

Service Quality of Private Higher Educational Institutions in Kabankalan City as a Determinant of Student Retention

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Abstract. Research on service quality in higher education has rarely focused on component cities, such as Kabankalan, in Negros Occidental. Although strategically situated as a business and trade hub in the Negros Island Region, Kabankalan ranks low in school service capacity, with only 2.53 percent of higher education students in the province enrolled in the private higher educational institutions (HEIs) in the city. This study assessed service quality as a determinant of student retention in private HEIs in Kabankalan using the SERVQUAL model, which includes tangibility, reliability, responsiveness, assurance, and empathy. A total of 361 first- and second-year students from three private HEIs were surveyed through convenience sampling. The findings revealed that overall service quality has a significant impact on student retention ($p < .001$). Among the dimensions, only empathy and tangibility were significant determinants ($p < .001$). Interestingly, although responsiveness received the highest expectation ($M = 6.27$) and perception scores ($M = 6.18$), it had no significant impact on retention ($p = .781$). The study recommends implementing quality management systems focused on student-centered communication, emotional support, and facility upgrades to address service gaps in empathy and tangibility. This research serves as a baseline for further studies on the long-term effects of service quality in private HEIs within component cities like Kabankalan.

Keywords: Kabankalan City; Private higher educational institutions; Service quality; SERVQUAL model; Student retention.

1.0 Introduction

The American Society for Quality defines quality as the sum of a product or service's attributes that affect its capacity to meet explicit or implicit needs (Kotler & Keller, 2016). In the service industry, customer satisfaction, which results from comparing perceived performance with expectations, plays an important role in evaluating service quality. One of the most widely adopted frameworks for this evaluation is the SERVQUAL gap model, developed by Parasuraman et al. (1985), which conceptualizes service quality across five dimensions: tangibility, reliability, assurance, responsiveness, and empathy.

In the context of educational services, particularly in higher education, service quality has been closely associated with student satisfaction and retention. As private higher education institutions (HEIs) face increasing competition and shifting student expectations, delivering exceptional service quality becomes not only a differentiating factor but also a strategic imperative for sustaining enrollment and improving retention rates

(Eresia-Eke et al., 2020). Considering the importance of student retention, it is crucial for institutions to assess and understand students' expectations and perceptions continually. Gaps often arise between what students expect and what they experience, underscoring the importance of continuous evaluation and improvement (Cayanan, 2017).

While service quality and satisfaction are closely linked, they remain distinct concepts. Brucal et al. (2022) highlighted this distinction by asserting that satisfaction is not merely a direct consequence of service quality. For instance, Tegowati et al. (2020) found that satisfaction is a necessary intermediary between service quality and student retention. This perspective is echoed by Chandra et al. (2018) and Annamdevula and Bellamkonda (2016), who demonstrated that measuring service quality without also measuring student satisfaction was ineffective in increasing student retention.

However, other studies suggest that service quality may have a more direct impact on student retention. Institutions that consistently deliver high-quality services tend to achieve higher levels of student satisfaction and retention (Rahman et al., 2024). Thai and Alang (2024) emphasized that satisfied students are more likely to remain at their current institutions. Omar and Mustafa (2020) reported that service quality directly affects students' decisions to remain enrolled. Likewise, Kabasinguzi et al. (2024) concluded that high-quality services can simultaneously generate immediate satisfaction and long-term retention. These findings are further supported by Borishade et al. (2021) and Trisela and Hermanto (2022), who emphasized that when students' expectations are met or exceeded, they are more likely to stay, emphasizing a more direct relationship between service quality and retention.

This study focused on private HEIs in Kabankalan City due to the limited literature on the direct relationship between service quality and student retention, particularly in Southern Negros. Despite its strategic location as a business and trade hub in the Negros Island Region, Kabankalan City ranks 93rd among 114 component cities in the Philippines in terms of school service capacity (DTI, 2023). Of the 107,408 HEI enrollees in Negros Occidental during AY 2021–2022, only 6.83 percent (7,341 students) were enrolled in Kabankalan City, with just 2,718 in private HEIs (CHED, 2023).

This study assessed service quality in private HEIs as a determinant of student retention, focusing on the five key dimensions of service quality: tangibility, reliability, assurance, responsiveness, and empathy, with a particular focus on identifying which dimensions most significantly influence student retention. It assessed students' expectations, perceptions, and overall service quality levels using SERVQUAL gap analysis, identifying significant differences in expectations, perceptions, and overall service quality based on demographic profiles (age, sex, year level, school) and socio-economic profiles (household income, household size, locality). The findings aimed to provide strategic recommendations for enhancing service quality and improving student retention.

This study was conducted in private HEIs in Kabankalan City to assess service quality as a determinant of student retention. Participants were legal-age first- and second-year students enrolled in a bachelor's program during A.Y. 2024–2025. Junior and senior students, as well as those in public HEIs, were excluded – the focus on early-year students aimed to capture initial experiences shaping perceptions of service quality and retention decisions. Data was collected from 361 students across three private HEIs between September 4 and September 23, 2024.

This study is grounded in the Expectation-Disconfirmation Theory (Oliver, 1980) and the Service Quality Gap Model (Parasuraman et al., 1985). Expectation Disconfirmation Theory posits that satisfaction results from comparing expectations with actual performance, with positive disconfirmation enhancing satisfaction and negative disconfirmation leading to dissatisfaction. The SERVQUAL model assesses service quality gaps across the five dimensions, enabling institutions to identify and address deficiencies.

