

Cognitive Dissonance in University Choice Among Graduate Students

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Abstract

In the context of higher education, students face a critical and often irreversible purchasing decision, leading to significant post-purchase evaluation and potential cognitive dissonance. This study investigates the impact of perceived service quality dimensions academic aspects, non-academic aspects, reputation, access, and program issues alongside consumer-organization identification on cognitive dissonance among graduate students. Employing an exploratory and descriptive research design, primary data were collected from 294 respondents through a structured questionnaire. The analysis utilized the Statistical Package for Social Science (SPSS), applying descriptive and inferential statistics, including correlation and regression analyses. Key findings indicate that all five dimensions of perceived service quality significantly negatively influence cognitive dissonance, with academic aspects exerting the most substantial effect. Furthermore, consumer-organization identification was found to have a greater impact on cognitive dissonance than overall perceived service quality. These insights underscore the importance of service quality in mitigating cognitive dissonance in university selection processes.

Keywords: Cognitive dissonance, consumer-organization identification, graduate students, perceived service quality, university choice

Introduction

Achieving student satisfaction is a key goal for every higher education institution. Satisfied students are more likely to stay loyal, provide positive word of mouth, and attract potential students (Herold et al., 2016; Alves & Raposo, 2009). These behaviors give institutions a competitive advantage. However, the factors that lead to student satisfaction can vary between individuals and different service contexts.

Cognitive dissonance, a psychological discomfort caused by conflicting thoughts, is an important factor influencing satisfaction. Research shows a negative relationship between cognitive dissonance and student satisfaction. Wilkins et al. (2017) found that students experiencing higher levels of dissonance tend to be less satisfied with their university. Studies (Sweeney et al., 1996; Wilkins et al., 2017) suggest that satisfaction decreases when cognitive dissonance increases. This highlights the need for strategies to reduce dissonance. For service firms, understanding how dissonance arises is crucial before addressing it. Students often compare their perceptions of service quality with their expectations and other available options (Powers & Jack, 2013). If they feel they didn't make the best decision, they may experience dissonance. Addressing this discomfort is essential to improving satisfaction (Kim, 2011).

Building identification with the university is another effective way to reduce dissonance. Students who identify strongly with their university are more likely to engage in supportive behaviors, such as giving suggestions, participating in activities, and spreading positive word of mouth (Balaji et al., 2016; Stephenson & Yerger, 2014). This connection can also reduce cognitive dissonance and increase satisfaction (Wilkins et al., 2017).

Higher education institutions must focus on reducing cognitive dissonance to enhance student satisfaction. This study examines how perceived service quality—through academic and non-academic factors, reputation, access, and program issues—and consumer-organization identification influence cognitive dissonance in graduate students' university choices. It aims to identify the most impactful service quality factors and determine whether perceived service quality or consumer-organization identification plays a greater role in reducing dissonance. These insights offer valuable guidance for institutions seeking to improve student satisfaction and support better decision-making.

Literature Review

Thematic Review

Cognitive Dissonance: Cognitive dissonance is described as a paradoxical or uncomfortable psychological state arising when individuals experience conflicting feelings simultaneously (Keng & Liao, 2009). Festinger (1957) defined it as the discomfort associated with choosing between alternatives, each with desirable attributes, prompting individuals to

resolve this tension through coping mechanisms. Three primary conditions trigger cognitive dissonance: the decision must hold significant value, the consumer must perceive freedom of choice, and the decision must be irrevocable, particularly in long-term outcomes (Oliver, 1997; Sweeney et al., 2000). Recent studies, such as those by Pandey and Jamwal (2016) and Edenbrandt et al. (2021), reaffirm these foundations. Gunnare (2024) highlighted how the irrevocability of educational decisions induces significant dissonance among first-year college students.

