel (Jain et al., 2010). According to Mattah et al. (2018), these individuals determine the quality of services provided by HEIs, as interaction with teachers and staff during service delivery increases student satisfaction. Faculty and administrative employees have an impact on HEI services because they establish quality standards for process-related service activities such as registration, records, rules and procedures, and academic service delivery. Good communication between administration and students; teaching and non-teaching staff; evaluation of academic and administrative services; competence of academic and contact personnel; input quality (students and faculty/lecturers) are other factors that may influence student satisfaction (Ada et al., 2017; Teeroovengadum et al, 2016). The study extends previous research by comparing the availability and responsiveness of staff in the public versus private

sectors, highlighting how instructional quality and faculty-to-student ratios serve as primary satisfaction drivers

Academic Facilities and Resources. Student happiness is significantly influenced by academic facilities and resources (Mattah et al., 2018). Academic facilities and resources include concrete elements such as modern equipment, information and technology facilities, and physical resources such as classrooms, function halls, libraries, college and administration buildings that are used by service providers (faculty and support personnel). Furthermore, Coskun et al. (2014) found that students place a high value on academic facilities since they spend so much of their time interacting with them. Adequate facilities are likely to improve engagement, foster innovative learning, and contribute to a rewarding university experience (Mansor et al., 2012). The sufficiency of instructional facilities is strongly related to student satisfaction. According to Mattah et al. (2018), students value sufficient laboratory equipment, lecture spaces, and other physical evidences. Thus, this study contributes a localized perspective, demonstrating how adequate facilities make students feel more driven, dedicated, and competitive.

Institution Environment, Procedures and Processes. This dimension refers to the institution's overarching norms, such as policies, rules and regulations, VMGO, and even the acceptance of cultural variations. This dimension, according to Yusoff et al., 2015 and Benitez and Testa (2025) also includes the classroom environment, such as whether it is conducive to learning, safe, and secure; business procedures such as admission, enrolment, and billing; physical environment such as security, racial harmony, and inclusiveness, and delivery processes of other academic and non-academic transactions. Ismail et al. (2018) discovered that students are also concerned about the services they have received regarding billing procedures and admission registration. Students would also like information regarding the university's processes and procedures, as these are useful during registration. Safety and security, racial harmony and campus climate are other factors that have influence to student satisfaction (Adams, 2016).

Table 1

HEI's service dimensions

Dimensions Identified	Literature Sources	Factors Identified
Support services	(CHED, 2013) Dugenio-Nadela, 2023; Benitez and Testa, 2024	Support services for students (general services, guidance and counselling, admission services, security and safety services, among others)

Table 1
(Continue)

Dimensions Identified	Literature Sources	Factors Identified
Input quality	LeBlanc and Nguyen, 1997; Sohail and Shaikh, 2004; Joseph et al., 2005; Sahney et al, 2004; Jain et al., 2010; Ramaiyah et al., 2007; Teeroovengadum et al, 2016; Ada et al, 2017; Mattah et al, 2018	Good communication between administration and students; Teaching and non-teaching staff; Evaluation of academic and administrative services; Competence of academic and contact personnel; input quality (students and faculty/lecturers)
Academic facilities and resources	Lagrosen et al., 2004; Yusoff et al., 2015; Teeroovengadum et al, 2016; Ada et al, 2017; Mattah et al, 2018	Academic and support facilities; Concrete element (modern equipment and facilities) Physical resources (classrooms, function halls, libraries)
Institutional environment, procedures & processes	Jain et al., 2010; Yusoff et al., 2015; Teeroovengadum et al, 2016; Benitez and Testa, 2025	Classroom environment; business procedure; physical environment (level of security); delivery processes

The service dimensions utilized in this research—Support Services, Input Quality, Academic Facilities and Resources, and Institutional Environment, Procedures, and Processes—were derived through a synthesis of established scholarship and a critical assessment of the unique requirements of the academic sector. While generic scales like SERVQUAL are common, this study strategically adopts the tailored dimensions established by foundational authors such as Abdullah (2006), Alves and Raposo (2009), and Duarte et al. (2012), who argue that specialized metrics are more precise for capturing the multifaceted needs of Higher Education Institutions (HEIs) than generic models. These four pillars are justified as part of the study framework because they provide a holistic view of the student experience, encompassing both the technical quality of faculty and the functional institutional environment. Specifically, Support Services is justified by regulatory mandates from the Commission on Higher Education (CHED), such as the Enhanced Policies and Guidelines on Student Affairs and Services issued by the Commission on Higher Education (2013), which require institutions to provide integrated programs that support student