The conceptual framework for this study, as illustrated in Figure 1, began by identifying the profile variables of the participants, including age, sex, year level, school, household income, household size, and locality. The next step involved assessing the levels of expectation and perception for each of the five SERVQUAL dimensions. In this context, perception is derived from the actual experiences of students currently enrolled in the educational institution. On the other hand, expectation represents the students' preconceived standards or what they hoped the institution would deliver prior to enrollment. The gap between the level of expectation and perception provides a measure of overall service quality, which is then correlated with student retention.

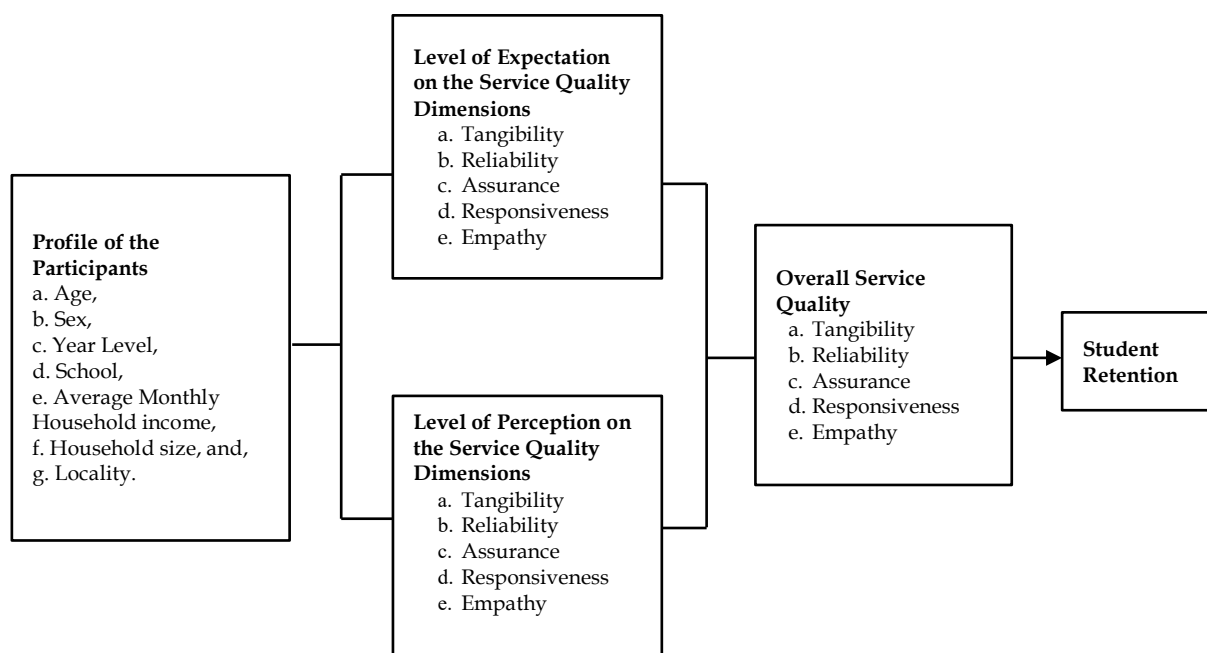


Figure 1. Schematic Diagram of the Conceptual Framework

2.0 Methodology

2.1 Research Design

This study aimed to evaluate the service quality of private higher educational institutions in Kabankalan City as a factor influencing student retention. This study adopted a descriptive-correlational design integrated with regression analysis to achieve several objectives: to profile students, assess their expectations and perceptions of service quality, determine the service quality gaps, and evaluate the role of service quality and its dimensions as determinants of student retention in private HEIs.

2.2 Research Participants

The research was conducted with first-year and second-year students of legal age who have enrolled in a bachelor's program at private HEIs in Kabankalan City in A.Y. 2024-2025, within which a sample was drawn from the total population of 3,735 students from three private HEIs in Kabankalan City. For this study, the researcher used the names "School A," "School B," and "School C" to maintain the confidentiality of the information acquired. Using Slovin's Formula at a 95% confidence level and a 0.05 margin of error, the required sample size was 361 students, based on second-semester A.Y. 2023-2024 enrollment data. Proportionate stratified sampling allocated participants to the following schools: School A (110 students, 30.36%), School B (185 students, 51.35%), and School C (66 students, 18.29%). This study used a convenience sampling method to collect the samples from each HEI. A similar process was employed in Cayanan's (2017) study, where participants were selected on a non-probability basis.

2.3 Instrument

The SERVQUAL scale originally consisted of 22 questions measuring five SERVQUAL dimensions. SERVQUAL is a universal model that can be adapted across various service organizations (Parasuraman et al., 1988; Patel, 2016). The questionnaire for this study comprises four sections. The first section collects demographic and socio-economic data, including age, sex, year level, school, household income, household size, and locality. The second part, "Level of Expectation," and the third part, "Level of Perception," were adapted from the original SERVQUAL instrument by Parasuraman et al. (1988) and further modified by Oliveira and Ferreira (2009) and Eresia-Eke et al. (2020) for higher education settings. These sections contain 20 identical statements measuring the students' expected and perceived service quality. The fourth section, "Level of Retention," includes a four-item scale adapted from Eresia-Eke et al. (2020), with permission from the authors. The questionnaire was pre-tested with 30 students, demonstrating strong internal reliability (Cronbach's alpha: expectation = 0.84, perception = 0.89, retention = 0.78, overall = 0.90), with all values exceeding the 0.70 threshold, indicating that the items were reliable.

measures of the constructs. Following the methodology of Sari (2023), a confirmatory factor analysis was conducted to validate the instrument further. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.94, surpassing the acceptable threshold of 0.50. Bartlett's Test of Sphericity was significant ($\chi^2 = 8966.17$ [$df = 946$], $p < .001$), indicating sufficient correlations among variables for factor analysis.