Higher education students, often engaging in high-value, high-involvement decisions, are particularly prone to cognitive dissonance, which can lead to dissatisfaction, diminished loyalty, and negative word-of-mouth (Kim, 2011). During the COVID-19 pandemic, Kessler and Milkman (2021) found heightened perceived risks exacerbated dissonance, adversely affecting satisfaction and loyalty. Research indicates that cognitive dissonance can be mitigated through information seeking (Milliman & Decker, 1990). Keng and Liao (2009) observed that acquiring additional information builds trust in decisions, a finding echoed by Murphy et al. (2024), who noted consumers may engage in self-deception or attitudinal changes when behavioral adjustments are unfeasible.

Pandey and Jamwal (2016) demonstrated that dissonance decreases with prolonged decision-making and comprehensive information searches, as consumers gain awareness of alternatives' pros and cons. Similarly, Edenbrandt et al. (2021) noted that negative choice aspects often result in avoidance behaviors. Sweeney et al. (1996) found an inverse relationship between dissonance and satisfaction when satisfaction levels were low, a dynamic supported by Schmitt et al. (2024), who examined cognitive dissonance's influence on consumer behavior during crises. Hunt (1970) further emphasized the importance of post-purchase reassurance in reducing dissonance and fostering positive attitudes toward decisions. Sweeney et al. (2000) differentiated cognitive dissonance into cognitive (retrospection on decision suitability) and emotional (psychological discomfort) components. Recent research, such as Onwezen and van der Weele (2023), explores these dimensions in contexts like sustainable purchasing behaviors.

Summing up, recent literature reinforces and expands upon traditional theories of cognitive dissonance by illustrating its relevance across diverse contexts. The interplay between psychological discomfort and decision-making continues to yield valuable insights into consumer behavior, particularly under conditions of high involvement and uncertainty.

Perceived Service Quality

Perceived service quality is seen as a global judgment or attitude about the superiority of a service (Parasuraman et al., 1988). Providing high service quality can create perceived value for consumers and improve customer satisfaction (Tam, 2004). Perceived quality is based on how consumers compare their service expectations with their actual experiences (O'Neill & Palmer, 2004).

Two widely used service quality scales are SERVQUAL (Parasuraman et al., 1988) and SERVPERF (Cronin & Taylor, 1992). These scales are popular among researchers and industry professionals because of their broad applicability. A study by Silva et al. (2017) found that the SERVQUAL scale has been used or cited in 495 articles, with the earliest from 1988 and the most recent from 2016.

Table 1
Summary of Service Quality Models in Higher Education

Model	Dimensions	Sources
SERVQUAL	Assurance-Empathy-Responsiveness- Reliability- Tangibility (expectations – perception of performance)	Parasuraman et al. (1985)
SERVPERF	Assurance-Empathy-Reliability- Responsiveness Tangibility (Perception only measurement)	Cronin and Taylor (1992)
HEdPERF	Academic aspects- Program issues - Reputation- Access- Non-academic aspects	Abdullah (2005)
HEDQUAL	Academic quality- Administrative services quality -Library services quality- Supportive services quality - Quality of providing career opportunities	Icli and Anil (2014)
HiEdQUAL	Academic aspects, administrative aspects, academic facilities, campus infrastructure, and support services	Annamdevula (2012)

Abdullah (2005) noted that the general applicability of the SERVQUAL and SERVPERF scales was unclear when used to measure service quality in higher education institutions. Soutar and McNeil (1996) also pointed out that these scales often measured activities rather than the actual quality of the student educational experience. To address this issue, Abdullah developed a new measurement scale called HEdPERF (Higher Education Performance), which was based on the SERVPERF scale and considered specific determinants of service quality in higher education. Icli and Anil (2014) identified HEdPERF as the most advanced scale for measuring service quality in higher education. However, even though some researchers have used the HEdPERF scale since 2014, its use is still less common compared to SERVQUAL and SERVPERF (Silva et al., 2017).

Table 1 summarizes different service quality models in higher education and highlights their importance in improving student satisfaction and retention. Models like HEdPERF and HEDQUAL focus on dimensions such as academic reputation, program issues, and access to support services. The HiEdQUAL model adds dimensions related to academic facilities and campus infrastructure. Recent studies show that these factors play a key role in reducing

cognitive dissonance among students. Supportive academic staff and efficient administrative services significantly enhance satisfaction, while institutional reputation shapes student perceptions and experiences.