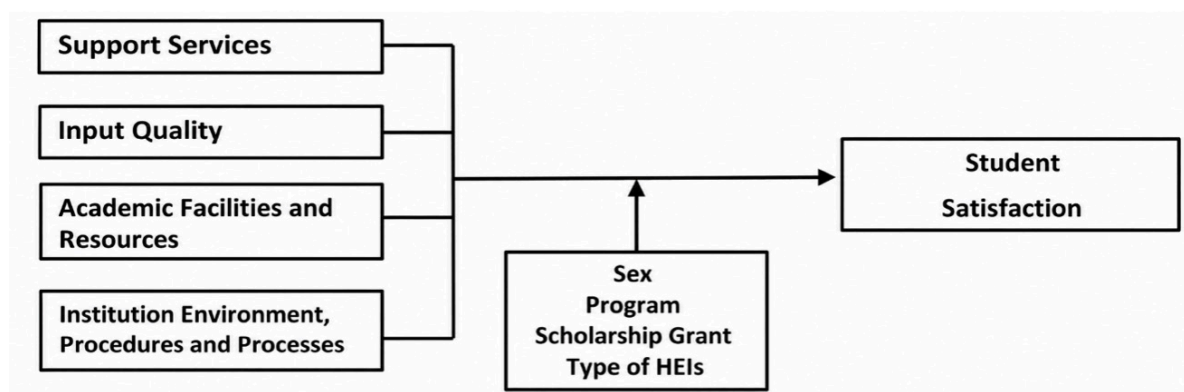
persistence, while Input Quality and Academic Facilities are justified by their direct influence on student engagement and perceived institutional value. Finally, the inclusion of Institutional Processes addresses essential operational procedures like enrollment and billing, ensuring the framework remains anchored in the Satisfaction Framework, which posits that a university's reputation and student satisfaction are significantly shaped by the mutual influence and interplay of these diverse service components

Research Framework

The study used Oliver's Expectancy-Disconfirmation Theory (1977, 1980) to determine customer satisfaction or dissatisfaction. It suggests that satisfaction occurs when service performance meets or exceeds expectations, while dissatisfaction occurs when expectations are not met or exceeded. This theory suggests that customer satisfaction can be positively or negatively influenced by expectations and perceptions, and specifically supports the Support Services and Input Quality variables, as students enter institutions with established expectations regarding faculty competence and administrative care. In addition, the Importance-Performance model, developed by Martilla and James (1977), focuses on customer satisfaction as a function of performance. This model is useful for identifying service areas requiring remedial strategic actions, providing clear direction for action particularly relevant to the Institutional Environment, Procedures, and Processes variable, as it provides a clear direction for identifying whether critical "business procedures," such as enrollment and billing, are performing at the level necessitated by their importance to the student experience. The study was also anchored on Satisfaction Framework, a combination of the Satisfaction Model and Facility Model, to identify the most influential facilities which suggest that students' satisfaction with a university is influenced by factors like facilities and services. Improving the quality of university facilities can increase overall student satisfaction.

Out from the frameworks which the study was anchored on, the conceptual framework was constructed:

Figure 1
Schematic diagram



The figure shows the relationship among variables of HEI service dimensions. The framework also connotes that this dimension will be assessed and determined by the satisfaction level of students. Furthermore, the framework proposed that there are significant differences in the satisfaction level of students when analyzed according to sex, program, scholarship grant, and type of HEI. The result of this study would be a help in formulating possible effective policies, recommendations and programs to continually improve the service quality of the Higher Education Institutions of Dipolog and Dapitan cities as these take a big role in the internationalization in the context of education services.

Research Methodology

This study used a quantitative research approach, analyzing numerical data to answer research questions. It began with problem statement, hypothesis generation, literature review, and data analysis. The descriptive-correlational design was used to measure the relationship between variables in Higher Education Institutions (HEIs) services, based on student satisfaction assessments. This study involved 291 fourth-year students from five public and private HEIs in Dipolog and Dapitan cities, enrolled in business, tourism, hospitality management, accounting, finance, entrepreneurship, and other related programs. This selection is framed within the broader context of Region IX Higher Education Institutions, which, according to the Zamboanga Peninsula Regional Development Plan, manages a substantial student population of not less than 81, 000, and followed Roscoe's (1975) "rule of thumb," which recommends a sample size between 30 and 500 as appropriate for most behavioral research. While some multivariate guidelines suggest a sample of 10 times the number of variables, Roscoe's broader range was selected to ensure a robust and manageable baseline for this localized study, an approach mirrored in recent educational satisfaction research (Memon et al., 2025). Following the precedent of Zhang et al. (2020) and Memon et al. (2025), this study employed a disproportionate stratified sampling design. Although participants were recruited through convenience sampling via Facebook and Messenger due to the lack of an accessible sampling frame, a disproportionate allocation was used to ensure equal representation from both public and private HEIs. This was necessary to maximize statistical power for the comparative analysis of these two distinct institutional types. To minimize bias and ensure the results accurately represent the target population, strict eligibility criteria were applied: only 4th-year students enrolled in specific business, tourism, and hospitality programs were included, ensuring that respondents had sufficient service consumption experience to provide informed assessments. After thorough data cleaning, out from 360 responses, 80.6% (291 responses) return rates were considered valid.

