

Application of Extended SERVQUAL Instrument to Tanzania Business Schools

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ABSTRACT

The study applied an extended SERVQUAL instrument to determine the perceived service quality delivered to students' of two business schools in Tanzania during and after the service encounter. Three hypotheses pertaining to demographics and time were tested.

A longitudinal survey was conducted. Extended SERVQUAL instrument was administered to students in the final year of study in interval of six months period. Expectations against the school's actual service performance along the service quality dimensions were determined. A Likert scale anchored at points 1 to 7 was used for dimension items whereas a 5-point scale on overall performance was used.

Two of the three tested hypotheses (H 1 & H 3) were partly supported while H2 was fully supported indicating significant differences in students' perceived service quality by demographical groups; stability of students'/graduates' perceived service quality received during the two periods of time; and impact on Process Outcome on the overall level of service performance at T1.

It is recommended to managers of business schools in Tanzania to continuously apply the extended SERVQUAL while monitoring students' expectations and perceptions for improvement purposes.

The application of the extended SERVQUAL was limited to two conveniently located public business schools in Tanzania in a time interval of six months. This period may not be long enough to track students' perceptions of education services quality after graduation.

In future, the extended SERVQUAL instrument can be applied to a large number of business schools to monitor the dynamics of students and graduates expectations and perceptions in a similar setting. A longitudinal study beyond the 6-month period may be conducted. The study can be extended to other emerging markets.

Keywords: Service Quality, extended SERVQUAL, Students, Business Schools, Tanzania

INTRODUCTION

Undertaking service quality improvement can best be done with an understanding of customers and their requirements (Zeithaml, Bitner & Gremler, 2006). Many factors and settings influence experiences/perceptions, which in turn, have an impact on quality evaluation. In the course of service delivery, for example, discrepancies between customer expectations and the actual service delivered may exist due to the variability of customers and the service providers. Services are characterized by the inherent intangibility, heterogeneity, perishability and, the inseparability of the consumption and production process (Ibid). Students in higher learning institutions have a complex set of expectations and student evaluations along functional and technical dimensions vary as a result of the student's experience. The learning experience of students takes long time ranging from six months,

one, two, three, four or even more years. Services delivered by training institutions may have deficiencies as perceived by students based on the prior expectations. There could be instances in the service delivery process that institutional staff for example lecturers may not deliver what students wanted in terms of service design (Clewes, 2003; Gware, 2015) or the organizational issues. Discrepancies of service delivered against the actual performance of training institutions may lead to students' dissatisfaction with services delivered.

The service performance in public business schools in Tanzania may be questionable given the big class sizes, competency of the faculty, available infrastructure etc. In view of the aforesaid, there is a need to assess students' service quality perceptions of business schools they are studying in as a continuous undertaking against the actual service performance for improvement purposes.

The purpose of this study is to apply the extended SERVQUAL to determine the persistence of perceived education service quality received in business schools in Tanzania in a time interval of six months in a longitudinal study. The students' perceptions on various dimensions of the service quality in relation to overall service quality are established and compared between groups- pre and post-graduation. Three hypotheses pertaining to demographic differences, students/graduates overall mean gap scores across two time periods are tested.

Monitoring of the service quality performance of organizations is an important undertaking for quality enhancement, a necessary step towards gaining the competitive advantage over other organizations (Boshoff & Gray, 2004, Getty & Getty, 2003; Zeithaml et al., 2006). Other business strategies can easily be copied by competitors (Boshoff & Gray, 2004).

The results from this study will be useful to managers of business schools as it shows the discrepancy between students' expectations and the actual performance of the institutions. Specifically, the information gathered informs managers of particular areas in need of improvement and can be used to guide their decision-making given the available scarce resources. Research and awareness about what students deem important will enable managers to better anticipate and address their particular needs during and after the service encounter. Recognition of differences among student groups will further help policy makers in Tanzania to set priorities and make appropriate investment decisions. This, in turn, will strengthen the educational institutions. The literature on students as customers and their perceptions of the education services they receive is limited, particularly in the context of emerging markets. This inquiry contributes to the literature on service quality in education as a marketing sector and specifically to Tanzania.

LITERATURE REVIEW

Customers or individuals view an object, event or service rendered as acceptable or unacceptable according to their cognitive evaluations of experiences against their own expectations. Disconfirmation theories support this view.

Confirmation/Disconfirmation Theories

Among existing disconfirmation theories we have: Expectation-disconfirmation theory. The theory holds that satisfaction is jointly determined by pre-experience expectations and post-experience confirmation/disconfirmation of expectations. Disconfirmation is the degree to which performance exceeds, equals, or falls short of an individual's expectations, resulting in positive, zero, and negative disconfirmation, respectively (Chao, Wang, Fu & Yi, 2011)

Vroom's Valence Instrumentality Expectancy Theory (Van Eerde & Thierry, 1996), is based on three variables: Valence, Instrumentality and Expectancy. Valence concept refers to the affective orientation/value towards an outcome- the emotional orientations, which people hold with respect to the outcome (rewards). Positive valence is preferred to negative valence i.e. the person must prefer attaining the outcome rather than not. Instrumentality construct has an outcome-outcome association (relationship between performance and outcome). Expectancy is an individual's belief about whether a particular goal is attainable (Lawler III & Suttle, 1973, Van Eerde & Thierry, 1996).