This study adopts the HEDPERF scale to measure perceived service quality among graduate-level students in Nepal. Below are the dimensions of perceived service quality according to the HEDPERF scale.

Table 2
Description of the HEDPERF Scale Dimensions

Dimension	Description
Academic aspects	Items the teaching staff is completely responsible for.
Non-academic aspects	Items that are essential for allowing students to fulfill their study requirements. It regards the tasks performed by clerical staff.
Reputation	Items that suggest the importance of higher education institutions in projecting a professional image.
Access	Items related to accessibility, ease of contact, availability, and convenience.
Program issues	Items that emphasize the importance of providing a wide range of programs that are reputable and have flexible structures and study plans.

Academic Aspects: Academic aspects encompass activities carried out by educators, such as maintaining a positive attitude, demonstrating subject matter expertise, effective communication, offering adequate counseling services, and consistently providing feedback to students (Abdullah, 2005).

Non-Academic Aspects: Non-academic issues include services, advice, and activities performed by administrative staff (Abdullah, 2005). Non-academic aspects reveal the capacity and eagerness of non-academic or administrative personnel to serve students with respect, with equal treatment, and to assure the confidentiality of information. In addition, non-academic aspects require administrative staff to be friendly, reachable, informative, and communicative toward students. It also includes showing a positive approach, giving freedom to express themselves, and rendering services in a specific time frame (Abdullah, 2005).

Reputation: Abdullah (2005) defines reputation as the professional image of higher education institutions. It encompasses the university's overall professional standing, the credibility of its academic programs, and the employability of its graduates.

Access: Access refers to the ease with which service locations can be reached by recipients, the availability of pathways in the service delivery process, the simplicity of methods used, and the ability to easily contact both academic and non-academic staff (Abdullah, 2005).

Program Issues: Program issues involve providing a diverse selection of specialized courses and subjects, developing well-structured curricula, offering flexible program options, and delivering counseling services (Abdullah, 2005). Zineldin et al. (2011) highlighted that addressing program-related concerns can enhance the efficiency and productivity of students' learning experiences.

Consumer-Organization Identification

Organizational identification is a specific form of social identification that arises when individuals feel a sense of belonging and alignment with an organization, its activities, and its members. Ashforth and Mael (1989) suggest that organizational identification occurs when individuals perceive the organization's distinctive and prominent attributes as self-referential, self-defining, and enriching to their social identity. This connection increases their likelihood of supporting the organization.

Organizational identification is defined as a cognitive link where an individual's self-concept aligns with the attributes of the organization's identity. It represents a form of psychological attachment, where members adopt the organization's defining characteristics as part of their own identity (Ashforth & Mael, 1989; Kim et al., 2010). In this study, organizational identification among consumers refers to students' perceived sense of belonging or connection to the university.

Following the widely accepted definition of consumers as individuals who purchase goods or services for personal use, higher education students are considered consumers, despite also being co-producers (Elsharnouby, 2015; Guilbault, 2016). In this study, students are referred to as consumers, and the institution as an affiliated university for graduate programs. This terminology is not tied to the marketization of higher education but is used for consistency with the theoretical framework of consumer-organization identification.

