Service Quality of Higher Education in the Selected Govt. Colleges of Northern Bangladesh: An Evaluation on ServqualDimensions

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ABSTRACT—To speed the rate of higher education government (govt.) has increased and promoted the number of govt. degree level institutions as higher level honor's and master's institution. There is no measure to ensure quality of these higher educational institutions as prescribed in the public universities or international universities. To know service quality and performance of the service provider groups measuring service quality is very much significant. For this purpose, we have to measure students' expectations from the service entity and their perceptions about the actual services they get. The govt. colleges that provide higher education need to understand the customers' (students') perceptions of service quality and identify the gaps between their expectations and these perceptions. This part of the research studies students' expectations and perceptions of service quality in the present educational environment by using the modified service quality (SERVQUAL) model given by Parasuraman et.al for distinctive nature of service. The modified SERVQUAL instrument will measure five dimensions i.e. tangibles (academic, non-academic), reliability, responsiveness, assurance and empathy. This study has been done over 382 undergraduate and post graduate students of selected four govt. colleges from top ten ranking 2016 by National University of northern division Rajshahi and Rongpur. Next the descriptive statistical analysis with mean scores, standard deviation and crosstabs in different perspective by colleges and respondents with service dimensions. Service quality has been measured by subtracting students' expectations mean scores from their perceptions mean scores of different service items related to educational services based on SERVQUAL dimensions. A structured questionnaire has been supplied with same type questions to know students' expectations and perceptions with a 5 point Likert type scale. The study found that all the SERVQUAL components has made negative scores of service quality of higher education in govt. colleges.

Key words: Higher Education, Service quality, Expectations, Perceptions, SERVQUAL.

I. INTRODUCTION

The most talked issue around the world is quality of higher education focusing on service quality. The present world encouraging for building a stronger socio-economic and industrial development in most developing nations. Many scholars have agreed for qualitative and accessible higher education system as a foundation to achieve the goals. Higher education build the nation by supplying human capital to its workforce. The modern world is mostly based on technology and required with highly educated skilled workers. Feeling the emerging need of higher education govt. of people republic of Bangladesh has increased higher education institutions by opening honors and master's in govt. degree (pass) level colleges affiliated to National University (NU). These HE institutions under NU is not enough capable to provide higher educations for lack of service quality. Service quality of an educational institution makes its standard to the customers (i.e., students).

Govt. colleges of Bangladesh has encompassed the accessibility, increased the rate of higher education but issues to consider of quality and relevance of teaching and learning in govt. colleges.[1]

The Strategic Plan for Higher Education in Bangladesh (2006-2026) was prepared by eminent scholars, academics and researchers drafted with the following sections of (i) Vision, Size and Shape; (ii) Quality; (iii) Governance and Management; (iv) Future Funding; (v) Research; and (vi) Information Communication Technology; with a lot of recommendations about those sections. One of the major considerations was about the quality and relevance of teaching and learning in colleges under NU i.e., quality of teachers, teacher students ratio (TSR), govt. non govt. issues of colleges, training of teaching and non-teaching staffs, updated curriculum and syllabus and poor or average skills of academic staffs.[2] Therefore, Education, especially quality education of Bangladesh, is facing enormous challenges regarding quality of services provided by the institutions. Stakeholders (students and related others) do not get due services from the educational institutions. It is truer for higher education institutions like the government

colleges. There is a gap between the performance of the institutions and the perception levels of students. Government colleges of Bangladesh are failing to put up the standards of performance shown by those of the developed countries; even by the public universities of the country. Adekiya A. A. et al (2019) found that the perception of students are in the dimensions of lecturers, management, general environment, and non-teaching staff, meets up with the requirement for service quality, and agree that there is need for development in the tangibles infrastructures such as hostel infrastructures and teaching-learning environment.[3] Quality experts believe that measuring customer satisfaction at an educational establishment might be regarded as one of the greatest challenges for the quality improvement in higher education. Therefore, it is vital for educational institutions to actively monitor the quality of services and commit to continuous improvement to the needs of stakeholders.[4]

In this situation, it is necessary to assess whether our government colleges are providing the students with quality services or not. By measuring the performance of services of government colleges continuously, customer satisfaction and quality of higher education can be improved. Parasuraman et al. (1991) have referred to reliability, responsiveness, assurance, empathy and tangibility as a basis of making a tool for testing the service quality known as SERVQUAL.[5] The proposed study would like to measure the service quality of HE by SERVQUAL model to find the service gap between the students expectations and the perceptions about the service they receive actually from the educational institutions. To fulfill the service gap of the system and to find out whether the government colleges are able to fulfill their objectives of service quality in case of higher education and if not, to determine why they are failing to perform at desired level. Taking the SERVQUAL framework, this paper will study the service quality perceptions of the students and measure the service quality of the government colleges in case of higher education.

Service Quality is a focused evaluation that reflects the customer's perception of reliability, assurance, responsiveness, empathy, and tangibles.[6] Many experts think that service quality involves a comparison of expectations with performance.[7] Gronroos and others suggest that the perceived quality of a service is the result of a process in which customers compare their perception of service delivery and its outcome. Therefore, we define it from the customers' perspective as consistently meeting or exceeding customer expectations.[8] Expectations are the wants of customers, i.e., what they feel a service provider should offer, while perceptions refer to the customers' evaluation of the service provider.[9]

The most widely used technique for measuring service quality as said by Sahney[10] et al. cited by Annita Quinn et al., is the SERVQUAL model.[11] SERVQUAL model developed by Parasuraman et al. (1988) measures perceived service performance and compares it to customer expectations for the same service. By measuring customer expectation and perceived performance the SERVQUAL model identifies gaps that can be targeted for improvement.[12]

The objective of this study is to find out the service quality gaps based on five dimensions of service quality model or SERVQUAL i.e. tangibles (academic, non-academic), reliability, responsiveness, assurance and empathy.

