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The Impact of Service Quality on Student Behavioral Intentions in Higher Education

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Abstract

The paper focuses on the measurement of service quality in higher education and emphasizes the importance of developing psychometrically robust and contextually appropriate measurement instruments. The study builds on the SERVQUAL scale, a widely validated tool used across various service industries. Although the SERVQUAL model originally comprises five dimensions of service quality, the research reveals a six-dimensional structure for assessing service quality in higher education. This finding suggests that while there are notable similarities to the SERVQUAL framework, additional dimensions are necessary to capture the unique aspects of service quality in the context of higher education. The study conducted with Engineering Management students highlights a consistent shortfall between students' perceptions and their expectations across all service quality determinants. The most pronounced gap was observed in the area of potential for future career development. This dimension, despite being the area with the largest negative discrepancy, is identified as the most significant predictor of students' future behavioral intentions. The research emphasizes the need for addressing this critical aspect to align service quality with students' expectations. The paper also offers managerial implications and suggests directions for future research to better understand and improve service quality in higher education.

Keywords: Service Quality, Higher Education

JEL Codes: I23, M31, L84

1. INTRODUCTION

Over the past few decades, Western economies have experienced a significant expansion in the service sector. Services now contribute more than 70% to the GDP in some OECD countries, highlighting their critical role as a major driver of economic growth and development (OECD, 2000). This expansion is reflected in the employment statistics as well; while service-related jobs made up about 55% of the workforce in the 1980s, by the early 2000s, over 70% of employees in certain OECD countries were engaged in service-related activities (OECD, 2000). This shift underscores the increasing prominence of the service sector in contemporary economies. Due to the numerous positive outcomes associated with high-quality physical goods manufacturing and the growing significance of service industries, both academics and practitioners have shown substantial interest in the field of service quality measurement and enhancement. Service quality is increasingly recognized as a strategic tool that can significantly differentiate service leaders from their merely competent competitors. This growing emphasis on service quality underscores its crucial role in establishing a competitive edge and driving overall success in the service sector. According to Heskett et al. (1994), internal service quality is a critical factor in fostering employee satisfaction, which has a cascading effect on overall organizational performance. High levels of internal service quality lead to greater employee satisfaction by addressing their needs and creating a supportive work environment. Satisfied employees are more engaged, motivated, and committed to their roles, which enhances their productivity and reduces turnover rates. This positive work environment empowers employees to deliver exceptional services to customers. When employees are content and well-supported, their improved performance translates into higher quality customer service. This, in turn, leads to increased customer satisfaction, as employees are better equipped to meet and exceed customer expectations. The resulting positive experiences for customers contribute to their loyalty and retention. Loyal customers are not only more likely to return but also to recommend the service to others, which can drive growth and enhance the company's reputation. Thus, the interplay between internal service quality and employee satisfaction is essential. By investing in internal service quality, organizations create a foundation for excellent customer service. This strategic approach helps in distinguishing service leaders from their competitors, as organizations that prioritize and improve internal service quality often outperform those that do not. In essence, a focus on internal service quality is not only a way to enhance employee morale but also a powerful driver of customer satisfaction and loyalty, ultimately leading to a stronger competitive position in the market. According to Reichheld (1996; 2003), experience-curve effects significantly impact service efficiency and company profitability. Customers who remain loyal to a company benefit from these effects, as their ongoing engagement allows the company to streamline operations and improve service delivery over time. Loyal customers are often more familiar with the company's products and services, which leads to more efficient and personalized service. Satisfied and loyal customers are not only more likely to make repeat purchases but are also inclined to buy additional products and services. Their positive experiences translate into a willingness to engage more deeply with the company, thereby increasing their overall value to the business. Furthermore, these customers act as advocates for the company, spreading positive word-of-mouth recommendations that attract new customers.

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The combined effect of retaining customers and gaining new ones contributes to the company's growth and profitability. Loyal customers, by bringing in additional revenue and reducing acquisition costs through their referrals, create a strong foundation for sustained business success. As a result, focusing on customer satisfaction and loyalty not only enhances immediate service outcomes but also supports long-term strategic goals, making it a crucial element in driving overall company performance and profitability. Services have increasingly become the cornerstone of contemporary economies, with this trend projected to persist as information-intensive services proliferate. The shift towards a knowledge-based society underscores the critical importance of quality human capital, as knowledge itself becomes the primary strategic resource driving prosperity. This transition has elevated the importance of higher education service quality, making it a central concern for academic communities globally. In recent decades, the field of higher education service quality has garnered significant attention due to evolving trends in the sector. Historically, universities primarily addressed regional needs, providing localized educational services. However, advancements in technology have dismantled geographical barriers, enabling institutions to operate on a global scale. As a result, what were once potential entrants—such as virtual and foreign for-profit educational service providers—have become a reality in today's higher education landscape.