Theoretical Review

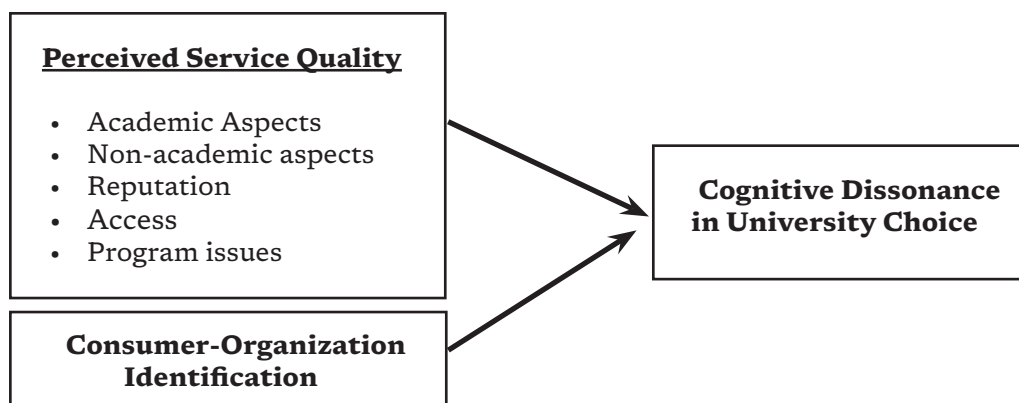
Two important theoretical models (i.e., Theory of Cognitive Dissonance and Social Identity Theory) offer valuable insights into factors influencing student satisfaction and decision-making in higher education. These theories help explain how students reconcile conflicting perceptions and the role of social identification in shaping their educational experience.

Theory of Cognitive Dissonance: Cognitive Dissonance, introduced by Festinger (1957), refers to the psychological discomfort arising from an imbalance between cognitions. The theory posits that when two cognitions are relevant but inconsistent with each other, they create dissonance. Individuals seek to maintain consistency between their thoughts and behaviors, and any conflict between them leads to psychological tension. This discomfort motivates individuals to reduce dissonance through various coping strategies. Festinger (1957) noted that the greater the dissonance, the stronger the urge to resolve it, as dissonance is a negative driver that compels individuals to restore harmony (Aronson & Festinger, 1997).

Social Identity Theory: Social Identity Theory (SIT), proposed by Tajfel and Turner (1985), explains how individuals categorize themselves and others into social groups based on characteristics such as nationality, religion, and academic ability. Tajfel (1978) defines social identity as part of an individual's self-concept derived from group membership and its associated value. SIT highlights how belonging to a group influences self-definition and fosters comparison with others (Wilkins & Huisman, 2013). This theory is crucial for understanding how students identify with their educational institutions and how this shapes their experiences, particularly in relation to cognitive dissonance.

The conceptual framework in Figure 1 highlights the relational dynamics of social identification in higher education, emphasizing that students' sense of belonging and emotional connections to their academic institutions play a crucial role in satisfaction and retention. Additionally, it recognizes the influence of academic and non-academic factors, such as staff support and institutional reputation, in shaping students' social identities.

Figure 1
Conceptual Framework



Research Methods

Sample and Procedures

The study population comprises graduate students currently enrolled in various universities across Nepal. Given the absence of comprehensive data regarding the total number of graduate-level students in these institutions for the year 2024, the exact population size remains undetermined. To effectively gather data, a non-probability sampling strategy was employed, specifically utilizing purposive sampling. This approach was chosen to ensure that participants had relevant experience and knowledge pertaining to the research focus on cognitive dissonance and perceived service quality in higher education. By targeting students who are actively engaged in their graduate programs, the study aims to capture insights that are both meaningful and contextually relevant.

Data collection was conducted through a structured online survey, which included questions designed to assess students' perceptions of service quality dimensions—academic aspects, non-academic support, institutional reputation, access to resources, and program structure—as well as their sense of identification with their respective institutions. The survey was distributed via university mailing lists and social media platforms to maximize reach and encourage participation.

In total, responses were collected from a diverse group of graduate students representing multiple disciplines and universities throughout Nepal. This diversity enhances the generalizability of the findings while providing a comprehensive understanding of how various factors influence cognitive dissonance among graduate students in the higher education landscape. Due to the unavailability of a proper sampling frame, a non-probability sampling technique (convenience sampling) was employed for this study. Cochran's (1977) formula estimated a sample size of 384 graduate-level students, based on a 95% confidence level and a 5% margin of error. However, with a response rate of 73.5%, 294 responses were recorded, making the final sample size 294.

Instrumentation

In this study, data was collected primarily through a survey questionnaire divided into two sections. The first section gathered demographic information, including respondents' gender, age group, field of education, the university they were affiliated with, and the source of funding for their graduate program. The second section focused on questions to measure the dependent and independent variables: perceived service quality, consumer-organization identification, and cognitive dissonance. These sections provided important insights into the factors influencing the study's objectives.