II.   LITERATURE REVIEW

Service(s) is (are) part and parcel of our daily lives. According to the AMA (American Marketing Association, 1960) services as are activities, benefits and satisfactions which are offered for sale or are offered in connection with the sale of goods. Services that completely satisfy both internal and external strategic constituencies by meeting their explicit and implicit expectations (Cheng and Tam, 1997: 23).[13] According to Valarie A. Zeithaml, et al. (2010)[14], services can be defined as *deeds, processes, and performances.* Such as hotels, transportation, and health care, or customer service, which includes the service provided in support of a company's core products that addresses customer requests, questions, and complaints, besides providing

answers and solutions, or a value-add for manufactured products i.e., cell phones, computers, software, and mobile phones. According to Christopher lovelock et al. (2011) [15], services are while customers expect value from their service purchases in exchange of money, time, and effort, the value comes from access to a variety of value creating elements (goods, labor, professional skills, facilities, networks, and systems) rather than transfer of ownership.

According to Grönroos (2000)[16] a service is a process consisting of a series of more or less intangible activities that normally, but not necessarily always, take place in interactions between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems.

A uniform definition of service has not been developed up to this day. Beside theoretical constructions, several structures are accepted in the professional literatures. However, Palmer (2011) defines a service as: ―The production of an essentially intangible benefit, either in its own right or as a significant element of a tangible product, which through some form of exchange, satisfies an identified need.[17]

In all, accumulating definitions of service can be defined as an intangible offer of a performance, deeds or acts by one party i.e., service provider to another party i.e., service receiver in exchange of money, time and effort. Some parts of service may be tangible but its outcome in total is intangible, heterogeneous, non-stored, and simultaneous consumption. After consumption no ownership is transferred but the consumer can feel to change of his status.

Education is a pure service sector, which is characterized by the feature of service marketing i.e., intangibility, inseparability, heterogeneity, perishability, and lack of ownership.[18] The student services in higher education can be defined as providing services and support to students. Its purpose is to ensure the students growth and development during the academic experience (NASPA, 2102)[19]. Good services or quality services in higher education require

development and performance of physical assets and facilities

that involve provision of buildings, classrooms, hostels, staff quarters, workshops, laboratories, ICT centers, libraries, health centers, and sports facilities. Favorable learning environment, safety measures, maintenance, and renovation, beautification of environment and sanitation are also major considerations for aesthetic impression that ensure serenity and conducive climate for teaching, learning and research activities of HEIs.[20]

Quality is a significant concept to anybody's mind, especially what s/he receives/gets in any form of goods or services, bears the identity of quality or not. In Japanese phenomena 'quality' is 'zero defects' –doing it right the first time. Quality is a comparison between expectations and performance (A. Parasuraman, et al., 1985).[21] Image (Grönroos, 1984)[22] dimension of an entity is quality that is the function of expected service and perceived service result of technical and functional quality. The customer oriented approach focused on the perceptions of customers or quality in the eye of the customer (Andaleeb 2008; Brady & Cronin 2001; Dagger et al. 2007; Gronroos 1984; Parasuraman et al. 1988; Rust & Oliver 1994) cited by SaydaRownakAfza (2015) [23].

Service Quality is key performance measure in higher educational excellence to create a strong perceptions in students' mind [24]. J. E. Rowley (1996) said perceived quality related to and resulting from a comparison from expectations with perceptions of performance cited by Assaduzzaman et al. (2013)[25]. Tashmina Rahman et al. (2019)[26] in a report by world bank, find a lot of challenges on three tertiary education (i.e., universities, tertiary colleges, and tertiary TVET) and training systems relating rapid growth, unequitable access, low participation in science, technology, engineering and mathematics, traditional teaching learning and assessment system, and lack of qualified teachers, quality assurance, research and innovation, poor transparency and accountability mechanisms in recruitment of teachers and enrollment of

students, and in adequate financing in national budgets in tertiary education. There is a little bit attention in different dimensions of service quality in higher education. Golam

Rabbani and Solaiman Chowdhury(2014)[27] have opined that quality of higher education deteriorating day by day due to ineffective implementation of rules; regulations, and institutional arrangements are causes of quality of higher education. For quality of higher education research quality and teaching quality ratings are main indicator but the institutions do not emphasis on research based educations, 89% of their observed students' opinion.Md. Abdus Salam (2016)[28] conducted a research indicated that the teachers were proficient on content knowledge but do not assimilate pedagogical perspective and used the traditional teaching methods in a large size classroom because of their less understanding of the pedagogy and ICT for integrating in teaching practices to increase service quality of higher education. BrajaballavKar(2016)[29] focuses on few important aspects of 'satiated customer', 'competitive quality' and bi-directionality of the associated constructs and proposes that there could be impact of the cohorts on quality perception and thus the perception needs to be understood from a collective stand point rather than only from individual perspective. Husain SalilulAkareem& Syed Shahadat Hossain (2016) [30] conducted a study to what extent do demographic and background information of students that differentiate their perception about quality of higher education. They conducted the study to evaluate students' perception toward dimensions of higher education. The study has shown that status of students for scholarship, extracurricular activities, parents' education, age, previous result and the university they study in has a significant influence on perception about quality of higher education.Moyazzem Hossain (2018)[31] attempts to examine the relationship between service quality dimensions (tangibility, responsiveness, reliability, assurance and empathy) and students' satisfaction. The results exhibit that there is a significant correlation among all the constructs with student satisfaction at 1% level of significance. The

results also depict that the tangibles factor is the most important factor which includes a group of statements related to the environment and facilities provided by the university. All the

above studies investigated different problems of higher education, students' satisfaction, perceptions and expectations on different aspects and parameters on university education. This study will measures service quality of higher education on NU affiliated govt. colleges through the students' expectations and their perceptions about the actual performance of the services.

