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Abstract

Purpose – This paper assesses the quality of services to users in academic libraries in developing countries using ServQUAL model. The purpose was to expose the service areas where the desires of library users' are not met, ascertain the causes, and suggest corrective measures.

Approach – Both primary and secondary sources were explored for data collection. Questionnaire and the websites were used, and the 3,832 library users sampled from four developing countries was the research population of this article. Data was analyzed and discussed using descriptive statistics, and other illustrations.

Findings – The paper revealed that in developing countries: all the service indicators evaluated were negatively marked; There is significant different between the perceptions and expectations of library users; Academic libraries are not satisfying users' expectations; While tangibility and empathy were the highest and lowest dimensions in developing countries, reliability and tangibility were the order in developed countries; factors such as lack of modern facilities, poor funding, and weak e-leadership quality were negatively affecting the quality of library services. Greater efforts should be channeled toward closing the gaps between the perceptions and the expectations of library users.

Practical Implications –This result could be used in comparing the service quality of academic libraries in developed and developing countries.

Originality –This paper is the first attempt to use ServQUAL model in the comparison of service quality of academic libraries in developed and developing countries.

Keywords – Academic libraries, service quality, ServQUAL in developing countries, ServQual Model, ServQUAL in academic libraries.

Article Type – Empirical Study

Introduction

In this 21st century the global competition among service providers is to render qualitative services to satisfy the desires of customers. That is why service quality (ServQUAL) has become increasingly important in developing countries today. It allows service providers with similar output to provide greater value, competitiveness, opportunities for growth in services, and increase in customer satisfaction. For many centuries the role of service quality as a key factor of user satisfaction and organizational performance is widely recognized in developed countries. That is why Oluseye, Kolade, & Mercy in Rehman and Sabir (**2012**) noted, "A better understanding of the perceptions and expectations of each individual group of users is a prerequisite for delivering high quality services according to their expectations"**.** Here**,** quality is seen by Harris and Harrington (**2002)** as the satisfaction level obtained by the recipient on the work performed.

In Africa and other developing countries, library input/output statistics has for centuries served as an accepted form of performance measurement. Librarians had been relying upon collecting their statistics and analyzing them as ways of measuring their contributions to the institutional mission. This method which was successfully fulfilling its mission then was to evaluate the quality of library services by measuring the size of collections, number of visitors, issuing and returning statistics or interlibrary loan, size of budget, staff strength and other processes. These outcomes which Kyrillidou (**2002**) revealed, started as far back as 1908 has the aim of demonstrating how library services make a difference to its constituents; how it compares to similar institutions; and its contribution to recreation, teaching, learning and research. It was helping librarians to provide data that allowed libraries to benchmark practices with other institutions.

In those era, authors in librarianship focused their attention on measuring the competencies of librarians and the library management's efforts in providing the needed facilities for the clientele, and ignored the measurement of the quality of services and the extent users' expectations were met. Libraries and librarians then were not considering the rights and views of a customer as recognized by Zeithaml, *et al* (**1990**) that, "within a service quality orientation, only the

customers' judge quality and therefore all other judgments outside customers' views was essentially irrelevant". Today, this approach is no longer appropriate due to:

- The advent and application of information technology and the changing taste/ needs of customers for better services in library operations.

- As Nitecki (**1996**) put it, "the traditional orientation of measuring the quality of an academic library in quantifiable terms of its collections and use, neither offers attainable goals, nor adequately address the users' demands and expectations for current information".

- And the goal of bringing together "a perfectly customized collection of books for the purposes of fulfilling users' needs" (**Kirillidou, 2002)** has drove collection sizes higher and led to assessing a library's quality by the magnitude of its resources and the quality of its services to the users.

In the global information age new ways to conceive and measure quality in contemporary libraries have emerged and changed the primary focus of libraries from material collections to service-orientation. The quality of library services is therefore defined in the study as the difference between users' perceptions, the actual services received, and the expectations about the services. Outcome measures how well an institution serves its users and demonstrate an efficiency and effectiveness. With the increasing emphasis on assessment and accountability, coupled with the changes in the pattern of libraries and library collections which was made possible by information and communication technologies ICTs, librarians in developing countries have began to seek new measures to evaluate service quality using ServQUAL model.

The **benefits** of applying ServQUAL in surveying the expectations and perceptions of users in academic libraries in the views of Blixrud (**2002**) include the following:
- ✓ to obtain direct responses to series of questions from the community surveyed;
- ✓ identify user issues, concerns and needs;
- ✓ measure library performance from the user perspectives;
- ✓ acquire quantifiable data that can be statistically analyzed and generalizeable for the larger population;

    ✓ Improve or change services; increase library visibility and marketing; and contribute to broader institutional assessment (Cook, Heath & Thompson, **2003**)**.**

Performance measures are needed in libraries to demonstrate value and to respond to changes in demand brought about by the introduction of new services that require flexibility to create self-recovery and accountability.