The constructs were measured using a six-point Likert scale: 1 = Strong Disagreement, 2 = Disagreement, 3 = Slight Disagreement, 4 = Slight Agreement, 5 = Agreement, and 6 = Strong Agreement. Measurement items validated in previous studies were adopted for this research. Academic aspects and non-academic aspects were measured with nine and ten items, respectively, adapted from Abdullah (2006a) and Huang (2009). Program issues, reputation, and access were measured using four items each, adapted from Abdullah (2006a) and Brochado (2009). Consumer-organization identification was assessed with six items, adapted from Mael and Ashforth (1992), and cognitive dissonance was measured using three items, adapted from Sweeney et al. (2000).

Data Analysis Model

The data collected through the questionnaire were analyzed using the Statistical Package for Social Science (SPSS) version 23.0. For descriptive analysis of the responses, frequency distributions were utilized. In addition, for inferential analysis, the correlation between the

main variables was examined, followed by the application of a linear regression model. The primary objective of this study is to investigate the influence of perceived service quality dimensions and consumer-organization identification on cognitive dissonance in university choice among graduate-level students. The regression model, used in line with the theoretical framework, serves as the basis for this analysis.

Regression Model:

$$CD = \beta_0 + \beta_1 (AA) + \beta_2 (NAA) + \beta_3 (REP) + \beta_4 (ACC) + \beta_5 (PI) + \beta_6 (COI) + \epsilon$$

Where,

CD = Cognitive Dissonance

AA = Academic aspects

NAA = non-academic aspects

REP = Reputation

ACC = Access

PI = Program issues

COI= Consumer-organization identification

The expected relationship between perceived quality of service dimensions and cognitive dissonance is negative. The higher the perceived quality of the service of a university, the lesser the cognitive dissonance experienced regarding the choice of university. Similarly, expected relationship between consumer-organization identification and cognitive dissonance is negative. The higher the feeling of identification and belongingness with a university, the lesser will be the dissonance experienced regarding the choice of university.

Results and Analysis

Demographic Profile of Respondents

Table 3 shows the demographic profile of the 294 respondents: 43.9% male and 56.1% female, indicating a higher number of females. The largest age group is 20-25 years (52.4%), followed by 26-30 (41.2%), 31-35 (4.8%), and above 35 (1.7%). Most of the respondents (69%) pursued graduate education in management, followed by Science and Technology (22.1%), humanities (3.7%), Agriculture (0.3%), and other fields (4.8%). Tribhuvan University had the highest enrolment (58.2%), followed by Kathmandu University (15.3%), Pokhara University (9.5%), Purbanchal University (2.7%), and others (14.3%). Regarding funding sources, 77.2% were funded by parents, 19.4% were self-funded, 2.4% by employers, and 1% by the government.

Table 3
Demographic Distribution

Particulars	Categories	Frequency	Percent
Gender	Male	129	43.9
	Female	165	56.1
Age	20-25	154	52.4
	26-30	121	41.2
	31-35	14	4.8
	Above 35	5	1.7
Stream of Education	Science and Technology	65	22.1
	Management	203	69
	Humanities	11	3.7
	Agriculture	1	0.3
	Others	14	4.8
Affiliated University	Kathmandu University	45	15.3
	Tribhuvan University	171	58.2
	Pokhara University	28	9.5
	Purbanchal University	8	2.7
	Others	42	14.3
Source of Funding	Self	57	19.4
	Parents	227	77.2
	Employer/Organization	7	2.4
	Government	3	1

Note. Field Survey (2024)

Table 4 presents the mean scores for all the research variables. Among independent variables, reputation had the highest mean, followed by academic aspects and consumer-organization identification. The mean for cognitive dissonance, the dependent variable, was 2.97, indicating a slight disagreement regarding dissonance in university choice.