III.   . METHODOLOGY

The difference between expectations and perceptions about a service attributes is the major component of measuring service quality.[32]If we asked what is the perceived service quality, we may find that what is the expectations. The expectations and perceptions may vary from persons to persons and their age, sex, experience and many other socio economic factors.

The questionnaire was made to know the opinion about perceptions and expectations of students based on the Likert's 5 degree scale denoted with strongly disagree-1 to strongly agree-5. The instrument has been made based on scale of service quality model modified with 45 pair of questions of students' expectations and perceptions in five dimensions as follows: tangibles (academic and non-academic), item no. 1-12 and 13-20; reliability, item no. 21-28; responsiveness, item no. 29-34; assurance, item no. 35-40; and empathy, item no. 41-45.

The affiliated colleges have been ranked by NU on the basis of some selected criteria based on the activities of previous year. The government colleges have been selected randomly from the top ten ranking colleges of Rajshahi and Rangpur divisions of the NU ranking-2016.[33] The justification of selecting the study areas Rajshahi and Rangpur is that both zones have top ten colleges of honors and master's degree with similar ranking with other zones. Four colleges; two from each zone have been selected randomly excluding non-government colleges. Then

respondents (students) has been selected in proportion to total number of students of each college through simple random sampling (SRS) and considering faculty of arts and social science (ss), science and commerce to fulfill the objective of

the study. A sample of 382 respondents has been determined by known population statistical formula.[34] Assuming 95% level of confidence is considered for the said research which correspondent z-value is 1.96 and the maximum allowable error is 5%. The respondents have been selected proportionately to total number of students. Respondents also have been selected considering from different years of undergraduate and graduate students and different groups of science, arts, social science, and business. The collected questionnaires were then coded and entered into computer by using Statistical Package for Social Sciences (SPSS) software version 22 and MS excel for statistical analysis. A descriptive analysis has been done for calculating mean scores of expectations and perceptions.

The quality of service is dependent on two basic factors; expected and perceived service where consumers compares his expectations with the service he perceives.[35] For each of the attributes or elements, respondents were asked to express their views on the existing quality of services delivery to them in the govt. colleges and expectations from the services. The desired or expected level represents the level of service that service receiver expects to get from the govt. colleges and perceived level means the actual service delivered by the service providers obtained by the students for higher education. If a respondent gives 5 point in expectation and 3 points in perceptions' in any service quality attributes, there will be a negative score for service quality and he is not satisfied.

Again, when a respondent gives 3 point for expectation and 3 point for perception, s/he will be

moderately satisfied about service quality or if he gives 3 point for expectation and 4 point for perception, there will be a positive expression and satisfied with a service attribute. Service quality has been determined by the difference of mean scores of expectations and perceptions at 5% significance using t-test. Difference between students expectations and perceptions by measuring overall Service Quality (Q) = Service Perception (P) – Service Expectation (E)

IV.   . DATA ANALYSIS & RESULTS

Descriptive analysis has been done by computing the mean, Standard Deviation (SD), percentage and cross tabulation of the scores of variables or items or parameter (as hereafter stated in the study). The difference between perceptions and expectations has been made to find out the gap scores.

4.1 RELIABILITY ANALYSIS OF DATA

Reliability of the data has been checked by using Cronbach's Alpha value. The acceptable value of Cronbach's Alpha is more than 0.70 (Nunnally, 1978 [36]; Hair et Al., 2006, [37]. Kaith S. Taber, (2016)[38] described detailed levels of Alpha value, as the number of items are decreasing the Alpha value decreases and the number of items increase in a study the Alpha value increases. The Table-1 shows the Cronbach's Alpha values for different dimensions of perceptions within 0.820 to 0.723 and expectations within 0.691to 0.838 that is within acceptable limit. If we find the overall expectations items, its Alpha value is above 0.9 and the overall perceptions items, its Alpha value is above 0.9 that are acceptable i.e., within 0 to 1.

TABLE-1: CRONBACH'S ALPHA FOR EACH DIMENSIONS OF SERVQUAL

Dimensions (Items/parameter)	(No. of Items/parameter)	Cronbach Alpha	
		Expectations	Perceptions
1.1 Tangibles (Non-academic)(1-12)	12	0.820	0.838
1.2 Tangibles (Non-academic)(13-20)	8	0.763	0.784
2. Reliability(21-28)	8	0.803	0.811
3. Responsiveness(29-34)	6	0.785	0.735
4. Assurance (35-40)	6	0.774	0.691

5. Empathy (41-45)	5	0.723	0.806
Total(1-45)	45	0.942	0.947

4.2 THE DEMOGRAPHICS OF THE STUDY

The demographic information of the study has been shown in the Table-2. The highest number of students has been selected from RC is 37. 43% and the lowest number of students has been selected from RGWC, students are selected proportionately to the volume of students studying higher education in the colleges. Both undergraduate and graduate students have been selected to fulfill the purpose of the study to find out actual services gaps.