This transformation emphasizes the need for universities to adapt and improve their service quality to remain competitive in an increasingly globalized and digitalized educational environment. The focus on higher education service quality reflects the growing recognition that excellence in this area is essential for meeting the demands of students and stakeholders, and for maintaining institutional relevance in a rapidly evolving academic and economic context. In this context, an institution's reputation as a high-quality service provider can serve as a strategic asset, creating a competitive edge that is challenging for new entrants to surpass. This established image can be a significant advantage, making it difficult for newer or less established institutions to attract students and gain market share. Moreover, higher education is increasingly influenced by trends such as massification and rising participation rates (Sursock & Smidt, 2010). Massification refers to the expansion of higher education to accommodate a larger segment of the population, often resulting in increased competition among institutions. As more individuals seek higher education, institutions face greater pressure to differentiate themselves through superior service quality and effective strategies to meet the diverse needs of a growing student body.

These dynamics underscore the importance of maintaining high service quality to sustain competitive advantage and respond effectively to the evolving landscape of global and domestic higher education. The massification of higher education, coupled with the inability of public funding to keep pace with growing demand, has led to significant changes in funding models. As students and their families are increasingly expected to cover a larger portion of educational costs, they have become more discerning consumers, demanding higher standards of service and quality. Universities are now more reliant on tuition fees from students, particularly those who are mature and have prior work experience. These students, constrained by time and financial resources, are less willing to tolerate subpar educational services. Consequently, universities must identify and address the factors that influence students' perceptions and attitudes toward their services. This understanding is crucial for institutions aiming to maintain their competitive edge and effectively respond to the evolving expectations of their student body (Ford et al., 1999:186). By focusing on these critical factors, universities can better align their offerings with student expectations, enhance satisfaction, and ultimately strengthen their market position in a competitive educational landscape. In response to growing demands for quality assurance and accountability, Australia has implemented the Course Experience Questionnaire (CEQ), which has been distributed to every university graduate since 1993. This initiative is designed to gather student feedback, which is intended to help higher education institutions enhance and refine their processes and improve the overall student experience. The data collected through these surveys not only aids in institutional improvement but also contributes to the public ranking of academic institutions. These rankings are made accessible through various commercial resources, such as the Good Universities Guide. This approach ensures that prospective students and other stakeholders have access to comparative information about the quality of educational services provided by different institutions (Griffin et al., 2003).

Concerns about quality in higher education have also been voiced within the European Higher Education Area (EHEA), which has undergone substantial reforms aimed at harmonizing educational systems to boost the international competitiveness of European higher education. Unlike the more standardized approach seen in Australia, the European standards and guidelines for quality assurance are not designed to be prescriptive or rigidly enforced (ENQA, 2009). Instead, these guidelines offer a flexible framework that accommodates the diverse socio-cultural and educational traditions of its member countries. The European approach emphasizes that responsibility for quality assurance rests primarily with the higher education providers themselves, while ensuring that the interests of all stakeholders, including students, are protected. Institutions are expected to be committed to continuous improvement and enhancement of educational quality. However, to preserve academic autonomy, specific strategies and measures for achieving these goals are left to the discretion of individual institutions. This model supports a more adaptable and context-sensitive approach to quality assurance, acknowledging the varying needs and expectations across different educational environments. Therefore, this study aims to gain deeper insights into the construct of higher education service quality by examining the attributes and dimensions that constitute this construct and evaluating the institution's performance on these determinants. Understanding these factors is crucial for effectively directing quality improvement efforts. Building upon the SERVQUAL scale, the study emphasizes the students' perspectives, recognizing that while students' viewpoints are central to this analysis, other stakeholders' perspectives are also valuable for a comprehensive quality management approach in higher education.

To provide a structured analysis, the study will begin with an overview of the SERVQUAL scale, outlining its application across various service industries to establish a benchmark for higher education service quality. Following this, the research methodology will be detailed, including the methods used to gather and analyze data. The results will be presented,

highlighting the findings related to students' perceptions and expectations of service quality. Finally, the paper will discuss the managerial implications of these findings, address the study's limitations, and propose directions for future research. This comprehensive approach aims to enhance the understanding of higher education service quality and guide institutions in improving their service delivery to meet the evolving needs of their students.

2. RESULTS AND DISCUSSION

Field research for this study was conducted in two stages to ensure the adaptation and relevance of the SERVQUAL scale to the higher education context. Following the recommendations of Parasuraman et al. (1988), which suggest tailoring scale items to specific service contexts, the initial qualitative phase focused on rewording the inventory to better suit the higher education environment. In this phase, the original SERVQUAL scale, which included general terms such as "employees," was adapted by substituting these with more specific nouns relevant to the educational context, such as "professors." This rewording aimed to make the statements more pertinent to students. The scale was then translated into the native language of the respondents, with careful attention to initial rewording and back-translation to maintain accuracy. Group discussions were conducted with students from a bachelor course in Engineering Management at a small state faculty in Serbia. These discussions provided valuable insights into the students' perceptions of higher education service quality. The findings revealed that while students could articulate their expectations from the educational process, their understanding of what should be expected from the process itself was less clear. This indicated a need for further refinement of the scale items to better capture students' expectations and experiences within the higher education context. The second stage of the research involved applying the adapted scale to a broader sample to validate the revised inventory and gather quantitative data on students' perceptions of service quality. This comprehensive approach aimed to ensure that the SERVQUAL scale accurately reflected the dimensions of service quality specific to higher education and provided actionable insights for improving service delivery. During the qualitative phase, feedback from first-year students revealed a gap in their expectations due to a lack of prior experience in higher education. One participant candidly expressed, "Never before have I been a student nor have I studied somewhere else to know what I should expect now." This insight highlighted the importance of ensuring that the scale items were both comprehensible and relevant to students' experiences and expectations. When presented with the reworded version of the SERVQUAL scale, students agreed that while the statements addressed aspects of the higher education process, not all of them held equal importance in their evaluations of service quality. This variation in perceived importance led to a deeper examination of the attributes being assessed. Group discussions revealed additional dimensions of service quality that were not captured by the original SERVQUAL scale. These new dimensions focused on the outcomes of higher education, such as the practical application of knowledge, the foundation provided for future career development, the competence to work in leading global companies, and the readiness for pursuing advanced studies at prestigious universities abroad.