Table 4
Summary of the Descriptive Analysis of Variables

Variables	Mean	Std. Deviation
Academic Aspects (AA)	4.55	0.91
Non-academic Aspects (NAA)	4.05	1.08
Reputation (REP)	4.72	0.96
Access (ACC)	4.24	1.09
Program Issues (PI)	4.26	1.11
Consumer-Organization Identification (COI)	4.47	1.20
Cognitive Dissonance (CD)	2.97	1.44
Overall Perceived Service Quality (PSQ)	4.37	0.83

Note. Field Survey (2024)

Correlation Analysis

Table 5 presents the correlation analysis, showing an association between independent variables (i.e., academic aspects, non-academic aspects, reputation, access, program issues, and consumer-organization identification and dependent variable (cognitive dissonance). All six independent variables are negatively correlated with cognitive dissonance.

Table 5
Correlation Analysis

Variables	Cognitive Dissonance	
Academic Aspects	Pearson Correlation	-0.501**
	Sig. (2-tailed)	0.000
Non-academic Aspects	Pearson Correlation	-0.317**
	Sig. (2-tailed)	0.000
Reputation	Pearson Correlation	-0.465**
	Sig. (2-tailed)	0.000
Access	Pearson Correlation	-0.288**
	Sig. (2-tailed)	0.000
Program Issues	Pearson Correlation	-0.286**
	Sig. (2-tailed)	0.000
Consumer-Organization Identification	Pearson Correlation	-0.571**
	Sig. (2-tailed)	0.000
Overall Perceived Service Quality	Pearson correlation	-0.454**
	Sig. (2-tailed)	0.000

Note. ** The Correlation is Significant at the 0.01 Level (2-tailed).

Academic aspects show a moderate negative correlation with cognitive dissonance (-0.501, $p = 0.000$), indicating a significant influence. Non-academic aspects exhibit a weak negative correlation (-0.317, $p = 0.000$), which is also significant. Reputation demonstrates a moderate negative correlation (-0.465, $p = 0.000$), while access has a weak negative correlation (-0.288, $p = 0.000$). Program issues show a weak negative correlation (-0.286, $p = 0.000$). Consumer-organization identification displays the strongest negative correlation (-0.571, $p = 0.000$), suggesting a substantial impact on cognitive dissonance. Overall, perceived service quality is negatively correlated (-0.454, $p = 0.000$), with consumer-organization identification showing the highest correlation and program issues the lowest.

Regression Analysis

Table 6
Regression Analysis

Model	Variables	Unstandardized Coefficient B	T-value Sig.	R Square	F-value Sig.
1	(Constant)	6.563	17.696	0.251	97.622
	AA	-0.789	(0.000)		(0.000)
2	(Constant)	4.682	15.088	0.100	32.604
	NAA	-0.423	(0.000)		(0.000)
3	(Constant)	6.254	16.761	0.216	80.685
	REP	-0.696	(0.000)		(0.000)
4	(Constant)	4.574	14.202	0.083	26.471
	ACC	-0.378	(0.000)		(0.000)
5	(Constant)	4.542	14.258	0.082	26.028
	PI	-0.369	(0.000)		(0.000)
6	(Constant)	6.017	22.679	0.326	141.451
	COI	-0.681	(0.000)		(0.000)

The regression models illustrate the influence of various factors on cognitive dissonance, supporting each hypothesis. The R² values from the regression models range from 0.083 for Access to 0.326 for Consumer-Organization Identification. This shows that Consumer-Organization Identification has the strongest impact on explaining the variance in cognitive dissonance among graduate-level students' university choices. In contrast, Access accounts for the least variance.

Table 7
Influence of Overall Perceived Service Quality on Cognitive Dissonance

		Unstandardized Coefficient	T-value	R Square	F-value
Model	Variables	B	Sig.		Sig.
7	(Constant)	6.414	15.942 (0.000)	0.206	75.918 (0.000)
	PSQ	-0.789	-8.713 (0.000)		

Model 7 shows that overall perceived service quality explains 20.6% of the variance in cognitive dissonance ($R^2 = 0.206$). A 1-unit increase in perceived service quality leads to a reduction of 0.789 in cognitive dissonance ($F = 75.918$, $p < 0.05$), indicating a statistically significant impact. In comparison, consumer-organization identification exerts a greater influence on cognitive dissonance in university choice, with a higher R^2 value of 0.326.