The highest number of students represents are 21.70% from undergraduate students of honors 3rd year. The lowest number of students represents from masters previous and ex-students as they are not available in the college campuses. Masters previous students are irregular in the colleges and ex-students are engage themselves in different jobs or staying with the family members. Students from different years have been selected to get a clear concept about service quality of higher education of govt. colleges. The more time passing in an educational institution the experience gathered by the students and day by day they get a clear cut concept about the institutions. A number of students has been accumulated from different years and different groups (Science, Arts, Social science and Commerce) to express their perceptions about different service quality of different dimensions of govt. colleges.

Both male and female students are participated in the study i.e., male is 51% and female is 49%. Only 3.70%

4.3 DESCRIPTIVE STATISTICS

4.3.1 Service gaps of Tangibles (academic and non-academic) Dimension

From the above table-3, we find that all the mean scores for academic and non-academic are negative. The average gap mean scores for academic tangibles is -1.603. The item no. 1 i.e., "The exterior of your college are visually appealing" has the highest mean score for perception (mean=3.636, sd=1.082) which has the highest expectation mean score (mean=4.343, sd=0.860) but if we separately observe the expectation and perception for academic

respondents are above 26 years. The highest family income group is tk. 50,000.00 to 1,00,000.00 that is 44.20% of the total income groups.

TABLE-2: DEMOGRAPHICS (FREQUENCY AND PERCENTAGE) DISTRIBUTION OF THE STUDY

VARIABLES	Frequency(Number of Respondents)	Percentage (%)
COLLEGE		
RC	143	37.43%
RGWC	27	7.07%
CCR	119	31.15%
DGC	93	24.35%
Total	382	100.0%
GENDER		
Male	193	(51.00%)
Female	189	(49.00%)
Total	382	(100%)
AGE		
Below 20 years	76	19.90%
20 - 23 year	200	52.40%
24 - 26 year	92	24.10%
above 26 year	14	3.70%
Total	382	100.00%
RESPONDENTS' (FAMILY) ANNUAL INCOME(TK)		
less than 50,000	98	25.70%
50,000 to 1,00,000	169	44.20%%
1,00,000 to 1,50,000	101	26.40%
More than 1,50,000	14	3.70%
Total	382	100.00%
RESPONDENTS' ACADEMIC STATUS		
Honours 1st Year	64	16.80%
Honours 2nd Year	81	21.20%
Honours 3rd Year	83	21.70%
Honours 4th Year	64	16.80%
Masters Previous	11	2.90%
Masters Final Year	69	18.10%
Masters Passed	10	2.60%
Total	382	100.00%

tangibles as independent variables it is found that item no. 10 i.e, "Your college should have proper securities of hostels and entire campus" has the highest mean score for expectation (mean=4.576, sd=0.618) and item no. 7 i.e, "Your college should have plenty of sports facilities with modern equipment" has lowest mean score (mean=4.267, sd=0.740) whereas average nonacademic tangibles mean gap scores is -1.603 less than academic tangibles mean gap scores is -1.658. The highest and lowest mean gap scores are -1.958 and -0.707 for the elements of 'adequate printing and xerox facilities', and 'he exterior of your college' is visually

appealing respectively. The average mean nonacademic tangibles for expectations is 4.411 and perceptions is 2.808.

Whereas the average mean academic tangibles for expectations is 4.387 and perceptions is 2.729.

TABLE-3: MEAN SCORES FOR TANGIBLES (ACADEMIC AND NON-ACADEMIC) ITEMS

Service Dimensions	Item no.	Perceptions (P)		Expectations (E)		Gap Scores (P-E)
		Mean	Std. Dev.	Mean	Std. Dev.	
1.1 Tangibles (Non-academic)						
	1	3.636	1.082	4.343	0.860	**-0.707**
	2	2.874	1.155	4.432	0.752	-1.558
	3	3.275	0.939	4.429	0.763	-1.154
	4	2.641	1.065	4.479	0.720	-1.838
	5	2.730	1.187	4.516	0.671	-1.785
	6	2.678	1.145	4.319	0.795	-1.641
	7	2.796	1.101	4.267	0.740	-1.471
	8	2.691	1.246	4.458	0.670	-1.767
	9	2.356	1.168	4.314	0.760	**-1.958**
	10	2.657	1.193	4.576	0.618	-1.919
	11	2.471	1.126	4.291	0.747	-1.819
	12	2.893	1.217	4.505	0.698	-1.613
Average		**2.808**		**4.411**		**-1.603**
1.2 Tangibles (Non-academic)	13	2.641	1.240	4.424	0.690	-1.783
	14	2.806	1.195	4.435	0.687	-1.628
	15	2.741	1.199	4.296	0.724	-1.555
	16	2.746	1.106	4.448	0.673	-1.702
	17	2.652	1.109	4.340	0.709	-1.689
	18	2.859	1.189	4.408	0.684	-1.550
	19	2.641	1.148	4.293	0.737	-1.652
	20	2.749	1.161	4.456	0.662	-1.707
Average		**2.729**		**4.387**		**-1.658**
Average (1.1 and 1.2)		**2.769**		**4.399**		**-1.630**

4.3.2 Service Gaps of Reliability Dimension

In the table-4, we find that all the mean scores for reliability dimensions of service quality are negative. The average mean scores for reliability mean scores is -1.735. The highest and lowest mean scores are -1.908 and -1.607 for the elements of the design of course structure of your

college is based on job requirements, and Your College maintains different records and documents of students' performance accurately respectively. The average mean reliability for expectations is 4.356 and perceptions is 2.622.

