

# Understanding Ghanaian Students' Perception of Service Quality in Higher Education

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## Abstract

Measuring service quality in higher education has become an important exercise to determine students' level of satisfaction and possibility of continue enrolment. This paper focuses on students' perception of service quality in Ghanaian higher institutions with specific objective of identifying the service quality criteria used by students of Tamale Polytechnic to evaluate the quality of service offered by the polytechnic. The HEDPERF model was adopted as the conceptual framework for the paper. Questionnaires were used to collect data from randomly selected 372 students from Tamale Polytechnic. The study found that, excellent and quality programs run by the polytechnic, highly educated instructors in, timely delivery of promises by the polytechnic staff, reputation of the programs offered by the polytechnic and access to materials at the school's library were the key service quality criteria that affect the students' perception of service quality. The study recommended that, higher institutions should introduce programs that are highly marketable with various areas of specialisation, continue to recruit high calibre lecturers and deliver promises on time. Higher institutions are also advised to improve students-staff relationship and work hard to improve their reputation in order to positively influence students' perception of service quality.

**Keywords:** Students Perception, Service Quality, HEDPERF Model, Higher Education, Ghana

## 1. Introduction

The higher educational market in Ghana has been characterised with a lot of changes. Private entrepreneurs have been empowered by the government to enter into the higher educational market thereby increasing competition in the market. There have also been changes in educational policies, governance, structure and status of higher education in Ghana (Manuh et al 2007). This has made higher education in Ghana highly competitive and calls for competitive tools that can bring competitive advantage to tertiary institutions like the Polytechnics. One competitive tool that can be employed to attract and maintain students is to understand students' perception of service quality. Measuring students' assessment of service quality is an important exercise that helps to determine students' level of satisfaction and possibility of continue enrolment. Plank & Chiagouris, (1997) revealed that students base their continued enrolment decisions in part, on how well an institution's programs and services meet their expectations. Dissatisfied students are more likely to defect to competitive institutions. Hence, it is imperative that polytechnics and other higher institutions measure the quality of the services they provide and the outcome will help to improve the quality of service offered. Students' perceptions of the quality of service experiences should be assessed periodically by management of higher educational institutions according to Berry (1995). Each time a student experiences some occurrence of an institution's service, that service is judged against their expectations which eventually lead to measurement of satisfaction.

In an increasingly competitive higher education market, higher institutions should be held accountable for effectively meeting or exceeding students' expectations regarding the quality of service offered. This is very challenging because students expect to be treated as customers and for that matter complain about poor service facilities. They also expect value for their money. Hence, Ghanaian higher education institutions are faced with the challenge of improving quality service; improving service facilities and speedily responding to students' complaints in attempt to attract potential students. Inability to meet students' requirements makes them dissatisfied. According to Banwet & Datta (2003), dissatisfied students may discontinue schooling, complain to the school or other institutions (competitors) or engage in negative word-of-mouth. This paper therefore focused on understanding Ghanaian students' perception of service quality in higher education. Specifically, it sought to identify the service quality criteria used by students of Tamale Polytechnic to evaluate the quality of service offered by the institution. The current paper made a significant contribution to the body of knowledge in the area of service quality in Ghanaian higher educational market. Again, when the students' perceptions of the quality of services delivered are identified, it will help management of higher institutions to redesign their services offered in order to attract more students and improve enrolment. The arrangement of this paper begins with an overview of service quality in higher education and previous studies about the subject. The methodology and presentation of findings followed. The paper concludes with discussing of findings and recommendations.

## 2. Literature Review

### 2.1 Service Quality in Education

Service quality has been described in a number of ways by many scholars. This makes it difficult to have a generalised definition for the concept. Crosby (1979) provides one of the earliest definitions of quality, suggesting that it is “the conformation to specifications.” While this definition is not specifically related to a service, Lewis & Booms (1983) defined service quality as; “a measure of how well the service level delivered matches customer’s expectations.” Parasuraman et al. (1994) also described service quality as a comparison of a consumer’s general expectations with their actual perceptions of a firm. Inferring from the above definitions, service quality in education could be defined as students’ measurement or evaluation of how service delivered by an educational institution matches with the expectations of the students. This indicates that the quality of service delivered is defined by the students and not the institutions. Hence, educational institutions must first understand students’ expectations as the basis for developing and delivering quality service.

