

## EFFECT OF SERVICE QUALITY ON STUDENTS' SATISFACTION IN TANZANIA HIGHER EDUCATION

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### ABSTRACT

*This study examined the effect of service quality (SQ) dimensions on the students' satisfaction in higher education in Tanzania. A cross sectional questionnaire survey involving 200 students was conducted at the college of Business Education, Dodoma Campus. A SERVQUAL Model with five SQ dimensions; tangibles, reliability, responsiveness, empathy and assurance was adopted in this study. To estimate the overall SERVQUAL index score, the difference of perceptions and expectations (P – E) was computed and finally the scores for each SQ dimension were summed and divided by five. Binary Logistic Regression Model was used to estimate the effect of SQ dimensions on students' satisfaction. The results show that the SQ index of all SQ dimensions and the overall SERVQUAL index was negative implying that the SQ was negative. The regression results indicate that tangibles, reliability, empathy and assurance have negative effect on students' satisfaction. The study recommends that the college management needs to improve tangibles, reliability, empathy and assurance in order to minimize students' dissatisfaction toward SQ of education services offered by the College of Business Education, Dodoma Campus.*

**Keywords:** *SERVQUAL Model, Satisfaction, Higher Education.*

### 1.0 INTRODUCTION

The concern of Service Quality (SQ) and customer satisfaction has become of critical concern globally including Tanzania. Following the fact that evaluation of services is very complicated, education being one of the services is complicated too during evaluation of its quality. Higher education institutions globally have established quality assurance units or departments in order to monitor and control quality standards. In the era of increasing competition among higher education institutions, attracting highly qualified students toward achieving highly qualified graduates has necessitated them to pay more concern to service quality issues.

Globally, many studies have been conducted to measure service quality in higher education institutions. For instance, Daniel and Berinyuy (2010) at Umea University assessed service quality and customer satisfaction the results indicated that the overall service quality perceived by consumers was not satisfactory meaning that all dimensions had higher expectations than perceptions of service quality. Accordingly, the study of Hasan *et al.* (2008) that examined the relationship between service quality dimensions and overall service quality and students' satisfaction showed that service quality dimensions had effect on students' satisfaction. In Africa, the study of Green (2014) in South Africa measuring service quality in higher education found that customers had high expectations in tangibles, reliability and assurance dimension.

In Tanzania, previous studies have concentrated on measuring service quality in higher education (e.g. Mwasongo *et al.*, 2015). However, this study did not established the effect of SQ dimensions on students' satisfaction, something which is important to be measured given the current stiff competition in higher education institutions in Tanzania, whose number has increased tremendously in the current years. In addition, the higher education regulatory authorities have provided flexibility for students to shift from one institution to another whereby the issue of service quality will be among the areas that will influence their shifting. Therefore, based on the inadequacy in coverage of the effect of SQ dimension on students' satisfaction in the previous studies, this study tries to cover this gap in the context of Tanzania.

The study findings will be useful to various stakeholders including policy makers, higher learning institutions (HLIs), the public and academicians in various ways as presented hereunder. To policy makers particularly the Ministry of Education, Science and Technology, findings will have practical application in designing better initiatives and

interventions in supporting HLIs financially for the aim of improving academic infrastructures and capacity building especially to human resources. To the HLIs, the findings will help them to understand service quality dimensions and points of interventions for improved service quality. In this case, the findings will help HLIs to get the basis for prioritization in intervention programmes given the facts that resources are scarce. To the public, the findings will help them to be able to identify HLIs that offer superior value to them and realize value for money through exchange process. To academicians, the findings will pave the way for further researches by highlighting the gaps to be filled in HLIs service quality requirements.

## **2.0 LITERATURE REVIEW**

### **2.1 Theoretical Literature Review**

In this study, the theory which was used to underpin the study was the SERVQUAL Model which was developed by Parasuraman *et al.* (1988) describing five dimensions of service quality. SERVQUAL Model is a popular model in studies that seek to determine service quality and customer satisfaction and it has been used by several researchers to measure the same (Temba, 2013; Daniel & Berinyuy, 2010).