TABLE-4: MEAN SCORES FOR RELIABILITY ITEMS

Service Dimensions	Item no.	Perceptions (P)		Expectations (E)		Gap Scores (P-E)
		Mean	Std. Dev.	Mean	Std. Dev.	
2. Reliability	21	2.699	1.135	4.317	0.718	-1.618
	22	2.686	1.164	4.382	0.714	-1.696
	23	2.683	1.085	4.408	0.695	-1.725
	24	2.814	1.132	4.422	0.682	**-1.607**
	25	2.471	1.056	4.380	0.746	**-1.908**
	26	2.555	1.099	4.364	0.707	-1.809
	27	2.448	1.276	4.270	0.776	-1.822
	28	2.618	1.247	4.309	0.731	-1.691
Average		**2.622**		**4.356**		**-1.735**

4.3.3 Service Gaps of Responsiveness Dimension

In the table-5, we find that all the mean scores for responsiveness dimensions of service quality are negative.

The average mean scores for responsiveness is -1.574. The highest and lowest mean scores are -1.772 and -1.312 for 'the elements of the design of course structure of your college is based on job requirements,' and 'Your College maintains different records and documents of students' performance accurately' respectively.The average mean responsiveness for expectations is 4.351 and perceptions is 2.757.

TABLE-5: MEAN SCORES FOR RESPONSIVENESS ITEMS

Service Dimensions	Item no.	Perceptions (P)		Expectations (E)		Gap Scores (P-E)
		Mean	Std. Dev.	Mean	Std. Dev.	
3. Responsiveness	29	2.757	1.146	**4.484**	0.659	-1.728
	30	**2.610**	1.151	4.356	0.731	-1.746
	31	2.626	1.186	4.398	0.709	**-1.772**
	32	2.859	1.153	4.322	0.701	-1.463
	33	2.825	1.163	4.246	0.747	-1.422
	34	**2.990**	1.136	**4.301**	0.699	**-1.312**
Average		**2.757**		**4.351**		**-1.574**

4.3.4 Service Gaps of Assurance Dimension

In the above table-6, we find that all the mean scores for assurance dimensions of service quality are negative. The average mean scores for assurance is -1.436. The highest and lowest mean scores are -1.733 and -1.236 for the elements of the academic staffs (lecturers) have high research productivity in your college, and Students and parents feel safe when receiving services from staffs, teachers and employees respectively.The average mean reliability for expectations is 4.314 and perceptions is 2.622.

TABLE-6: MEAN SCORES FOR ASSURANCE ITEMS

Service Dimensions	Item no.	Perceptions (P)		Expectations (E)		Gap Scores (P-E)
		Mean	Std. Dev.	Mean	Std. Dev.	
4. Assurance	35	2.801	1.162	4.267	0.711	-1.466
	36	2.914	1.195	4.338	0.713	-1.424
	37	2.838	1.159	4.346	0.747	-1.508
	38	2.579	1.181	4.312	0.728	-1.733
	39	3.003	1.049	4.238	0.690	-1.236
	40	3.134	1.055	4.385	0.696	-1.251
Average		**2.878**		**4.314**		**-1.436**

4.3.5 Service Gaps of Empathy Dimension

In the above table-7, we find that all the mean scores for empathy dimensions of service quality are also negative. The average mean scores for assurance is -1.395. The average mean responsiveness for expectations is 4.351 and perceptions is 2.757. The highest and lowest mean scores are -1.490 and -1.364 for the elements of the academic staffs (lecturers) have high research productivity in your college, and the students and parents feel safe when receiving services from staffs, teachers and employees, respectively.

TABLE-7: MEAN SCORES FOR EMPATHY ITEMS

Service Dimensions	Item no.	Perceptions (P)		Expectations (E)		Gap Score (P-E)
		Mean	Std. Dev.	Mean	Std. Dev.	
5. Empathy	41	**2.806**	1.195	**4.296**	0.727	**-1.490**
	42	2.882	1.052	4.254	0.696	-1.372
	43	**2.906**	1.023	4.283	0.679	-1.377
	44	2.887	1.075	4.251	0.742	**-1.364**
	45	2.830	1.118	**4.202**	0.860	-1.372
Average		**2.862**		**4.257**		**-1.395**