### 2.2 Students Perception of Service Quality in Higher Education

Students’ perception of service quality is important concepts in this paper. Ismail et al. (2009) mention that perceived service quality is the general overall appraisal of a service. In this context, perceive service quality is students’ overall appraisal of the services offered by tertiary institutions. Moreover, perceived service quality is also defined as the difference between customer expectation and customer perception of service performance obtained. If customer satisfaction is higher than customer expectation, then customers will have higher perceived quality, and vice versa (Parasuraman et al., 1988).

Hill (1995) proposed 14 dimensions to measure student perceived service quality, i.e. teaching, student involvement in curriculum, joint consultation, work expertise (placements), computing facilities, library service, university bookshop, career service, counseling/welfare, financial service, health service, accommodation service, students’ union, catering service, physical education and travel agency. Athiyaman (1997) explains that student perceived quality dimensions consist of teaching capability, staff availability, library service, computing facilities, class sizes, subject content, student workload and recreational facilities. The co-production of services is of greatest concern to an organisation when customers are more involved in the production process (Palmer, 2011). This is extremely significant in the context of higher education, as the participation of the student is vital since they play a large role in determining the success of the service. As a result, managing and monitoring the quality of services is increasingly difficult for the service provider (Palmer, 2011).

### 2.3 Service Quality Models

There exist a number of models used to measure service quality. These models were developed by different scholars to be used to measure service quality in different service sectors.

#### 2.3.1 SERVQUAL Model

The SERVQUAL model is considered to be the earliest model for measuring service quality. Parasuraman et al. (1985) suggested SERVQUAL as a determinant and measuring instrument of service quality. Parasuraman et al. (1985) designed SERVQUAL model based on a research they did in America. They earlier described ten criteria to be used to measure service quality. These were reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customers and tangibles. Later they reduced the ten attributes to five attributes including reliability, responsiveness, assurance, empathy and tangibles. The main reason for the reduction was that the ten criteria make study questionnaires too long and for that matter there was the need for a shorter version.

Despite the revised version of the SERVQUAL model, it was still criticised by Carman, (1990), Cronin & Taylor (1992), Iwaarden & Wiele, (2002) etc. The major criticisms included the length of the questionnaire, the validity of the five service quality dimension, and the predictive power of the instrument in regard to subsequent consumer purchase (Hoffman and Bateson, 2006).

Another recognised service quality model is the SERVPERF model. The SERVPERF model was carved out of the SERVQUAL model by Cronin & Taylor in 1992 to measures service quality by using the perceptions of customers. Cronin & Taylor (1992) argued that only perception was sufficient for measuring service quality and therefore expectations should not be included as suggested by Parasuraman et al. (1988) in their SERVQUAL model. The term “performance-only measures” has thus come to refer to service quality measures that are based on only consumers’ perceptions of the performance of a service provider, as opposed to the difference between the consumers’ performance perceptions and their performance expectations. Scholars like Babakus & Boller (1992) and Bolton & Drew (1991) have found the SERVPERF model to be superior not only as the efficient scale but also more efficient in reducing the number of items to be measured.

#### 2.3.2 HEdPERF Model

Despite the emergence of the SERVQUAL and SERVPERF models, it has been suggested by scholars (Carman, 1990; Cronin & Taylor, 1992 and Firdaus 2005) that industry-specific service quality measures may prove more

relevant. Generic measures (e.g. SERVQUAL and SERVPERF) of service quality may not be totally suitable for assessing perceived quality in higher education and for that matter there is the need for scholars to create a model specific for higher education sector (Abdullah, 2006a). Again, it was identified that little has been done to the development of service quality model specifically for higher education.

