Influence of Lecturers Perception of Internet Service Quality in Nigeria Higher Education

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Abstract--- *Internet service quality is a factor in Nigeria higher education that holds several challenges for lecturers. This study adopted and adapted a service oriented framework to examine factors influencing lecturers perceived internet service quality (LPISQ). Hence, this research considered the influence of lecturers perceived internet service (LPIS) and lecturers expected internet service (LEIS) on lecturers' perceived internet service quality (LPISQ). The reason being that expected service and perceived service influences perceived service quality in the service oriented framework introduced in this study. This study involved quantitative methods, which utilised survey approach. This study gathered one hundred and thirteen (113) questionnaire responses. This study result showed that lecturers perceived internet service (LPIS) is a significant influence of lecturers perceived internet service quality (LPISQ). However, lecturers expected internet service (LEIS) was insignificant influence of lecturers' perceived internet service quality (LPISQ). This study hypothesis was tested at .05 level of significance. Based on this study findings the relevant conclusion was made.*

Keywords--- *Lecturers, Internet, Service, Quality, Higher Education.*

I. INTRODUCTION

Lecturers perception of internet service quality is a significant contribution towards the standards of higher education lecturing activities in Nigeria. For instance, studies revealed that perception is important for quality work achievement [18].

The authors added that perception 'in turn decides the performance of the organisation' [18]. Available literature evidences showed that 'the use of internet in education is growing in all parts of the world' [2]. The 'service quality' promotes consumers devotion to work [24]. The knowledge of 'service quality' had been revealed to promote competitive advantage in an organisation [19].

The internet is being adopted for quality instruction in Nigeria higher education. However, there are limited studies which adequately focused on lecturers perception of internet service quality in Nigeria higher education setting. Although, there exist literature evidences that addressed other issues regarding service quality. For instance, study revealed that consumers' 'service quality' is related to products varieties and diverse service output [17].

There are some Nigeria higher education establishment that have limited access to quality internet services. Hence, there have been several recommendations regarding the improvement of internet service quality in Nigeria higher education. For instance, available research evidence revealed that there is constraint in the use of internet

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facilities for educational activities in Nigeria higher education [9]. These authors recommended for the improvement of internet services in Nigeria higher educational domain [9]. Also, research noted that Nigeria higher education students do not have adequate access to internet services [1]. Thus, these authors recommended for an increased provision of quality internet services in Nigeria higher education system [1]. Available research had recommended for further studies to understand the concepts, which are related to internet service quality in Nigeria educational system [4]. The limitations in the availability of quality internet in Nigeria higher institutions makes the introduction of modern approaches to instruction difficult [16].

Perception occurs in different forms. Lecturers' possess both positive and negative attributes of perception. A positive perception towards something connotes the approval of such event. Negative perception represents the disapproval of something.

A positive or negative perception is perceivable through several medium. A lecturer perceives something by using the eyes. This is regarded as visual perception. The ear is an organ that is suitable to perceive sound. The ear is useful for auditory perception. Perception allow human beings to recognise matters within surrounding environment [12]. Available study refers to lecturers' perception as a 'perspective' [13].

There are several ways through which perception influences the lecturers activities. For example, the lecturers perception has influence on routine in the workplace. Some of this routine include daily lecture activities. Likewise, research activities are part of the routine.

Hence, perception affects the lecturers workplace growth. The lecturers perception impacts the eagerness towards instruction. Available study revealed that perception influences peoples' job fulfilment in a workplace [18]. These authors added that peoples' perception has impact on the development of an establishment [18].

A service is a form of task within an establishment. Also, service is a form of action in a company. Service requires group of peoples' mutual efforts for accomplishing any given work. Service is a set of important procedures.

Service is a series of events in an organisation. Service is individualistic when performed by a single person. A service is deliverable through internet technologies. The internet as a technology provides services from one place to another like individualistic service.

