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VISUALIZING THE GAP BETWEEN PERCEPTIONS AND EXPECTATIONS OF ARCHITECTURE STUDENTS' ON LIBRARY SERVICES IN THE UNIVERSITIES OF HARYANA: A MODIFIED SERVQUAL MODEL

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ABSTRACT:

The objective of this research paper is to visualize Architecture students' perceptions and expectations towards quality of library services delivered by the universities of Haryana. Using a modified SERVQUAL Model to identify perceived quality of library services and level of Architecture students' satisfaction grounded on five dimensions: Tangible, Reliability, Responsiveness, Assurance, and Empathy. The study conducted on five university libraries of Haryana having the students from both Bachelor of Architecture and Master of Architecture. The finding of the study illustrated that none of the service quality dimensions met the users' expectations. Significant differences in quality of library services were identified on each dimensions. This study will guide the authorities of university libraries for efficient resource allocation and enhance quality library services to meet the users' expectations in future.

INTRODUCTION:

University have been dedicated to offer an excellent quality of library services to its users to fulfil their academic needs for information. Since, libraries occupies predominant position in delivering information needs to carry out teaching, learning and research activities, so it is

very much essential to deliver purposeful resources and quality services to satisfy the users. ISO 8402, 1986 defined as "Quality is the totality of characteristics of an entity that bear on its ability to satisfy stated and implied needs." **Nyantakyi-Baah (2016)** explains quality associated to "suitability of service or product to its intended purpose or use, which is determined by the expectations of the customer or user". Hence, quality must 'conform to standards against which a service is measured with the idea of meeting users' needs and expectations'. A quality library services means to meets users information needs and expectations accurately and expeditiously.

Users' satisfaction is regarded as the most trustworthy benchmark for appraising an effectiveness of the library. **Eager and Oppenheim (1996)** and **Fidzani (1998),** expressed their view on user's feedback on library provide an extensive information in re-assembling their resources, activities and services for meeting their information requirement more systematically. In the words of **Majid, Anwar and Eisenschitz(2001)** in their study stated the prime objective of many surveys on library to identify the user's observation on library effectiveness concerning resources, facilities, services and activities. So, there is constant necessity to conduct user's feedback survey to minimize the gap between users' perception and expectations on quality of library services.

In one of the study conducted by **Jayasundara (2008)** noted that users' perception and expectation have become one of the most imperative studies to determining service quality of academic libraries. Similarly, **Basha&Zubi-Al(2010)** mentioned that library users are the ultimate judge to gauge its effectiveness of services. Thus, SERVQUAL Model can be used commendably to identify the gap between users' perception and expectation towards library services and at the same time will guide library management to make proper planning to meet user's information needs exhaustively.

LITERATURE REVIEW:

SERVQUAL Model is the initiative taken by **Parasuraman, Zeithaml and Berry (1988)** to develop an investigative survey tool for categorizing broad areas of service quality inside an organization. The model established to identify the discrepancy between the customer's perceptions and expectations. This conceptual framework have been used in many research projects done in the field of Library and Information Science to understand the user's perceptions and expectations towards quality library services. Studies conducted by **Richardson (2002) and Awana (2007)** stated that friendly behaviour of staff and willingness to help users to make them required information available contribute to user satisfaction. Library staff should adopt proactive approach to answer user's query will also results in user satisfaction. **Portmann and Roush(2004)** noted the library instruction also plays pivotal role in user satisfaction, because findings of their study showed that library instruction makes users comfortable and results in better use of library collections and services. **Sahu (2007)** in his study on 'users perception related to service quality of JNU, Delhi' to explore difference between perception on library service quality of teaching staff and students. Using SERVQUAL model, the result revealed there was difference between the perception of the teaching community and the students on library service quality.

In one the research undertook by **Edem, Ani and Ocheibi (2009)** on "Students'perceived effectiveness intheuseof libraryresources in Nigerian universities" recommended that e-resources and e-library will contribute for the advancement and help to make better utilization of library.In the case study of Ghana, conducted by**Larson and Owusu-Acheaw (2012)** to measure satisfaction level of undergraduate students on library services, suggested that respondents were not satisfied with the timings of the library. They were of the opinion that,

library opening hours should be extended. The study took by **Sohail and Raza (2012)** on 'Dr.Zakir Husain Library of JamiaMiliaIslamia, New Delhi', experienced that 59.50% respondents were found satisfied with reliability element of service quality. **Chandrasekar and Murugathas (2013)** conducted research on 'undergraduate Biology students at the University of Jaffna' to understand the user satisfaction on library services. Findings revealed that students were not happy with the services like Current Awareness Services, Selective Dissemination Services, Interlibrary loan and Photocopying services. Several authors like **Kitana and Serder (2014)** remarked that at' Girne American University library, Cyprus', users were not satisfied with library collection and looked-for better services.