To address these findings, the reworded SERVQUAL scale was supplemented with additional items that reflected these newly identified attributes. This enhancement aimed to provide a more comprehensive assessment of service quality in higher education from the students' perspectives. Following these modifications, the research moved into the quantitative phase, applying the updated scale to a broader sample. This phase was designed to validate the revised inventory and gather quantitative data on students' perceptions of service quality, ensuring that the scale accurately represented the full spectrum of higher education service attributes and provided meaningful insights for quality improvement. To ensure the study's representativeness, the sample included students from all years of undergraduate studies. Data collection was facilitated through cooperation with teaching staff, who permitted the use of twenty minutes of their lecture time for this purpose. The study's objectives and rationale were briefly explained to the students, who were then asked to indicate their level of agreement with two sets of statements: those reflecting their expectations and their corresponding perceptions, as outlined in the modified SERVQUAL scale.

In addition to these evaluations, students were also asked to rate their overall perception of service quality and their behavioral intentions. This approach was based on measures proposed by Zeithaml et al. (1996), which included questions about their willingness to recommend the faculty to friends and family, as well as their likelihood of choosing the same higher education provider if given the chance to make the decision again. Responses were collected using a 7-point Likert-type scale, ranging from "Strongly disagree" to "Strongly agree," without descriptions for the intermediate points on the scale. The survey was voluntary and anonymous, with a personal approach that contributed to a high response rate. Ultimately, 261 students participated in the study. Data analysis was conducted using Statistical Package for the Social Sciences (SPSS) version 18. To align with the study's objectives and adhere to Churchill's (1979) framework for developing improved measures of marketing constructs, the initial analyses focused on examining the underlying dimensionality, reliability of the scale, and construct validity. Investigating the construct of higher education service quality involved reducing a large number of observable variables to a smaller set of underlying factors. This was achieved through principal component analysis (PCA) applied to the gap scores of quality attributes.

Before conducting the PCA, the factorability of the correlation matrix of the manifest variables was assessed using Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. These tests ensured that the data were suitable for factor analysis by evaluating the strength of the relationships among the variables and the adequacy of the sample size for factor extraction (Hair et al., 2009). Bartlett's test of sphericity was employed to test the null hypothesis that the correlation matrix is an identity matrix, suggesting that the variables are not correlated and hence factor analysis would be inappropriate. The test yielded a value of 2820.786 with a significance level less than 0.001, leading to the rejection of the null hypothesis. This indicates that the correlation matrix is not an identity matrix and that factor analysis is suitable. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was also assessed, with a lower bound of 0.5 required to proceed with factor analysis. In this study, the KMO measure was found to be 0.877,

demonstrating a meritorious degree of common variance among the variables, which supports the suitability of the data for factor analysis. Principal component analysis (PCA) with varimax rotation was then conducted on the total sample. All communalities were above 0.4, indicating the reliability of the indicators. Following Kaiser's rule, factors with eigenvalues greater than one were extracted and subjected to rotation to identify the underlying dimensions of the construct (Hair et al., 2009).

In the analysis, factor loadings with absolute values less than 0.40 were suppressed. The results identified six factors of higher education service quality, which collectively accounted for 60 percent of the variation in the data. The rotated component matrix, as summarized in Table I, highlights clusters of items based on factor loadings that differ from the original five dimensions of service quality proposed by Parasuraman et al. (1988). This pattern indicates a reconfiguration of the 26 service quality attributes into six distinct dimensions. To assess the quality of the measurement instrument, the coefficient alpha, or Cronbach's alpha, was calculated. According to Churchill (1979), this coefficient is a primary measure to evaluate the homogeneity of the items within a construct, assessing the extent to which a set of items is consistent in measuring the intended construct. This measure was used to ensure that the items within each dimension reliably represented the higher education service quality construct. The coefficient alpha, which ranges from 0 to 1, is widely accepted with a cut-off value of 0.70, though exploratory studies may accept lower thresholds such as 0.60 (Hair et al., 2009). In this study, the reliability coefficients for the perception-minus-expectation scores of items representing the newly identified factors ranged from 0.607 to 0.904, indicating acceptable internal consistency across the sub-scales. Two factors, with fewer items, exhibited slightly lower alpha scores, suggesting the need for additional items in future studies. The Cronbach's alpha coefficients for each factor are provided in Table I.