Value percept disparity theory: The theory holds that consumer satisfaction/dissatisfaction is an emotional response resulting from a cognitive-evaluative process in which the perceptions of (or beliefs about) an object, action, or condition are compared to one's values (or needs, wants, desires). If disparity between percepts of the object, action, or condition, and consumer's values is smaller, the more favorable the evaluation and the greater the creation of positive affect associated with goal attainment, i.e., satisfaction. Conversely, the greater the consumer's value-percept disparity, the less favorable the evaluation, the less creation of positive affect, and the greater the creation of negative affect i.e., dissatisfaction. This theory assumes that a consumer evaluates one or more aspects of a product or institution or marketplace behavior; the consumer holds one or more value standard/ norm; and that the consumer makes a thoughtful judgment of the relationship between perceptions and value (s) (Bloemer & Dekker, 2007).

While confirmation/disconfirmation theories evaluate an outcome i.e. consumer's satisfaction with the product/service, same disconfirmation theories are used to evaluate consumers /customers service quality perceptions of service delivery process. The constructs, satisfaction and service quality are related but not similar (Parasuraman, Zeithaml & Berry, 1988). While Service quality is an attitude about a product/service, satisfaction is a cognitive evaluation of a product or service in respect of meeting expectations (Lawler III & Suttle, 1973).

Satisfaction as a process: Satisfaction is a state felt by a person who has experienced service performance in comparison to prior expectations. Satisfaction is a function of relative level of expectations and perceived performance (Hayanash, Abdullah & Warokka, 2011). In the context of a student, satisfaction is the student's fulfillment response after education services experience.

Customer satisfaction concept centered on process and definition thereof is adopted in this study. This is because in service environment, consumption experience consists of collective perceptual, evaluative and psychological processes, which eventually generate consumer satisfaction (Boshoff & Gray, 2004).

In the literature, there has been unending debate of whether customer satisfaction is an antecedent of service quality or the result of service quality. Of the two schools of thought, one take the stance that satisfaction is an antecedent of service quality since to reach an overall attitude (service quality) implies an accumulation of satisfactory encounters (Bitner, 1990; Bolton & Drew, 1991).

The other school of thought takes the view that service quality is the antecedent of customer satisfaction (Cronin & Taylor, 1992; Rust & Oliver, 1994; Zeithaml et al., 2006). Empirical research by Cronin & Taylor (1992) showed that service quality has a significant effect on customer satisfaction. According to Zeithaml et al. (2006), customer satisfaction is a broader concept than service quality. Service quality is one of the components of the customer satisfaction concept.

The SERVQUAL model (Parasuraman et al., 1988) has been widely used as a tool to evaluate service quality for various service industries. Five dimensions namely, tangibles, reliability, responsiveness, assurance and empathy have been used to measure service quality. The multi-dimensional scale consists of 22 items. The scale has been used to evaluate the service quality of companies offering services in banks, credit card, repair and maintenance, and telephone services. However, services differ in terms of the degree of intangibility involved. SERVQUAL survey has been accepted as an ideal instrument for assessing service quality (Cronin & Taylor, 1990) and thus used globally in various cultural settings (Choudhury, 2015) and service setting.

SERVQUAL was designed as generic measure of service quality. The instrument often requires modification to fit the specific situation (Abdullah, 2006a). More specifically, higher education institutions must focus attention on the dimensions perceived to be important by students instead of generalizing. Sultan and Wong (2010) view service quality as a contextual issue since its dimensions vary widely. It is therefore worthwhile to investigate service quality based entirely on the situation at hand. The measurement of service quality should therefore adapt the context of each study. Customers do not perceive quality in a uni-dimensional way but rather judge quality based on multiple factors relevant to the context (Carrillat et al. 2007; Zeithaml et al., 2006).

The term quality has been defined differently e.g. quality as “suitable for use”(Juran,1982); “all about fitness”(Crosby, 1979; 1984); “conforming to requirements/specifications” which have been set by the organization as cited in Parasuraman, Zeithaml and Berry (1985, p. 41) and Palmer (2001, p. 208) respectively; “the extent to which a product or service meets and /or exceeds customer expectations” (Sebastianelli & Tamimi, 2002, p. 444); “a comparison of consumer expectations with actual service performance” (Parasuraman et al., 1985, p. 42); “quality means pleasing consumers not just protecting them from annoyances” (Garvin, 1987, p. 103).

The above definitions of quality imply that quality can only be defined in the perspective of customers and occurs where an organization supplies goods or services to a specification that satisfies customer needs (Palmer, 2001). The concept of quality control for tangible goods describes quality in terms of conformance to specifications; conformance to requirements; fitness for use; conformance to customer requirements (Ming & Ing, 2005; Walker & Johnson, 2006). Manufactured goods have clear specifications for the components of the final product (Harte & Etchart, 1997).