Alam and Mezhah-ul-Islam (2020) conducted their study using SERVQUAL Model to evaluate service quality of academic libraries. Data collected from 10 private university of Bangladesh. The findings reveals that actual service performance (5.11) of all dimensions falls within the tolerance zone (4.73-5.84), representing the satisfaction level of users with the service offered by their libraries. In a separate study carried out by **Dey and Kumar (2020)** on university libraries of Haryana to measure the users' satisfaction using SERVQUAL Model. The findings of the study explained discrepancy in the quality of the services delivered by the library and those expected by the library users.In a study on Pakistani academic environment, **Jan and Ahmad (2020)** explored professional commitment of librarians on providing quality library services. The study found librarians were professionally committed. A positive significant relationship was seen between professional commitment and users' perceived quality library services. **Trivedi, Bhatt, Trivedi and Patel (2021)** in their empirical study on the performance of e-services and elements connected with infrastructure of a library of state university illustrated that out of 22 e-Service quality attributes, not a single attributes attain score more than 4 on likert scale, which shows present performance of e-Service quality require more improvement and corrective steps should be taken to enrich the current e-services and infrastructure.

STATEMENT OF THE PROBLEM:

The present study entitled "Visualizing the gap between perceptions and expectations of Architecture students' on library services in the universities of Haryana: A modified SERVQUAL Model" is to ascertain the users' expectations on quality of library services being delivered by university libraries to meet the information needs in a competitive environment. With the help of a modified SERVQUAL Model, based on five dimensions namely - Tangible, Reliability, Responsiveness, Assurance, and Empathy will help to recognize service quality gaps of university libraries.

SCOPE OF THE STUDY:

The study is principally conducted on students from Architecture Stream and their opinion on information requirement and quality of library resources and services. The present study covers five DeenbandhuChhotu Ram University of Science and Technology, Sonepat (State Universtiy), Lingaya's University, Faridabad (Private University), Sushant University, Gurugram (Private University), Maharishi Markandeshwar University, Ambala (Private University), and World University of Design, Sonepat (Private University).

OBJECTIVES OF THE STUDY:

1. To recognize the gap analysis between Architecture students' expectation and perception on quality of library services provided in the university libraries of Haryana.

2. To pinpoint the major attributes of quality of library services in which Architecture students' are more satisfied or dissatisfied in the university libraries of Haryana.

HYPOTHESES:

Hypothesis 1- There is no significant difference between users' expectations and perceptions of the Tangible dimension.

Hypothesis 2- There is no significant difference between users' expectations and perceptions of the Reliability dimension

Hypothesis 3- There is no significant difference between users' expectations and perceptions of the Responsiveness dimension

Hypothesis 4- There is no significant difference between users' expectations and perceptions of the Assurance dimension

Hypothesis 5- There is no significant difference between users' expectations and perceptions of the Empathy dimension

RESEARCH METHODOLOGY:

The sampling method has been used for data collection. According to **Sivathaasan and Chandrasekar(2013)** followed the procedure to gather data with the help of distributing questionnaire among library users who were utilizing library resources and services during a particular period. Similarly, **Owusu-Acheaw and Larson (2014)** have accepted the sampling technique to collect feedback of regular library users on systematic interval at the time they visited in the library. A modified SERVQUAL Model was used to visualizing the gap between perceptions and expectations of Architecture students' on library services. The study conducted on five university libraries of Haryana having the students from both B.Arch and M.Arch. in the universities of Haryana. 110 closed structured questionnaire were distributed among Architecture students. A total 86 (78.18%) valid questionnaires were collected for investigation based on five dimensions: Tangible, Reliability, Responsiveness, Assurance, and Empathy.

DATA PROCESSING AND ANALYSIS

Collected data were summarize in an excel sheet and calculated using statistical method.Survey measures expectations and perceptionsof respondents through 5-pointLikertscale oneachstatementunderfivedimensions.