4.3.6 Overall Service Quality Gaps Scores

From the table-8, we see that the average scores of service quality dimensions for perceptions is 2.779 and for expectations is 4.336. Therefore, the overall service quality gap is 1.557. Again, we find that highest gap exists for Reliability dimension and lowest gap exists for empathy dimensions are -1.735 and -1.336 respectively. If we rank the service quality dimensions in term of lowest gap to highest gap scores we find from the table 1st for Empathy, 2nd for Assurance, 3rd for Responsibility, 4th for tangibility and 5th for Reliability. Empathy > Assurance > Responsibility > Tangibles > Reliability
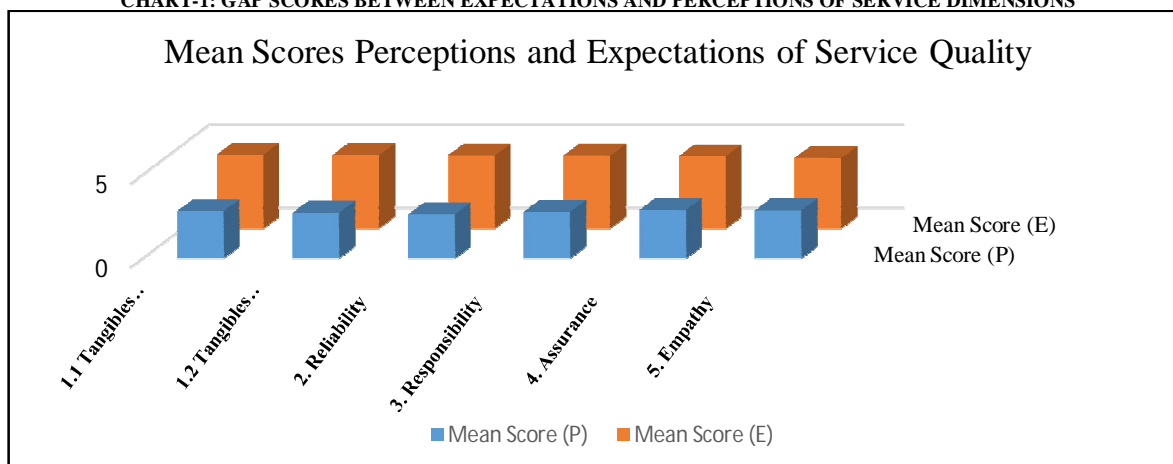
TABLE-8: OVERALL GAP SCORES OF SERVICEQUALITY (SERVQUAL) DIMENSIONS

Service Dimensions	Items	Perceptions		Expectations		GAP for mean scores	Ranking of dimensions
		Mean	**STD**	**Mean**	**STD**		
1.1 Tangibles (Non-academic)	1-12	**2.808**	**1.135**	**4.411**	**0.733**	**-1.603**	**4th**
1.2 Tangibles (Academic)	13-20	**2.729**	**1.168**	**4.387**	**0.696**	**-1.658**	
2. Reliability	21-28	**2.622**	**2.622**	**4.356**	**0.721**	**-1.735**	**5th**
3. Responsibility	29-34	**2.777**	**1.156**	**4.351**	**0.708**	**-1.574**	**3rd**
4. Assurance	35-40	**2.878**	**1.134**	**4.314**	**0.714**	**-1.436**	**2nd**
5. Empathy	41-45	**2.862**	**1.092**	**4.198**	**0.777**	**-1.395**	**1st**
Average		**2.779**		**4.336**			

From the Chart-1 we see that the mean scores of perceptions is less than the mean scores of expectations with a 5 point Likert's scale average mean scores. The comparative average mean score bar chart shows that the perceptions of respondents are less than the average expectations mean scores bar chat.

CHART-1: GAP SCORES BETWEEN EXPECTATIONS AND PERCEPTIONS OF SERVICE DIMENSIONS

From the graph-1: we find that line of average mean expectations is far above from the line of average mean perceptions of service dimensions. Therefore, there is a negative gap scores for all service quality dimensions.

GRAPH-1: OVERALL SERVICE GAPS EXPECTATIONS AND PERCEPTIONS OF SERVICE DIMENSIONS
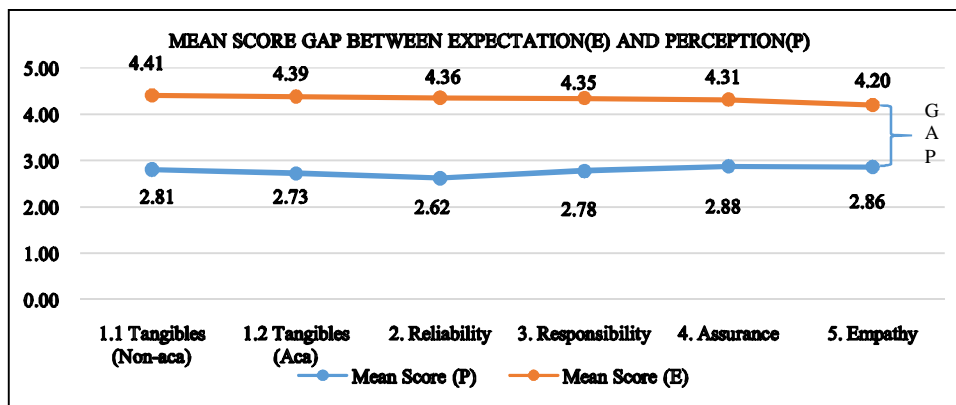
4.3.7 The 5 Largest and Gaps Mean Scores for All Aspects of Service Quality in Higher Education

From the table-9, it is found that 3 nonacademic tangibles items have largest mean gap scores that are 'Your college should have adequate printing and xerox facilities'; 'Your college should have proper securities of hostels and entire campus' and 'There should be well furnished and up-to-date rich library in your college'. On the other hand 2 reliability items has largest gap mean scores that are 'The design of course structure of your college should be based on job requirements' and 'Your college should be tie up with the companies for placement of the graduates or should arrange job fairs by private and public companies.'

TABLE-9 THE 5 LARGEST IN ASPECT OF GAP MEAN SCORES OF SERVICE QUALITY

Item no.	Items	Mean(E)	Mean (P)	GAP Scores (P-E)	Dimensions
9	Your college should have adequate printing and xerox facilities	4.314	2.356	-1.958	Tangibles nonacademic
10	Your college should have proper securities of hostels and entire campus	4.576	2.657	-1.919	Tangibles nonacademic
25	The design of course structure of your college should be based on job requirements	4.380	2.471	-1.908	Reliability
4	There should be well furnished and up-to-date rich library in your college	4.479	2.641	-1.838	Tangibles nonacademic
27	Your college should be tie up with the companies for placement of the graduates or should arrange job fairs by private and public companies	4.270	2.448	-1.822	Reliability

4.3.8 The 5 Smallest Gaps Mean Scores for All Aspects of Service Quality in Higher Education

From the table-10, it is found that 2nonacademic tangibles items have lowest mean gap scores that are 'The exterior of your college should be visually appealing'; 'and 'Staffs, employees, and lecturers of government college should be well dressed and neat in appearance' and 'There should be well furnished and up-to-date rich library in your college.' The gap score are -0.707 and -1.154 respectively.On the other hand.