As a result of the above challenges associated with the early service quality models, Firdaus (2005) has developed a service quality model specifically for higher education. Firdaus (2005) in his paper "The development of HEdPERF: a new measuring instrument of service quality for the higher education sector", has developed HEdPERF (Higher Education PERFORMANCE-only), a new instrument of service quality that captures the authentic determinants of service quality within the higher education sector. The aim of this new model is to capture a context specific view of service quality in higher education, enabling the whole student experience to be measured. He proposed a 41 item instrument which then was empirically tested for its reliability and validity using both exploratory and confirmatory factor analysis (CFA). However, he categorized the 41 items into 5 determinants of service quality in higher education. They are non-academic aspect, academic aspect, reputation, access and program issues.

This paper therefore adopted the HEdPERF model as the conceptual framework for the research. The HEdPERF model was adopted for this study because it has been proved by many scholars including Brochado (2009), Abdullah (2005) and Firdaus (2005) as an effective tool for measuring service quality in higher institutions. Brochado (2009) for instance, adopted this model to measure service quality when he studied Portuguese University in Lisbon. He proved HEdPERF to be an effective tool for measuring the service quality in higher education. Besides, all the five components (non-academic, academic, programme, reputation and access) of the model are identifiable at Tamale Polytechnic. Hence, the model is being predicted to be an effective service quality measurement tool for this study.

Non-academic aspect of the HEdPERF model refers to aspects that relates to the duties carried out by non-academic staff of educational institutions. Some of the duties include how the administrative staffs communicate with the students; how students are treated by the administrative staff and the knowledge the administrative staffs have about the university/institutional system. Academic aspects includes positive attitudes, good communication skills, sufficient consultation, regular feedback to students and outsourcing ability of teaching staffs which relate to the responsibilities of academics. Programme issues of the HEdPERF model refers to the ability of the higher education to offer wide range of specialization programs with flexible structures and counselling service. Reputation relates to the professional image projected by the university and the employment of the institutional graduates. Access was interpreted as approachability, accessibility and ease of contact of both the academics and non-academics staffs (Firdaus 2005).

#### *2.4 Empirical Studies on Service Quality in Higher Education Sector*

DeShields et al. (2005) investigated the determinants of student satisfaction and found that faculty performance, advising staff and lecturing hours were the most important variables that influenced students' college experience and ultimately satisfaction and retention. DeShields et al. (2005) results suggested that faculty performance and classes had a positive and significant relationship with student partial experience and advising staff had a positive but insignificant relationship with student partial experience.

Segar (2001) conducted a survey in Elizabethtown College and used the College Student Experiences Questionnaire (CSEQ) developed by Pace & Kuh (1998) as the measurement instrument. The CSEQ covered thirteen Quality of Effort dimensions including art, music, theatre, campus facilities, clubs and organisations, computer and information, technology, course learning, experiences with faculty, information in conversations, library, personal experiences, scientific and quantitative experiences, student acquaintances and writing experiences. Segar (2001) reported that students rated highest those gains that related to personal, interpersonal, technical and vocational.

Additionally, Soutar & McNeil (1996) examined students' expectations on perceptions of the academic and administrative service quality at a large Australia university. The SERVQUAL instrument was modified and used in the study. The authors proposed that communication; knowledge and availability were also important dimensions in a higher education setting and added these dimensions to the SERVQUAL instrument.

Clemes et al. (2001) have also conducted a research at Lincoln University in New Zealand. The authors integrated a conceptual model that was based on Gronroos' (1982) perceived service quality model. Specifically, seven aspects (tangible aspects, competence, physical environment, attitude and behaviour, accessibility, reliability, and personal interaction) were identified under Gronroos' (1982) functional quality and technical quality dimensions of service quality. Under functional quality, understanding the student, accessibility and course process were significant. Under technical quality, the quality of education, the campus facilities and the environment were significant. However the library and laboratory aspects were insignificant.