Quality determination is easy for tangible goods. This is not the case for intangible goods/services. Customers cannot assess the quality of the services they are going to receive beforehand and this raises uncertainties (Gabbott & Hogg, 1997; Venetis, 1997; Zeithaml et al., 2006). Furthermore, the evaluation of service quality is a process through which a consumer compares his expectations with the service he perceives to have received (Grönroos, 1984). Parasuraman, Zeithaml and Berry (1988) define perceived quality as the degree and direction of discrepancy between the consumer’s perception and expectations. On the other hand, Getty and Thomson (1994) as cited in (Palmer, 2001: 210); Gabbott & Hogg (1997), state that perceived quality may be viewed as a global attitudinal judgment associated with the superiority of the service experience over time.

Addressing education specifically, the Quality Assurance Agency for Higher Education (QAA) for the UK, as cited in Eagle and Brennan (2007: 47), defines education quality as “A way of describing how well the learning opportunities available to students help them to achieve their award. It is making sure that appropriate and effective teaching, support,

assessment and learning opportunities are provided for them.” In contrast, Cheng and Tam (1997: 23) state: “Education quality is a character of the set of elements in the input, process, and output of the education system that provides services that completely satisfy both internal and external strategic constituencies by meeting their explicit and implicit expectations.” The World Declaration on Higher Education (UNESCO, 1998) declared that “quality in higher education is a multi-dimensional concept, which embraces all its functions and activities, teaching and academic programs, research and scholarship, staffing, students, buildings, facilities, equipment, services to community and the academic environment, ... interactive networking.”

Clearly, the aforementioned definitions of the concept of service quality, all focus on fulfilling customer needs and requirements and how well the level delivered by a service provider matches customer expectations. The customer is the judge of the service quality (Cuganesan, Bradley & Booth, 1997). Given the intangible nature of the services and the fact that quality is an attitude construct, related but not equivalent to satisfaction (Parasuraman et al, 1988), it can be described as the degree and direction of the discrepancy between customer’s expectations and perceptions of the service (Bigné, Martínez & Miquel, 1997; Ham, 2003; Zeithaml et al., 2006).

Service performance is evaluated after the service is experienced. If the customers’ expectations are high compared to the perceived service quality received, this results in dissatisfaction. Conversely, if customers’ expectations are below the perceived service quality received, then the customer is satisfied (O’Neill & Palmer, 2004; Zeithaml et al., 2006). Indeed, an awareness of the situations both before and after the service encounter facilitates the identification of service quality deficiencies. Recognizing the shortfall in service delivery allows service organizations to make adjustments to meet and maintain the proper standards, which are necessary for acceptable/adequate service delivery (Zeithaml, et al., 2006). Identification of such shortfalls is possible if measurement of service equality is undertaken on an on-going basis.

The motivation for pursuing studies in higher educational (training) institutions is primarily the expected quality of knowledge and skills to be received. **The knowledge and skills obtained by students is an outcome**, which is realized after students have encountered multiple service experiences while in training institutions. Boshoff and Gray (2004) suggest that customer satisfaction is process oriented and particularly so in services. The multiple encounters which students experience in education services delivery process calls for the importance of getting students’ views on overall satisfaction (contrary to satisfaction with a specific transaction).

Perceived service quality of students was determined based on the dimensions:

1. Tangibles - Appearance of physical facilities, equipment, personnel and communication materials
2. Reliability - Ability to perform the promised service dependably and accurately
3. Responsiveness-Willingness to help customers and provide prompt service
4. Assurance - Knowledge, courtesy of employees and their ability to convey trust and confidence.
5. Empathy - Caring, individualized attention the organization provides to its customers whereas
6. Process Outcome measures satisfaction with the knowledge and skills received from higher education service providers.

Empirical Studies and Hypotheses

Demographic variables are important factors to marketers as they facilitate deeper understanding of customer's product/service preferences, attitude formation, buying decision etc. (Malhotra & Birks, 2000). For instance customers from mature and emerging markets may have different perceptions of the service quality dimensions (Malhotra, Ulgado, Agarwal, Shainesh & Wu, 2005; Zeithaml et al., 2006). It is worth noting that students like other consumers in marketing have individual differences. Empirical evidence shows mixed results on demographic effect on service quality evaluations. Snipes, Thomson, and Oswald (2006) study of gender biases of performance evaluations indicate that male service providers receive higher rating than female service providers. In evaluation of service quality, Hung's (2002) study on the cognitive and affective components of service quality shows that females tend to rate the empathy dimension higher than men. The study on the impact of service contact type and demographic characteristics on service quality perceptions by Ganesan-Lim, Russell-Bennett and Dagger (2008) indicate the difference on service quality perceptions according to the level of contact inherent to the service and consumer age. Gender or income poses no differences in service quality perceptions (Ganesan-Lim et al., 2008). Urban and Pratt (2000) study in US concerning the relationship between bank mergers and service quality perceptions indicate a significant relationship between bank mergers and service quality perceptions differing based on the demographic characteristics of the respondents-gender, ethnicity, education, and income. Ilias, Hassan, Rahman and bin Yaso (2008) examination of gender, race/ethnicity and semester of study of graduate school students in two private universities in Malaysia indicate no significant relationship between gender, races/ethnicity, semester of study and service quality or with satisfaction. Yusoff, McLeay and Woodruffe-Burton (2015) suggest that demographic factors influence the level of business student satisfaction.