"It was in the 20th century that libraries in developed world started measuring service quality from user's perspectives" (Nitechi, **2002**). In developing countries, focusing more energy in meeting customers' expectations has become a critical factor in libraries in this 21st century because a "measure of library quality based only on library collections has become obsolete". Manjunatha & Shivalingaiah (**2004**) asserted: "in the 21st century, libraries need to go beyond the traditional modes of assessments and apply marketing strategies for understanding user's perceptions and expectations"**.** This implies that improvement in library services today depends more on users' judgment on the quality of services received.

The problem is that despite the numerous studies on service quality in organizations in developed countries as early as the 1990s, there are very few references to the application of ServQUAL in academic libraries in developing countries. For example, Manjunatha & Shivalingaiah (**2004**) observed that in India, the concept of assessing service quality from library users' perspectives was still in its infancy. Ahmed & Shoeb (**2009**) noted that ServQUAL had never been used in any library quality assessment practice in Bangladesh. In Pakistan, library service quality was an unfamiliar topic and practices of regular assessment of library service quality rarely exist at any level (Rehman, **2012**).

Since one of "the basic step to ascertain the service quality and accountability of libraries is by obtaining feedback from customers"; and as Zeithaml, *et al* (**2002**) had noted "… only customers judge quality (otherwise) all other judgments are essentially irrelevant". In this study, the authors have no knowledge of any research that used ServQUAL to measure user services in academic libraries in Nigeria. In addition, studies on an overview of the impacts and outcomes of library services on library users in Africa are yet to be published. In other developing countries, it is an emerging issue. In view of this scenario and gaps in knowledge, the purpose of this study is to use ServQUAL model to measure the service quality of academic libraries in developing countries. Specifically, it is to:

1. Assess the service quality of academic libraries in developing countries;

2. Identify the service dimensions that meet the desires of library users;

3. Compare the result of the study with that obtained in developed (Western) countries;

4. Suggest some of the factors that affect user's perceptions of service quality,

5. And point out the areas that needed to be strengthened.

The Significance of the study hinges on the imperative to conduct a research which the outcome could guide university administrators, librarians and other stakeholders in academic libraries in taking objective decisions that could maximize the impact of library and information services. The obtained feedback from the clients would help to prioritize the areas in which a need for continuous improvement is felt.

It would help scholars and researchers for comparative analysis of service quality of academic libraries in developed/Western regions *vis-a-vis* other regions in the world; help university administrators in Africa and Asia to dwell on the responses of users to take concrete steps on the kind of remedial actions required to sustain expected services on the track.

The results will assist university librarians to answer the questions such as: how well an academic library is doing what it's parents institution claim it should be doing; at what cost; and with what effects, during university accreditation. Measurement of expectations could be used in quality planning and control when the needs of library users are exposed.

Literature

The earliest challenge to performance measurement in libraries was absence of a benchmark for directly measuring service quality in libraries. Pritchard (**1996**) seemed to have captured these setbacks when he offer a cogent description of the measurement challenge that faced librarians in developing countries to include the difficulties in trying to find a single model or simple indicators that could be used by different institutions to compare something across large groups. It was because of this setback that the need for reliable and meaningful assessment instruments intensified. Consequently, the Texas University Libraries, in the 1990s, turned to marketing

sector to identify instruments for measuring service quality, and many models like servQUAL, LibQUAL, ServPERF, WebQUAL and other models emerged (**Miller, 2008**).

The research team lead by Parasuraman, Zeithaml, and Berry (PZB) (**1988)** used ServQUAL to track perceptions of library service quality from samples of its library users. Through that experience, the assessment team recognized that the instrument could be modified and applied in libraries, after removing certain ambiguities that would not be useful for assessing service quality in libraries. Since the emergence of ServQUAL model the Association of Research Library ARL (**2011**) identified it as one of the essential framework for evaluating the quality of library performances.

This framework was designed as a standard which when applied in assessing service quality in different fields could answer the question, 'how well does an organization or a library serve its users from the customers' perspectives'. The Association of College and Research Library ACRL also confirmed that standards in academic libraries were designed to guide academic librarians on how to advance and sustain their roles as partners in educating library users, achieving their institutional missions and repositioning their libraries in the continuous improvement of their service quality.

Initially ServQUAL questionnaire has 22 items. While conducting researches using ServQUAL in industries, the proponents of this model popularly referred to as PZB identified ten potentially overlapping dimensions or criteria that customers used while judging service quality. These original ten dimensions - tangibles, reliability, responsiveness, competence, courtesy, credibility, security, access, communication and understanding of customers were identified by Zeithaml, Parasuraman & Berry (**1990**). They were further factorized or consolidated into five broad constructs namely, tangibility, reliability, responsiveness, assurance, and empathy - due to their tendency to repetition.