### 3. Methodology

A qualitative research design was adopted for this paper where a descriptive analysis was performed. The students from all the three main colleges of Tamale Polytechnic constituted the population for the study. The polytechnic has a total population of 5240 students which constitute the population for this research. Stratified random sampling method was employed to select 372 respondents as a sample size for the study. The sample size chosen for the research was based on the calculation of Taro Yamane's formula of sample size in order to obtain reliable data (at 95% confidence level and a 5% error level) (Yamane, 1967).

The formula is represented as  $n = N / [1 + N (e)^2]$

Where 'n' represents sample size

“ 'N' represents research population

“ 'e' represents sampling error (5%)

Yamane's formula was used because similar researchers including Kusumawati et al (2010), Fosu & Poku (2014) and Al-Fatal (2010) have adopted this same formula in their study of higher education marketing. Questionnaire was the main research instrument used in the collection of data from the respondents. A total of 372 questionnaires were distributed and self-administered. Out of the 372 questionnaires issued, 321 of them were received by the researcher indicating 86% response rate. Systematically, the researcher administered an average of 22 questionnaires to the students of each of the departments of the Polytechnic. Consideration was also given to the different year of study of the respondents (level 100, 200, and 300) when distributing the questionnaires. The questionnaires for the study were divided into two sections A and B. section 'A' concentrated on the service quality criteria while 'B' was designed to collect the demographic data of the students. The Statistical Package for the Social Sciences (SPSS) program was used to analyse the data collected from the respondents in order to identify the responding trends. Both the SPSS program and Microsoft Excel were used to draw all the statistical diagrams for the analysis of the data.

### 4. Findings

A total of 372 questionnaires were distributed to the respondents but 321 of the questionnaires were filled properly, representing a valid response rate of 86%. Out of the 321 respondents, 62% of the respondent were males (N= 198) while 38% were females (N= 123). This means that majority of the respondents were males and it indicates that Tamale polytechnic has more male students than female ones.

Analysis of the respondents' age revealed that 82% (N= 264) of the respondents were between 20-30 years old and this constitute the main segment of students at the Polytechnic. The second segment represents respondents aged 30 years and above with a percentage of 13% (N= 41) whereas the least age group were below 20 years which is presented by 4% (N=16). The paper also found that 30% (N = 97) of the respondents were first year students, 34% (N = 108) were second year students and 36% (N = 116) were third year students which is considered as the final year students. This indicates that the respondents fairly represented the study population so far as year of study was concern. It was also observed that the respondents represent all the three main colleges in the school which makes the respondents fairly represented.

To identify the service quality criteria used by the students of Tamale Polytechnic to evaluate the quality of service they have received, respondents were asked to respond to 32 items based on the HEdPERF model. The results were discussed below;

#### 4.1 Non-Academic Aspects of the HEdPERF Model

**Table 1: Mean and Standard Deviation Values of Non-Academic Aspects of Service Quality Criteria**

Non-Academic Aspect	N	Mean	Std. Deviation	Variance
Administrative staff communicates well with students	321	2.8567	1.24173	1.542
Administrative staff shows positive work attitude towards students	321	3.0872	1.20618	1.455
When the staff promise to do something by a certain time, they do so	321	4.2368	.74583	.556
When I have a problem, administrative staff show a sincere interest in solving it	321	2.7850	1.21214	1.469
Administration officers keep accurate and retrievable records	321	3.1931	1.21710	1.481
Administrative staff provide caring attention to students	321	2.8037	1.14651	1.314
Students are treated equally by the staff	321	4.1900	.79728	.636
Inquiries are dealt with efficiently	321	2.9003	1.07065	1.146
Valid N (listwise)	321			

Source: Field Survey, 2014

Table 1 above presents the respondents perception of service quality of the Polytechnic based on non-academic issues. There were 8 items under this category. The analysis from the table indicates that the timely delivery of promises by the Polytechnic has the greatest mean value of 4.2368 which is equivalent to agree level on the questionnaire likert scale of 1 – 5. This means that the students of the polytechnic agree that the staff of the polytechnic deliver promises on time. The students further agreed to the fact that students are equally treated by the staff and this is confirmed from the table above in which the factor (ranked on the questionnaire) ‘Students are treated equally by the staff ‘ has the mean value of 4.1900. This shows that fair treatment is very important to the students of the polytechnic. However, the students ranked the remaining factors of the non – academic aspects of the HEDPERF model as average.