Internet services travels through long distances. Internet services are regarded as a worldwide activity. The reason being that the internet service is accessible to everybody who desire to use it in any part of the world.

Available research explained the word service as a form of abstract processes that involves the interaction between the clients, workers and available materials [11,29].

The word quality is applicable to both human and technologies. For instance, human beings strive towards achieving quality in daily endeavours. Also, technologies provide quality services. Hence, quality is a perfect way of performing a duty.

Quality implies standards in an organisation. Quality represents a comprehensive approach to a task. Quality is an absolute obligation towards ensuring positive results from a process. Quality is an environmental condition.

Quality is human character. Quality is a physical factor. Quality does not connote negativity. Quality does not represent imperfection. Quality does not connote weaknesses. Quality is synonymous to virtue. Available study explained quality as 'total commitment' [29]. 'Perception of quality' is a measure of clients' contentedness [11].

Quality internet service supports numerous instructional activities. For instance, quality internet supports interactive white board usage. Quality internet service is useful for podcasting activities. Quality internet service is useful for research activities.

Hence, internet service quality is supposed to meet up with lecturers' classroom expectations. A quality internet technology service is supposed to support learning activities. The understanding of the lecturers perception of internet service quality requires adequate assessment of situations.

The reason being that the lecturers are stakeholders in the use of internet. Available research explained 'service quality' as the extent at which customers appraise materials worthiness based on its ability to give reasonable level of comfort [25]. Also, available study defined quality service as the relationship between clients' anticipation and perceptions towards services rendered by various organisations [21,29].

Although, the Federal Government of Nigeria (FGN) had put in place several measures to ensure the availability of quality internet in some Nigeria higher institution campuses. Notwithstanding, the FGN efforts are inadequate. Available research revealed that there are inadequacies in the internet quality services in a south-west Nigeria university [7].

Also, available study recommended for improvement of internet services in a south-west Nigeria university [27]. Available research had revealed that efficient educational activities require quality internet services [10].

The research objective is as follows:

1. To investigate the influence of lecturers expected internet service and lecturers perceived internet service on lecturers perceived internet service quality.

The research question is as follows:

1. Is there a significant influence of lecturers expected internet service and lecturers perceived internet service on lecturers perceived internet service quality?

The research hypothesis is as follows:

HO$_1$: There is no significant influence of lecturers' expected internet service and lecturers perceived internet service on lecturers perceived internet service quality.