Tangibility covers the existence of physical and functional facilities, equipment experiences/knowledgeable personnel and communication materials used in rendering and promoting effective services in libraries.

Reliability involves ability to provide the promised services or resources needed by users dependably and accurately in a way that could satisfy the expectations of library users.

Responsiveness measures the "willingness of organization's staff to help customers and provide

them with prompt services". This refers to the timeliness and promptness which Ranganathan 1988 cited in Manjunatha & Shivalingaiah (**2004**) envisaged in his fourth laws of librarianship that librarians should save the time of the reader while providing the service. The fourth dimension, *Assurance* measures knowledge, competences and courtesy of employees and their ability to convey trust and confidence in customers towards the service firm. Competences in librarianship refer to the possession of required skills, knowledge and willingness to use them to transform the service needs of users in libraries; and courtesy involves politeness and respect for clients, friendliness, honesty and trustworthiness of library employees.

Empathy measures caring, individualized attention which organizations provide to their clients. In library and information science profession, this conveys approachability, ease of contact with providers and the readiness to give listening ears to user's query. It also includes approachability, ease of contact with service providers, and willingness to understand customer's needs. In the field of librarianship, such studies were conducted by Herbert on interlibrary loan in a public library; White cited in Johari & Zainab (**2007**) in special libraries; Edward & Browne (**1995**), Nitecki (**1998**), Coleman, et al (**1997**), Nitecki & Hernon (**2000**), Ahmed & Shoeb (**2009**), and Asogwa (**in press**) all in academic libraries. Their findings showed that the quality of services offered was lower than the expectations of their users. Most of the findings revealed that reliability and responsiveness were valued above every other dimension, while other respondents showed preference for tangibility, assurance or empathy.

Criticisms of ServQUAL Model

ServQUAL has been ferreted with barrage of both theoretical and operational criticisms from scholars. For example, Bradly, et al cited in Ahmed & Shoeb (**2009**) argued that perception scores should not be relied on alone to explain the service quality of customers because expectations of customers could be based only on the memory of the user and for that the results are bound to be biased. Sometimes respondents may not clearly visualize the difference between desired and expected services and consequently gave the researcher a diluted report. These criticisms notwithstanding, various studies have been and are still being carried in developing countries out with strong conviction that ServQUAL is still a useful model for service quality evaluation not only in librarianship but also in other fields of human services.

These criticisms notwithstanding, many authors and scholars have adopted and are still employing ServQUAL as a benchmark for empirical assessment of the views of customers on the services they receive. For example, Aghamolaie, Zare, & Abedini (**2007**) studied on the quality of educational services provided to the students in Hormozgan University of Medical Sciences**;** Zavar, *et al*. (**2004**) evaluated the quality of education at the Payamenoor University of West Azarbaijan provinces, Iran; Arbuni, *et al*. (**2009**) investigated the gap between students' expectations and the provision of educational services among students of Medical Sciences in University of Zanjan; Bagherzadeh and Bagherzadeh (**2010**) evaluated the quality of higher education centers services at Tabriz higher education institutions; Jung-Wan (**2010**) examined potential differences between Korean and American students in terms of their perception levels regarding online service quality, online learning acceptance, and satisfaction; Enayati & Kowsarian (**2012**) applied descriptive survey to compare Islamic Azad University Mazandaran Province (Iran) by measuring students' expectations and perceptions using the five dimensions of service quality.

The results of these studies seemed to be related or revealing the same: (a) there were significant differences between desired and perceived service quality and in all the dimensions, desired service quality was significantly above the perceived service quality (b) there was no significant difference between perceived service quality based on sex of students, and (c) there were significant differences between some dimensions of perceived service quality based on educational level.

 However, in Zahedan University majority of the students (48.2%) in Medical Sciences viewed the quality of educational services as average while (34.2%) described it as below the average. All other findings showed existence of gaps among all the service indicators and their dimensions; that students were not satisfied with the quality of services provided by the educational centers; that there was a gap in all the service quality indicators tested. However, in studies comparing the five dimensions of service quality in developed countries, the highest mean score was seen in the aspect of reliability, responsiveness, tangibility and assurance in that order. In developing countries, reverse is the case. Unfortunately, most of these studies were carried out in the business, retailing, banking, and education sectors and very few in the field of library and information science or academic libraries. In this study, the authors applied ServQUAL

model in their investigation of users' perceptions and expectations in academic libraries in developing countries.

Approach/Methodology

Various models for assessing the quality of service performance of librarians have been developed and utilized in the evaluation of library performances in developed and developing countries. In this study, the authors used two approaches to collect data. One approach was deduction of data that was already generated by other authors in three developing countries in Bangladesh, Iran, and Pakistan as shown in table 1. In those countries' universities (namely, University of Dhaka, Bangladesh; Islamic Azad University Manzadaran, Iran; University of Pakistan, Pakistan) secondary data was used.