#### 4.2 Academic Aspects of the HEDPERF Model

**Table 2: Mean and Standard Deviation Values of Academic Aspects of Service Quality Criteria**

Academic Aspects	N	Mean	Std. Deviation	Variance
Instructors are highly educated in their respective fields	321	4.2056	.98176	.964
Instructor has the knowledge to answer my questions relating to the course content	321	4.0530	.85531	.732
Instructor deals with me in a courteous manner	321	3.2586	1.10897	1.230
Instructor show positive attitude towards students	321	3.3115	1.11642	1.246
The hand-outs are provided adequately by the Instructor.	321	3.3427	1.22513	1.501
Instructor communicate well in classroom	321	3.5452	1.12583	1.267
When I have a problem, Instructor shows a sincere interest in solving it	321	2.9346	1.21144	1.468
Instructor provide feedback about my progress	321	2.9439	1.22855	1.509
Valid N (listwise)	321			

Source: Field Survey, 2014

Table 2 above illustrates the mean values of the academic antecedents used by the respondents to evaluate their perception on the academic issues at the Polytechnic. According to the table, the factors (ranked on the questionnaire) ‘Instructors are highly educated in their respective fields’ and ‘Instructor has the knowledge to answer my questions relating to the course content’ have the greatest mean values of 4.2056 and 4.0530 respectively. These mean values are equivalent to the agree level ranked on the questionnaire likert scale of 1 – 5. This implies that the students agree to these two factors as the best factor in evaluating the academic aspects of the service quality in the polytechnic. However there were variations in the responses. Meanwhile, the other factors were ranked as average by the students in evaluating the service quality based on the academic aspects. This means that the polytechnic has not been able to reach all the quality levels, but has attained only two of the factors in evaluating the quality of service based on the academic aspects of the HEDPERF Model adopted.

#### 4.3 Program Aspects of the HEDPERF Model

**Table 3: Mean and Standard Deviation Values of Program Aspects of Service Quality Criteria**

Program Aspect	N	Mean	Std. Deviation	Variance
The Polytechnic runs excellent quality programs	321	4.0467	1.09587	1.201
The Polytechnic offers programs with flexible structure	321	3.5140	1.12665	1.269
The Polytechnic offers a wide range of programs with various specializations	321	3.8505	1.06774	1.140
The Polytechnic operates an excellent counselling service	321	3.4206	1.16756	1.363
The polytechnic library is stocked with all the needed program materials for students use	321	2.4673	1.29893	1.687
Valid N (listwise)	321			

Source: Field Survey, 2014

From the table 3 above, the excellent quality programs run by the Polytechnic has the highest mean value of 4.0467 which is equivalent to agree level on the questionnaire liker scale of 1 – 5. This means that the excellent

quality program offered by the polytechnic is the best factor according to the students in evaluating their quality of service under the programs aspect of the HEdPERF Model. This was followed by ‘the Polytechnic offers a wide range of programs with various specializations’ which has the second highest mean value of 3.8505 and considered to approximately fall on the agree level. Tamale Polytechnic has three main colleges but runs about twenty-seven programs. These programs are perceived by the students to be quality and marketable. The respondents ranked the following factors; ‘The Polytechnic offers programs with flexible structure’ and ‘The Polytechnic operates an excellent counselling service’ as average, since these factor have mean values of 3.5140 and 3.4206. However, the respondents disagree to the factor (ranked on the questionnaire) ‘The polytechnic library is stocked with all the needed program materials for students use’ since it has the lowest mean value which falls on disagree level and considered to be the worst factor in determining the quality of service of the program aspects. Though there were variations to the responses, the management of the polytechnic must give much attention to the responses above in order to redesign their offerings to suit requirements of the students.