2.4 Data-Gathering Procedures

An agency consent letter was sent to school administrators outlining recruitment and data gathering procedures. Data collection was conducted in person on school premises only after obtaining Ethics Clearance and administrative approval, ensuring compliance with ethical policies. School administrators then designated faculty or staff to assist. Surveys were administered in designated areas, with guidance on questionnaire sections covering demographics, service quality expectations, perceptions, and likelihood of retention. Data collection took place within three weeks from September 4 to 23, 2024.

2.5 Data Analysis

After data collection, the results were organized and processed using both Microsoft Excel and the Statistical Package for Social Sciences (SPSS). The data were analyzed using both descriptive and inferential statistics. Descriptive statistics, including frequency distribution, mean, percentage, and standard deviation, were employed to summarize the demographic profile of participants as well as the levels of expectation, perception, and student retention. Using the SERVQUAL methodology, a gap analysis was conducted to assess overall service quality, calculated by subtracting the total mean expectation score from the total mean perception score:

$$\text{Overall Service Quality} = \text{Level of Perception (SP)} - \text{Level of Expectation (SE)}$$

Equation 1

Inferential statistical analyses included t-tests, ANOVA, and both simple and multiple linear regression. T-tests were used to examine significant differences in expectation, perception, and retention levels based on profile variables, including age, sex, year level, and locality. ANOVA was used to evaluate differences according to school, household size, and average household income categories. Simple linear regression was utilized to assess whether overall service quality predicted student retention. Multiple regression analysis was conducted to determine whether the SERVQUAL dimensions significantly influenced student retention. SPSS software was used for all statistical computations.

2.6 Ethical Considerations

The study underwent extensive ethics review prior to data collection to ensure that it adhered to research protocols and ethical standards. The SERVQUAL questionnaire, widely used across service organizations, has been adapted multiple times for the higher education setting. This adaptation, made with the author's permission, includes their modifications for assessing student retention. Before participating, students received an informed consent form outlining the purpose of the study, the voluntary nature of participation, and the option to withdraw. Confidentiality and anonymity were assured, with responses de-identified, securely stored, and used solely for this research. Strict adherence to institutional and health protocols, including those mandated by the Department of Health and HEIs, ensured participant safety and minimized health risks.

3.0 Results and Discussion

3.1 Profile of Students

The study employed a frequency distribution to analyze the participants' profiles. Frequency distributions were used to rank the data in tables from highest to lowest frequency. As shown in Table 1, age was categorized as 18 years old and above. Sex was categorized into Male and Female. For the year level, there are two categories: First Year and Second Year. To categorize the locality or hometown, the researcher has narrowed the categories to Kabankalan City and Outside Kabankalan City. Schools covered the three private HEIs in Kabankalan City. For this study, the participants are categorized into three groups: School A, B, and C. The average monthly household income is categorized into four ranges: 10,000 and below, 10,001-20,000, 20,001-30,000, and 30,001 and above. Finally, household size is categorized into three groups based on the number of members: less than five members, 6-10 members, and those with more than 10 members. This study collected data from 361 first- and second-year students. The majority (64.54%) are 19 years old and above, and there is a higher representation of females (62.88%). Over half of the students (51.25%) are from School B. Most students are in their first year (65.10%), with a significant portion (74.79%) residing in Kabankalan City. In terms of socio-economic profiles, more than half (56.79%) belong to households with an average monthly income of 10,000 and below, while most students come

from families with 5–10 members (51.52%).

Table 1. Frequency and percentage distribution of student participants according to profile

Profiles	Frequency	Percentage
Age		
18 years old	128	35.46
19 years old and above	233	64.54
Sex		
Male	134	37.12
Female	227	62.88
School		
School A	110	30.47
School B	185	51.25
School C	66	18.28
Year Level		
First Year	235	65.10
Second Year	126	34.90
Locality		
Kabankalan City	270	74.79
Outside Kabankalan City	91	25.21
Average monthly household income		
10,000 and below	205	56.79
10,001 – 20,000	92	25.48
20,001 – 30,000	34	9.42
30,001 and above	30	8.31
Household size		
Less than 5 members	165	45.71
5 – 10 members	186	51.52
More than 10 members	10	2.77

3.2 Level of Expectation of Students

This section highlights student expectations or the “should-be” service quality of the private HEIs. The level of expectation among students varies based on their demographic and socioeconomic profiles.

Table 2. Level of expectation on SERVQUAL dimensions of students according to profile

Categories	Tangibility	Reliability	Responsiveness	Assurance	Empathy
Age					
18 years old	6.32	6.08	6.29	6.14	6.21
19 years old and above	6.16	5.98	6.23	5.97	6.06
Sex					
Male	6.07	5.97	6.15	5.94	6.06
Female	6.30	6.04	6.31	6.08	6.15
School					
School A	6.34	6.03	6.31	6.09	6.13
School B	6.06	5.92	6.15	5.92	6.06
School C	6.44	6.25	6.44	6.23	6.26
Year Level					
First Year	6.16	6.00	6.23	6.01	6.09
Second Year	6.32	6.04	6.28	6.07	6.17
Locality					
Kabankalan City	6.17	5.96	6.22	6.01	6.07
Outside Kabankalan City	6.36	6.17	6.34	6.10	6.26
Average monthly household income					
10,000 and below	6.11	5.93	6.16	5.90	6.07
10,001 – 20,000	6.38	6.19	6.37	6.13	6.13
20,001 – 30,000	6.37	5.98	6.29	6.46	6.09
30,001 and above	6.29	6.11	6.48	6.13	6.22
Household size					
Less than 5 members	6.12	6.00	6.20	6.14	6.09
5 – 10 members	6.31	6.04	6.31	5.96	6.15
More than 10 members	6.05	5.80	6.03	5.63	5.93
Overall average	6.24	6.03	6.27	6.05	6.12