The other approach was direct data capturing from five University libraries in Nigeria. The authors used a five-point Likert scale and items that weighted from 1 to 5 (1 - strongly disagreed, 2 - disagreed, 3 – Neutral, 4 – agreed, and 5 – strongly disagreed) to measure the quality of services rendered or obtained. The authors also made minimal wording changes to the original contents of the ServQUAL indicators to suit services in academic libraries. Two sets of ServQUAL questionnaire with similar statements were designed and administered. The purpose was to examine two aspects of service quality - the views of user on the current quality of services provided. The first set seeks to capture users' views in an ideal environment (Expectations, E), while the second set allows the respondents to compare their expectations with the actual service deliveries of their library (Perceptions, P). The authors hoped to use data collected in these approaches to measures the service quality as difference between perceptions (P) of library users and their expectations (E) in two developing regions, Africa and Asia.

The working population of the study was 3,832 library users from four developing countries comprising 314 users drawn from university of Dhaka in Bangladesh; 371 users from six universities in Iran; 876 from 13 universities in Pakistan; and 2,269 users from five universities in Nigeria as collected respectively, by Ahamd and Shoeb (**2009**), Enayat et al (**2013**), and Rehman (2012). See table 1 and figure i below for details.

Table 1: Distribution of population by country and Percentages

S/n	Country	Name of university	Population	(%)
1	Bangladesh	University of Dhaka (number of universities studies not available)	314	8.20
2	Iran	Six universities: Babo 51, Chalus 66, Qaemshahr 95, Sari 70, Amol 31 and Tonekabon 60.	373	9.73
4	Nigeria	Five Universities: Abuja 241, Awka 512, Ife 317, Nsukka 1103, and Zaria 96.	2,269	59.21
5	Pakistan	Thirteen Universities in Pakistan (names not available)	876	22.86
Total			**3,832**	**100**

In Nigeria, **2,269** were randomly drawn from all the registered users in five university libraries at Abuja, Awka, Ife, Nsukka, and Zaria during the 2011/2012 academic session. Nigeria has the largest population of respondents in this study because the authors were lecturers in the university and administered the questionnaire directly in the institution and collected same by themselves.
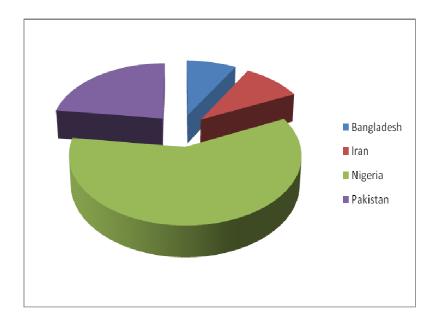

Figure i: Sampled population of library users in developing countries

Instruments: Both primary and secondary processes were employed. Secondary data was collected from websites and research articles from international journals in library and information science discipline from where data from universities in Bangladesh, Iran, and Pakistan were collected, whereas in Nigeria, primary data was collected from five Nigerian university libraries through structured ServQUAL standard questionnaire comprising 22-item questions. The items in the questionnaire were in line with Parasuraman, *et al* (**1988**) recommendations as follows:

Questions 1 - 4 measured tangibility or the physical facilities, equipment and personnel in the library.

Questions 5 - 9 were used to measure reliability or the ability of university libraries to perform promised services dependably and accurately.

Questions 10 – 13 were used to measure responsiveness or the willingness of librarians to provide prompt services.

Questions 14 – 17 measured assurance or the ability of librarians to inspire trust and confidence in library users.

Questions 18 - 22 used five items/indicators to measure empathy or the amount of caring and individualized attention to library clients. In each of the indicators or elements, respondents were asked to express their views on the existing quality of services provided in their library and their expectations from the services. According to Cook, Heath, & Thompson (**2003**), expected or desired level represents the level of service that users expect to receive from the library; and the perceived level means the actual services provided by the service providers or obtained by the users in the library.

Data Collection: In Nigeria, data was collected by the authors with the help of four research assistants. Three thousand (3,000) sets of the modified ServQUAL questionnaire were distributed at different occasions inside the library reading rooms, lecture halls, and student hostels. This took a period of twelve weeks. At the end, 2,269 set of questionnaire correctly filled and returned became the population in Nigeria and represents 59.21% of the working population

of this study. In three other developing countries, data generated by authors in their published journals were extracted as shown in table 1.