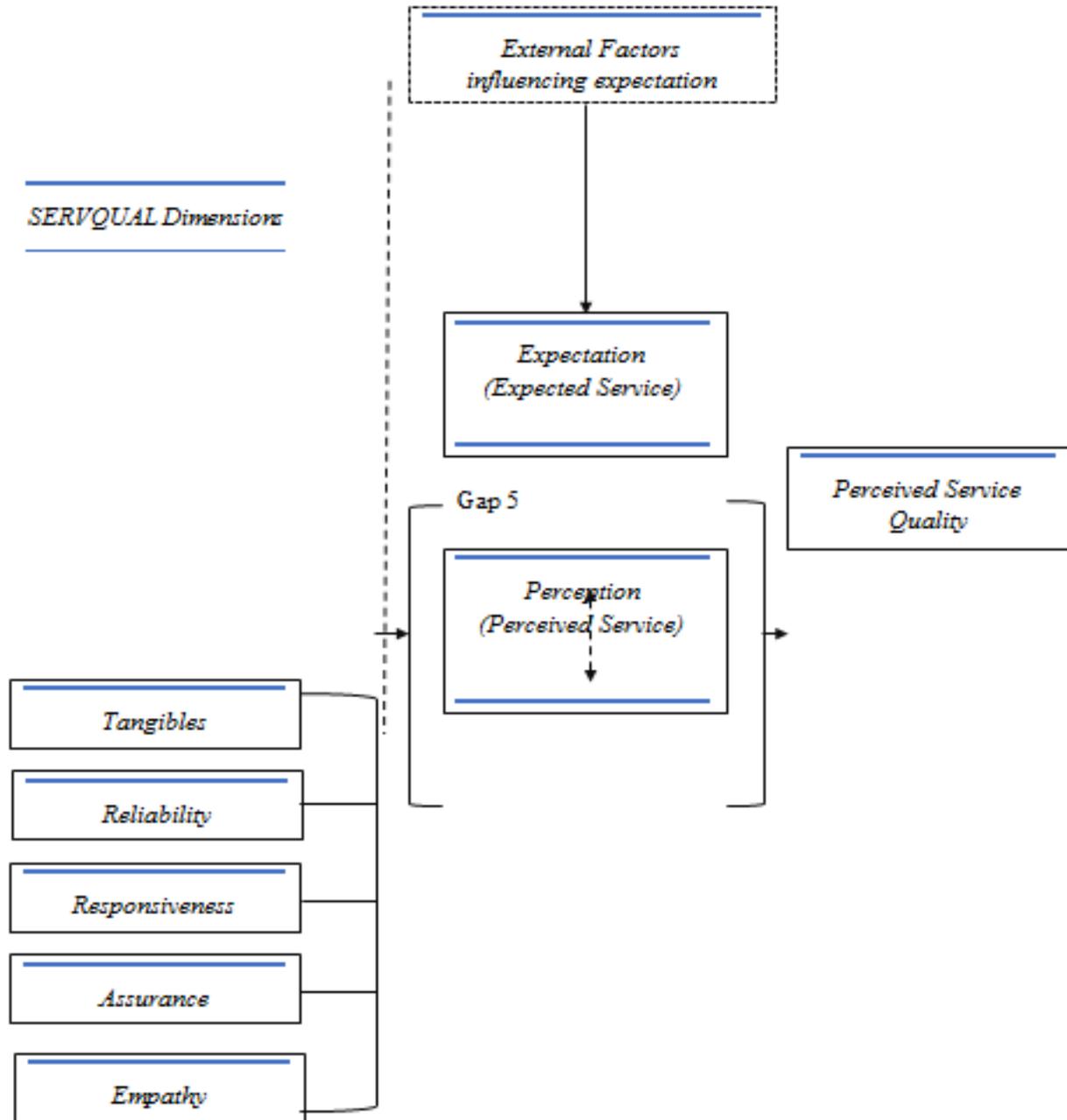This research theoretical framework is illustrated as follows.

Figure 1: Adopted and Adapted SERVQUAL Framework [8,15]

Available research explained service quality framework (SERVQUAL) as a structure that allow organisations to comprehend clients' perception of services [8,22]. Other SERVQUAL dimensions examined towards the creation of this study conceptual framework are briefly explained as follows.

Tangibility

The SERVQUAL tangibility dimension deals with infrastructural matters.

Reliability

The SERVQUAL reliability dimension deals with the dependability and accuracy of services.

Responsiveness

The SERVQUAL responsiveness dimension deals with the quick provision of the clients needs.

Assurance

The SERVQUAL assurance dimension deals with the ability of workers to use cognitive abilities in a convincing manner.

Empathy

The SERVQUAL empathy dimension deals with the special consideration given to clients.

Expected Service

The SERVQUAL expected service factor deals with clients' assumption towards services rendered to people.

Perceived Service

The SERVQUAL perceived service factor deals with clients' feelings towards services rendered to people.

Perceived Service Quality

The SERVQUAL perceived service quality factor deals with the clients' feelings towards the standards of services rendered to people.