This model is composed of five SQ dimensions namely; tangibles (appearance of physical facilities, equipment, personnel, and communication materials), reliability (ability to dependably and accurately perform the promised service), responsiveness (willingness to help customers and provide prompt service, assurance (knowledge and courtesy of employees and their ability to convey trust and confidence and empathy (caring, individualized attention that the firm provides its customers). Before five SQ dimensions were established, Parasuraman *et al.* (1985) originally proposed ten dimensions of service quality with five basic gaps to be analyzed - tangibility, reliability, responsiveness, competence, courtesy, credibility, security, access, communication, and understanding the consumer. Their research was later refined leading to the development of the SERVQUAL scale which measures customers' perceptions of service quality. The original ten dimensions were later condensed into five. In the SERVQUAL Model, SQ is established from the difference between perception and expectations ( $SQ = P - E$ ) (Temba, 2013; Daniel & Berinyuy, 2010). The term perception according to the model represents how customers evaluate the SQ after they have received it. On the other hand, expectations represent customers' expectations they have on the SQ before they receive the service. The relevancy of this model in this study is that the study intended to measure quality of services in higher education in Tanzania something which is well covered in the SERVQUAL Model as service quality dimensions.

### **2.2 Empirical Literature Review**

#### **2.2.1 Service and Service Quality Concepts**

Service quality is defined as the perceived quality which results from the difference between customer service expectations and perceptions of actual service performance (Gruber *et al.*, 2010). This means, service quality is the difference between perceived service and customers' expectations. In the view of understanding service as the concept, Johns (1999) argued that services are intangible products and their output is seen as activity based rather than tangible product. From this concept, for the service to be acceptable service quality it must be attached with tangible features which can be seen and evaluated by customers (Parasuraman *et al.*, 1998). Further, Parasuraman *et al.* (1998) argued that customers tend to evaluate the quality of the service when they look at the tangibles or through their past experiences and word of mouth from others on tangibles. In the same line, Parasuraman *et al.* (1998) established five dimensions for measuring quality of services namely; tangibles, reliability, empathy, assurance and responsiveness.

#### **2.2.2 Service Quality and Satisfaction**

Elsewhere in the world, to date the issue of service quality and satisfaction have become vital in designing and evaluation of services in service industry. For instance, the study of Gruber *et al.* (2010) which was carried out in Germany, university students revealed that students were satisfied with the school placements and the atmosphere among them and they were dissatisfied with university buildings and quality of lecture theatres implying that buildings and quality of lecture theatres are important service quality dimensions. Similarly, the study by Daniel and Berinyuy (2010) at Umea university students on service quality revealed that students perceived service quality as poor in all dimensions since their gap scores fell short of their experience. These results implied that students were dissatisfied with any dimension of service quality. Accordingly, the study of Arokiasamy and Abdullah (2012) in Malaysian university students found that students were satisfied with services such as teaching, management support, library, computer labs, accommodation and medical whereas students were dissatisfied with transportation, class

room and prayer survives. Moreover, in Pakistan Shah (2013) revealed that customer satisfaction was significantly related to reliability and assurance and was less significant to tangibility, empathy and responsiveness.

In Tanzania, Mbise and Tuninga (2015) when assessing students' perceived service quality of business schools in Tanzania using longitudinal research design indicated deficiency in services delivered by business schools as the findings indicated a negative overall service quality. Further, the findings of Mbise and Tuninga (2013) show no significant difference in service gap scores between students and staff. In the same focus, Mwasongo *et al.* (2015) measured service quality gap in higher education using SERVQUAL Model in Tanzania, he found a negative overall service quality perceptions compared to students' expectations.

### 2.2.3 Research Gap

Given the fact that a few studies measuring service quality and students' satisfaction in HLIs in Tanzania are available, the effect of service quality on students' satisfaction has been inadequately determined. Most of the previous studies such as Mwasongo *et al.* (2015), Mbise (2015) and Mbise and Tuninga (2013) have concentrated in measuring the overall service quality using SERVQUAL Model but not the effect of service quality on students' satisfaction in HLIs as the case for this study. In this view therefore, the study intended to fill this knowledge gap.

## 3.0 RESEARCH METHODOLOGY

The study was conducted at the College of Business Education- Dodoma Campus. The reason for the choice of this college was due to the fact that the college is the oldest college in Dodoma region. Being the oldest college, it was thought that the college has well established systems in offering service to its customers. The population for the study was all diploma 2, bachelor 2 and bachelor 3 students of the College of Business Education – Dodoma Campus. The choice of this population was due to the fact that these students have stayed at the college for a period of at least one year, something which enables them to judge the effect of service quality they receive and their satisfaction on such services. Using Cochran formula (1997), a sample of 400 students was estimated. However, a sample of 200 was used following the saturation point of responses reached during data collection. Lugumilza (2012) argued that saturation point can be used to determine adequacy of sample size. Proportionate stratified sampling technique was used since the population existed in strata.