The evidence from the previous studies indicates that demographic variables can influence service quality perceptions. Students' service quality perceptions of business schools in Tanzania may then depend on demographics (gender, age, employment status, marital status and professional specialization).

Hypothesis 1: There is no demographic difference in assessment of service quality received from business schools in Tanzania between students' groups.

In marketing time is considered a valuable factor as it influences consumers' behavior, decision-making etc. Literature shows a number of studies conducted on service quality perceptions mostly been of cross-sectional nature. These studies have ignored the effect of time (O'Neill, 2003). Students' service quality perceptions change with time due to improvements, which may have been made in the course of service delivery or due to new enrolment. The fact that service quality evaluation is a global accumulation of experiences, monitoring service quality over time for improvement undertaking is important. Oldfield and Baron (2001) in the course of developing service quality measuring instrument for higher education in a UK University show that students' service quality evaluation for first year and final year students varied. A study by Holdford and Reinders (2001) on service quality perceptions of students studying pharmacy during four years of service experience indicated instability of students' service quality perceptions. O'Neill and Palmer (2001) study on students' service quality perceptions using a modified SERVQUAL during an orientation week and six weeks after the orientation indicate a students' service quality perception decline with passage of time. It is therefore hypothesized that:

Hypothesis 2: There is no difference between students'/graduates' overall mean gap score during T1 and T2.

Hypothesis 3: There is no difference on the impact of service quality dimensions on the overall service quality across the two time periods (T1&T2).

The relationship of the service quality dimensions (the independent variables) with the overall level of service performance (dependent variable) is shown in Figure 1. Since the overall quality gap is a sum total of dimensions' gap, a relationship between service quality dimensions and the Overall level of service performance is hypothesized (H3).

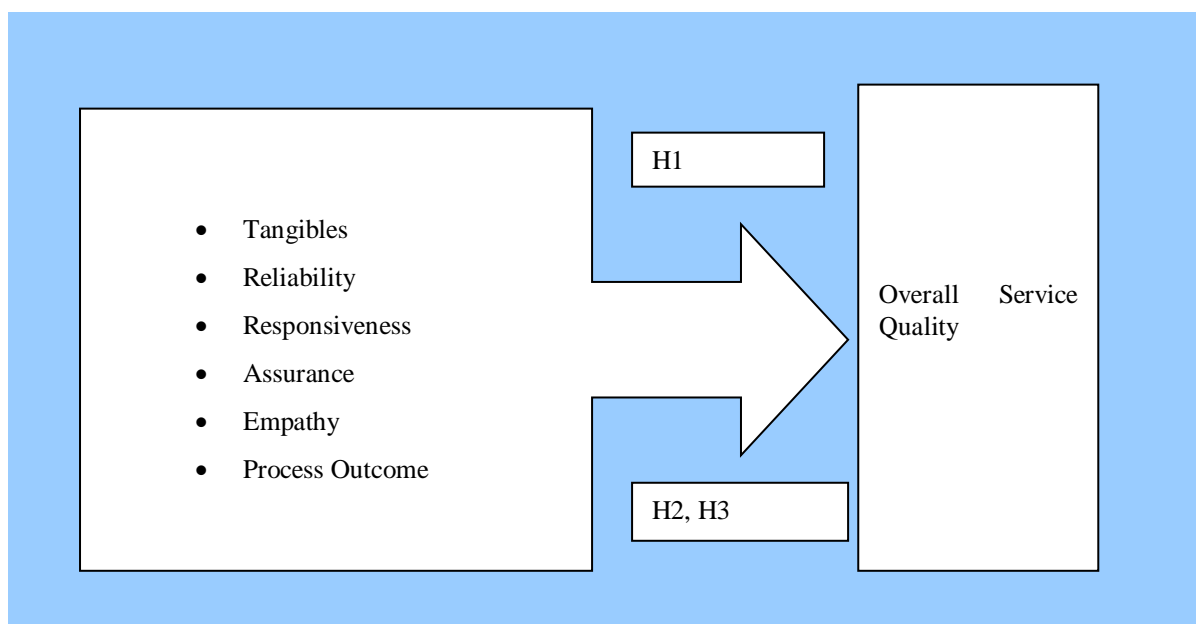


Figure 1. Relationship of service quality dimensions and overall service quality

METHODOLOGY

The study applied an extended SERVQUAL instrument to determine the persistence of perceived service quality delivered to students' of two business schools in Tanzania during and after the service encounter. Students' perceptions on service quality dimensions were assessed and compared between groups. Three hypotheses pertaining to demographics and time are tested.