Overall, Responsiveness was the most prioritized dimension ($M = 6.27$), aligning with Parasuraman et al. (1988),

who emphasized its importance in the SERVQUAL model, and consistent with Stankovska et al. (2024), who also found that responsiveness had the highest expectation. Reliability received the lowest expectation rating overall ($M = 6.03$), consistent with Cayan (2017), who noted that students place less importance on this dimension for a satisfying school experience. As shown in Table 2, when grouped by profile, the results revealed that students had high expectations for tangibility, especially among 18-year-olds ($M = 6.32$), female students ($M = 6.30$), and students from School C ($M = 6.44$). Second-year students ($M = 6.32$) and those living outside Kabankalan ($M = 6.36$) also rated this dimension highly. Students from households earning between \$ 10,001 and \$ 20,000 and those with larger households (5–10 members) also reported higher expectations. The highest expectation of reliability was recorded among School C students ($M = 6.25$) and students from households with an income of \$ 10,001–\$ 20,000 ($M = 6.18$).

Expectations for responsiveness were highest among 18-year-olds ($M = 6.29$), female students ($M = 6.31$), and students from School C ($M = 6.44$). Second-year students ($M = 6.28$), students outside Kabankalan ($M = 6.34$), and those from lower-income and larger households also rated this dimension highly. In terms of assurance, expectations were highest among students from households with an income of \$ 20,001–\$ 30,000 ($M = 6.46$). Students from outside Kabankalan ($M = 6.10$) and those from families with fewer than five members ($M = 6.14$) also reflected high expectations in this dimension. Higher expectations for empathy were seen in 18-year-olds ($M = 6.21$), female students ($M = 6.15$), and students from households with 5–10 members ($M = 6.15$). The results indicate that expectations vary across demographic profiles of students, with consistently higher expectations observed among younger students (18-year-olds), females, and those from School C, particularly in terms of tangibility, responsiveness, and empathy. The results suggest these groups have higher expectations of the physical environment and interpersonal aspects of service quality. Income level and household size also influenced expectations, highlighting the need for more tailored service improvements based on students' backgrounds.

3.3 Level of Perception of Students

This section highlights the students' experience of the service received from the higher educational institution in which they are currently enrolled. The level of perception among students varies based on their demographic and socioeconomic profiles. As shown in Table 3, overall, responsiveness remains the most prioritized dimension ($M = 6.18$), while reliability received the lowest rating ($M = 6.00$).

Table 3. Level of expectation on SERVQUAL dimensions of students according to profile

Categories	Tangibility	Reliability	Responsiveness	Assurance	Empathy
Age					
18 years old	6.24	6.05	6.26	6.04	6.06
19 years old and above	6.12	5.99	6.14	5.98	6.05
Sex					
Male	6.06	5.90	6.10	5.89	5.99
Female	6.22	6.08	6.23	6.06	6.09
School					
School A	6.02	5.86	6.09	6.04	5.95
School B	6.14	6.03	6.15	5.91	6.02
School C	6.48	6.20	6.43	6.18	6.33
Year Level					
First Year	6.19	6.03	6.21	5.97	6.02
Second Year	6.11	5.99	6.12	6.05	6.12
Locality					
Kabankalan City	6.10	5.96	6.15	5.88	6.00
Outside Kabankalan City	6.35	6.16	6.28	6.35	6.22
Average monthly household income					
10,000 and below	6.15	6.01	6.17	5.99	6.06
10,001 – 20,000	6.23	6.07	6.26	6.04	6.08
20,001 – 30,000	6.13	5.94	6.11	5.97	5.99
30,001 and above	6.12	5.93	6.12	5.94	6.06
Household size					
Less than 5 members	6.14	6.01	6.17	6.10	6.04
5 – 10 members	6.20	6.03	6.20	5.93	6.10
More than 10 members	5.90	5.68	6.10	5.60	5.55
Overall average	6.16	6.00	6.18	6.00	6.04

As shown in Table 3, when grouped by profile, the results revealed that the highest perceptions of tangibility were rated by 18-year-olds ($M = 6.24$), female students ($M = 6.22$), and School C students ($M = 6.48$). Students outside Kabankalan ($M = 6.35$) and those from households with an income of 10,001–20,000 ($M = 6.23$) also rated it high, while students from School A ($M = 6.10$) and those from households with over 10 members ($M = 5.90$) rated it lowest. School C students reported higher reliability ($M = 6.20$), while School A gave the lowest score ($M = 5.86$). More favorable perceptions were reported by students from lower-income households ($M = 6.07$) and medium-sized households ($M = 6.03$); however, students from large households ($M = 5.67$) and higher-income groups ($M = 5.92$) gave lower ratings.

Responsiveness was the most consistently high-rated dimension with 18-year-olds ($M = 6.26$), female students ($M = 6.23$), and School C students ($M = 6.43$) rated it highest. Students from outside Kabankalan ($M = 6.28$) and those from households with an income of 10,001–20,000 ($M = 6.26$) also had strong perceptions of responsiveness. In terms of assurance, students from outside Kabankalan reported the highest assurance perception ($M = 6.35$), while those within the city rated it lower ($M = 5.88$). School C students showed favorable scores ($M = 6.17$), with lower ratings observed among large households of more than 10 members ($M = 5.60$). The highest empathy was perceived by School C students ($M = 6.33$), while the lowest was reported by students from households with more than 10 members ($M = 5.55$) and those from School A ($M = 5.95$).