External Factors

The SERVQUAL external factors are determinants of clients expected services variable. These factors are normally controlled by service operators [8]. This study conceptual framework is as follows.
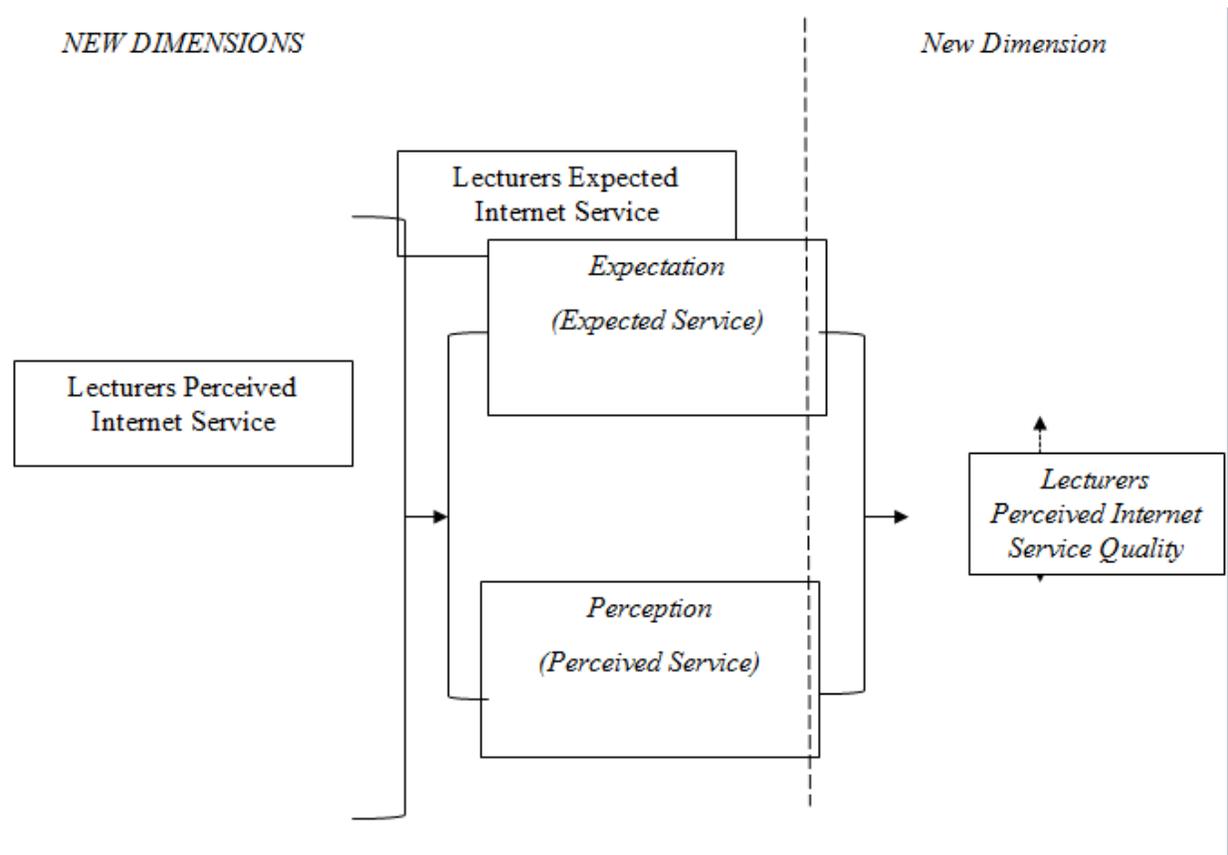

Figure 2: Adopted and Adapted SERVQUAL Framework [8,15]

This study conceptual framework was created from the service quality (SERVQUAL) theoretical framework. The SERVQUAL 'tangibles, reliability, responsiveness, assurance and empathy dimensions' were replaced with new dimensions. These new dimensions are lecturers expected internet service and lecturers perceived internet service. In addition, the external factors were not considered in the conceptual framework. Also, perceived service quality was replaced with lecturers perceived internet service quality. However, the expected service and perceived service factors were retained in the conceptual framework.