Criterion of Judgment: Before discussing the findings, the mean gap difference (p-e) between the expected and the perceived services and their average would be calculated as shown in table 2. The purpose was to find out what items of service quality were met, exceeded, and or bellows the users' perceptions. When service quality has positive gaps, it indicates that users' desired expectations are met or exceeded. On the other hand, when service quality is lower than expected, expectations are expressed negatively and user's desires are not met. In this study, the *criterion of measurement* is therefore that if the average/mean difference between users' perceptions and expectations (P-E) is smaller or narrower, there is better service quality. In other words, they are not met. Tables 2, 3, 4, 5, and figures i and ii illustrate the data, results, and discussions.

Findings

Users' Expectations versus Perceptions in Academic Libraries in Developing Countries

The degree of discrepancy between users' expectations and perceptions is the key determinant of the service quality in ServQUAL studies. Table 2 shows the results of this study. Ranking of gaps was awarded from widest to narrowest.

Table 2: Perceptions and Expectations of Users in Academic Libraries in Developing Countries

D.	Service Quality indicators		Mean Service Quality and their Average						
			Bangladesh	Iran	Nigeria	Pakistan	Average	P-E	Ranking
Tg. 4	The library has modern and functional equipment that allows easy access to information	P	4.01	2.57	1.43	5.78	3.447	-2.56	1
		E	6.23	4.97	5.20	7.61	6.004		
	Electronic resources in my library are accessible from my pc at home or office	P	4.12	2.63	1.59	5.67	3.502	-2.13	4
		E	6.20	4.71	4.08	7.52	5.677		
	The library has most e-resources I need for my	P	3.89	2.90	1.96	5.89	3.66	-2.17	2
		E	6.14	4.70	4.93	7.55	5.83		

		P/E						Gap	Rank
	studies								
	The library has functional infrastructures ease learning	P	3.96	2.76	2.72	6.03	3.867	-1.94	7
		E	6.10	4.81	4.59	7.73	5.807		
RI.5	The library has access tools that allow users to find things on their own	P	4.10	2.34	2.25	5.67	3.59	-2.15	
		E	6.19	4.73	4.52	7.52	5.74		3
	Users have confidence in librarians' ability in handling their problems	P	4.12	2.39	2.97	5.47	3.737	-1.23	20
		E	5.96	4.72	4.35	7.44	4.955		
	Users feel secure and relaxed when interacting with the librarians	P	4.40	2.26	3.39	5.75	3.95	-1.82	12
		E	6.13	4.69	4.72	7.54	5.77		
	The library opens to readers at the appropriate time	P	4.97	2.37	3.64	5.51	4.122		19
		E	6.22	4.72	3.80	7.45	5.547	-1.43	
	Users are well informed about the time of receiving their services	P	4.25	3.43	3.09	5.77	4.135		15
		E	6.10	4.81	4.83	7.87	5.902	-1.77	
Rs. 4	Users' records are appropriately kept and maintained	P	4.23	2.62	3.28	5.66	3.95	-1.76	
		E	5.94	4.72	4.79	7.40	5.71		16
	The library has functional facilities that inspires study and learning	P	4.34	2.33	2.71	5.76	3.78	-2.06	5
		E	6.07	4.75	4.99	7.53	5.84		
	Librarians are always available to respond to users' needs	P	4.04	2.36	3.23	5.69	3.83	-1.89	
		E	5.84	4.69	4.91	7.44	5.72		9
	Librarians are competence in solving users problems	P	4.23	2.48	2.38	5.68	3.69		8
		E	5.94	4.76	4.20	7.48	5.60	-1.91	
As. 4	Library staff has respect for all class of users	P	4.32	2.57	2.23	5.42	3.64	-2.00	6
		E	6.09	4.76	4.40	7.29	5.64		
	Users have confidence in librarians' ability to guide them	P	4.15	2.56	2.91	5.47	3.77	-1.87	11
		E	6.09	4.78	4.23	7.44	5.64		
	Librarians are always willing to help users	P	4.08	2.68	3.26	5.76	3.95		17
		E	5.91	4.77	4.43	7.53	5.66	-1.71	
	Services are provided at the pre-determined time	P	4.24	2.72	3.24	5.90	4.03		13
		E	6.09	4.77	4.78	7.63	5.82	-1.79	
	Librarians pay attention to individual user's need	P	4.04	2.42	2.98	5.69	3.78	-1.91	8
		E	6.08	4.53	4.69	7.44	5.69		
	Librarians are	P	4.20	2.59	4.03	5.90	4.18		

	consistently courteous	E	6.07	4.69	4.51	7.63	5.73	-1.55	18
E. 5	Librarians are always compassionate and patient while meeting users	P	4.16	2.41	2.94	5.76	3.82	-1.86	10
		E	6.12	4.71	4.37	7.53	5.68		
	The library has adequate and quiet space for individual activities	P	4.32	2.33	2.91	5.74	3.83	-1.78	14
		E	6.22	4.67	4.05	7.51	5.61		
	The library has comfortable and inviting location	P	4.69	2.29	2.39	6.06	3.86	-1.94	7
		E	6.21	4.68	4.59	7.72	5.80		