The analysis reveals that students from School C, specifically 18-year-old female students and those residing outside Kabankalan, consistently reported higher perceptions across most service quality dimensions, particularly in tangibility, responsiveness, and empathy. In contrast, students from School A, those from larger households, and those from higher-income groups tended to give lower ratings, indicating potential gaps in their service experience and highlighting the importance of addressing disparities based on school affiliation, location, and family background.

3.4 Overall Level of Service Quality Dimensions (Gap Analysis)

This section highlights the gap between students' expectations and perceptions of service quality dimensions. The overall quality gap score refers to the total mean perceptions score (SP) minus the total mean expectations score (SE). The SERVQUAL gap analysis in Table 4 reveals that negative gaps dominate across dimensions, where perception exceeded expectations, resulting in an overall negative gap of -0.07. A negative gap score indicates that the actual service (the Perceived score) was less than expected (the Expectation score). The highest gap was in responsiveness (-0.09), while reliability had the smallest gap (-0.03). However, the results are in contrast with Cayan's (2017) study, wherein there is high dissatisfaction with the reliability dimension, and the schools have failed to meet the students' expectations in this regard.

Table 4. Overall SERVQUAL Gap Scores

Dimension	Perception (SP)	Expectation (SE)	Gap Score (SP - SE)
Tangibility	6.16	6.24	-0.08
Reliability	6.00	6.03	-0.03
Responsiveness	6.18	6.27	-0.09
Assurance	6.00	6.05	-0.05
Empathy	6.04	6.12	-0.08
Overall average	6.08	6.14	-0.07

When grouped according to profile, as shown in detail in Table 5, the results revealed that tangibility had the most significant negative gaps among second-year students (-0.21), households earning \$ 20,001–\$ 30,000 (-0.24), and School A students (-0.32), indicating dissatisfaction with physical facilities. In contrast, first-year students (0.03) and School B students (0.07) reported positive gaps, indicating that their perceptions of tangibility exceeded their expectations. Negative gaps in reliability were observed among higher-income households (-0.18) and second-year students (-0.05), indicating concerns with service dependability. Higher-income households (those with incomes of \$ 30,001 and above) and second-year students showed negative gaps of -0.37 and -0.16, respectively, in responsiveness, indicating delays and a lack of prompt assistance. The results of School B on responsiveness indicate that their expectations are being met. Notably, there is also no gap in expectations and perceptions on reliability for those residing in Kabankalan. Students from outside Kabankalan City reported a positive gap (0.25) on assurance, suggesting strong confidence in staff competence and courtesy. The most significant negative gap of -0.38 in empathy was observed among larger families (with more than 10 members), highlighting a perceived lack of personalized care for the students.

Table 5. Overall SERVQUAL Gaps according to profile

	Tangibility	Reliability	Responsiveness	Assurance	Empathy
Age					
18 years old	-0.08	-0.04	-0.04	-0.1	-0.15
19 years old and above	-0.03	0.01	-0.09	0.01	-0.01
Sex					
Male	-0.01	-0.07	-0.05	-0.04	-0.06
Female	-0.08	0.03	-0.08	-0.02	-0.06
School					
School A	-0.32	-0.17	-0.22	-0.05	-0.18
School B	0.07	0.11	-	-0.02	-0.04
School C	0.05	-0.05	-0.02	-0.05	0.06
Year Level					
First Year	0.03	0.02	-0.02	-0.04	-0.07
Second Year	-0.21	-0.05	-0.16	-0.01	-0.06
Locality					
Kabankalan City	-0.07	-	-0.07	-0.13	-0.07
Outside Kabankalan City	-0.01	-0.01	-0.07	0.25	-0.04
Average monthly household income					
10,000 and below	0.04	0.08	0.01	0.09	-0.01
10,001 – 20,000	-0.14	-0.12	-0.11	-0.09	-0.06
20,001 – 30,000	-0.24	-0.04	-0.18	-0.49	-0.1
30,001 and above	-0.18	-0.18	-0.37	-0.18	-0.16
Household size					
Less than 5 members	0.02	0.01	-0.04	-0.03	-0.06
5 – 10 members	-0.11	-0.01	-0.11	-0.03	-0.05
More than 10 members	-0.15	-0.13	0.08	-0.03	-0.38
Overall average	-0.08	-0.03	-0.09	-0.05	-0.08

3.5 Level of Retention of Students

This section highlights the level of student retention when grouped according to demographic and socio-economic profiles. As shown in Table 6, the overall average retention level has a mean of 6.14 across the demographic and socio-economic profile.

Table 6. Level of student retention according to profile

Categories	Mean
Age	
18 years old	6.19
19 years old and above	6.16
Sex	
Male	6.14
Female	6.18
School	
School A	6.07
School B	6.19
School C	6.26
Year Level	
First Year	6.23
Second Year	6.06
Locality	
Kabankalan City	6.15
Outside Kabankalan City	6.22
Average monthly household income	
10,000 and below	6.17
10,001 – 20,000	6.17
20,001 – 30,000	6.06
30,001 and above	6.28
Household size	
Less than 5 members	6.17
5 – 10 members	6.19
More than 10 members	5.68
Overall Average	6.14

Among age groups, 18-year-old students had the highest retention level ($M = 6.19$), while those aged 19 and above had the lowest ($M = 6.16$). School C recorded the highest retention level ($M = 6.26$), whereas School A had the lowest ($M = 6.07$). First-year students exhibited the highest retention level ($M = 6.23$), while second-year students reported the lowest ($M = 6.06$). Students residing outside Kabankalan City had a higher retention level ($M = 6.22$) than those living in the city ($M = 6.15$). Additionally, location-based differences suggest that those residing in Kabankalan City and outside may have unique needs that institutions must address to enhance overall retention.