Data collection involved primary data which were collected by adopting the use of the SERVQUAL survey comprised of two sections; i.e., customer service expectations of university services and customer service perceptions of the service received from the College. In the service expectations section, respondents were asked to show, on a seven-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = mildly disagree, 4 = neutral, 5 = mildly agree, 6 = agree and 7 = strongly agree), the extent to which they believe that the college possesses the characteristics described in the statements. Likert – type scales which were developed for the first time by Rensis Likert have been widely used by many researchers especially those measuring attitudes and perception (Mashenene, 2016; Mbise, 2015; Mbise & Tuninga, 2013; Temba, 2013; Daniel & Berinyuy, 2010). The perceptions section required respondents to indicate the extent to which the college possesses the characteristics described in the statements. The survey instrument was divided into five dimensions according to SERVQUAL Model: tangibles with 16 statements, reliability with 7 statements, responsiveness with 9 statements, empathy with 6 statements and assurance with 7 statements. Similarly, students' satisfaction was captured using 8 statements with a seven-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = mildly disagree, 4 = neutral, 5 = mildly agree, 6 = agree and 7 = strongly agree).

Data analysis involved two steps. In the first step, in order to estimate service quality the difference of the means between perceptions (P) and expectation (E) was computed (i.e.  $SQ = P - E$ ) for each SQ dimension. Then, the sum of  $P - E$  was divided by the number of items in each dimension in order to get the index score for each SQ dimension. Finally, the sum of all SQ index scores was computed and divided by the total number of SQ dimension (5 SQ dimensions). In the second step, binary logistic regression model (BLRM) was used to estimate the effect of SQ dimensions (independent variables) on students' satisfaction (dependent variable). Before BLRM was performed, a 7 Likert scale points data on students' satisfaction were transformed into index scale using the mean score. Later, dummy variables of students' satisfaction were created using the criteria that the scores above the mean score was treated as 1 = Dissatisfaction, 0 = Satisfaction for scores below the mean. The BLRM was represented using this formula:

$$\frac{P_i}{1 - P_i} = \beta_0 + \beta_1 Ta_i + \beta_2 Re_i + \beta_3 Rs_i + \beta_4 Em_i + \beta_5 As_i + \varepsilon \dots\dots (1)$$

Where by:

- Y = Students' Satisfaction
- Ta = Tangibles
- Re = Reliability
- Rs = Responsiveness
- Em = Empathy
- As = Assurance

In this study, the null and alternative hypotheses which were to test the effect of SQ dimensions on students' satisfaction were stated as follows:

Null hypothesis (H<sub>0</sub>): SQ dimensions have no effect on students' satisfaction.

Alternative hypothesis (H<sub>a</sub>): SQ dimensions have effect on students' satisfaction.

Since independent variables (SQ dimensions) were categorized into five variables, in order to address the effect of each independent variable on students' satisfaction, five hypotheses were formulated as follows.

Null hypothesis 1 (H<sub>01</sub>): Tangibles have no effect on students' satisfaction.

Alternative hypothesis 1 (H<sub>a1</sub>): Tangibles have effect on students' satisfaction.

Null hypothesis 2 (H<sub>02</sub>): Reliability has no effect on students' satisfaction.

Alternative hypothesis 2 (H<sub>a2</sub>): Reliability has effect on students' satisfaction.

Null hypothesis 3 (H<sub>03</sub>): Responsiveness has no effect on students' satisfaction.

Alternative hypothesis 3 (H<sub>a3</sub>): Responsiveness has effect on students' satisfaction.

Null hypothesis 4 (H<sub>04</sub>): Empathy has no effect on students' satisfaction.

Alternative hypothesis 4 (H<sub>a4</sub>): Empathy has effect on students' satisfaction.

Null hypothesis 5 (H<sub>05</sub>): Assurance has no effect on students' satisfaction.

Alternative hypothesis 5 (H<sub>a5</sub>): Assurance has effect on students' satisfaction.

Further, validity of data was tested to make the study findings valid. Before data collection, the questionnaire was pre-tested to students from the Institute of Rural Development Planning (IRDP) students in Dodoma region. Mashenene (2016) argues that it is the pre-requisite to pre-test the data collection instruments to different sample before full data collection.