Based on the factor loadings, new labels were assigned to the dimensions: career prospects (F1), care for students (F2), tangibles (F3), understanding of students (F4), assurance (F5), and timeliness (F6). While internal consistency is crucial, it alone is not sufficient for establishing construct validity (Churchill, 1979). Construct validity refers to how well a scale captures the underlying construct it is intended to measure (Parasuraman et al., 1988). To ensure this, both face validity and empirical validity assessments were conducted. Face validity, a subjective measure, relates to the relevance and meaningfulness of the scale's items within the specific context of higher education. This was supported by group discussions with students and teaching staff, although differing perspectives were noted. For instance, while teaching staff valued scientific research as a key component of higher education quality, students did not prioritize professors' research results, highlighting a discrepancy in stakeholder expectations. In addition to face validity, convergent and discriminant validity were evaluated empirically by analyzing correlation coefficients between the service quality dimensions, the overall perception of service quality, and students' behavioral intentions. These correlations are summarized in Table II, providing further insight into the construct validity of the new dimensions.

Convergent validity assesses whether measures that are theoretically expected to be related are indeed correlated. Conversely, discriminant validity evaluates whether measures that are supposed to be distinct do not exhibit significant correlations with one another (Hair et al., 2009). In this study, correlations among the identified service quality dimensions and their relationship with the overall service quality rating were consistently higher than the correlations between service quality dimensions and students' behavioral intentions. This pattern supports both convergent and discriminant validity, thereby affirming the construct validity of the scale. The factor analysis results, detailed in Table I, indicate that the service quality dimensions identified in this study diverge from the traditional generic dimensions such as assurance, responsiveness, empathy, reliability, and tangibles. This divergence suggests that the new dimensions of service quality—career prospects, care for students, tangibles, understanding of students, assurance, and timeliness—offer a more nuanced understanding of higher education service quality beyond the conventional framework.

The table 1 presents the reliability coefficients for various quality dimensions, along with the factor loadings of individual items. These dimensions represent different components of quality, such as career, care, tangibles, understanding, assurance, and timeliness. Each item listed in the table contributes to one of these dimensions, and its factor loading indicates how strongly it correlates with the component it is linked to. A high factor loading suggests that the item strongly represents the underlying dimension, contributing meaningfully to its overall score. The reliability of each dimension is measured using Cronbach's Alpha, which indicates how consistently the items within that dimension work together. For example, the "Career" dimension exhibits very high reliability, showing strong internal consistency. Similarly, the dimensions of "Care," "Tangibles," and "Understanding" all display good levels of reliability, meaning the items that define them are also consistent. However, the dimension labeled "Assurance" shows a somewhat lower reliability score, suggesting that the items associated with it may need further refinement to improve their cohesion. The "Timeliness" dimension, while moderate in reliability, also shows some potential for improvement.

Factor loadings in the table reflect the strength of each item within its dimension. Strong loadings suggest that items align well with their respective dimensions, while lower loadings, particularly in some items under "Assurance" and "Timeliness," indicate that these dimensions might benefit from revisiting the items or adding more specific ones to enhance their explanatory power. The eigenvalues and variance percentages illustrate how much of the overall data variation each component explains. The "Career" dimension stands out by explaining the most variance, making it the strongest dimension in terms of its impact on the overall structure of the model. As more components are included, the cumulative percentage of variance increases, with the six dimensions combined explaining a significant portion of the data's variance. This suggests that the model does a solid job of capturing the underlying structure of the data, though there may be room for enhancing dimensions that show lower reliability or variance contribution.

Table 1: Reliability coefficients of quality dimensions

	Components					
	F1	F2	F3	F4	F5	F6
Career	(0,904)					
G50-24	,844					
G51-25	,832					
G49-23	,831					
G52-26	,750					
Care		(0,790)				
G27-1		,676				
G36-10		,672				
G28-2		,611				
G31-5		,576				
G37-11		,513				
G43-17		,488		,436	,444	
Tangibles			(0,766)			
G39-13			,752			
G33-7			,735			
G38-12			,728			
G34-8			,541			
G35-9			,471			
Understanding				(0,763)		
G40-14				,714		
G42-16				,629		
G41-15				,627		
G47-21	,421			,538		
G48-22	,431			,526		
G46-20				,523		
Assurance					(0,607)	
G45-19					,761	
G44-18					,641	
G32-6					,499	
Timeliness						(0,654)
G30-4						,793
G29-3						,746
Eigenv.	3,579	2,896	2,889	2,825	1,815	1,663
% of Variance	13,767	11,138	11,113	10,865	6,981	6,397
Cumulative %	13,767	24,905	36,019	46,884	53,865	60,262

Literature review reveals that many replication studies have not adhered to the five-dimensional structure originally proposed by Parasuraman et al. (1988). Instead, research has identified a range of factor structures, from as few as a single dimension to as many as sixteen different service quality factors (Ekinci et al., 1998). This variation underscores the complexity and contextual specificity of service quality dimensions across different service settings and populations. However, notable similarities exist between the newly discovered dimensions and the generic dimensions of service quality. Specifically, three out of the four items initially classified under the assurance dimension load significantly onto the same factor. Conversely, the first item from the a priori assurance group loads heavily onto a different factor, which also includes items from responsiveness, empathy, and reliability dimensions. This observation aligns with the findings of Parasuraman et al. (1991), who noted considerable overlap between responsiveness and assurance dimensions. Additionally, previous replication studies suggest even greater overlap among the dimensions of responsiveness, assurance, and empathy, further highlighting the interrelated nature of these service quality factors.