Retention was also highest among students from households earning \$ 30,001 and above ($M = 6.28$) and lowest among those earning \$ 20,001–\$ 30,000 ($M = 6.06$). Regarding household size, students from families with 5–10 members had the highest retention rate ($M = 6.19$), whereas those from families with more than 10 members had the lowest ($M = 5.68$). Retention levels varied across demographic and socio-economic profiles, with the highest scores observed among 18-year-olds, School C students, first-year enrollees, those living outside Kabankalan City, higher-income households (30,001 and above), and families with 5–10 members, indicating that age, school, year level, location, income, and household size influence student retention.

3.6 Significant Differences in the Level of Expectation

The analysis of students' expectations across service quality dimensions revealed several significant differences related to demographic factors. As shown in Table 7, age, year level, and household size did not reveal any significant differences in students' expectations across the five service quality dimensions.

Table 7. Significant difference in the level of expectation on service quality

Categories	Tangibility		Reliability		Responsiveness		Assurance		Empathy	
	p	Int.	p	Int.	p	Int.	p	Int.	p	Int.
Age	.093	Not sig.	.277	Not sig.	.426	Not sig.	.214	Not sig.	.090	Not sig.
Sex	.026	Sig.	.448	Not sig.	.090	Not sig.	.287	Not sig.	.325	Not sig.
School	.004	Sig.	.024	Sig.	.016	Sig.	.215	Not sig.	.203	Not sig.
Year Level	.081	Not sig.	.705	Not sig.	.559	Not sig.	.682	Not sig.	.360	Not sig.
Locality	.075	Not sig.	.041	Sig.	.187	Not sig.	.535	Not sig.	.046	Sig.
Average monthly household income	.076	Not sig.	.103	Not sig.	.046	Sig.	.081	Not sig.	.499	Not sig.
Household size	.128	Not sig.	.639	Not sig.	.291	Not sig.	.252	Not sig.	.608	Not sig.

Note: Int. – Interpretation; Sig. – Significant; Not sig. – Not Significant

Sex influenced expectations in tangibility ($p = .026$), indicating differences in how male and female students rate the physical aspects of service quality. Schools had a significant difference in tangibility ($p = .004$), reliability ($p = .024$), and responsiveness ($p = .016$), showing that students from different institutions have varying expectations regarding facilities, dependability, and prompt service. The average monthly household income influenced expectations of responsiveness ($p = .046$), indicating that socioeconomic status plays a role in students' anticipation of prompt service and assistance.

Post hoc analysis on Table 8 revealed that students from School B had significantly higher expectations in tangibility than those from School A ($p = .028$) and School C ($p = .011$). Additionally, School B students had significantly higher expectations in reliability than School C ($p = .018$) and in responsiveness compared to School C ($p = .019$). Locality affected expectations in reliability ($p = .041$) and empathy ($p = .046$), suggesting that students from different areas have different views on dependability and emotional support from their institution.

Table 8. Significant Post Hoc Test Results on Level of Expectation (Tukey HSD)

Significant Dimension	Comparison	Mean Difference	Standard Deviation	P-value
Tangibility	School A vs School B	.28	.11	.03
	School A vs School C	.37	.13	.01
Reliability	School B vs School C	.32	.12	.02
Responsiveness	School B vs School C	.30	.11	.02

3.7 Significant Differences in the Level of Perception

The analysis of students' perceptions across service quality dimensions revealed several significant relationships with demographic factors. As shown in Table 9 below, age, sex, year level, average household income, and household size did not exhibit any significant relationships with students' perceptions, indicating a consistent evaluation of service quality across these factors.

Table 9. Significant difference in the level of expectation on service quality

Categories	Tangibility		Reliability		Responsiveness		Assurance		Empathy	
	p	Int.	p	Int.	p	Int.	p	Int.	p	Int.
Age	.145	Not sig.	.567	Not sig.	.135	Not sig.	.640	Not sig.	.876	Not sig.
Sex	.052	Not sig.	.094	Not sig.	.152	Not sig.	.208	Not sig.	.317	Not sig.
School	.000	Sig.	.032	Sig.	.008	Sig.	.279	Not sig.	.009	Sig.
Year Level	.332	Not sig.	.665	Not sig.	.262	Not sig.	.531	Not sig.	.308	Not sig.
Locality	.004	Sig.	.050	Not sig.	.142	Not sig.	.001	Sig.	.026	Sig.
Average monthly household income	.762	Not sig.	.802	Not sig.	.667	Not sig.	.978	Not sig.	.958	Not sig.
Household size	.145	Not sig.	.567	Not sig.	.135	Not sig.	.640	Not sig.	.876	Not sig.

Note: Int. - Interpretation; Sig. - Significant; Not sig. - Not Significant

Schools significantly influenced perceptions of tangibility ($p < .001$), reliability ($p = .032$), responsiveness ($p = .008$), and empathy ($p = .009$), suggesting that students from different institutions evaluated these dimensions differently. Locality significantly influenced perceptions of tangibility ($p = .004$), assurance ($p = .001$), and empathy ($p = .026$), indicating that students from different geographic locations had varying evaluations of physical facilities, confidence in the institution, and emotional support from staff.