The researcher used a structured survey questionnaire fully modified from the existing validated and standardized questionnaire to get important information assessment of the satisfaction level of the students towards the service dimensions. In measuring the assessment and satisfaction level, a 4-point Likert scale was established because it gets specific, accurate

and quality data/opinions/responses (forced response) on the services of HEIs that the students have experienced and exposed. The 4-point scale has an interpretation as 1.0-1.75- very dissatisfied, 1.75-2.50- dissatisfied, 2.51-3.25- satisfied, 3.26-4.0-very satisfied. The survey questionnaire underwent two validity tests: face validity and content validity. Face validity involved expert review and evaluation of items to ensure they measure the variable. Content validity assessed the instrument's ability to fully measure variables or constructs. Five panel of experts from student affairs, quality assurance, business administration, and statistics checked the questionnaire's validity. The student satisfaction on HEI service part had an overall content validity index of 0.9 (excellent), 0.6 (relevant but with major revisions), 0.92 (excellent), and 1.0 (excellent), respectively, following Polit et al. (2007) appraisal and recommendation of the content validity. The researcher used the Cronbach Alpha coefficient to measure the reliability of a survey questionnaire. Internal consistency refers to the consistency of responses across multiple items on a measure. A minimum internal consistency coefficient of 0.70 is required for reliability (George & Mallery, 2003). The instrument questions for support services ($\alpha=0.96$), input quality ($\alpha=0.97$), academic facilities and resources ($\alpha=.95$), and institution environment, procedures and processes ($\alpha=0.97$) passed the test indicating "reliable for use". The study used frequency distribution to identify respondents based on sex, program, scholarship grant, and HEI type. Means were used to measure satisfaction levels, regression analysis was used to analyze significant differences, and Pearson r correlation was used to describe the association among service dimensions. However, it is important to note that the use of Pearson r in the context of this study the analysis focuses on descriptive association rather than population-wide inference. Furthermore, the use of a disproportionate stratified design ensured adequate representation from both public and private HEIs, providing the necessary statistical power to identify trends within these specific institutional contexts. Correlation results were interpreted alongside regression diagnostics to ensure the robustness of the findings.

This study was conducted in accordance with the ethical standards of the University's Research Ethics Committee, and ethical approval was secured prior to data collection. The survey link was distributed through Facebook and Messenger to eligible participants. The first page of the online questionnaire contained an informed consent statement describing the study's objectives, procedures, expected duration, potential risks and benefits, confidentiality measures, and the voluntary nature of participation. Participants could proceed to the questionnaire only after indicating their informed consent. They were also informed of their right to withdraw from the study at any time by discontinuing the survey without penalty. No identifying information was required for participation, and all responses were anonymized and stored securely. The collected data were used solely for academic and research purposes, and access to the dataset was restricted to the researcher.

Findings/Results

Table 2

Respondents' demographic characteristics

Respondents' demographic characteristics, n=291

Gender	f (%)	Program	f (%)	Scholarship grant	f (%)	Type of HEI	f (%)
Male	74 (25%)	Accounting & allied	33 (11%)	Academic Scholarship	50 (17%)	Private	132 (45%)
Female	195 (67%)	Business Administration	50 (17%)	Government Scholarship	71 (24%)	Public	159 (55%)
Prefer not to say	22 (8%)	Tourism Management	99 (34%)	None	170 (58%)	Hospitality Management	109 (37%)

The demographic analysis of the 291 respondents (Table 2) reveals that in terms of gender, the majority are female (67%, n=195), while males account for 25% (n=74), and 8% (n=22) preferred not to disclose their sex. Regarding degree programs, the highest concentration of students is in Hospitality Management (37%, n=109) and Tourism Management (34%, n=99), followed by Business Administration (17%, n=50) and Accounting and Allied programs (11%, n=33). In terms scholarship status, 58% (n=170) of the respondents do not hold any scholarship grant, while 24% (n=71) receive government scholarships and 17% (n=50) hold academic scholarships. Finally, regarding HEI type, 55% (n=159) of the participants are enrolled in public institutions, whereas 45% (n=132) are from private HEIs.

Student Satisfaction Level of Higher Education Services Dimensions

Table 3 presents that students from public and private Higher Education Institutions (HEIs) exhibited a high level of satisfaction with support services, with mean scores of 3.34 (S.D. = 0.63) and 3.30 (S.D. = 0.60), respectively. The relatively low standard deviation in both groups suggests that individual responses were concentrated around the mean, indicating a similar satisfaction level among students from public and private HEIs. However, two specific indicators consistently received the lowest mean scores across both institutional types. Food services, such as safe and clean cafeterias, recorded a mean of 3.06 in private HEIs and 3.19 in public HEIs. Similarly, student housing and residential services received some of the lowest appraisals, with a mean of 3.10 for private institutions and 3.06 for the public sector. While these scores still fall within the "Satisfied" range, they are relatively lower than the "Very Satisfied" ratings observed in other service areas like guidance, orientation, and admission.