P=Perception, E=Expectation,DR=DimensionRankandOR=OverallRank

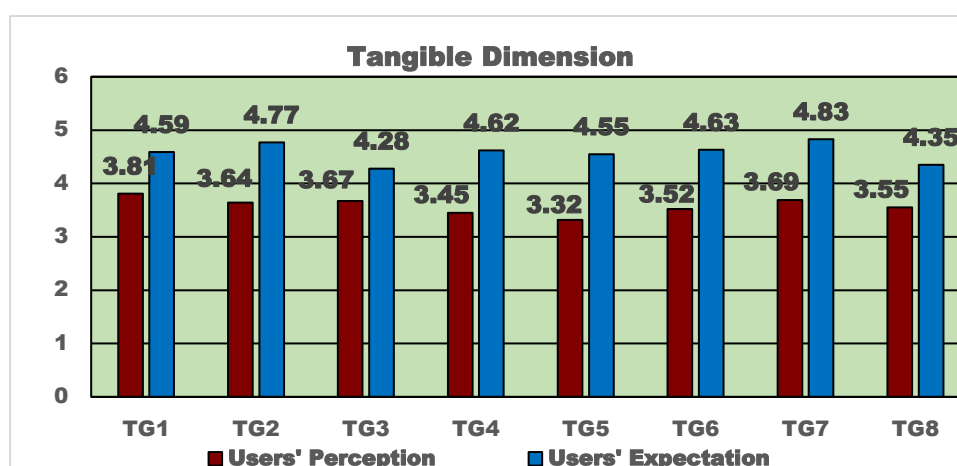## 1. TANGIBLE DIMENSION

Table1: SERVQUAL Score with in Tangible Dimension

S. No	Tangible-Statements	P Mean	E Mean	GapScore	DR	OR
1	The library building is convenient and easily accessible	3.81	4.59	-0.78	2	13
2	The library environment is calm,safe and salient for reading	3.64	4.77	-1.13	5	22
3	Lay out plan of the library is well prepared	3.67	4.28	-0.61	1	7

4	Provision of proper ventilation and lighting	3.45	4.62	-1.17	7	24
5	The library uses modern communication technology	3.32	4.55	-1.23	8	27
6	The library has well-designed and modernized Equipment that allows manageable access to information	3.52	4.63	-1.11	4	20
7	Comfortable and adequate seating arrangement	3.69	4.83	-1.14	6	23
8	Clean,tidy and hygienic environment	3.55	4.35	-0.8	3	14
	Average	**28.65**	**36.62**	**-7.97**		

Figure1: SERVQUAL Score with in Tangible Dimension

The data in Table and Figure 1 illustrates the Tangible dimension with 8 statements. Average gap score wascalculated (-7.97) which means Architecture students expectations were more than perceived quality library service at their respective university. The highest gap score shown in 5th Statement Thelibraryusesmoderncommunication technology (-1.23) and in lowest in 3rd statement Layoutplanofthelibraryiswellprepared (-0.61).
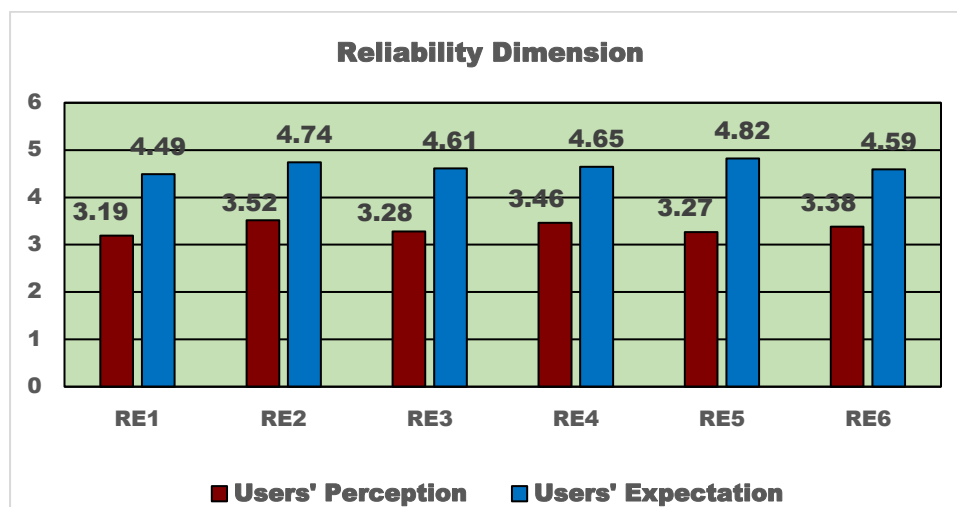
2. RELIABLE DIMENSION:

Table2: SERVQUAL Score with in Reliable Dimension

S. No	Reliability-Statements	P Mean	E Mean	GapScore	DR	OR
9	The library has access tools facilitates user to locate resources on their own	3.19	4.49	-1.3	4	28
10	Library performs services right at the first time.	3.52	4.74	-1.22	3	26
11	Data base of library catalogue is updated.	3.28	4.61	-1.33	5	29
12	The library makes relevant information available.	3.46	4.65	-1.19	1	23
13	The library staff is dependable in handling user's service problems.	3.27	4.82	-1.55	6	31
14	Library provides promised services.	3.38	4.59	-1.21	2	25

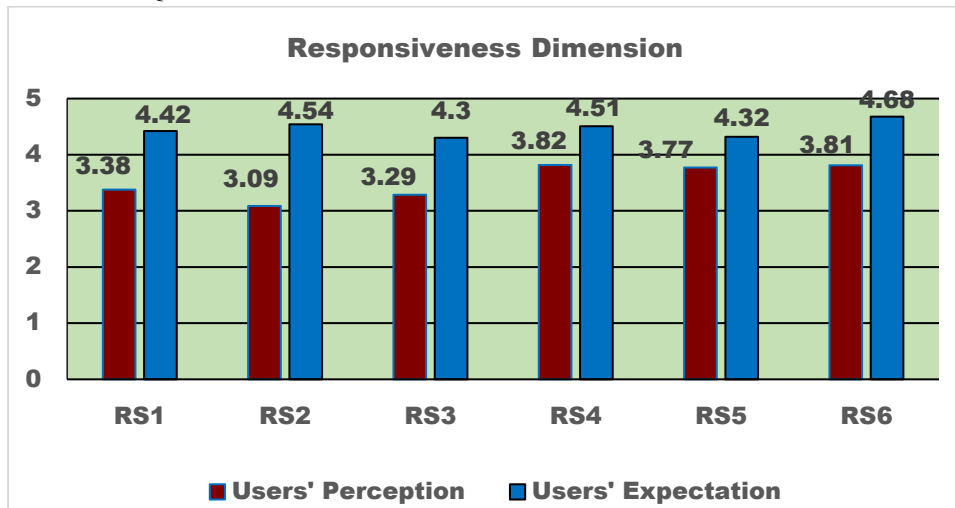|	Averages	20.1	27.9	-7.8		

Figure2: SERVQUAL Score with in Reliable Dimension

The data in Table and Figure 2 illustrates the Reliable dimension with 6 statements.
Average gap score wascalculated (-7.80) which means Architecture students expectations
were more than perceived quality library service at their respective university. The highest
gap score shown in 13th Statement -Thelibrarystaffisdependableinhandlinguser's
serviceproblems (-1.55) and in lowest in 12th statement-
Thelibrarymakesrelevantinformationavailable (-1.19).

3. RESPONSIVENESS:

Table3: SERVQUAL Score with in Responsiveness Dimension

S. No	Responsiveness- Statements	P Mean	E Mean	GapScore	DR	OR
15	The library keeps users informed whens ervices Are performed.	3.38	4.42	-1.04	5	18
16	The library has functional facilities that motivates study and learning	3.09	4.54	-1.45	6	30
17	The library staff makes current and new Information available to the users.	3.29	4.3	-1.01	4	17
18	The library staff are well conversant with the Equipment they use in the library	3.82	4.51	-0.69	2	10
19	The library staff are always ready to respond users queries	3.77	4.32	-0.55	1	5
20	The library staff are always willing to help users	3.81	4.68	-0.87	3	16
	Average	**21.16**	**26.77**	**-5.61**		