Key: D. - Dimensions, P. - Perceptions, E. – Expectations, *P-E, - Perception scores minus Expectation scores*

The table shows the responses of users on the 22 service indicators evaluated. It shows that generally, users' perceptions were lower than their expectations. This was decided by the gaps existing between the two parameters. It could be seen that some indicators have wider gaps than others. This result suggests that though users' perceptions and expectations vary by some degrees, their expectations were greater than their perceptions which imply that all the services provided do not meet the desires of library users. This finding validated earlier studies by Cook & Heath, Ahmed and Shoeb, and Bagherdezadeh & Bagherdezadeh as cited above on perceptions and expectations of users in academic libraries.

Expectations and perceptions of users in academic libraries in developing counties

To determine the level of gaps/differences between users' perceptions and their expectations, the authors calculated the average gap differences and the result has equally shown that the differences between users' perceptions and expectations were all negatively marked; it has revealed that from lowest/narrowest to the highest; ten minimum desires of the users in their order of dissatisfaction were found in the following services as ranked in table 2 above. This means in other words, that users were fairly satisfied on those services that have the narrowest gap as follows:

1. Users have confidence in librarians' ability in handling their problems (-1.23 reliability). This was ranked 20th and implies that it was the service area where users were mostly satisfied.
2. The library opens to readers at the appropriate time (1.43, reliability) 19th;

3. The librarians are consistently courteous (-1.55, empathy) was 18th;

4. Librarians are always willing to help users (1.71, assurance) was 17th;

5. Users' records are appropriately kept and maintained (-1.76, responsibility) 16th;

6. Users are well informed about the time of receiving their services (-1.77, reliability) 15th ;

7. The library has adequate and quiet space for individual activities (-1.78, empathy) 14th;

8. Services are provided at the pre-determined time (-1.79, Assurance) 13th

9. Users feel secure and relaxed when interacting with the staff (-1.82, reliability) 12th;

10. Users have confidence in librarians' ability to guide them (-1.87, assurance) 11th.

The table 2 also showcases those ten services that library users in developing countries were mostly dissatisfied. These, in their order of severity/worst dissatisfaction (i.e., they are ranked from highest gap to lowest) include:

- The library has modern and functional equipment (-2.56 tangibility) ranked 1st;

- The library has most e-resources I need for my studies (-2.17. tangibility) ranked 2nd;

- The library has access tools for users (-2.15, reliability) ranked 3rd;

- Electronic resources in my library are accessible from t home/office (-2.13, tangibility) 4th;

- Readers obtained e-services without much delayed (-2.06, responsibility) 5th;

- Library staff has respect for all class of users (-2.00, assurance) 6th;

- The library has functional facilities that inspires study and learning (-1.94, tangibility) 7th;

- The library has comfortable and inviting location (-1.94, empathy) 7th ;

- Librarians are competence in solving users problems(-1.91, responsibility) 8th;

- Librarians pay attention to individual user's need (-1.91, empathy) 8th; and

- Librarians are always available to respond to users' needs (-1.89, responsibility) ranked 9th.

This finding is not surprising; rather, it has reaffirmed the result of other studies shown in table 4 where different authors found negative gaps between customers' expectations and perceptions. This finding aligns with the result of studies by Zaver, et al, Ahmed and Shoeb and others. They found most of these service qualities in list of 10 the narrowest and widest gaps in their studies.

It is pertinent to note that while tangibility indicators were no longer the expectations of users in western countries may be because they are well provided, in this study it is found to be the most pressing needs in developing countries having ranked first among the poorest services.

This suggests that physical facilities that help in providing quality services in most academic libraries in developing countries were grossly inadequate and consequently affect the responsibility and reliability of academic librarians. Referring to their gap differences, it could be seen that there was a maximum discrepancy between expectations and perceptions with the gap differences skewed in favour of expectations as could be see in table 4 which presents a summary of other studies in developed and developing countries.

<u>Service dimensions in academic libraries in developing countries</u>

For further verification and to determine if there is significant difference between the expectations and perceptions of users in academic libraries in developing countries, the authors factorized the 22 item service qualities/indicators into five dimensions/constructs. Users' responses were equally synergized into those dimensions to determine if there is significant difference between expectations and their perceptions of library users in developing countries.