2 assurance items has largest gap mean scores that are 'Lecturers of your college should be knowledgeable to class lectures with update information' and 'The employees and lecturers should be capable to solve your problems.' The gap score are -1.251 and -1.311 respectively. One responsiveness item has lowest gap mean scores that is 'Students and parents should feel safe when receiving services from staffs, teachers and employees' its gap score is -1.236.

TABLE-10: THE 5 SMALLEST IN ASPECT OF GAP MEAN SCORES OF SERVICE QUALITY

Item no.	Items	Mean(E)	Mean (P)	GAP	Dimensions
1	The exterior of your college should be visually appealing	4.343	3.636	-0.707	Tangibles nonacademic
3	Staffs, employees, and lecturers of government college should be well dressed and neat in appearance	4.429	3.275	-1.154	Tangibles nonacademic
39	Students and parents should feel safe when receiving services from staffs, teachers and employees	4.238	3.003	-1.236	Responsiveness
40	Lecturers of your college should be knowledgeable to class lectures with update information	4.385	3.134	-1.251	Assurance
34	The employees and lecturers should be capable to solve your problems	4.301	2.990	-1.311	Assurance

4.4 CROSSTABS ANALYSIS

4.4.1. Measuring College Wise Service Quality Gap Mean Scores between Perception and Expectation

In the Table-11 of individual cross tab study of selected govt. colleges expectations and perceptions of mean scores we found that RC has lowest gap mean scores of -1.024, -0.984, -1.077, -1.008, -1.010, and -0.905 in tangibles nonacademic, tangibles academic, reliability, responsiveness, assurance, and empathy accordingly in all dimensions of service quality. Whereas the highest mean scores of gap we found that CCR has -1.973 highest mean gap scores in tangibles nonacademic and -2.199 the highest mean gap scores in tangibles academic, and -2.207 the highest mean gap scores in reliability; DGC has 2.088 the highest mean gap scores in Responsiveness, -1.737 the highest mean gap scores in assurance, and -1.871 the highest mean gap scores in empathy. From the chart-2 we see that RC has lowest service quality gap scores among the selected colleges.

TABLE-11: COLLEGE WISE SERVICE GAP BETWEEN EXPECTATIONS AND PERCEPTIONS

Item no.	RC			RGWC			CCR			DGC			Total		
	Mean (E)	Mean (P)	GAP	Mean (E)	Mean (P)	GAP	Mean (E)	Mean (P)	GAP	Mean (E)	Mean (P)	GAP	Mean (E)	Mean (P)	GAP
(1) Average Tangibles Non Academic	4.316	3.291	-1.024	4.602	2.667	-1.935	4.484	2.511	-1.973	4.408	2.487	-1.921	4.411	2.808	-1.603
(2) Average Tangibles cademic	4.329	3.344	-0.984	4.495	2.296	-2.199	4.484	2.420	-2.064	4.323	2.305	-2.017	4.387	2.729	-1.658
(3) Average Reliability	4.276	3.199	-1.077	4.444	2.440	-2.005	4.491	2.284	-2.207	4.282	2.219	-2.063	4.356	2.622	-1.735
(4) Average Responsiveness	4.256	3.248	-1.008	4.451	2.796	-1.654	4.441	2.608	-1.833	4.353	2.265	-2.088	4.351	2.777	-1.574
(5) Average Assurance	4.266	3.255	-1.010	4.426	2.988	-1.438	4.466	2.754	-1.713	4.161	2.425	-1.737	4.314	2.878	-1.436
(6) Average Empathy	4.131	3.227	-0.905	3.970	2.985	-0.985	4.234	2.718	-1.516	4.323	2.452	-1.871	4.198	2.862	-1.395
Highest	4.329 (2)	3.344 (2)	-1.077 (3)	4.602 (1)	2.988 (5)	-2.199 (2)	4.491 (3)	2.754 (5)	-2.207 (3)	4.408 (1)	2.487 (1)	-2.088 (4)	4.411 (1)	2.878 (5)	-1.735 (3)
Lowest	4.131 (6)	3.199 (3)	-0.905 (4)	3.970 (6)	2.296 (2)	-0.985 (6)	4.234 (6)	2.284 (3)	-1.516 (6)	4.161 (5)	2.219 (3)	-1.737 (5)	4.198 (6)	2.622 (3)	-1.395 (6)

N.B. (1)= Tangibles Academic, (2)= Tangibles Non-academic, 3= Reliability, 4=Responsibility, 5=Assurance, and (6)=Empathy;
RC=Rajshahi College, RGWC=Rajshahi Govt. Women College, CCR=Carmichael College, and DGC=Dinajpur Govt. College