The correlation matrix in the table 2 presents the relationships between various quality dimensions (Career, Care, Tangibles, Understanding, Assurance, and Timeliness), along with two outcome variables: Overall Service Quality (OSQ) and Behavioral Intentions (BI). The values in the matrix represent correlation coefficients, which indicate the strength and direction of the relationships between these dimensions. Positive correlation values suggest that as one dimension increases, the other also tends to increase, while negative values would indicate an inverse relationship. However, in this case, all correlations are positive, suggesting that the dimensions generally move together. For example, the "Career" dimension shows moderate correlations with most other dimensions, such as "Care," "Tangibles," and "Understanding," indicating that individuals who rate the career aspect highly also tend to rate these other dimensions positively. The "Care" dimension is particularly well correlated with "Understanding," showing a strong relationship, which may suggest that these two dimensions are closely related in terms of the perceived quality. Similarly, "Understanding" and "Tangibles" show a strong correlation, implying that improvements in understanding are likely to be reflected in tangible aspects of

quality.

Table 2: Correlation matrix

	Career	Care	Tang	Unders	Assur	Time	OSQ	BI
Career	1							
Care	,439	1						
Tang	,466	,419	1					
Unders	,407	,535	,571	1				
Assur	,410	,487	,409	,524	1			
Time	,210	,301	,334	,427	,239	1		
OSQ	,468	,316	,319	,335	,365	,224	1	
BI	,248	,124	,175	,166	,176	,059	,400	1

When it comes to "Assurance," this dimension correlates well with "Understanding" and "Care," though its relationship with other dimensions like "Timeliness" is somewhat weaker. "Timeliness," overall, exhibits lower correlations across the board, suggesting that it may not be as closely linked to the other dimensions of quality in the model. This lower correlation, particularly with dimensions like "Career" and "Assurance," might indicate that timeliness is viewed somewhat independently in the context of the overall service quality. The relationship between these quality dimensions and the outcome variables (Overall Service Quality and Behavioral Intentions) is also important to note. "Career" and "OSQ" show a moderate correlation, suggesting that perceptions of career development are tied to overall service quality. Similarly, "Understanding" and "Assurance" also correlate positively with "OSQ," reflecting that these dimensions play a role in shaping perceptions of overall quality. "Behavioral Intentions" shows a weaker but still positive correlation with dimensions like "Career" and "Care," indicating that these factors might influence future behavioral intentions, though the relationships are not as strong as they are with overall service quality.

The matrix highlights that the quality dimensions are generally interrelated, with certain dimensions like "Understanding" and "Care" being more closely tied to each other, while others, like "Timeliness," are somewhat more distinct. The connections between these dimensions and the outcome variables suggest that improving specific aspects of quality could have a positive impact on both perceived overall service quality and future behaviors. Three out of the six items comprising the factor labeled as F4 are related to empathy, demonstrating a connection with responsiveness and reliability. This suggests that empathy might be closely linked to these dimensions, and further investigation into the antecedent relationships among quality dimensions is warranted. Specifically, it would be valuable to explore whether empathetic behavior from professors leads to students perceiving a more responsive attitude from their teachers, which in turn affects their impressions of the educators' reliability. Additionally, the second factor, which encompasses all items initially classified under tangibles along with one item related to empathy (specifically concerning individual attention given by professors), presents an intriguing finding. This combination indicates that tangible aspects of service quality might overlap with perceptions of personalized attention, suggesting a potential intersection between the physical aspects of service and the emotional engagement of educators. A plausible explanation for the observed relatedness between theoretically dissimilar traits may be linked to the specific practices and context of the higher education institution studied. This faculty, being relatively small and located outside the capital, focuses on addressing regional educational needs. Given this context and the recent shifts in higher education funding, students might perceive professors' attention and care as tangible aspects of service quality. This perception could be due to the faculty's reliance on positive word-of-mouth for attracting new students, especially in the absence of substantial promotional resources. The effectiveness of this approach in meeting students' expectations will be explored in the subsequent section.