Table 3

Student satisfaction level of higher education services in terms of support service

HEI Services Dimensions Support Services (CMO-No.09- s2013)	Private			Public		
	Weighted Mean	Standard Deviation	Verbal Description	Weighted Mean	Standard Deviation	Verbal Descriptionn
a. Information and Orientation Services	3.42	0.58	Very satisfied	3.38	.570	Very satisfied
b. Guidance and counseling services	3.36	0.581	Very satisfied	3.40	.606	Very satisfied
c. Career and job placement services	3.38	0.586	Very satisfied	3.27		Very satisfied
d. Economic Enterprise development such as but not limited to student cooperatives, income generating projects, entrepreneurial activities, and savings	3.3	0.589	Very satisfied	3.20	.614	Satisfied
e. Student handbook provisions	3.3	0.687	Very satisfied	3.31	.595	Very satisfied
f. Student services and programs such as recognition and monitoring of student organizations, student government, leadership training, student publication, etc.	3.4	0.628	Very satisfied	3.35	.646	Very satisfied
g. Student discipline (rules and regulations governing students conduct)	3.41	0.566	Very satisfied	3.43	.600	Very satisfied

Table 3
(Continue)

HEI Services Dimensions Support Services (CMO-No.09- s2013)	Private			Public		
	Weighted Mean	Standard Deviation	Verbal Description	Weighted Mean	Standard Deviation	Verbal Descriptionn
h. Admission and enrolment services	3.38	0.671	Very satisfied	3.36	.631	Very satisfied
i. Scholarship and financial assistance	3.33	0.746	Very satisfied	3.28	.739	Very satisfied
j. Food services such as safe and clean cafeteria	3.06	0.749	Satisfied	3.19	.704	Satisfied
k. Primary health services	3.3	0.592	Very satisfied	3.35	.657	Very satisfied
l. Safety and security services	3.48	0.599	Very satisfied	3.42	.688	Very satisfied
m. Student housing and residential services	3.1	0.74	Satisfied	3.06	.677	Satisfied
n. Multi-faith services	3.4	0.578	Very satisfied	3.23	.667	Satisfied
o. Services for students with special needs and Persons with disabilities	3.34	0.628	Very satisfied	3.28	.674	Very satisfied
p. Recreational and sport program and development services	3.42	0.58	Very satisfied	3.33	.643	Very satisfied
q. Cultural and arts program	3.33	0.673	Very satisfied	3.34	.625	Very satisfied
r. Social and community involvement programs	3.34	0.652	Very satisfied	3.31	.626	Very satisfied
Overall mean	3.34	0.63	Very satisfied	3.30	0.64	Very satisfied

Table 4 shows that students from both private and public higher education institutions (HEIs) reported an overall level of "Very Satisfied" with the quality of academic personnel across various aspects, including the attitude of academic personnel, delivery of information and communication, evaluation and assessment used, consultation, and instruction delivery. The overall mean scores were 3.37 (S.D. = 0.58) for private HEIs and 3.29 (S.D. = 0.61) for public HEIs, highlighting a high overall level of student satisfaction. Notably, the mean scores indicate that private institutions achieved a slightly higher level of satisfaction than public institutions, with individual responses tending to cluster around the true mean.

For the private sector, all seven indicators under this dimension achieved a "Very Satisfied" rating, with the highest scores recorded for teaching/instruction delivery (3.45) and evaluation and assessment (3.44). Conversely, while public HEIs maintained a "Very Satisfied" overall average, two specific indicators fell into the lower "Satisfied" category: the adequate number of academic personnel in proportion to students (3.25) and the availability and responsiveness of academic personnel during out-of-class hours (3.23). These represent the lowest scores within this dimension across both sectors. The highest-rated area for public institutions was teaching/instruction delivery (3.36), mirroring the private sector's strength in pedagogical performance.

Table 4

Student satisfaction level with higher education institutions services in terms of input quality – academic personnel

2.2. Input Quality 2.2.1 Academic Personnel	Private			Public		
	Weighted Mean	Standard Deviation	Verbal Description	Weighted Mean	Standard Deviation	Verbal Description
a. Attitude of the academic personnel when addressing student's academic concerns	3.33	.586	Very satisfied	3.26	.621	Very satisfied
b. Adequate number of academic personnel as proportion to the number of students	3.27	.619	Very satisfied	3.25	.595	satisfied
c. Delivery of information and communication from the academic personnel	3.38	.612	Very satisfied	3.30	.603	Very satisfied

Table 4

(Continue)

2.2. Input Quality 2.2.1 Academic Personnel	Private			Public		
	Weighted Mean	Standard Deviation	Verbal Description	Weighted Mean	Standard Deviation	Verbal Descriptionn
d. Availability and responsiveness of the academic personnel during out- of-class	3.33	.599	Very satisfied	3.23	.565	Satisfied
e. Evaluation and assessment used by the academic personnel	3.44	.542	Very satisfied	3.32	.620	Very satisfied
f. Consultation and advising services from the academic personnel	3.41	.566	Very satisfied	3.28	.648	Very satisfied
g. Teaching/ instruction delivery of the academic personnel	3.45	.558	Very satisfied	3.36	.641	Very satisfied
Overall mean	3.37	0.58	Very satisfied	3.29	0.61	Very satisfied

Table 5 presents the student satisfaction ratings for Higher Education Institution (HEI) services in terms of input quality, specifically for academic support and non-academic personnel. Notably, both private and public students exhibited low standard deviations, indicating that individual responses to student satisfaction are tightly clustered around the true mean, indicating relatively low variability in students' responses. This suggests that private students' satisfaction ratings for input quality were very high, with a similar level of satisfaction observed among public students, whose responses were also closely clustered around a satisfactory level. The findings reveal that students from private HEIs are highly satisfied with the services of academic support and non-academic personnel, with a weighted mean of 3.30 (S.D. = 0.61).