II.   MATERIALS AND METHODS

2.1 Research Design

This research involved quantitative methodology. The quantitative method in this research utilised questionnaire. Hence, this study quantitative methodology involved survey approach for data gathering. Survey research allow researchers to gather quantitative data through the answers from the respondents [23]. This research gathered data from a total of one hundred and thirteen (113) respondents to understand the influence of lecturers' perception of internet service quality in Nigeria higher education. Quantitative methodology is meant to gather data from large respondents to allow for more generalisation of results from the study [6].

2.2 Sample and Sampling Procedures

This study utilised a university in Ekiti State of Nigeria. Ekiti State is in south-west part of Nigeria. There are three (3) universities in Ekiti State. These universities consist of state, Federal and private universities. These universities are Ekiti State University (EKSU), Federal University of Oye (FUOYE) and Afe Babalola University Ado Ekiti (ABUAD). One university was selected by using simple random sampling technique. The simple random sampling involved the use of crumpled paper. The crumpled paper required the researcher to write the three universities name on paper. Then, the researcher selected one out of the three papers at random. Hence, ABUAD was randomly selected out of the three universities.

Also, the respondents were randomly chosen across available subject areas in ABUAD by using crumpled paper, which was earlier explained. These subject areas are arts, science, humanities, health science and engineering. This study used Krecjie and Morgan theory in determining the sample size for this research [14]. Afe Babalola University Ado Ekiti (ABUAD) has five hundred and ninety-nine (599) academic staff [30]. Hence, the sample size for this research was estimated as two hundred and thirty-four (234).

2.3 Data Collection Procedure

The researcher requested for permission from the university authorities. After, the permission was granted there were two hundred and forty (240) structured questionnaires, which were randomly distributed to lecturers' in Afe Babalola University Ado Ekiti (ABUAD). The structured questionnaire was given to experts in the area of educational technology and educational measurement for content validity. Also, this structured questionnaire survey questions were researcher designed. The research instrument items were adopted and adapted from Temba literature [28]. The data was gathered within six (6) weeks. The questionnaire consisted of four sections A, B, C and D. The section A was meant to gather demographic data from the respondents. The section B addressed issues on lecturers

expected internet service. The section C addressed issues on lecturers perceived internet service. The section D addressed issues on lecturers perceived internet service quality.

2.4 Ethical Issues

The researcher ensured that ethical issues were followed during the data gathering activities. For instance, the researcher ensured that all respondents were not forced to respond to the structured questionnaire. Also, the respondents were given adequate information regarding the research activities. There were opportunities granted by the researcher, which permitted respondents withdrawal from the study. The researcher ensured that the participants identities were protected. In addition, the researcher protected the collected data from leakages. These ethical issues followed in this study were in accordance with Cohen, Manion and Morrison guidelines [5].

III. RESULTS

These data analyses and results are meant to answer research question one. The data gathered was analysed by using statistical package for social sciences (SPSS) version 22. The data analyses began with preliminary analyses of collected data. These preliminary analyses involved normality test, intercorrelation and factor analyses. The test of normality revealed an abnormality in the data. The reason being that the skewness and kurtosis of the data were beyond the value of zero. The reliability coefficient of this research questionnaire was calculated with a Cronbach's alpha of .782. This showed that this research instrument was valid and reliable for this study. There were no problems of multicollinearity between factors as the correlation coefficients (r) were within the range of .350 and .593. Also, there were no issues with outliers since the calculated Cook's distance values were not greater than one. Multiple regression statistics is very sensitive to multicollinearity and outlier issues [20]. Available research noted that a normally distributed data must have skewness and kurtosis value of zero [26]. However, available literature evidences suggested that abnormality in data is not a problem if the researcher involved respondents that are more than 'thirty (30)' in the study [20].

Also, the standard multiple regression statistical model was utilised in testing this research hypothesis. The results revealed that lecturers' perceived internet service (β=.569, p= .000) was a strong influence of lecturers' perceived internet service quality. However, lecturers expected internet service (β=.043, p= .637) was not a strong influence of lecturers perceived internet service quality. The standard multiple regression analysis was conducted by following the procedures that was prescribed by Pallant [20]. Standard multiple regression is suitable to understand the influence of two independent variable on one dependent variable [20]. The result is summarised in the table 1.0 that follows.