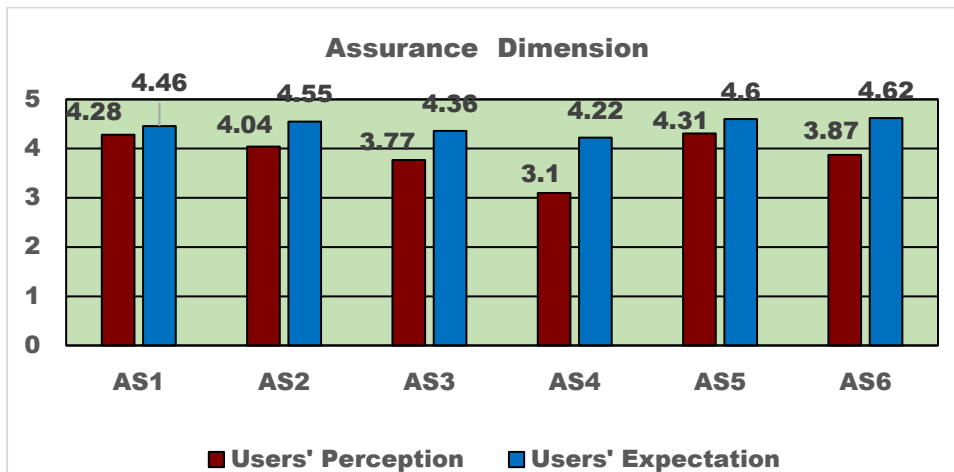**Figure3: SERVQUAL Score with in Responsiveness Dimension**

The data in Table and Figure 3 illustrates the Responsiveness dimension with 6 statements. Average gap score wascalculated (-5.61) which means Architecture students expectations were more than perceived quality library service at their respective university. The highest gap score shown in 16th Statement - The libraryhasfunctionalfacilitiesthatmotivates study and learning (-1.45) and in lowest in 19th statement Thelibrarystaffalwaysready to respond users queries (-0.55).

4. ASSURANCE DIMENSION:

Table4: SERVQUAL Score with in Assurance Dimension

| S. No	Assurance-Statements	P Mean	E Mean	GapS core	D R	O R
21	The library staff has respect for all class of users	4.28	4.46	-0.18	1	1
22	Library staff are knowledgeable, supportive and Have good communication skill	4.04	4.55	-0.51	3	3
23	Library staff are polite,encouraging and have Positive attitude	3.77	4.36	-0.59	4	6
24	The employees of library in still confidence in users	3.1	4.22	-1.12	6	21
25	Library staff assured records of personal Information be safe from unauthorized use	4.31	4.6	-0.29	2	2
26	Librarians are competence in solving user's problems.	3.87	4.62	-0.75	5	11
	Average	**23.37**	**26.81**	**-3.44**		

Figure4: SERVQUAL Score with in Assurance Dimension

The data in Table and Figure 4 illustrates the Assurance dimension with 6 statements. Average gap score wascalculated (-3.44) which means Architecture students expectations were more than perceived quality library service at their respective university. The highest gap score shown in 24th Statement - Theemployeesoflibraryinstillconfidencein users (-1.12) and in lowest in 21st statement- Thelibrarystaffhasrespectfor allclassofusers (-0.18).

5. EMPATHY DIMENSION:

Table5: SERVQUAL Score with in Empathy Dimension

| S. No	Empathy-Statements	P Mean	E Mean	GapScore	DR	OR
27	The library has convenient opening hours.	4.12	4.64	-0.52	1	4
28	The library makes efforts to know their users and thei rneeds.	3.07	4.69	-1.62	6	**32**
29	The library has adequate and quite place for Individual activity.	3.6	4.25	-0.65	2	8
30	The library provides prompt services.	3.33	4.42	-1.09	5	19
31	The library staff gives individual attention to users.	4.07	4.83	-0.76	4	12
32	The library staff have the readers'best interest at heart	3.6	4.27	-0.67	3	9
	Average	**21.79**	**27.1**	**-5.31**		

Figure5: SERVQUAL Score with in Empathy Dimension
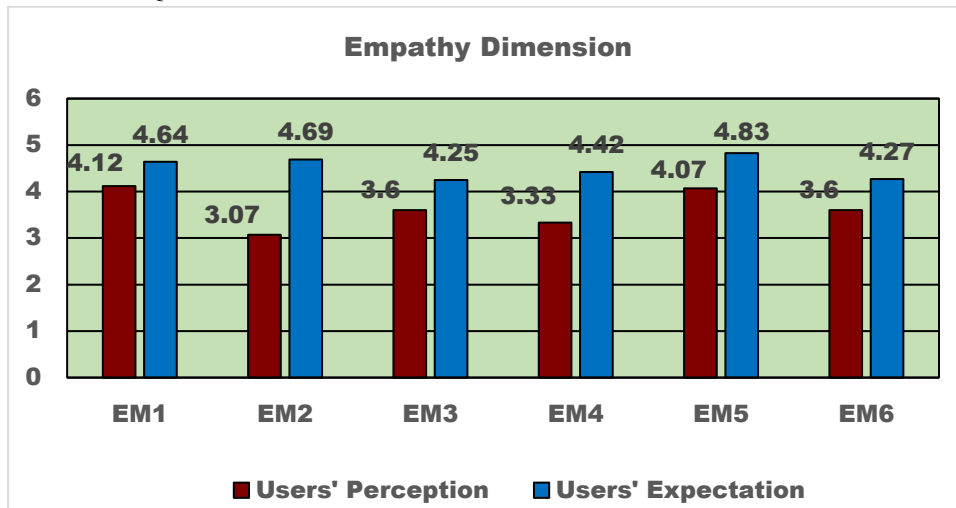
The data in Table and Figure 5 illustrates the Empathy dimension with 6 statements. Average gap score wascalculated (-5.31) which means Architecture students expectations were more than perceived quality library service at their respective university. The highest gap score shown in 28th Statement - Thelibrarymakeseffortstoknowtheir usersand theirneeds. (-1.62) and in lowest in 27st statement- The libraryhasconvenientopeninghours (-0.52).