A longitudinal survey was conducted applying the extended SERVQUAL instrument in two time periods at two Tanzanian business schools. Students in the final year of study were the units of analysis. The students' perceptions (pre and post-graduation) along the Tangible, Reliability, Responsiveness, Assurance, Empathy and the Process Outcome dimensions were assessed. The first five are general aspects of service quality while the Process outcome consists of context-specific aspects (Parasuraman et al. 1991). The extended SERVQUAL instrument consisted of 22 of the original SERVQUAL items, rephrased to make them suitable for educational institutions, plus six context specific items relating to the students' satisfaction with: the intellectual development/offerings at the institution, and the skills and competencies acquired at the institution (Holfold & Reinders, 2001). Demographic items were also included. The validity of the instrument (Carman, 1990) is acceptable for practical use and specifically to higher learning institutions (Calvo-Porrall, Levy-Mangin & Norvo-Corti, 2013). The responses to the statements were measured by a Likert type scale (anchored at points 1 to 7 according to the validated instruments). An item asking students to assess the

institution’s overall performance was also included. Overall performance was measured on a 5-point scale. The content of the added items is given in Table 1.

Table 1. Process Outcome Statements

<i>No.</i>	<i>Statement</i>
<i>Process Outcome</i>	
23	Provision of high quality education
24	Satisfaction with intellectual development at the institution
25	Satisfaction with the skills acquired at the institution
26	Pride of the accomplishments at the institution
27	Anticipated academic performance

Although student samples are typically not encouraged for use in research (Nel, Heerden, Chan, Ghazisaeli, Halvorson & Steyn, 2011), students are the target population in this study since they are the consumers of educational services.

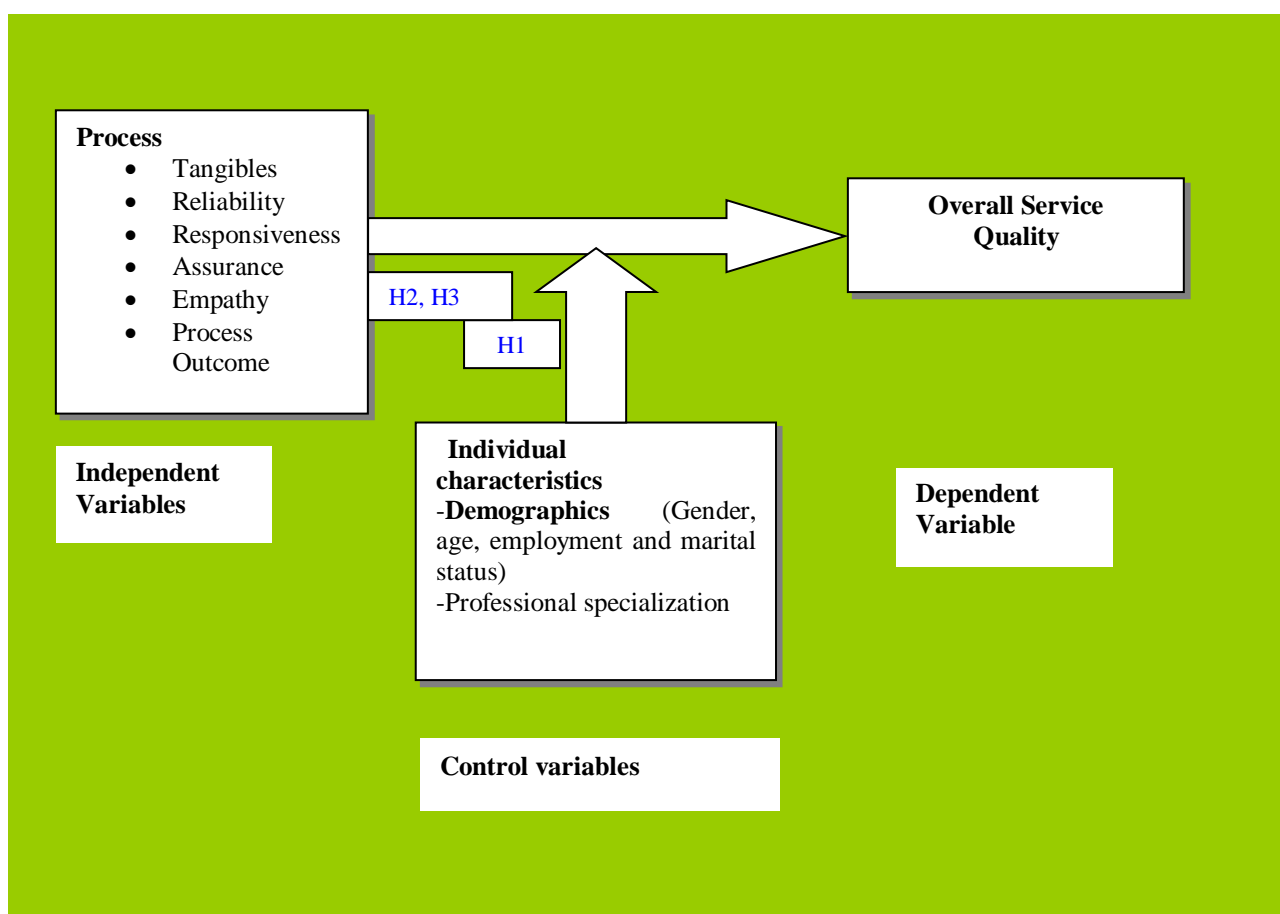


Figure 2. Theoretical Model

Sample Characteristics

The demographic distribution of the student sample is shown in Table 2. The students' modal age group was 25-29 years for both periods of time. There was no significant change in age during the two periods [Paired Sample T-test ($t(188) = 0.663; p=0.508$)].