Table 3: Mean, standard deviation, and significance level of service quality dimensions measured from users' perceptions and expectations in developing countries.

s/n	Dimension	Av. Perceptions		Av. Expectations		t. approx to Z	Decision (R:/Z/>1.96)
		X1	sd1	X2	Sd2		
1	Tangibility	3.62	1.15	5.82	1.20	-27.5	Significant
2	Reliability	3.90	1.09	5.57	1.11	-20.87	Significant
3	Responsiveness	3.78	1.20	5.70	1.21	-21.3	Significant
4	Assurance	3.85	1.12	5.65	1.22	-22.5	Significant
5	Empathy	3.83	1.31	5.70	1.29	-20.70	Significant

Key: z=absolute value of the observed value of z-statistics; 1.96 = the critical value of the probability level, i.e. α = 0.05; n = 3,832 (sample size).

Table 3 and figure ii illustrate the results and revealed that users' perceptions and expectations on each of the service quality dimensions showed significant difference. Their observed values ranged from -20.7 to -27.5, and the absolute value of each was found to be greater than the critical value of 1.96 at α = 0.05 (significance level). This implies that the expectations of library users in academic libraries in developing countries are not met. In other words, these libraries

may have been providing poor quality services to their critical public or perhaps, their services are not user-centered.
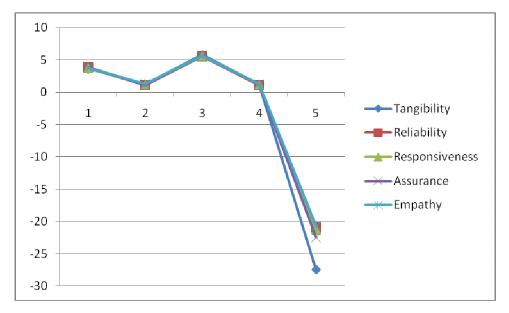

Figure ii: graph showing mean, standard deviation, and significance level of service quality dimensions

This finding is not new instead it has consolidated other findings in developing countries as summarized in table 4 which reported finding give credence to the results of this paper. For example, Enayati, *et al*, and Aghamolaie *et al* findings exhibited high level of inconsistencies in the perceptions and desires of customers in academic libraries. These variations could be attributed to certain factors such as adequacy or inadequacy of modern infrastructures. Since academic library management in developing countries is not adequately funded, they are lagging in the provision of modern technology equipment such as broadband in their libraries. The consequences include low bandwidth, poor internet penetration and access, inadequate ICT skilled personnel, and intermittent power supply among others. That users desired physical facilities most in those countries may be because library services are shifting from traditional method to electronic, and as such the desire to provide adequate and functional ICT facilities in academic libraries becomes imperative in this 21st century. This implies that the existence of modern facilities matters most to users in developing countries and inability to access e-resources in the cyberspace could adversely affect the quality of services in libraries as well as the academic performance of students.

Equally, the result of this study may have revealed that the critical area where service providers in developing countries were more committed was in reliability, and empathy. This may be because in academic libraries, any delay or neglect to user's desires could result in their frustration. This confirms that librarians in those regions have respect for one of the Ranganathan's five laws of librarianship which urged librarians to "save the time of library users"; but poor infrastructure and inadequate human resources seem to be frustrating their desire to put in their best.

SERVQUAL Studies in Developed and Developing Countries Compared

To determine whether there is any discrepancy between the results of servQUAL studies in developing countries and from those obtained in developed countries, the authors deducted different results of other studies from the literature as presented in table 4. The table shows selected studies that used ServQUAL on academic libraries in developed and developing countries from 1994 to 2013. The following deductions are evident from the table:

Table 4: Comparison of result of ServQUAL Studies in Developed and Developing Countries, 1994 - 2013

Year	Authors	Findings/Results			
		Developing countries		Developed countries	
		Highest	*Lowest*	*Highest*	*Lowest*
2013	Enayati, *et al*	Tangibility	Empathy	-	-
2012	Rehman & Sabir	Tangibility	Reliability	-	-
2010	Bagherdezadeh & Bagherdezadeh	Empathy	Assurance	-	-
2009	Arbuni, *et al* and Ahmed & shoeb	Mixed findings	Mixed findings	-	-
2008	Zaver, *et al*	Negative gaps	Negative gaps	-	-
2007	Aghamolaie, et al, and Johari & Zainab	Mixed findings	Mixed findings	-	-
2006	Bradley,	Negative gaps	Negative gaps	-	-
2000	Nitecki and Hernon	-	-	Reliability	Empathy
1998	Stein, Joan	-	-	Reliability	Empathy
1997	Coleman, et al	-	-	Reliability	Empathy
1995	Edwards and Browne	-	-	Reliability	Tangibility

1994	Herbert, F.	-		Reliability	Tangibility

From table 4 it can be observed that:

- From 2001, ServQUAL studies might have become obsolete in the literature or the study interest of scholars in developed countries, whereas in developing countries, it is an emerging trend.

- In developed countries much of these studies were carried out in the 1990s when scholars in developing countries might either have little or no idea about the application of ServQUAL model or the interest in the evaluation of customer's services in the area.