In comparison, public students rated the number of personnel delivering services, responsiveness to students' academic needs, and prompt service to student business transactions (such as form releases and billings) as satisfactory. As a result, their overall satisfaction rating for academic support and non-academic personnel was satisfied, with a mean score of 3.24 (S.D. = 0.61).

Table 5

Student satisfaction level with higher education institutions services in terms of input quality – academic support and non-academic personnel

2.2 Input Quality 2.2.2 Academic Support and Non-academic Personnel	Private			Public		
	Weighted Mean	Standard Deviation	Verbal Description	Weighted Mean	Standard Deviation	Verbal Descriptionn
a. Attitude of the academic support and non-academic personnel when addressing to students' concerns	3.27	.564	Very satisfied	3.28	.597	Very satisfied
b. Adequate number of academic support and non-academic personnel to deliver student services	3.30	.589	Very satisfied	3.19	.621	Satisfied
c. Information and communication delivery of the academic support and non-academic personnel	3.29	.624	Very satisfied	3.31	.595	Very satisfied
d. Responsiveness of academic support and non-academic personnel towards students' needs	3.33	.612	Very satisfied	3.21	.610	Satisfied
e. Prompt service in student transactions such as requesting and releasing of forms, billing, and other business transactions	3.32	.658	Very satisfied	3.22	.633	Satisfied
Overall mean	3.30	0.61	Very satisfied	3.24	0.61	satisfied

As detailed in Table 6, the overall satisfaction level for academic facilities and resources is interpreted as "Satisfied" for both sectors, with weighted means of 3.09 (S.D. = 0.87) for private HEIs and 3.19 (S.D. = 0.66) for public HEIs. This dimension reflects the lowest overall mean scores compared to the other service pillars. In private institutions, students expressed "Very Satisfied" ratings for conducive learning classrooms (3.39), library facilities (3.38), and study areas (3.36). Public HEIs also achieved "Very Satisfied" ratings in learning classrooms (3.26) and library facilities (3.36), but significantly outperformed the private sector in satisfaction with gym and function halls (3.42) and laboratory facilities (3.30). Conversely, both sectors identified significant deficiencies in digital and physical infrastructure. Internet services received the lowest rating in the entire study for public HEIs, with a mean of 2.96 (Satisfied), while private HEIs also rated it low at 3.12 (Satisfied). Other areas receiving lower satisfaction ratings included CCTV cameras in the public sector (3.01) and computers and printers for academic support in both sectors (Private = 3.19; Public = 3.01).

Table 6

Student satisfaction level with higher education institutions services in terms of academic facilities and resources

2.3. Academic Facilities and Resources	Private			Public		
	Weighted Mean	Standard Deviation	Verbal Description	Weighted Mean	Standard Deviation	Verbal Descriptionn
a. Conducive learning classrooms and facilities	3.39	.563	Very satisfied	3.26	.631	Very satisfied
b. Study areas and lounges	3.36	.621	Very satisfied	3.23	.720	Satisfied
c. Laboratory facilities, equipment, and resources	3.23	.637	Satisfied	3.30	.634	Very satisfied
d. Library facilities, equipment, and learning materials/ resources	3.38	.599	Very satisfied	3.36	.679	Very satisfied
e. ICT Facilities and equipment such as computer rooms	3.32	.609	Very satisfied	3.23	.628	Satisfied
f. Internet Services	3.12	.801	Satisfied	2.96	.715	Satisfied
g. Audio and Visual Room	3.26	.684	Very satisfied	3.11	.622	Satisfied

Table 6
(Continue)

2.3. Academic Facilities and Resources	Private			Public		
	Weighted Mean	Standard Deviation	Verbal Description	Weighted Mean	Standard Deviation	Verbal Description
h. Parking sites and space	3.23	.799	Satisfied	3.18	.652	Satisfied
i. CCTV cameras	3.30	.665	Very satisfied	3.01	.693	Satisfied
j. Computers and printers for academic support and non- academic personnel	3.19	.753	Satisfied	3.01	.670	Satisfied
k. Recreational and Athletic Facilities	3.17	.767	Satisfied	3.25	.592	Satisfied
l. Gym and Function halls	3.09	.869	Satisfied	3.42	.660	Very satisfied
Overall mean	3.09	0.87	Satisfied	3.19	0.66	Satisfied