To determine if there were significant differences between students' perceptions and expectations, mean scores for both expectation and perception items across the service quality dimensions were calculated. Paired-sample t-tests were conducted to compare these scores. A significant positive discrepancy would indicate that students' perceptions exceed their expectations, suggesting a level of service higher than anticipated. Conversely, a significant negative difference would point to service that falls short of students' expectations. The results of these analyses are summarized in Table III. The findings indicate that the faculty's performance is lacking across all dimensions impacting students' perceptions of service quality. Students express significant concerns regarding the timeliness of service delivery and the clarity with which professors communicate service schedules. This suggests a gap between students' expectations and their experiences with service timing and communication. Furthermore, the largest negative discrepancy is found in the area of career prospects. Students are dissatisfied with their perceived readiness to apply their knowledge practically, secure employment, and build careers with leading international firms. They also feel inadequately prepared for advanced studies at prestigious universities abroad. This discrepancy highlights a substantial gap between students' high expectations for career preparation and their current educational experience. Regarding perceptions, although they fall short of expectations, they generally remain within the range of neutral to good, with slightly higher ratings in the area of timeliness. This indicates that while students' experiences are not meeting their ideal expectations, they are still experiencing service quality that is considered acceptable or above average in certain areas. An area for future research could involve exploring students' zone of tolerance. This entails comparing their perceptions with their minimally acceptable and desired expectations. Additionally, investigating the behavioral consequences of service quality, such as changes in student satisfaction, loyalty, and future intentions, could provide valuable insights into how service quality impacts students' overall experiences and their future decisions regarding the institution.

Table 3: Expectation and Perception scores

	Mean Expectations	Mean Perceptions	P-I	t-value	Sign. (2-tailed)
Career	5,98	4,49	-1,49	14,618	,000
Care	5,57	4,67	-0,9	11,992	,000
Tangibles	5,36	3,90	-1,46	16,239	,000
Understanding	5,54	4,60	-0,94	11,878	,000
Assurance	5,85	5,02	-0,83	11,080	,000
Timeliness	6,22	5,22	-1	11,107	,000

The table 3 presents the expectation and perception scores across various dimensions, comparing what respondents expected with what they actually experienced. The key values in this table are the mean expectation and perception scores, the perception-importance (P-I) gap, the t-values, and the significance levels. Looking at the expectation and perception scores, it is clear that expectations are generally higher than perceptions across all dimensions. For example, in the "Career" dimension, respondents had a high mean expectation of 5.98, but their actual perception was much lower at 4.49, resulting in a perception gap of -1.49. This indicates that the service fell short of expectations in this dimension. Similar gaps are seen across other dimensions like "Tangibles," where the difference between expectations and perceptions is significant. The t-values and significance levels indicate whether these differences between expectations and perceptions are statistically significant. All of the dimensions show very high t-values with p-values of 0.000, which means the differences between expectations and perceptions are statistically significant for each dimension. This suggests that respondents consistently perceive lower service quality than they expect, across all dimensions. In terms of the magnitude of the perception gaps, the largest gap is seen in "Career" and "Tangibles," where expectations were much higher than perceptions. This suggests that these two areas may need the most attention for improvement, as the service is not meeting the high expectations that customers have. On the other hand, "Assurance" and "Timeliness" show smaller gaps, which implies that the service performance is closer to meeting expectations in these dimensions, although there is still room for improvement. The data highlights a consistent trend: expectations exceed perceptions across all areas, and the differences are statistically significant. Addressing these gaps by improving service in areas like "Career" and "Tangibles" could enhance overall customer satisfaction and bring service perceptions closer to expectations.

Stodnick and Rogers (2008) argue that continual improvement in service quality is likely to enhance customer satisfaction and loyalty. This, in turn, leads to higher retention rates among current students and reduces the costs associated with attracting new students through positive word-of-mouth. Given the limited resources that most higher education institutions face today, making informed decisions about where to focus quality improvement efforts is crucial. To identify priority areas for service quality improvement at the faculty studied, multiple regression analysis was employed. The analysis involved regressing behavioral intentions, as the dependent variable, on the factor scores derived from the service quality dimensions. This approach aims to determine which aspects of service quality most significantly influence students' intentions, providing actionable insights into where improvements could yield the most substantial benefits. Findings reveal that among the various dimensions of service quality, only career prospects significantly predict students' behavioral intentions. This dimension, which had the largest negative gap between perceptions and expectations, is positively associated with students' willingness to recommend the faculty and their confidence in their decision to enroll. This suggests that improved perceptions of career prospects can enhance students' overall satisfaction and loyalty. The relatively low adjusted R-squared value indicates that other factors, not captured in the current model, account for a substantial portion of the variation in students' behavioral intentions. This underscores the need for further research to identify additional influences on students' intentions.

An interesting aspect to explore in future research is how students' perceptions of career prospects are formed, given that the respondents in this study were undergraduates who had not yet experienced the job market or advanced studies. It would be valuable to investigate whether high expectations, potentially fueled by positive word-of-mouth, negatively impact perceptions. Additionally, understanding the role of observations about the difficulties faced by graduates in securing employment could offer insights. This raises questions about the adequacy of academic knowledge alone in achieving career success. Future studies could examine whether factors such as social and emotional intelligence also play a crucial role in securing desired employment. Furthermore, exploring whether educational institutions should integrate training for these behavioral skills into their curricula could provide a comprehensive approach to preparing students for the job market.