Table 2. Sample Characteristics

	T1	Percent	T2	Percent
	Frequency		Frequency	
Age group				
15-19	1	0.27		
20-24	66	18.13	44	21.36
25-29	218	59.89	126	61.17
30-34	38	10.44	18	8.74
35-39	5	1.37	4	1.94
40-44	3	0.82		
Not stated	33	9.07	14	6.80
Total	364	100.00	206	100.00
Gender				
Male	223	61.30	123	59.70
Female	141	38.70	83	40.30
Total	364	100.00	206	100.00
Marital status				
Married	26	7.10	15	7.30
Single	323	88.70	186	90.30
Living together	12	3.30	3	1.50
Divorced	1	0.30	0	0.00
Separated	1	0.30	0	0.00
Not stated	1	0.30	2	1.00
Total	364	100.00	206	100.00
Employment Status				
Currently Employed	13	3.60	43	20.90
Not currently employed	351	96.40	163	79.10
Total	364	100.00	206	100.00
Professional Specialization				
Business Administration	64	17.60	45	21.80
Accountancy	128	35.20	61	29.60
Procurement and supply / Logistic management	35	9.60	29	14.10
Marketing	33	9.10	13	6.30
Legal and industrial metrology	13	3.60	9	4.40
Information technology	41	11.30	23	11.20
Tax administration	8	2.20	4	1.90
Banking and finance	19	5.20	7	3.40
Computer science	23	6.30	15	7.30
Total	364	100.00	206	100.00

During T1 (students in their senior year) and T2 (recent graduates), there were more males than females. The number of employed students increased from 3.6% in time T1 to 20.9 % employed graduates in time T2; however, this was expected since graduates were to be employed after the completion of their studies. The employment rate of graduates after six months may seem low when compared to those in a mature economy. However, this is a normal rate in Tanzania. The relative proportion of students by professional specialization remained the same in Business Administration, Accountancy and Tax Administration for the two periods of time.

Procedure of Data Collection

The extended SERVQUAL instrument was personally administered to students who were in their third year in June/July 2013 (T1). The instrument was again administered in November/December 2013 (T2). Permission from the CEOs of business schools in Tanzania was sought before administration of the instrument.

During time T2-six months after they had graduated, questionnaires were, again, personally administered to graduates. The period of six months after the service encounter conforms to Kirkpatrick and Kirkpatrick’s (2006) suggestion of undertaking a behavioral change assessment six months after training is completed.

An incentive of air time of Tanzanian shillings 5,000 was offered to encourage good response rate (Malhotra & Birks, 2000; Reiche & Harzing, 2007). During T1 364 students participated in the study. However, after six months (T2) a total of 206 recent graduates (52%) responded to the second survey. This is an acceptable response rate (Nel et al., 1997; Reiche & Harzing, 2007; Reimer & Kuehn, 2005).

RESULTS, ANALYSIS AND DISCUSSION

The aggregated mean gap scores ($\Sigma P-E/N$) of responses within each dimension for the two periods of time (T1 & T2) are shown in Table 3.

A One-way ANOVA was carried out using the aggregated gap as a dependent variable and participants’ perceptions as independent variables to establish and analyze group differences.

The aggregated mean gap scores at time T2 are lower than those for time T1 for all dimensions.

Table 3. Students’ aggregated gaps scores during time T1 and time T2

	<i>Time T1</i>	<i>N=364</i>	<i>Rank</i>	<i>Time T2</i>	<i>N=206</i>	<i>Rank</i>
Dimension	Mean	Std Deviation		Mean	Std Deviation	
Tangibles	-0.9687	1.8397	6	-0.6028	1.5377	5
Reliability	-1.4040	2.1694	1	-0.9580	1.8874	1
Responsiveness	-1.3218	2.0076	3	-0.8976	1.9064	2
Assurance	-1.2698	1.8191	4	-0.7225	1.5244	4
Empathy	-1.3465	1.9224	2	-0.8754	1.6934	3
Process outcome	-0.9876	1.5786	5	-0.5300	1.3284	6
Overall gap	-1.1980	1.5848		-0.8564	1.4182	

Hypothesis Testing and Discussion

Hypothesis 1: There is no demographic difference in assessment of service quality received from business schools in Tanzania between students' groups.

One-way between groups ANOVA showed no significant difference between the aggregated dimension scores for male and female students at T1 whereas at T2 there was a significant difference between male and female graduate scores with regard to Empathy ($F(1,203) = 4.2276, p=0.0411$). There was no significant difference found between students' in terms of age group, marital status or employment status at T1 and T2.