#### 4.4 Reputation Aspects of the HEdPERF Model

**Table 4: Mean and Standard Deviation Values of Reputation Aspects of Service Quality Criteria**

Reputation Aspects	N	Mean	Std. Deviation	Variance
The Polytechnic has a professional image	321	3.3489	1.23354	1.522
The academic program run by the Polytechnic is reputable	321	4.3084	.82247	.676
The Polytechnic’s graduates are easily employable	321	2.6012	1.20540	1.453
The Polytechnic has a nice conducive academic environment	321	3.8255	1.13775	1.294
The Polytechnic has up to date facilities	321	2.6885	1.37710	1.896
Valid N (listwise)	321			

Source: Field Survey, 2014

Table 4 displays the mean of the various items of the reputation aspects of the HEdPERF model. From the table, ‘The academic program run by the Polytechnic is reputable’ has the highest mean value of 4.3084 and a standard deviation value of 0.82. This is an indication that the students of Tamale Polytechnic perceive the academic program of the institution to be of high quality. This is followed by the factor (ranked on the questionnaire) ‘The Polytechnic has a nice conducive academic environment’ which has the second largest mean value of 3.8255 and falls on the agree level on the questionnaire. However, it has a standard deviation value of 1.14 which indicates variation in the responses. The polytechnic is located far away from residence and no activity takes place at and around the campus except those that are permitted for campuses. However, the remaining factors as displayed by table 4 have mean values that slightly fall on neutral level. Hence, the respondents ranked these factors as average in determining their perception of the service quality level regarding the reputation aspects of the model adopted.

#### 4.5 Access Aspects of the HEdPERF Model

**Table 5: Mean and Standard Deviation Values of Access Aspects of Service Quality Criteria**

Access Aspect	N	Mean	Std. Deviation	Variance
Instructor allocate sufficient time for consultation	321	2.6355	1.19681	1.432
Instructor is never too busy to respond to my request for assistance	321	2.7601	1.19965	1.439
Lecturers provide convenient office hours for consultation	321	2.5202	1.28223	1.644
I feel comfortable approaching and talking to my lecturers	321	3.1340	1.23648	1.529
The course materials are available and accessible at the library	321	4.0062	.98423	.969
Valid N (listwise)	321			

Source: Field Survey, 2014

As shown by table 5, the respondents indicated they strongly agree that, ‘overall they have had an excellent learning experience at Tamale Polytechnic’. This was justified from the table in the sense that it had the highest mean value of 4.7134 which is equivalent to the strongly agree level on the likert scale of 1 – 5. It was followed

by the factor (ranked on the questionnaire) 'The course materials are available and accessible at the library' which has the second highest mean value of 4.0062 and falls on the agree level. However, the factor 'Lecturers provide convenient office hours for consultation' has the least mean value of 2.5202 which falls on the disagree level. Moreover, the remaining factors fall on the neutral level because they have mean values close to the neutral scale on the questionnaire likert scale of 1 – 5. However, there were variations to the findings as shown by the table 5 above.

## 5. Discussion of Findings

The study has revealed a number of different service quality criteria that affect students' perception of service quality at Tamale Polytechnic. The service quality criteria used in this study were organised into the five main components of the HEdPERF model namely non-academic aspect, academic aspect, reputation, access and program issues.