Summary of Hypothesis

Six direct structural paths are tested by using multiple regression with the help of SPSS statistics. The overall result obtained is presented in Table 8.

Table 8
Summary of Hypothesis

	Hypothesis	Results
H1	There is a significant influence of academic aspects on cognitive dissonance in university choice.	Supported
H2	There is a significant influence of non-academic aspects on cognitive dissonance in university choice.	Supported
H3	There is a significant influence of reputation on cognitive dissonance in university choice.	Supported
H4	There is a significant influence of access on cognitive dissonance.	Supported
H5	There is a significant influence of program issues on cognitive dissonance in university choice.	Supported
H6	There is a significant influence of consumer-organization identification on cognitive dissonance in university choice.	Supported

Discussions

This study examined the impact of perceived service quality dimensions and consumer-organization identification on cognitive dissonance among graduate students. Using the HEDPERF model, five dimensions of service quality, academic aspects, non-academic aspects, reputation, access, and program issues, were analyzed. The study found that

perceived service quality and consumer-organization identification significantly influence cognitive dissonance in university choice. It emphasized the importance of managing factors that induce cognitive dissonance and intervening during students' post-purchase evaluation phase to positively influence their perceptions.

Cognitive Dissonance in Higher Education: The findings of this study align with the several recent studies (Keng & Liao, 2009; Kim, 2011; Murphy et al., 2024), highlight several key factors that influence cognitive dissonance among students in higher education, particularly focusing on academic and non-academic aspects, institutional reputation, access to support staff, program flexibility, and consumer-organization identification.

Academic Aspects: Recent research emphasizes that academic factors significantly impact cognitive dissonance. Knowledgeable and supportive academic staff play a crucial role in mitigating dissonance and enhancing student satisfaction. For instance, Gunnare (2024) revealed that effective engagement and support from faculty members can alleviate feelings of dissonance, aligning with earlier studies by Wilkins et al. (2017) and Ali et al. (2016), which also found that strong academic support systems contribute to reduced dissonance and improved student satisfaction.

Non-Academic Aspects: Non-academic factors are equally important in lowering cognitive dissonance. Friendly, respectful, and efficient administrative staff help meet students' non-academic needs, fostering a positive university experience. This aligns with findings from Ali et al. (2016) and Price et al. (2003), which emphasize that interactions outside the classroom significantly affect overall student satisfaction. Recent studies further support this notion; for example, Mintz (2022) discusses how administrative support can ease the transition into university life, thereby reducing instances of cognitive dissonance.

Reputation of the University: The reputation of a university including its professional image and the perceived employability of graduates significantly affects cognitive dissonance levels among students. Institutions with strong reputations instil confidence in their students, thereby reducing feelings of dissonance. This finding is consistent with research by Ali et al. (2016) and Banahene et al. (2018), which highlight the importance of a robust institutional brand in shaping student perceptions and experiences.

Access to Academic and Non-Academic Staff: Access to both academic and non-academic staff is crucial for lowering cognitive dissonance. While this aligns with earlier research by Ali et al. (2016), there are nuances when compared to Banahene et al. (2018). Recent findings indicate that while accessibility is essential, its impact may vary based on specific contexts within the university environment. For example, Wira Ekon et al. (2024) found that students who felt they had adequate access to both types of support reported lower levels of cognitive dissonance during their academic journey.

Program Issues: Program-related factors such as flexible curricula and diverse offerings can significantly reduce cognitive dissonance by accommodating varied student needs. This is consistent with studies by Ali et al. (2016) and Shah et al. (2013), which emphasize the importance of adaptable program structures in enhancing student satisfaction and reducing feelings of dissonance.