However, there was a significant difference (at $p < 0.0005$) in aggregated scores for the dimensions - Tangibles; Reliability; Assurance; Empathy; Process outcome and the Overall aggregated gap ($p=0.039922$) according to professional specialization.

Post Hoc tests indicate a significant mean difference for Tangibles between Business Administration and Banking and Finance; Accountancy and Tax Administration; Procurement and Supply/Logistic Management and Banking and Finance; Marketing and Information Technology and Marketing and Computer Science.

Similarly, at time T2 there was a significant mean difference between graduate scores by professional specialization for the dimensions Tangibles, Reliability, Empathy and Overall gap.

Post Hoc testing indicates a significant difference between the Marketing and Banking and Finance specializations with regard to the aggregated scores within the Tangibles dimension ($p=0.035062$). This means students' perception on service quality on Tangibles items e.g. "institution has up-to-date equipment" differed between professional specializations.

We can therefore conclude that the service quality perceptions of male and female students and professional specialization in the two Tanzania business schools differed on aspects like "courteousness of institution's employees". Similar results were reported by (Calvo-Porrall, Levy-Mangin & Norvo-Corti, 2013) suggesting that the Spanish students differed on tangibility and empathy dimensions-the most influential variables on students of higher learning institutions perceived quality. In addition, in the Indian context Choudhury (2015) show that competency and tangibles are most important variables.

Hypothesis 2: There is no difference between students'/graduates' overall mean gap score during T1 and T2

A One-way repeated measure ANOVA indicates no significant difference in the Overall aggregated mean gap between T1 and T2 confirming hypothesis 2. This means students' perceptions of service received from business schools in Tanzania remained the same six months after graduation. These results differ from those reported by O'Neill (2003) when students were in the orientation process, which showed instability of the students' perceptions.

The overall gap (Table 3), students' perceptions of service quality received from business schools in Tanzania six months after graduation did not differ significantly at $p=0.05$. However, inspection of the magnitude of the overall gap observed was smaller in time T2 compared to time T1. Between dimensions, the Process Outcome, Empathy, Assurance and Responsiveness differed significantly between the two periods of time. Students differed on e.g. satisfaction with the skills acquired at the institution; personal attention given to students

by the employees of the institution; knowledge of institution's employees to answer students' questions; and employees of the institution prompt provision of services.

The decline of the Overall gap may be explained on the basis of recent graduates having relaxed from academic work pressure. While in school students had all the time to focus attention to how the services were being delivered and could therefore notice subtle deviations in business schools' service delivery process. Ott (2011, p. 27) argues that "There are limits to our ability to process information.... our brains take shortcuts in the form of daily routines and habits that allow us to focus only on things that fall outside the pattern". During students' school experience, events in service delivery which may have happened because of an explainable reason e.g. delays may disturb students due to their normal academic pressure. Conversely, perhaps lapse of time may have moderated their expectations/perceptions about the schools performance after getting the reality after school or graduates may have been misremembering how education services were being delivered after school. Abercrombie as cited in O'Neill (2003) argues that as time pass people tend to misremember things. Nevertheless, to managers of business schools in Tanzania this may be the true assessment of the schools performance as the graduates' assessment at T2 were free of academic pressure. O'Neill (2003) in a longitudinal study reports a change in students' service quality perceptions (during service encounter) in an Australian university. Students' perceived service quality declined with time. While conducting service quality surveys by the public business schools in Tanzania is a good thing for service quality sustenance, it may also be costly as they depend on government funding. Recognition of the right time to undertake these surveys would be cost effective to the management of business schools in Tanzania. O'Neill (2003) indicates that measuring students' perceived service quality of universities at post purchase or re-purchase point may be better as time effect may be low. Time factor determines customer behavior and has an important implication to marketers (Ott, 2011).

Hypothesis 3: There is no difference on the impact of service quality dimensions on the overall service quality across the two time periods (T1&T2).

The standardized coefficients (Beta) (T1) in Table 4 indicate low impact on service quality dimensions on the Overall level of service performance across the two time periods. The coefficients are significantly not different from zero except the Process outcome. During time T2 standardized coefficients (Beta) for service dimensions are all significantly not different from zero. Hypothesis H3 is therefore supported.

Service quality dimensions are shown to have no impact on the overall level of service performance save for the Process Outcome whose negative coefficient was significantly different from zero at T1. This infers that Process Outcome contribute significantly in students' evaluation of the level of service quality of business schools in Tanzania while in school.

From this hypothesis it can be inferred that it is appropriate for business schools in Tanzania to evaluate their service delivery performance from students after they have graduated. These results are similar to those reported in the Indian context where competency was found to determine the perceived service quality of higher learning institutions (Choudhury, 2015).