Post hoc analysis on Table 10 showed that students from School C had significantly higher perceptions of tangibility than those from School A ($p < .001$) and School B ($p = .002$). In terms of reliability, School C was rated significantly higher than School A ($p = .027$). In responsiveness, School C received significantly higher ratings compared to School A ($p = .008$) and School B ($p = .019$). For empathy, School C students also gave significantly higher ratings than those from School A ($p = .009$) and School B ($p = .023$).

Table 10. Significant Post Hoc Test Results on Level of Perception (Tukey HSD)

Dimension	Comparison	Mean Difference	Standard Deviation	P-value
Tangibility	School A vs School C	.46	.11	< .001
	School B vs School C	-.35	.10	.002
Reliability	School A vs School C	-.34	.13	.027
	School A vs School C	-.34	.11	.008
Responsiveness	School B vs School C	-.28	.10	.019
	School A vs School C	-.37	.13	.009
Empathy	School A vs School C	-.31	.12	.023
	School B vs School C	-.31	.12	.023

3.8 Significant Difference in the Overall Service Quality Dimensions

The analysis of overall service quality revealed several significant differences with demographic factors. As shown in Table 11, age, sex, and household size did not show any significant differences, indicating that students across these groups evaluated service quality similarly. Schools significantly influenced perceptions of tangibility ($p = .001$), reliability ($p = .010$), and responsiveness ($p = .007$), suggesting that students from different institutions had varying assessments of these service quality dimensions.

Table 11. Significant difference in the overall level of service quality

Categories	Tangibility		Reliability		Responsiveness		Assurance		Empathy	
	p	Int.	p	Int.	p	Int.	p	Int.	p	Int.
Age	.616	Not sig.	.570	Not sig.	.429	Not sig.	.477	Not sig.	.074	Not sig.
Sex	.468	Not Sig.	.272	Not sig.	.615	Not sig.	.905	Not sig.	.999	Not sig.
School	.001	Sig.	.010	Sig.	.007	Sig.	.976	Not sig.	.059	Not Sig.
Year Level	.016	Sig.	.371	Not sig.	.063	Not sig.	.867	Not sig.	.904	Not sig.
Locality	.004	Sig.	.050	Not Sig.	.142	Not sig.	.001	Sig.	.026	Sig.
Average monthly household income	.180	Not sig.	.109	Not sig.	.007	Sig.	.138	Not sig.	.442	Not sig.
Household size	.431	Not sig.	.851	Not sig.	.390	Not sig.	1.000	Not sig.	.358	Not sig.

Note: Int. - Interpretation; Sig. - Significant; Not sig. - Not Significant

As shown above, locality had significant differences on tangibility ($p = .004$), assurance ($p = .001$), and empathy ($p = .026$), indicating that students from different geographic areas evaluated these aspects differently. Additionally, year level showed a significant difference in tangibility ($p = .016$), suggesting that perceptions of facilities varied with academic progression. Responsiveness also varied significantly by household income ($p = .007$), reflecting differences in expectations based on socioeconomic background.

Post hoc analysis of Table 12 below indicated that students from School A rated tangibility significantly lower

than those from School B ($p = .001$) and School C ($p = .024$), suggesting that School A was perceived to have weaker physical facilities and equipment. In terms of reliability, School A received significantly lower ratings than School B ($p = .008$), reflecting concerns regarding service consistency and dependability. For responsiveness, School A was also rated significantly lower than School B ($p = .007$), highlighting concerns about attentiveness, communication, and prompt service.

Table 12. Significant Post Hoc Test Results on Overall Service Quality (Tukey HSD)

Dimension	Comparison	Mean Difference	Standard Deviation	P-value
Tangibility	School A vs School B	-.393	.109	.001
	School A vs School C	-.370	.141	.024
Reliability	School A vs School B	-.275	.091	.008
Responsiveness	School A vs School B	-.221	.072	.007

3.9 Significant Difference in Level of Retention

As shown below on Table 13, there is no significant difference in the retention level across any demographic or socio-economic profile examined: age ($p = .737$), sex ($p = .648$), school ($p = .309$), year level ($p = .083$), locality ($p = .477$), average monthly household income ($p = .782$), and household size ($p = .184$). All p-values exceed the .05 threshold, indicating that the level of student retention does not vary across demographic and socio-economic profiles.

Table 13. Significant difference in the level of retention of students

Profile	P-value	Interpretation
Age	.737	Not significant
Sex	.648	Not significant
School	.309	Not significant
Year Level	.083	Not significant
Locality	.477	Not significant
Average monthly household income	.782	Not significant
Household size	.184	Not significant

3.10 Service Quality Dimensions as a Determinant of Student Retention

Most literature correlates overall student satisfaction with student retention; however, gaps exist in the literature that use multiple regression analysis to correlate service quality dimensions with student retention. In this study, to determine whether the five SERVQUAL dimensions influence student retention, a multiple linear regression analysis was conducted. As shown in Table 14, the results showed a weak to moderate positive correlation ($R = .34$), with the model explaining 11% of the variance in student retention ($R^2 = .11$).

Table 14. Model Summary of the Regression Analysis

R	R Square	Adjusted R Square	Std. Error of the Estimate
.34	.11	.100	.82

Despite this low to moderate correlation, Table 15 shows that the overall model was statistically significant ($F = 9.03$, $p < .001$), indicating that service quality has a measurable impact on retention outcomes.

Table 15. Regression Model Goodness of Fit Using ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig (p)
Regression	30.11	5	6.02	9.03	< .001
Residual	236.65	355	.67		
Total	266.76	360			

As shown in Table 16, among the five dimensions, only tangibility ($\beta = 0.14$, $p = 0.024$) and empathy ($\beta = 0.21$, $p < 0.001$) were significant determinants of student retention.