The results of the multiple regression in table 1.0 tested hypothesis one in this study. The result in table 1.0 was significant at p < .05. Thus, hypothesis one was rejected. Also, the output showed that the SERVQUAL framework helped in understanding the influence of lecturers' expected internet service (LEIS) and lecturers' perceived internet service (LPIS) in Nigeria higher education setting. The multiple regression model output showed that LEIS and LPIS explained thirty-five-point three percent (35.3%) of variance in lecturers' perceived internet service quality (LPISQ). Hence, the remaining 64.7% was accounted for by other unknown factors.

Table 1: Summary of the Influence of Lecturers Expected Internet Service and Lecturers Perceived Internet Service on Lecturers Perceived Internet Service Quality

Variables	Lecturers Perceived Internet Service Quality
Lecturers Expected Internet Service	0.043
Lecturers Perceived Internet Service	0.569
R	0.594
R^2	0.353
Adjusted R^2	0.341
F Value	29.956

Significance level = $p<.05$.

IV. DISCUSSION

The purpose of this research was to examine different factors influencing lecturers' perception on internet service quality in Nigeria higher education. The service quality (SERVQUAL) framework was adopted and adapted with the inclusion of lecturers expected internet service and lecturers perceived internet service and lecturers perceived internet service quality factors. The excluded factors were 'tangibles, reliability, responsiveness, assurance and empathy' [8,15]. The hypothesis testing in this study provided theoretical understanding on lecturers' perception of internet service quality in Nigeria higher education.

The lecturers perceived internet service (LPIS) ($\beta=.569$, $p= .000$) was discovered to be a significant influence of lecturers perceived internet service quality in this research. However, lecturers expected internet service ($\beta=.043$, $p= .637$) was discovered to have no significant influence on lecturers perceived internet service quality. This showed that lecturers' perception was revealed as a strong influence of quality internet in Nigeria higher education. However, lecturers' expectation was not revealed as influence of quality internet in Nigeria higher education. In addition, lecturers perceived internet service (LPIS) and lecturers expected internet service (LEIS) were not joint influence of lecturers perceived internet service quality (LPISQ) since only LPIS was the significant influence of LPISQ. The lecturers perception on internet service was more significant than lecturers expectation on internet service. Previous study discovered that quality service is understandable by investigating the disparities in individual's expectations and perceptions of services being rendered [3].

This study has theoretical implications that revealed service quality (SERVQUAL) framework as adequate to explain lecturers' perception of internet service quality in Nigeria higher education. Also, this research promotes the understanding of factors, which influence lecturers' perception of internet service quality in Nigeria higher education. The introduction of the lecturers perceived internet service (LPIS), lecturers expected internet service (LEIS) and lecturers perceived internet service quality (LPISQ) dimensions in SERVQUAL theoretical framework allowed the researchers' to test these factors in a developing country like Nigeria. The SERVQUAL framework is service oriented theory [8].

V.   CONCLUSION

This research has efficiently introduced the service quality (SERVQUAL) framework as theory to investigate some of the factors that influences lecturers' perception of internet service quality in Nigeria higher education. The findings from this research provides universities management with better understanding on the nature of factors that influences lecturers' perception of internet service quality.

This research has specific limitations, which is addressable in subsequent study. For instance, this research involved only Nigerian university lecturers, who are adults. Hence, the findings of this study are limited to lecturers and related environment like the university. Thus, this study recommends that subsequent research must involve varieties of respondents that involves students, technicians and other non-academic staff to mention few. In addition, since this research involved quantitative methods of survey type. This research recommends that subsequent study must use mixed methods to allow the gathering of both quantitative and qualitative data.

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