Table 4. Standard Multiple Regression's Coefficients during time T1 and T2

Model	T1	Unstandardized		Standardized Coefficients	t	Sig.	Coefficients Collinearity Statistics	
		B	Std. Error				Beta	Tolerance
	1							
	(Constant)	2.608	0.0631		41.3261	0		
Comp. 1	Reliability & Responsiveness	-0.0726	0.0461	-0.1418	-1.5767	0.1158	0.2799	3.5723
Comp.2	Empathy & Assurance	0.0167	0.047	0.0324	0.3564	0.7218	0.2362	4.2330
Comp.3	Process outcome	-0.1257	0.0445	-0.2051	-2.8264	0.005	0.3809	2.6252
Comp.4	Tangibles	-0.0302	0.0338	-0.0578	-0.8958	0.371	0.5792	1.7265
	R Square		0.1046					
	Adj R Square		0.0941					
ANOVA	Standard Error of Estimate		0.9245					
	F		9.9333					
	Df		4,360					
	Sig.		0					
	T2							
	(Constant)	3.023	0.076		39.788	0		
Comp.1	Empathy_Assurance_Responsiveness	-0.0966	0.0769	-0.1702	-1.2563	0.2106	0.2919	3.4257
Comp.2	Process outcome	0.079	0.0779	0.1173	1.0144	0.3117	0.3945	2.5352
Comp.3	Reliability	-0.0126	0.0609	-0.0251	-0.2063	0.8368	0.4006	2.4965
Comp.4	Tangibles	-0.0276	0.0556	-0.0465	-0.4965	0.6201	0.8800	1.1363
	R Square		0.0225					
	Adj R Square		0.0013					
	Standard Error of Estimate		0.9029					
	F		1.0628					
	Df		4, 202					
	Sig.		0.3763					

CONCLUSION AND RECOMMENDATIONS

We applied the extended SERVQUAL to determine students' persistence of perceived service quality delivered to students in two business schools in Tanzania during and after the service encounter. We tested three hypotheses namely:

H1: There is no demographic difference in assessment of service quality received from business schools in Tanzania between students' groups.

The hypothesis was partly supported. Students in different Professional specializations perceived service quality delivered by Tanzania business schools differently. However there were no significant differences in students perceived service quality by gender, marital status, and employment status or by age.

H2: There is no difference between overall mean gap scored during T1 and T2. The results have indicated significant stable student/graduates' perceived service quality received from Tanzania business schools during the two periods of time. However, the magnitude of dimensions' service gaps in time T2 is relatively lower compared to time T1. The context specific dimension Process Outcome received the lowest gap (-0.5300) in Time T2 compared to -0.9876 it received in time T1. This implies students were more satisfied with the knowledge, skills and competencies received from business schools after graduation.

On the other hand, this may indicate that the services offered by business schools were within the tolerance zone- desired versus expected (Zeithaml et al., 2006). Clearly, in order to be competitive, business schools need to differentiate themselves (Durvasula, Lysonski & Madhavi, 2011) by offering the best education services. Although the gap scores are negative, the magnitude is relatively small compared to the extreme score of -6 (1-7). However, areas with higher negative gaps may call for immediate redress from business schools' managers.

H3: There is no difference on the impact of service quality dimensions on the overall service quality across the two time periods (T1&T2).

Service quality dimensions were shown to have no impact on the overall level of service performance save for the Process Outcome whose coefficient was significantly different from zero at T1. This infers that Process Outcome contribute significantly in students' evaluation of the level of service quality of business schools in Tanzania while in school. Hypothesis 3 was tested using regression model (Table 4). The hypothesis was partly supported.

MANAGERIAL IMPLICATIONS

From the results obtained concerning *the students' perception of education service quality received during the service encounter persistence to post purchase stage*, it is recommended to managers of business schools in Tanzania to improve the service quality aspects in line with Process Outcome and Tangibles while undertaking service quality investment decisions. Allocation of resources should be towards improving the faculty of the schools. This has marketing implications due to an increased awareness of the importance of education and high academic standards in light of increased competition worldwide. Students evaluate business schools in terms of the quality of the education they will receive if they invest their time, energy and money. Acquiring up-to-date equipment and visually appealing physical facilities or material associated with service delivery should be another focus of investment. These aspects can be marketed by business schools in Tanzania to attract the best students and staff.

On a micro level the extended SERVQUAL instrument will enable managers to analyze student, employee and departmental differences to fine-tune adjustments in services delivery to meet or surpass expectations in order to maximize student and employee satisfaction, a positive institutional image and word-of-mouth publicity (Smith, et al., 2007).

LIMITATIONS

Students from two conveniently located (public) business schools in Tanzania were selected for this research. The administration of the instrument to students the second time was in a six-month period. This period may not be long enough to track students' education services quality assessment after graduation. The results on service quality determinants obtained from this study of Tanzanian public business schools may, therefore, not be conclusive. Rather they open future research avenues in similar settings.

FUTURE RESEARCH AVENUES

The extended SERVQUAL instrument can be administered to a large number of business schools in a similar setting. This will help confirm/disconfirm the determinants of service quality for public versus private business schools in Tanzania. Given the dynamic nature of student and graduate expectations and perceptions, it would be desirable to extend the scope of this longitudinal study beyond the 6-month period used in this study. More can be learned about how perceptions are affected by the passage of time, which also has implications for managers as marketers. The study can be extended to other emerging markets. Other service sectors' quality performance can also be assessed using a context specific extended SERVQUAL model.

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