CHART-2: COLLEGE WISE MEAN SCORES SERVICE QUALITY GAPS BETWEEN EXPECTATIONS AND PERCEPTIONS

COLLEGE WISE MEAN SCORES SERVICE QUALITY GAPS BETWEEN EXPECTATIONS AND PERCEPTIONS
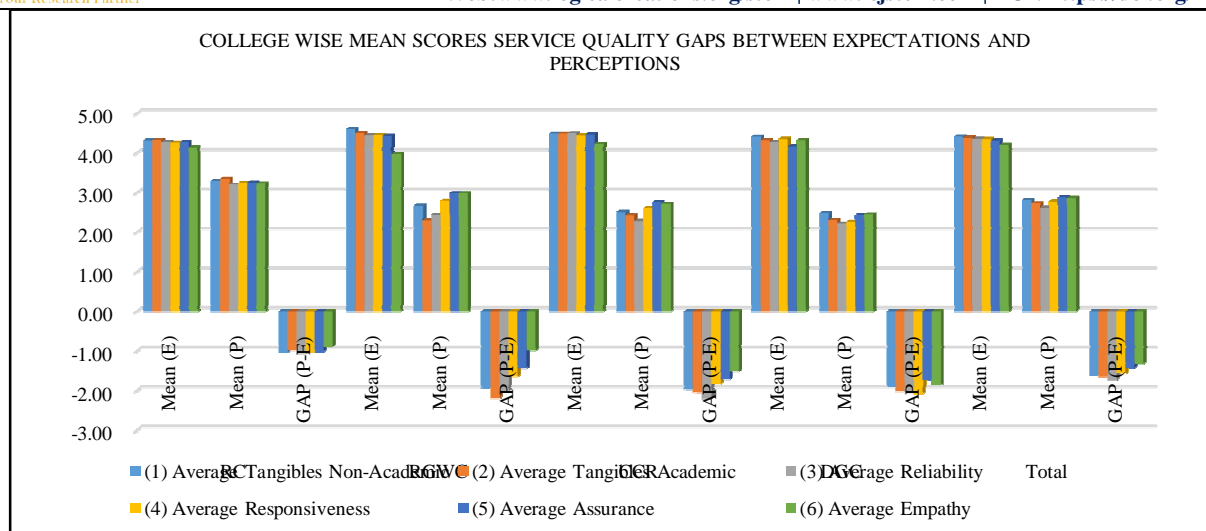
4.5 TEST OF HYPOTHESIS

H1: There is significant mean difference between expectation and perception among the respondents of SERVQUAL dimensions

Table-12 shows that the mean scores of all the students on expectations and perceptions are significantly different on all SERVQUAL dimensions. The calculated value of t-test between the mean scores of expectations and perceptions of each SERVQUAL components are greater than the table values at 0.05 level of significant. That means there is significant mean difference between expectations and perceptions.

TABLE-12: DIFFERENCE BETWEEN SERVQUAL DIMENSIONS EXPECTATIONS AND PERCEPTIONS

		Paired Differences						
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Expectation non-academic tangible – perception nonacademictangibles	1.603	0.831	0.043	1.519	1.69	37.67	381	.000
Pair 2	Expectation academic tangibles - perception academic tangibles	1.658	0.861	0.044	1.571	1.74	37.64	381	.000
Pair 3	Expectation reliability dimension - perception reliability dimension	1.735	0.948	0.049	1.639	1.83	35.76	381	.000
Pair 4	Expectation responsiveness dimension - perception responsiveness dimension	1.574	0.920	0.047	1.481	1.67	33.45	381	.000
Pair 5	Expectation assurance dimension - perception assurance dimension	1.436	0.850	0.043	1.351	1.52	33.04	381	.000
Pair 6	Expectation empathy dimension - perception empathy dimensions	1.395	1.001	0.051	1.294	1.50	27.24	381	.000

V. . DISCUSSIONS

Measuring services quality in a educational organizations is very difficult. From the data analysis it has been tried to evaluate services quality of NU affiliated govt. colleges. From table-1 we see the Cronbach's Alpha are within and near about the acceptable limits (0.723 – 0.820) for expectations and (0.691 – 0.838) for perceptions. So, the method data have been collected, is reliable. From the descriptive statistics of Table-3, Table-4, Table-5. Table-6 and Table-7, we see the services gap scores of different dimensions individually and separately i.e., average nonacademic tangibles gap scores, academic tangibles gap scores, reliability, responsiveness, assurance and empathy are -1.603, -1.658, -1.735, -1.574 and -1.395 respectively. Table-8 shows the ranking of SERVQUAL dimensions according to the large negative values that showing highest service quality gaps of the dimensions. Table -9, shows the largest five negative mean score gap values among 45 items and Table-10 shows the lowest negative mean scores gap

values of 45 items expectations and perceptions of respondents. Table-11

shows Cross tabs between colleges wise and SERVQUAL dimensions base gap scores. Chart-1 and graph-1 show the magnitude and area of service gaps for expectations and perceptions among the students. The Table-12 shows the mean scores of all the students on expectations and perceptions are significantly different on all SERVQUAL dimensions.

VI. . CONCLUSIONS

Measuring service quality is a continuous process and complex works for any service entity. It should be measure on time and need basis. In this study we found that all the SERVQUAL components mean scores are negative values that means govt. colleges need to increase their quality of

services that the students expects from them. Quality experts have opined that service quality gaps are always negative due to increased expectations of customers in the age of technology. Day to day customers' expectations are reached in a new levels but service providers need to emphasis on the high gap scores to mitigate customers' service gaps. From the study we find that govt. colleges has large service quality gaps in responsiveness, reliability and tangibles items. So the Service providers should take attention on those items. SERVQUAL scale is very popular and easy scale to measure service quality of any service organizations easily modifying the scale. Such study can be done in a portion of any service organizations to improve its service quality.

ACKNOWLEDGEMENT

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