3. CONCLUSIONS

Despite widespread academic agreement on the importance of higher education service quality, there is still no consensus on its conceptualization and measurement. The challenge remains in determining the most effective method to gauge service quality. One fundamental truth is that improvement cannot occur without measurement and subsequent corrective actions. Given the constrained budgets of higher education institutions, there is a pressing need for reliable, valid, and diagnostically sound measurement tools to guide resource allocation effectively. This study aimed to deepen understanding of the construct of higher education service quality. By adapting a generic scale to the higher education context, the research identified a six-dimensional structure for service quality. These dimensions provide a nuanced view of service quality in higher education, highlighting areas that require attention for enhancing institutional performance and student satisfaction. The study has highlighted the significance of the technical dimension of service quality, a finding supported by subsequent factor analysis. This research contributes to bridging perspectives on service quality by

integrating both Nordic and American views, demonstrating that perceptions of undergraduate students are shaped by both technical and functional attributes. Nevertheless, the study does not aim to be prescriptive and acknowledges that it raises more questions than it answers. The measurement tool developed in this study should be seen as a starting point rather than a definitive solution. While the inclusion of both students' expectations and perceptions in the study introduces challenges, such as increased questionnaire length and respondent effort, it also provides valuable insights. This approach allows for early identification of problematic areas before they escalate, offering a practical basis for future research and improvements in higher education service quality management. Higher education differs from commercial businesses in that students cannot easily switch institutions if they are dissatisfied, making spurious loyalty impractical in today's educational environment. The study shows that students' perceptions of service quality consistently fall short of their expectations across all dimensions. Investigating the reasons behind this gap would benefit from additional qualitative research. One plausible explanation for the discrepancy may lie in the sample structure, particularly the higher proportion of first-year students. The transition from secondary education to university is significant, and students' expectations may be shaped by their previous educational experiences. Expecting the same level of service and treatment as in secondary education might be unrealistic and could contribute to dissatisfaction.

To address this, university administrators could implement introductory courses for new students to help them understand what to expect and the behaviors deemed appropriate within the higher education context. Such courses could also benefit students at all levels, as effective participation and realistic expectations are crucial for achieving positive outcomes in higher education. The study's reliance on a convenient sample from a single faculty limits the generalizability of its findings. Future research should aim to include more randomized samples from a variety of institutions and consider the perspectives of both full-time and part-time students. Additionally, exploring the dimensional stability of the service quality construct across different cultural contexts would be valuable. The study's main limitation is its focus on the students' perspective alone. While this approach made the study feasible, incorporating the viewpoints of other stakeholders, such as teaching staff, could provide a more comprehensive understanding of discrepancies between students' expectations and the perceptions of those delivering the service. Such inclusion would offer deeper insights into how service quality is perceived by all parties involved and contribute to a more balanced evaluation of higher education service quality. To enhance the study's findings, incorporating qualitative research could uncover obstacles and challenges faced by front-line employees in delivering high-quality service. Augmenting the measurement instrument with additional items identified through qualitative research would improve its efficacy. Implementing this enhanced tool longitudinally could track shifts in students' expectations and perceptions over time, providing valuable insights into trends. Comparing expectations and perceptions across different years of study could offer further understanding of how service quality evolves as students progress through their education. Additionally, utilizing the instrument for segmenting students based on their perceived service quality or the importance they place on various attributes could aid in identifying specific areas needing improvement. By applying these strategies, university administrators can better address service quality issues and implement targeted actions to close gaps effectively.

REFERENCES

- Akbaba, A. (2006). Measuring service quality in the hotel industry: A study in a business hotel in Turkey. *Hospitality Management, 25*, 170-192.
- Barnes, B. R. (2007). Analyzing service quality: The case of post-graduate Chinese students. *Total Quality Management, 18*(3), 313-331.
- Becket, N., & Brookes, M. (2006). Evaluating quality management in university departments. *Quality Assurance in Education, 14*(2), 123-142.
- Bowers, M. R., Swan, J. E., & Koehler, W. F. (1994). What attributes determine quality and satisfaction with health care delivery? *Health Care Management Review, 19*(4), 49-55.
- Brady, M. K., & Cronin, J. Jr. (2001). Some new thoughts on conceptualizing perceived service quality: A hierarchical approach. *Journal of Marketing, 65*, 34-49.
- Cheng, Y. C., & Tam, W. M. (1997). Multi-models of quality in education. *Quality Assurance in Education, 5*(1), 22-31.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*, 297-334.
- Cruickshank, M. (2003). Total quality management in the higher education sector: A literature review from an international and Australian perspective. *TQM & Business Excellence, 14*(10), 1159-1167.
- Cuthbert, P. F. (1996). Managing service quality in HE: Is SERVQUAL the answer? Part 1. *Managing Service Quality, 6*(2), 11-16.
- Ekinci, Y., Riley, M., & Fife-Schaw, C. (1998). Which school of thought? The dimensions of resort hotel quality. *International Journal of Contemporary Hospitality Management, 10*(2), 63-67.
- Emery, C., Kramer, T., & Tian, R. (2001). Customer vs. products: Adopting an effective approach to business students. *Quality Assurance in Education, 9*(2), 110-115.
- Finn, D. W., & Lamb, C. W. Jr. (1991). An evaluation of the SERVQUAL scales in a retailing setting. *Advances in Consumer Research, 18*, 483-490.
- Ford, J. B., Joseph, M., & Joseph, B. (1999). Importance-performance analysis as a strategic tool for service marketers: The case of service quality perceptions of business students in New Zealand and the USA. *The Journal of Services Marketing, 13*(2), 171-186.
- Griffin, P., Coates, H., McInnis, C., & James, R. (2003). The development of an extended course experience questionnaire. *Quality in Higher Education, 9*(3), 259-266.

- Gronroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing*, 18(4), 36-44.
- Hair, J. F. Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate Data Analysis* (7th ed.). Pearson Prentice Hall.
- Harvey, L., & Green, D. (1993). Defining quality. *Assessment & Evaluation in Higher Education*, 18(1), 1-26.
- Heskett, J. L., Jones, T. O., Loveman, G. W., Sasser, W. E., & Schlesinger, L. A. (1994). Putting the service-profit chain to work. *Harvard Business Review*, 72(2), 164-174.
- Kang, G., & James, J. (2004). Service quality dimensions: An examination of Gronroos's service quality model. *Managing Service Quality*, 14(4), 266-277.
- Kang, H., & Bradley, G. (2002). Measuring the performance of IT services: An assessment of SERVQUAL. *International Journal of Accounting Information Systems*, 3, 151-164.
- Kanji, G. K., Malek, A., & Tambi, B. A. (1999). Total quality management in UK higher education institutions. *Total Quality Management*, 10(1), 129-153.
- Lehtinen, U., & Lehtinen, J. R. (1991). Two approaches to service quality dimensions. *The Service Industries Journal*, 11(3), 287-303.
- Oldfield, B. M., & Baron, S. (2000). Student perceptions of service quality in a UK university business and management faculty. *Quality Assurance in Education*, 8(2), 85-95.
- Owlia, M. S., & Aspinwall, E. M. (1996). A framework for the dimensions of quality in higher education. *Quality Assurance in Education*, 4(2), 12-20.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64, 12-40.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49, 41-50.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1991). Refinement and reassessment of the SERVQUAL scale. *Journal of Retailing*, 67(4), 420-450.
- Rathmell, J. M. (1966). What is meant by services? *Journal of Marketing*, 30, 32-36.
- Redding, P. (2005). The evolving interpretations of customers in higher education: Empowering the elusive. *International Journal of Consumer Studies*, 29(5), 409-417.
- Reichheld, F. F. (1996). Learning from customer defections. *Harvard Business Review*, 74(2), 56-69.
- Reichheld, F. F. (2003). The one number you need to grow. *Harvard Business Review*, 81(12), 46-54.
- Rohini, R., & Mahadevappa, B. (2006). Service quality in Bangalore hospitals – An empirical study. *Journal of Services Research*, 6(1), 59-84.
- Shostack, L. G. (1977). Breaking free from product marketing. *Journal of Marketing*, 41(2), 73-80.
- Sines, R. G. Jr., & Duckworth, E. A. (1994). Customer service in higher education. *Journal of Marketing for Higher Education*, 5(2), 1-15.
- Smith, G., Smith, A., & Clarke, A. (2007). Evaluating service quality in universities: A service department perspective. *Quality Assurance in Education*, 15(3), 334-351.
- Sohail, S., & Shaikh, N. (2004). Quest for excellence in business education: A study of student impressions of service quality. *The International Journal of Educational Management*, 18(1), 58-65.
- Srikanthan, G., & Dalrymple, J. (2003). Developing alternative perspectives for quality in higher education. *The International Journal of Educational Management*, 17(3), 126-136.
- Standards and Guidelines for Quality Assurance in the European Higher Education Area. European Association for Quality Assurance in Higher Education. (2009). Helsinki, 3rd edition.
- Statistical Office of the Republic of Serbia. Available at: [link to source].
- Stodnick, M., & Rogers, P. (2008). Using SERVQUAL to measure the quality of the classroom experience. *Decision Sciences Journal of Innovative Education*, 6(1), 115-133.
- Surssock, A., & Smidt, H. (2010). Trends 2010: A decade of change in European higher education. European University Association.
- Svensson, G., & Wood, G. (2007). Are university students really customers? When illusion may lead to delusion for all! *International Journal of Educational Management*, 21(1), 17-28.
- The Service Economy. Organization for Economic Co-operation and Development. (2000).
- Wisniewski, M., & Donnelly, M. (1996). Measuring service quality in the public sector: The potential for SERVQUAL. *Total Quality Management*, 7(4), 357-365.
- Wright, C., & O'Neill, M. (2002). Service quality evaluation in the higher education sector: An empirical investigation of students' perceptions. *Higher Education Research & Development*, 21(1), 23-39.
- Wu, W. Y., Hsiao, S. W., & Kuo, H. P. (2004). Fuzzy set theory-based decision model for determining market position and developing strategy for hospital service quality. *Total Quality Management*, 15(4), 439-456.
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60, 31-46.