Under non-academic aspect of the model, it was found that timely delivery of promises and equal treatment given to the students had the highest mean values. This indicated that the students of Tamale Polytechnic are satisfy with how the schools administration delivers promises and treat students. Bitner et al (1990) reported that customers' perception of service quality is being affected by human (providers) interaction and it matches with the findings of the current study. This findings are also supported by Sohail and Shaikh (2004), Parves and Ho (2012) and Deming (1982). Sohail and Shaikh (2004) particularly stated that contact personnel (staff) constitute the most influencing factor in students' evaluation of service quality. A research conducted in university at Australia, Parves and Ho (2012) reported that students form their perception of service quality based on the ability of the staff of the institution to deliver promises on time. However, four of the items in the non-academic table had mean values below 3 indicating that the students are not satisfied with the interaction between administrative staff and the students. The least two were; administrative staff not showing sincere interest in solving students' problem and not providing caring attention to students. A research by Petruzzellis et al (2006) considered the inability of administrative staff to have time for students as inefficient or poorly perceived services which lead to the dissatisfaction of students. Hence, these areas must be given attention for improvement.

The findings also revealed that the kind of instructors (knowledgable and competent) also influence students' perception of service quality. Issues such as the knowledge level of instructors, their ability to answer students' questions, how they communicate in the classroom and how they show positive attitude towards students were considered to have influenced students' perception of service quality at Tamale Polytechnic. These issues about instructors were captured under academic issues of Firdaus (2005) HEdPERF model. The study is in line with the work of Wright (1999) who believes that the success of an institution is more dependent on the attitudes, commitment and skills of the instructors. Hinson, (2006) also reported that students infer quality of services from the people who provide the service particularly the calibre of lecturers of the institution. Therefore, an improvement in instructors' knowledge, skill and lecturing style is likely to improve service quality in higher education. Since the polytechnic instructors frequently interact with the students than the administrative staff, it is important for the instructors to keep on improving on their teaching and interpersonal skills. Scholars like Le Blanc and Nguyen (1997) and Kwek et al. (2010) have similarly revealed that contact personnel positively influences overall student perceived quality and for that matter enough attention must be given to the management of instructors so far as service quality in higher institution is concerned.

Under the program aspect of the HEdPERF model, the quality of program offered by the polytechnic had the highest criterion. This was followed by the different specialized courses offered by the polytechnic. This means that programs and courses offered by higher institutions influence students perception of service quality. Though Tamale Polytechnic has three main colleges, the institution offers twenty-seven courses which give the opportunity for students interested in specialising in diverse areas to enrol. This finding is supported by many scholars including Abdullah (2005), Ford et al. (1999), Russell (2005) and Anderson et al. (2005) who have all supported the idea that programs offered by higher institutions influence students' perception of service quality. The management of higher institutions is therefore advised to task their research department to find out the programs and courses students want to undertake and introduce them to improve enrolment.

Institutional reputation was also considered to be one of the service quality criteria adopted by the students of Tamale polytechnic in assessing the quality of service. The reputation of the academic program offered by the polytechnic was ranked first among the items found in the reputation aspect of the HEdPERF model. This was followed by the fact that the Polytechnic has a nice conducive academic environment. The findings imply that the students of Tamale polytechnic prefer academic program which would be accepted by all stakeholders including parents, friends and ultimately employers. No wonder, the respondents disagree that the Polytechnic's graduates are easily employable. The high unemployment rate in Ghana might have influenced students' assessment of service quality by considering the reputation of program offered. Consistent with a number of works, Paulsen (2001) revealed that students often consider programs that are recognised by

employers. Servier (1986) recounts that the reputation of institutional program influences students' perception of service quality. Though the study has found that the polytechnic has a conducive academic environment, it was also revealed that the institution lacks modern facilities. Lack of modern facilities negatively influences students' perception of service quality. Mavondo et al. (2000) and Belanger and Jordan (2000) have argued that sufficient and modern educational facilities such as ICT centre, laboratory equipment, library, textbooks etc serve as a sustainable source of competitive advantage which has a positive effect on students perception of service quality. As a result, the management of higher institutions must improve the educational facilities of their institutions and this will contribute to the reputation of the institution.