Consumer-Organization Identification: Finally, consumer-organization identification has been identified as having the most significant effect on reducing cognitive dissonance. Students who feel a strong connection to their institution are more resilient to negative experiences and demonstrate greater loyalty. This finding supports Wilkins et al. (2017), who noted that identification with the institution has a stronger impact than perceived service quality in mitigating dissonance. Building a sense of belonging and attachment can be an effective strategy for higher education institutions aiming to enhance student retention and satisfaction.

Conclusion and Implications

The study sheds light on the vital role that perceived service quality dimensions and consumer-organization identification play in shaping cognitive dissonance among graduate students who are navigating critical university choices. The five key service quality dimensions i.e., academic aspects, non-academic support, institutional reputation, access to resources, and program structure, through the HEdPERF framework, provide a deeper understanding of how these factors influence students' feelings after making significant decisions.

Our findings reveal that academic aspects have the strongest impact on alleviating cognitive dissonance. This highlights the essential role that quality instruction and academic resources play in enhancing student satisfaction. More importantly, the study discovered that consumer-organization identification, a student's sense of belonging and connection to their institution, has an even greater effect on reducing dissonance than the overall perceived quality of services. This suggests that fostering a strong sense of identity and attachment to the university is crucial for helping students feel more secure and satisfied with their choices. These insights carry important implications for HEIs. It is essential for universities to prioritize not only improvements in service quality but also strategies that cultivate a sense of belonging among students. Initiatives such as brand-building campaigns and programs designed to deepen students' connections with their institutions can create a more resilient and loyal student body. By making students feel valued and connected, universities can help them navigate their educational journeys with greater confidence.

Furthermore, the research also contributes to the existing literature by linking cognitive dissonance with service quality and identification within the higher education context. The implications extend beyond simply ensuring student satisfaction; they touch on fostering long-term loyalty and advocacy.

The existing academic contexts corroborate our findings by providing choice reinforcement information that effectively reduces dissonance in service contexts like university education. Our study aligns with these conclusions by demonstrating that perceived service quality dimensions significantly contribute to reducing cognitive dissonance while also emphasizing the importance of consumer-organization identification.

Perceived service quality comes from how students compare their expectations with their actual experiences (Neill & Palmer, 2004). To help reduce cognitive dissonance, HEI managers need to effectively manage student expectations while delivering high-quality services. Our results indicate that academic aspects are particularly influential; therefore, institutions should focus on meeting student expectations regarding teaching quality. For example, clear communication during orientation about what students can expect from their lecturers including how often they will communicate and when they can expect feedback, can help set realistic expectations. Additionally, regularly gathering and acting on student feedback will enable institutions to identify areas for improvement quickly.

An interesting finding from our study is that consumer-organization identification has a more significant impact on cognitive dissonance than perceived service quality itself. This insight suggests that HEIs should implement campaigns aimed at fostering a sense of belonging among students. Developing a strong brand identity can help create an environment where students feel proud to be part of the institution (Wilkins et al., 2015). Universities should communicate their values and strengths in ways that resonate with students' aspirations and identities (Wilkins & Huisman, 2013).

As consumer-organization identification tends to strengthen over time (Einwiller et al., 2006), universities must build this connection not just during students' time at the institution but also after they graduate. By nurturing these relationships, universities can benefit from increased loyalty through repeat business and positive word-of-mouth recommendations. Above all, the research highlights the intricate relationship between perceived service quality dimensions, consumer-organization identification, and cognitive dissonance in higher education addressing the factors holistically, institutions can create an environment where students feel supported, valued, and connected, ultimately leading to greater satisfaction, retention, and advocacy for their university experience.

Limitations and Future Research

This study focused on five dimensions of perceived service quality and their effect on cognitive dissonance. Future researchers may explore more factors to gain a deeper understanding. To improve generalizability, similar research can be conducted in different countries and service settings. Since consumer-organization identification often gets stronger over time (Einwiller et al., 2006), the cross-sectional design used here cannot capture this fully. Longitudinal studies are recommended to address this. Future research could also examine how cognitive dissonance affects satisfaction, dissatisfaction, and behaviors like support or complaints. Increasing the sample size could also improve the accuracy of future findings.

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