- Studies in developed countries showed that reliability was allocated maximum marks.

- It appears difficult, from the studies selected, to determine the highest service quality dimension in developing countries because many of their findings were diverse and lacked commonality. This may be due to a high level of inconsistency in the findings reported by various authors in this field. For instance, Enayati, et al reported tangibility as the highest dimension and empathy as the lowest; whereas Bagherdezadeh & Bagherdezadeh reported "empathy" as highest and "assurance" as lowest. This is further compounded by mixed findings observed in the literature. For instance, Aghamolaie, et al, reported "responsiveness" as highest and "reliability" as lowest; whereas Johari & Zainab reported negative gaps in all the dimensions. It may be argued that even though those studies in developing countries were carried out in the same year, the settings were different; while one was conducted in Iran, the other was carried out in Malaysia; location would not have affected the results much, rather, other factors could be implicated.

- "Tangibility" and "Empathy" were variously reported in studies from developed countries as "lowest" but in developing countries, these dimensions were assessed at different times as "highest". This shows the areas where library management should focus more attention if the desires of library clients in developing countries are to be met.

- The inconsistencies of the reports in developing countries have made some revelations: it is either the ServQUAL model has western bias or that the academic libraries in developing countries have a long way to go in terms of providing quality services and resources to their teeming user population. This may be the reason why Calvert predicted potential

international collaboration on assessment of library service quality among scholars in developed and developing countries as could be seen from an example of the cross-cultural study of New Zealand and China. Results of the study suggested that there could be global commonalities in the way library users think about library service quality, and the inconsistencies found in developing countries may be as a result of other factors such as the memory of users which Ahmed and Shoeb feared could be biased and not the geographical setting.

Factors of Service Quality in Academic Libraries in Developing Countries

To verify factors that impinge on the services quality of academic libraries in developing countries, users (in Nigeria) were given open ended space and asked to comments on the factors which in their own opinion affect service quality in their libraries. Most of the factors raised bordered on the impacts of ICTs on library operations and their attendant impacts on the perceptions and expectations of users. Because ICTs are user-friendly and can afford library users opportunities to access e-resources in remote locations, library users in developing countries expect to obtain similar results in their academic libraries. This perception has lived in the minds of staff and students in many developing countries and therefore raised their expectations higher. Unfortunately, the recurrent problem of underfunding has frustrated all efforts to transform academic libraries in developing nations into world class standard.

Academic libraries in developing countries may be showing similar pattern of service quality measurement because of inadequate infrastructures, poor funding and or misappropriation of the available funds, lack of e-leadership quality, terrorism, insurgences, and wars which devastates existing infrastructure, corruption, embezzlement, or misappropriation of library funds, and so on. This may be the reason for ranking tangibility and reliability as the most frustrating service provision in academic libraries in developing countries. This may be one of the factors universities in developing countries are ranked the least in the world/global university ranking.

Their responses reaffirm those in developed and other developing countries as could be seen in the literature. For example, in a study of higher institutions in United Kingdom, nine factors which were considered to be affecting performance quality include technological obsolescence, leadership quality, external and internal customer satisfaction, teamwork, measurement of resources, people-oriented management, among others. Majority of authors both in developing

and developing countries have supported that environmental factors in universities libraries were not uniform and therefore affected the perceptions and expectations of both the staff and students. In addition, some libraries were better equipped with modern facilities than others, and this has influenced the perceptions and expectations of users.

Conclusion and Recommendations

This paper used ServQUAL as a framework to investigate users' perceptions and expectations of service quality in academic libraries in developing countries. The results revealed that: average mean scores for expectations were higher than scores for users' perceptions; that their were discrepancies between the results of this study and that obtained in developed countries where similar studies were carries out first some decades ago; that while responsibility and reliability were highest in developed countries, tangibility and empathy were the highest in developing countries.

The results also indicated that all the gaps have negative marks, and there is significant difference between users' perceptions and their expectations in developing countries. This implies that the level of expected services were greater than the actual services received. Inadequate funds, misappropriation, and lack of modern infrastructure, among others, negatively affect efficient services in academic libraries in developing countries.

Concerned authorities should pay immediate attention in allocation of enough funds for adequate provision of ICT facilities. Academic libraries in developing countries should invest more in the development of ICT infrastructures, subscription and acquisition of e-journals to attract users into the library as a place for study, learning, and research.

In addition, library management should allocate periods and resources for regular staff training in ICT, human relations skills, and knowledge management. Literature have noted that if such a sector or department lacks the required training, skills and competencies to fulfill their tasks of treating students in the best way possible, dissatisfaction will continue to occur.

Continuous use of ServQUAL in the evaluation of service quality in libraries in developing countries is still very imperative if service providers should objectively understand how well their services are meeting the missions of their parents' institution.

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