Table 7 presents student satisfaction ratings for Higher Education Institution (HEI) services under the dimension of institutional environment, procedures, and processes. In the private sector, all indicators achieved "Very Satisfied" ratings, with the highest scores given to security services (3.53) and rules and regulations for admission and shifting (3.43). In the public sector, while the overall interpretation remains "Very Satisfied," two specific indicators fell into the lower "Satisfied" category: security services for peace and order (3.21) and procedures and processes in admission, enrollment, registration, and billing (3.20). These two areas represent the lowest satisfaction ratings within this dimension for public institutions, contrasting with their higher ratings for rules and regulations implementation (3.36) and overall environmental conditions (3.35). Notably, both private and public students rated the services in terms of institutional environment, procedures, and processes with overall means of 3.37 (S.D. = 0.60) and 3.29 (S.D. = 0.62), respectively, which can be interpreted as very satisfactory. Furthermore, the data are concentrated around the means as evidenced by low standard deviation values, suggesting that the responses of students from both private and public HEIs do not vary significantly from each other.

Table 7

Student satisfaction level with higher education institutions services in terms of institutional environment, procedures, and processes

2.4. Institutional Environment, Procedures and Processes	Private			Public		
	Weighted Mean	Standard Deviation	Verbal Description	Weighted Mean	Standard Deviation	Verbal Descriptionn
a. Safety and preparedness against possible risks or hazards such as but not limited to availability of first-aid kit, earthquake drills, evacuation centers, etc.	3.33	.614	Very satisfied	3.35	.574	Very satisfied
b. Gender and development, racial harmony and inclusivity services e.g. stairs and comfort rooms for person with disability, and gender education, sensitivity and tolerance	3.26	.661	Very satisfied	3.26	.629	Very satisfied
d. Security services for peace and order e.g. availability of guards	3.53	.516	Very satisfied	3.21	.685	Satisfied
e. Procedures and processes in admission, enrolment, registration and billing	3.33	.648	Very satisfied	3.20	.644	Satisfied

Table 7
(Continue)

2.4. Institutional Environment, Procedures and Processes	Private			Public		
	Weighted Mean	Standard Deviation	Verbal Description	Weighted Mean	Standard Deviation	Verbal Descriptionn
f. Signage and display signs for admission and enrolment services	3.38	.636	Very satisfied	3.26	.608	Very satisfied
g. Signage and display signs of the procedures and process for billings and other business transactions services	3.36	.632	Very satisfied	3.27	.623	Very satisfied
h. Procedures and processes of requesting and claiming of forms and documents services	3.33	.614	Very satisfied	3.28	.655	Very satisfied
i. Signage and display signs for safety against possible emergencies or hazards.	3.33	.612	Very satisfied	3.29	.650	Very satisfied
j. Rules and regulation implementation for student and employee behavior	3.42	.525	Very satisfied	3.36	.600	Very satisfied
k. Rules and regulation for admission, transferring, and shifting of programs	3.43	.555	Very satisfied	3.35	.586	Very satisfied

Table 7
(Continue)

2.4. Institutional Environment, Procedures and Processes	Private			Public		
	Weighted Mean	Standard Deviation	Verbal Description	Weighted Mean	Standard Deviation	Verbal Descriptionn
l. Overall condition of the college/ university environment	3.39	.563	Very satisfied	3.35	.597	Very satisfied
Overall mean	3.37	0.60	Very satisfied	3.29	0.62	Very satisfied

Significant Difference of Satisfaction Level When Analyzed by Respondent's Profile

Based on the presented data, a statistical analysis reveals a significant difference in the satisfaction levels of students across various groups, including gender, degree program, and scholarship grant. When analyze in terms of sex, the statistical analysis indicates that while there are no significant differences in satisfaction levels regarding support services ($p=0.357$) and input quality ($p=0.212$) between sexes, statistically significant differences do exist in the appraisal of academic resources and facilities ($p=0.002$) and the institutional environment and processes ($p=0.033$). These findings suggest that male and female students perceive the physical and procedural aspects of their institutions with varying degrees of satisfaction. When categorized by degree program, the data reveals statistically significant differences in student satisfaction across support services ($p=0.001$), input quality ($p=0.046$), and academic resources and facilities ($p=0.001$). However, there is no significant difference in how students from different programs perceive the institutional environment and processes ($p=0.135$). This suggests that the nature of the academic curriculum and the specific needs of programs like Hospitality Management versus Accounting influence how students evaluate personnel and facilities.

In terms of scholarship grant, the results show that statistically significant differences in satisfaction levels exist among students with different scholarship statuses (academic, government, or none) specifically regarding support services ($p=0.013$) and academic resources and facilities ($p=0.000$). Conversely, scholarship status does not appear to create significant variations in how students perceive input quality ($p=0.578$) or the institutional environment ($p=0.374$). Analysis based on the type of institution (public vs. private) reveals statistically significant differences in satisfaction levels for support services ($p=0.034$), academic resources and facilities ($p=0.000$), and institutional environment and processes ($p=0.000$). The only dimension where no significant difference was observed between public and private HEI students

was input quality ($p=0.127$), suggesting a consistent perception of faculty competence across both sectors.