Under the access aspect of the HEDPERF model, the availability and accessibility of course material at the polytechnic's library had the highest influence on the students' perception of service quality. The findings indicate that students were interested in acquiring knowledge and for that matter study materials were so important to them. The finding is supported by the works of Kwek et al. (2010) and Yeo (2008) whose study revealed that students' perception of service quality is being influenced by access to facilities. Yeo (2008) in particular confirmed in his study that higher institution students' perception of service quality is influenced by the availability and accessibility of library service. The reason given was that students prefer an opportunity to do their projects outside schooling hours and for that matter having access to the library outside school hours was very important to them. Therefore, higher institutions must extend the operational hours of the library service in order to positively influence students perception of the quality of service they provide. Unfortunately, all the other items under the access aspect of the HEDPERF model which dealt with access to lecturers received average or neutral responses which indicate that students of Tamale Polytechnic find it difficult to contact their lecturers. Meanwhile, many scholars including Hill (1995), Le Blanc and Nguyen, (1997), Kwek et al., (2010) and Sohail and Shaikh, (2004) have mentioned in their studies that contact personnel (administrative staff and lecturers) has a strong influence on students perception of service quality. The scholars revealed that it is the responsibility of both teaching and non-teaching staff of tertiary institutions to provide personal attention to their students. Hence, lecturers must schedule their time to make time for their students.

## **6. Implication and Suggestions for Higher Institutions**

The current study has disclosed students' perception of service quality in higher education. Therefore, in order to positively influence students' perception of service quality, the following recommendations are made.

Higher institutions are advised to give equal treatment to students and deliver promises on time. To deliver promises on time, flat organisation structures are recommended for higher institutions instead of the tall bureaucratic structures. Co-production must be embraced where students would be made to partake in their own service where possible.

Relationship marketing is also recommended for personnel in higher institutions so that both lecturers and non-teaching staff may build strong relationship with students. Wright (1999) believes that the success of an institution is more dependent on the attitude and skills of the whole workforce than on any other factor. Hence, both lecturers and administrative staff of higher institutions must be made to understand that students are customers and for that matter attention must be given to the building of long lasting relationship with them in order to retain them.

Again, the administrative staff of higher institutions must be aware of the role they play in positively influencing students' perception of service quality; keeping accurate records, showing interest in solving students' problems, deal with inquiries effectively and effectively communicating with students.

Additionally, consultations must be part of lecturers' work schedules so that students who want to meet their lecturers can conveniently access them. Lecturers must also show sincere interest in solving students' problems.

Again, higher institutions are being encouraged to continue to recruit experience, competent, knowledgeable and high caliber lecturers since it affects students' perception of service quality.

Since programs offered was among the important service quality criteria used by students, higher institutions are encouraged to design and introduce courses with many specialisations that are in high market demand. The course content of existing courses must also be structured to meet the current demand of the student market.

To improve the reputation of higher institutions, the study recommends that academic programs that are recognized by all stakeholders (students, parents, employers, government etc) must be offered in addition to the improvement of facilities.

In order to gain more insight into the higher education market about students' perception of service quality, similar studies are recommended to be conducted to analyse the overall effects of the key service quality criteria on students' satisfaction. A comparative study must also be done among higher institutions of different continents in order to identify the consistent nature of the study findings. Finally, further studies can also be done to find out the effect of the demography of students on their perception of service quality.

## 7. Conclusion

The massive changes (competition among higher institutions, increase in full payment of fees, internationalization etc) in the higher education market is an indication that students perception of service quality in higher education must be given much attention. This paper sought to reveal students perception of service quality using Tamale Polytechnic as a case study. The results of the study have therefore revealed that, there were many service quality criteria used by students to evaluate the quality of service offered by higher institutions in Ghana. Key among the service quality criteria revealed by the students included timely delivery of promises, equal treatments to students, competent and knowledgeable lecturers, excellent and recognized academic programs and accessibility to study materials. The findings of the study confirmed service quality criteria found in literature. However, there were other findings discovered which were not evident in the extant literature. This indicates that the interpretation of the findings must be done with caution. Moreover, a lot of researches need to be done to increase the knowledge in the area of service quality in higher education. Overall, the paper has contributed to knowledge in the field of service marketing.

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