Table 16. SERVQUAL Dimensions as a Determinant of Student Retention

	Unstandardized Coefficients		Standardized Coefficients	t	Sig. (p)	Interpretation
	B (b)	Std. Error	Beta (β)			
Tangibility	.13	.06	.14	2.27	.024	Significant
Empathy	.26	.07	.21	3.95	< .001	Significant
Reliability	.10	.07	.090	1.55	.121	Not significant
Responsiveness	-.02	.08	-.02	-.28	.781	Not significant
Assurance	.02	.03	.02	.48	.633	Not significant

These findings suggest that students are more likely to remain at their institution when physical facilities are well-maintained and when staff show genuine care and support. This aligns with previous studies, including Stankovska et al. (2024), which emphasize the role of emotional support and infrastructure in student retention. The findings also reinforce the notion that a caring environment, reflected in the empathy dimension, enhances academic persistence (Eresia-Eke, 2020). However, this is in contrast with the results of the study of Pamatpat et al. (2018), wherein both tangibility and empathy emerged as insignificant dimensions. The analysis was further broken down per institution. For School A, empathy emerged as the sole significant factor ($\beta = .42, p = .001$). In School B, both tangibility ($\beta = 0.19, p = 0.022$) and empathy ($\beta = 0.31, p = 0.001$) are significant determinants of student retention. In School C, only tangibility was significant ($\beta = .35, p = .040$). HEIs aiming to improve retention should prioritize enhancing their physical learning environments and fostering supportive, student-centered relationships.

3.10 Overall Service Quality as a Determinant of Student Retention

A simple linear regression analysis was conducted to evaluate whether overall service quality can predict student retention. The analysis as shown on Table 17 revealed a weak but statistically significant positive relationship ($R = .27, R^2 = .07$). This indicates that overall service quality explains approximately 7% of the variation in student retention, suggesting that while service quality matters, other factors also play a larger role in influencing whether students stay.

Table 17. *Model Summary of the Regression Analysis*

R	R Square	Adjusted R Square	Std. Error of the Estimate
.27	.07	.07	.83

The regression model is statistically significant despite the weak explanatory power, as shown in Table 18. ANOVA results report an F value of 28.71 with a p-value of $< .001$, underscoring a significant relationship between service quality and student retention. While service quality statistically predicts student retention, the low R Square value highlights that other factors are likely to play a more substantial role in retention outcomes.

Table 18. *Regression Model Goodness of Fit Using ANOVA*

Model	Sum of Squares	df	Mean Square	F	Sig. (p)
Regression	19.75	1	6.02	28.71	<.001
Residual	247.01	359	.67		
Total	266.76	360			

The simple linear analysis in Table 19 further revealed that overall service quality has a significant effect on retention ($b = 0.43, p < 0.001$). This indicates that for every one-unit increase in service quality, retention increases by 0.43. The standardized coefficient ($\beta = 0.27$) shows the relative importance of service quality as a determinant of student retention.

Table 19. *Service Quality as a Determinant of Student Retention*

	Unstandardized Coefficients		Standardized Coefficients		t	Sig. (p)
	B (b)	Std. Error	Beta (β)			
Overall Service Quality	.43	.08	.27		5.36	< .001

When analyzed according to the HEI, the predictive strength of overall service quality varied. School A ($R^2 = 0.10, p = 0.001$) and School B ($R^2 = 0.07, p < 0.001$) demonstrated statistically significant models, indicating that service quality influenced retention in these settings. However, for School C, the relationship was not significant ($R^2 = .03, p = .196$), indicating that other variables beyond service quality may be more important in driving retention for that institution. Overall, service quality is a significant determinant of student retention, particularly in Schools A and B.

4.0 Conclusion

This study enhances existing literature by examining how service quality dimensions influence student retention within private HEIs in Kabankalan City. Using both simple and multiple regression analyses, the findings reveal consistently high student expectations across all service quality dimensions, yet a persistent negative gap between perception and expectation. Among these, empathy and tangibility emerged as the most significant determinants of student retention, highlighting the importance of meeting students' emotional and academic needs and

maintaining well-equipped, conducive learning environments.

Implications for Institutional Practice

HEIs should therefore prioritize initiatives that strengthen empathetic engagement and improve tangible learning conditions. Implementing certified Quality Management Systems, such as ISO 9001, can help ensure standardized and continually improving service delivery. Regular infrastructure audits and targeted staff development programs can support these efforts.

Implications for Student Support

With growing attention to mental health and student well-being, HEIs must create a responsive and supportive academic environment. Institutional strategies should include proactive student services that promote connection, inclusion, and academic guidance throughout the student lifecycle.

Policy and Community Engagement

Collaborations with local government and industry stakeholders can enhance student outcomes through internship programs, scholarships, and career services. Community engagement initiatives, such as volunteer programs and educational outreach, can also strengthen students' sense of belonging.

Continuous Enhancement

Regular application of the SERVQUAL model enables institutions to monitor service quality systematically and adjust their strategies based on timely expectations and perceptions. Doing so will support the continuous enhancement of the student experience and institutional effectiveness.

This study provides a foundation for further investigation into how service quality interacts with factors such as academic performance, mental health, and co-curricular involvement. Future research may also explore differences in perception across student demographics or delivery modes, such as online learning. Longitudinal studies are recommended to assess the sustained impact of quality improvements on retention.

5.0 Contribution of Authors

The author contributed to all sections, including the revisions, and has reviewed and approved the final version of this paper.

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7.0 Conflict of Interest

The author declares no conflict of interest.

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