## 4.0 FINDINGS AND DISCUSSION

### 4.1 Overall SERVQUAL Index

The findings presented in Table 1 indicate that all service quality dimensions and the overall SERVQUAL index have negative scores, implying that the students' perceptions on service quality offered by the college are lower than their expectations. Generally, negative score in all service quality dimensions and overall SERVQUAL index suggest that the customers are dissatisfied with the service quality offered by the college. However, the ranking basing on the magnitude of dissatisfaction revealed that empathy was ranked number 1 (-1.10), responsiveness ranked number 2 (-1.01), reliability ranked number (-0.97), assurance number 4 (-0.90) and tangibles number 5 (-0.81). Similarly, the overall index score of service quality was -0.634. These findings are in harmony with those of Green (2014) which indicated that customers had high expectations in tangibles, reliability and assurance dimension. The findings were further consistent with those of Mwangoso *et al.* (2015) which indicated that the overall service quality perceptions was significantly negative with a gap score of -1.611. Similarly, these results were consistent with those of Daniel and Berinyuy, (2010) who indicated that all consumers were not satisfied with service quality of the Umea university.

**Table 1: Overall SERVQUAL Index**

Service Quality Dimensions	Score
Tangibility	-0.81
Reliability	-0.97
Responsiveness	-1.01
Empathy	-1.10
Assurance	-0.90
<b>Overall SEVQUAL Index</b>	<b>-0.634</b>

## 4.2 Empirical Results

### 4.2.1 Reliability Test

The most common and most widely used measure of assessing internal consistency is Cronbach's Alpha. Cronbach's Alpha is used to quantify reliability; and it represents the proportion of the variance of the observed score that is true score variance (Multon & Coleman, 2010). The scale reliability was determined by calculating Cronbach's Alpha for each factor. Cronbach's Alpha reliability coefficients range from 0 to 1 with a greater internal reliability showing the result closer to 1 (Salkind, 2010). The size of the Cronbach's Alpha is determined by both the number of items considered as well as the mean of the inter-item correlations. The basic rule of thumb for interpreting the size of coefficient Alpha is that, a "high" reliability coefficient (usually 0.90 or above) is considered to be very good or excellent. An Alpha between 0.80 and 0.89 is considered good whilst that between 0.70 and 0.79 is considered adequate or acceptable. Alpha between 0.60 and 0.70 is considered questionable, that between 0.50 and 0.60 is considered poor; and values less than 0.50 are considered to be unacceptable (Green, 2014). Table 2 shows the Cronbach's Alpha for each factor. All of the factors had an Alpha above the recommended 0.70; this confirms that the measurement instrument which was used was both valid and reliable. Moreover, Cronbach's Alpha was used by many previous studies to measure reliability of instruments used (Green, 2014; Mwangoso *et al.*, 2015).

**Table 2: Cronbach's Alpha per Dimension**

SQ Dimensions	Number of Items	Perception Cronbach's Alpha	Expectation Cronbach Alpha
Tangibles	16	0.844	0.952
Reliabilities	7	0.848	0.933
Responsiveness	9	0.866	0.930
Empathy	6	0.886	0.907
Assurance	7	0.898	0.885

### 4.2.2 Binary Logistic Regression Results

Table 3 indicates that the overall model fit was statistically significant ( $p < 0.05$ ), indicating that the model was able to predict that service quality dimensions demonstrate effect on students' satisfaction. Moreover, the Nagelkerke  $R^2$  and Cox and Snell  $R^2$  were 0.527 and 0.387 implying that independent variables entered in the model explained 52.7% and 38.7% respectively of variances in students' satisfaction. The value of the Nagelkerke  $R^2$  and Cox and Snell  $R^2$  provide an indication of the amount of variation in the dependent variable explained in the model (from a minimum value of 0 to a maximum of approximately 1). These are described as pseudo  $R^2$  statistics, rather than the true  $R^2$  values in multiple regressions (Pallant, 2011).

**Table 3: Binary Logistic Regression Results**

SQ Dimensions	B	S.E.	Exp(B)
Tangibles	-0.077**	1.042	1.925
Reliability	-2.309***	1.395	1.099
Responsiveness	1.547	1.717	4.696
Empathy	-1.230***	1.443	2.292
Assurance	-0.515	.880	1.673
Constant	6.682**	3.305	797.738

Dependent Variable: Customer Satisfaction in Dummy 1 = Dissatisfaction, 0 = Satisfaction), \*, \*\*and \*\*\* denote significant level at 10%, 5% and 1% respectively.