Table 8

Significant difference of satisfaction level when analyzed by student's profile

		F	p-value	Interpretation
Sex & Dimensions of HEIs services	Support Services	1.09	0.357	Not Significant
	Input Quality	1.31	0.212	Not Significant
	Academic Resources and Facilities	2.65	0.002	Significant
	Institution Environment, Procedure, Processes	1.95	0.033	Not Significant
Program & Dimensions of HEIs services	Support Services	2.51	0.001	Significant
	Input Quality	1.81	0.046	Significant
	Academic Resources and Facilities	2.88	0.001	Significant
	Institution Environment, Procedure, Processes	1.49	0.135	Not Significant
Scholarship & Dimensions of HEIs services	Support Services	1.95	0.013	Significant
	Input Quality	0.87	0.578	Not Significant
	Academic Resources and Facilities	5.24	0.000	Significant
	Institution Environment, Procedure, Processes	1.08	0.374	Not Significant
HEI Type & Dimensions of HEIs services	Support Services	1.73	0.034	Significant
	Input Quality	1.49	0.127	Not Significant
	Academic Resources and Facilities	6.97	0.000	Significant
	Institution Environment, Procedure, Processes	3.76	0.000	Significant

*** Analysis of Variance

Significant relationship among HEIs' service dimensions

Table 9 presents the results of the Pearson correlation analysis examining the relationships among the four dimensions of Higher Education Institution (HEI) services. A Pearson correlation analysis was performed to examine the interrelationships among the four primary service dimensions: (1) Support Services, (2) Input Quality, (3) Academic Facilities and Resources, and (4) Institutional Environment, Procedures, and Processes. The results demonstrate a statistically significant relationship across all four factors ($p < 0.001$), with strong positive correlations observed among the variables. Specifically, the Institutional Environment, Procedures, and Processes dimension shows the strongest associations, correlating highly with Input Quality ($r = 0.831$) and

Academic Facilities and Resources ($r = 0.829$). Furthermore, Support Services exhibit a robust and statistically significant association with both Institutional Environment ($r = 0.811$) and Input Quality ($r = 0.796$). Finally, a strong positive correlation was identified between Academic Facilities and Resources and Input Quality ($r = 0.771$). These findings suggest that improvements in one service dimension are associated with improvements in the others.

Table 9

Significant relationship among HEIs' service dimensions

	Support Services	Input Quality	Academic Facilities and Resources
Input Quality	*0.796 **0.000		
Academic Facilities and Resources	*0.780 **0.000	*0.771 **0.000	
Institution Environment, Procedures, and Processes	*0.811 **0.000	*0.831 **0.000	*0.829 **0.000

*Pearson correlation coefficient (r)

** P -value. Significant at $p < .05$

Discussion

The demographic profile of the respondents reveals a predominantly female student population (67%), which reflects established higher education enrollment patterns where women often dominate in service-oriented fields such as business and hospitality management. A critical trend identified is the high concentration of students in public institutions (55%), a phenomenon largely driven by the implementation of Republic Act 10931, which provides tuition and fee exemptions. This shift confirms the observations of Saguin (2023) regarding the "de-privatization" and massification of Philippine higher education, where public HEIs have become the primary choice for students, albeit potentially straining institutional resources to accommodate the rapid growth.

The high overall satisfaction levels across both sectors indicate that HEIs in Dipolog and Dapitan cities are effectively meeting students' baseline academic and emotional needs, a finding consistent with the research of Patalinghug et al. (2021). However, the data reveals a disparity between "functional" services and "tangible" infrastructure. While students are "Very Satisfied" with safety and instruction, the lower ratings for internet services (2.96–3.12) and student housing suggest that digital and physical infrastructure are significant bottlenecks in the "Satisfaction Spectrum". As Coskun et al. (2014) highlights, academic facilities are critical because students spend a substantial amount of time interacting with these resources. Consequently,

the high value placed on adequate laboratory and classroom environments, as noted by Mansor et al. (2012), remains a primary determinant of a rewarding university experience in these localized hubs

The Analysis of Variance (ANOVA) results demonstrate that satisfaction is not uniform, but rather significantly influenced by sex, academic program, scholarship status, and HEI type. The finding that sex affects satisfaction with facilities and institutional environments aligns with Harvey et al. (2017), who argue that gender differences play a distinct role in how students perceive the physical campus climate. Furthermore, the specialized requirements of programs like Hospitality Management versus more theoretical tracks lead to varying expectations for personnel and resources. Notably, the unique "consumption" perspectives of students with different scholarship grants support the view of Ortagus et al. (2020) and Banayo et al. (2023) that HEIs must tailor their support mechanisms to meet the diverse academic performance and financial needs of their specific student cohorts.

The strong positive correlations identified across all four service dimension—support services, input quality, facilities, and institutional processes—confirm that student satisfaction is an integrated and mutually reinforcing ecosystem. This "nexus" suggests that improvements in one dimension, such as faculty competence (input quality), will likely lead to a corresponding increase in the perceived value of support services and administrative processes. These findings reinforce the research of Teeroovengadum et al. (2016) and Seitova et al. (2024) regarding the interconnectedness of service dimensions in shaping perceived institutional value. Ultimately, the collective influence of these variables is essential for enhancing service quality, institutional image, and student retention, and Benitez and Testa (2024).

The research results provide strong empirical support for Oliver's Expectancy-Disconfirmation Theory and the Importance-Performance Model. The high levels of student satisfaction—interpreted as "Very Satisfied" across most dimensions in both public and private HEIs—validate the theory that satisfaction is a direct consequence of an institutional performance that meets or exceeds student expectations. Specifically, the Satisfaction Framework (Facility Model) is confirmed by the data showing that tangible academic facilities are primary determinants of the student experience; the lower satisfaction ratings for "tangible" elements like internet services (2.96–3.12) and student housing directly lowered the overall mean for those dimensions, proving that physical resources significantly shape the "Satisfaction Spectrum". Furthermore, the statistically significant relationships ($p < 0.001$) found among all four service dimensions confirm the theoretical "nexus," suggesting that these variables function as a mutually reinforcing ecosystem rather than isolated components.

Despite these confirmations, the study identifies a notable theoretical gap regarding the influence of "functional services." While this research found a strong correlation between all dimensions and satisfaction, Teeroovengadum et al. (2019) argue that functional services may not consistently influence satisfaction because students' perceptions change as they progress through their studies. Since this study focused specifically on 4th-year students, there is a need

for further validation through longitudinal research to determine if these satisfaction levels remain stable or shift across different year levels. Additionally, a contextual gap exists regarding the "massification" of public HEIs following the implementation of Republic Act 10931. The study found that public institutions recorded lower satisfaction in areas like personnel adequacy and administrative responsiveness, suggesting that the influx of students is straining traditional service models. This highlights a need for further validation of how "Universal Access" policies impact long-term service quality and whether the established Expectancy-Disconfirmation baselines for students in the public sector are being permanently altered by high-volume enrollment

Conclusion and Implication

The study revealed that female students, particularly those enrolled in hospitality management programs, dominate the student population. Moreover, the majority of students are enrolled in public higher education institutions due to the exemption from tuition and fees provided by Republic Act 10931. While both private and public institutions exhibited high levels of student satisfaction across various aspects of support services, private institutions achieved a slightly higher level of satisfaction, particularly in administrative responsiveness. A critical finding, however, is that both sectors exhibit a relative dip in satisfaction regarding the "tangible" elements of the student experience. Specifically, student housing, residential services, and food services consistently received lower mean scores compared to academic and safety dimensions. These results underscore that while HEIs excel in pedagogical and instructional delivery, they face challenges in maintaining the quality of basic amenities and digital infrastructure, such as internet services.

Furthermore, both types of institutions are receiving highly satisfied ratings with the institutional environment, procedures, and processes. However, public students expressed concerns about security services and processes in admission, enrollment, registration, and billing. The study confirms that student satisfaction is not a monolithic experience; instead, it is significantly influenced by a student's sex, academic program, scholarship status, and type of HEI. The significant differences found across these profiles invalidate a "one-size-fits-all" administrative approach. Finally, the strong positive correlations identified among all four service pillars—Support Services, Input Quality, Academic Facilities, and Institutional Processes—reveal a holistic service ecosystem. This "nexus" implies that satisfaction is the result of mutually reinforcing factors where the efficiency of one dimension, such as an institutional process, fundamentally shapes the perceived value of another, such as faculty competence

Based on the conclusions, the following are the implication and recommendations,

1. Institutions must immediately prioritize a comprehensive review of the quality and adequacy of food services and student housing. Given that these areas reflect the lowest levels of satisfaction, stakeholders should invest in modernizing cafeterias and residential facilities to ensure they meet the safety and cleanliness standards expected by the 21st-century student.

2. Rather than applying a uniform administrative approach, HEIs should develop tailored support mechanisms that respond to the specific needs of different student groups. For instance, administrators should create specialized resource allocations for high-demand programs like Hospitality and Accounting, while also designing specific support tracks for non-scholars to enhance their academic persistence and overall institutional experience.

3. Because service dimensions are highly correlated, HEIs must avoid addressing departments in isolation. Stakeholders are encouraged to adopt an integrated improvement approach where enhancements in physical facilities are strategically synchronized with faculty training and administrative process streamlining. This synergy ensures that an investment in one area maximizes the perceived quality across the entire institutional spectrum.

4. There remains a critical need to bridge the theoretical gap regarding the long-term influence of functional services on satisfaction. Future research should utilize longitudinal designs to validate if the satisfaction levels of 4th-year students remain stable or evolve, thereby testing the conflicting view that functional services might not influence long-term satisfaction as students progress. Practically, policymakers should assess the long-term impact of RA 10931 on the service capacity of public HEIs to ensure that "massification" does not lead to a permanent decline in personnel responsiveness and facility adequacy

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