Furthermore, Table 3 presents the results of Binary Logistic Regression analysis between customer satisfaction and independent variables. The coefficient of tangibles was negative (0.077) related to customer satisfaction and significant ( $p < 0.05$ ), suggesting that a unit increase in tangibles will cause 7.7% decrease in students' dissatisfaction. This also has been shown by the odd ratio of 1.925 implying that the likelihood of tangibles to change students' satisfaction is 1.9 times. Following the fact that the coefficient of tangibles was negative and significant, an alternative hypothesis was accepted with the view that tangibles have contribution towards customer satisfaction. These findings are in harmony with those of Green (2014) which found that tangibles were important attributes of service quality.

Moreover, the coefficient of reliability (Table 3) was negative (-2.309) related to students' satisfaction and significant ( $p < 0.001$ ), suggesting that a unit increase in reliability will result into 230.9% decrease in dissatisfaction. Accordingly, these results have been supported by the odd ratio of 1.099 revealing that the likelihood of reliability to change students' satisfaction is 1.1 times. Similarly, these findings resulted into accepting an alternative hypothesis because the coefficient of reliability was positive with more contribution toward students' satisfaction. These findings are similar to those of Green (2014) which revealed that reliability was an important dimension of service quality.

The findings indicate further (Table 3) that, the coefficient of empathy was negative (-1.230) in relation to students' satisfaction and significant increase ( $p < 0.05$ ), implying that that any unit increase in empathy will result into a decrease in students' dissatisfaction by 12.3%. This has also been shown by the odd ratio of 2.292 implying that the likelihood of empathy to change students' satisfaction is 1.1 times. From these findings, an alternative hypothesis was accepted following the fact that the coefficient of empathy was negative with more contribution toward students' satisfaction as revealed by the odd ratio.

Regarding assurance, the findings in Table 3 show that the coefficient of assurance was negative (-0.515) in relation to students' satisfaction and significant ( $p < 0.001$ ). This implies that, any unit increase in assurance will result into a decrease in students' dissatisfaction by 51.5%. This has also been shown by the odd ratio of 1.673 implying that the likelihood of empathy to change students' satisfaction is 1.7 times. From these findings, an alternative hypothesis was accepted following the fact that the coefficient of assurance was negative with more contribution toward students' satisfaction as revealed by the odd ratio.

### 4.3 Summary of Binary Logistic Regression Results

The focus of this study was to examine the effects of tangibles, reliability, responsiveness, empathy and assurance on student's satisfaction. The binary logistic regression results have shown that tangibles, reliability, empathy and assurance a significant effect on student's satisfaction.

**Table 4: Summary of Binary Logistic Regression Results**

S/No.	Hypotheses	Results
H <sub>a1</sub>	Tangibles have effect on students' satisfaction	Accepted
H <sub>a2</sub>	Reliability has effect on students' satisfaction	Accepted
H <sub>a3</sub>	Responsiveness has effect on students' satisfaction	Rejected
H <sub>a4</sub>	Empathy has effect on students' satisfaction	Accepted
H <sub>a5</sub>	Assurance has effect on students' satisfaction	Accepted

## 5.0 CONCLUSION AND RECOMMENDATIONS

### 5.1 Conclusion

The objective of this study was to examine the effect of service quality (SQ) dimensions on the students' satisfaction in higher education in Tanzania. The study concludes that the overall service quality index score was negative implying that service quality was not satisfactory based on students' perception. Also, service quality dimension score for all service quality dimensions were negative, implying dissatisfaction to students toward the quality of services offered by the College. The study concludes further that, tangibles, reliability, responsiveness, empathy and assurance have effect on the students' satisfaction.

## 5.2 Recommendations

The study recommends to the College management to improve on quality of their services by prioritizing intangibles, reliability, empathy and assurance. To the Ministry of Education, Science and Technology, the study recommends the ministry to support financially higher education institutions in order to enable them to improve intangibles. To the College of Business Education and other higher education institutions, it is further recommended that Colleges and HLIs need to work on improvement of tangibles such as buildings, environment, equipment and learning technology. Regarding reliability, improving accuracy of services offered. Further, provision of caring and individual attention to customers will enhance empathy. Finally, improving knowledge and courtesy of employees and their ability to convey trust and confidence to students will enhance students' satisfaction. To academicians, the study recommends to include more higher learning institutions with large sample size for fair generalization.

## 5.3 Areas for Future Research

Based on the findings from this study, the recommended areas for further research include the following: First, a study should be conducted using qualitative approach or the mixed approach involving both qualitative and quantitative approaches so as to be able to capture perceptions and expectations of students on service quality. Second, another study should be conducted including more than one higher learning institutions in the sample for generalization. Third, a longitudinal study should be conducted in order to take care of long term effects of educational service delivery quality offered which may vary in relation to students' satisfaction in HLIs as students cohorts also change as well.

## REFERENCES

- Arokiasamy, A. R. A. and Abdullah, A. G. (2012). Service Quality and Students' Satisfaction at Higher Learning Institutions: A Case Study of Malaysian University Competitiveness. *International Journal of Management and Strategy (IJMS)*, 3(5), 1-16.
- Cochran, W. G. (1977). *Sampling techniques (3<sup>rd</sup> ed.)*. John Wiley and Sons, New York. 96pp.
- Daniel, C. N. and Berinyuy, L. R. (2010). Using SERVQUAL Model to assess Service Quality and Customer Satisfaction. Thesis for Award of Master Degree of the Umea School of Business. 76pp.
- Green, P. (2014). Measuring Service Quality in Higher Education: A South African Case Study. *Journal of International Education Research* 10(2): 131-142.
- Gruber, T., Fub, S., Voss, R. and Glaeser-Zikuda (2010). Examining student satisfaction with higher education services: using a new measurement tool. *International Journal of Public Sector Management*, 23 (2), 105 - 123.
- Hasan, H. F. A., Ilias, A., Rahman, R. A. and Razak, M. Z. A. (2008). Service Quality and Student Satisfaction: A Case study at Private Higher Education Institutions. *International Business Research* 1(3): 163-175.
- Johns, N. (1999). What is this thing called service? *European Journal of Marketing*, 33(9/10), 958-973.
- Lugumiliza, P. S. (2012). The Interface between United Nations and External Forces in the Democratic Republic of Congo During the 1999-2009 Period. Thesis for Award of PhD Degree at University of Dodoma, Dodoma, Tanzania. 118pp.
- Pallant, J. (2011). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows*. 4<sup>rd</sup> ed. Open University Press, McGraw Hill, New York, United States. 335pp.
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1998). A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Spring*, 64(1), 12-40.
- Mashenene, R. G. (2016). Socio-cultural Determinants of Entrepreneurial Capabilities among the Chagga and Sukuma Owned Small and Medium Enterprises in Tanzania. Thesis for Award of PhD Degree at Sokoine University of Agriculture, Morogoro, Tanzania. 274pp.
- Mbise, E. R. (2015). Students' Perceived Service Quality of Business Schools in Tanzania: A Longitudinal Study. *Quality Issues and Insights in the 21<sup>st</sup> Century*, 4(1), 28 – 44.
- Mbise, E-R. and Tuninga, R. S. J. (2013). The Application of SERVQUAL to Business Schools in an Emerging Market: The Case of Tanzania. *Journal of Transnational Management*, 18(2), 101-124. DOI: [10.1080/15475778.2013.782238](https://doi.org/10.1080/15475778.2013.782238).
- Multon, K. and Coleman, J. (2010). Coefficient Alpha. in Neil J. Salkind (Ed.), *Encyclopedia of Research Design*. SAGE Publications, Inc, Thousand Oaks, CA, California, United States. pp. 160-164.

- Mwongoso, A. J., Kazungu, I. and Kiwia, R. H. (2015). Measuring Service Quality Gap in Higher Education Using SERVQUAL Model at Moshi University College of Cooperative and Business Studies (MUCCoBS). Implications for Improvement. *International Journal of Economics, Commerce and Management* 3(6): 298-317.
- Parasuraman, A., Zeithaml, V. A. and 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. and Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.
- Salkind, N. J. (Ed.). (2010). *Encyclopedia of Research Design*. SAGE Publications, Inc , Thousand Oaks, CA, California, United States. 1776pp.
- Shah, F. T. (2013). Service Quality and Customer Satisfaction in Higher Education in Pakistan. *Journal of Quality and Technology Management*, 9(2), 73-89.
- Temba, M. L. (2013). The Assessment of Service Quality and Customer Satisfaction using SERVQUAL Model. A Case Study of Tanzania Telecommunications Company Limited (TTCL). Dissertation for the Award of Master Degree in Business Administration of the Open University of Tanzania. 76pp.