The data presented from **Table 1 to 5** further put on radar chart to shows the aggregateresultsforthementionedsurveyquestions.

Figure 6 – Radar Diagram of SERVQUAL Dimensions
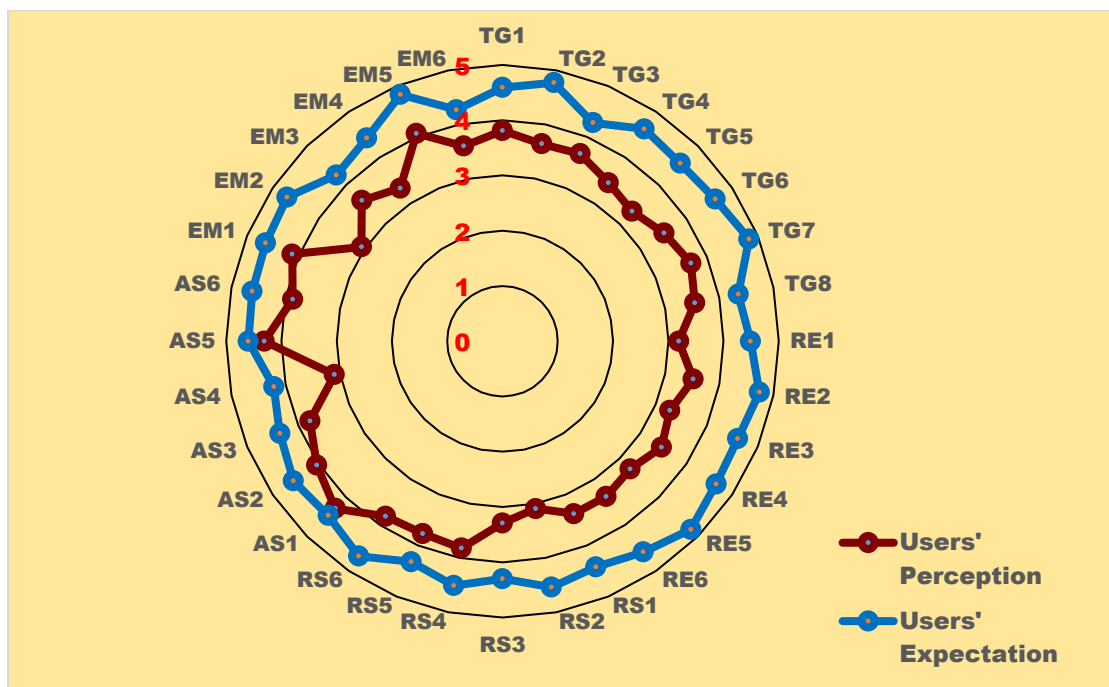
Each axis represents one question. On each axis,respondents'perceptions and expectations on quality of library service are plotted and the resulting gaps between these two levels (Blue line shows users'expectation and Maroon line shows users'perception) one achat tributes.

Table 6. SERVQUAL Dimension Analysis

SERVQUALDimensions	Gapscore	Rank
Average Gap Score for Tangibility	-7.97	5
Average Gap Score for Reliability	-7.80	4
Average Gap Score for Responsiveness	-5.61	3
Average Gap Score for Assurance	-3.44	1
Average Gap Score for Empathy	-5.31	2

From table 6, it can be understood that highest gap exists for Tangibility factor with
ascoreof-7.97andleastcomestheAssurancefactorwitha scoreof-3.44.

Testing of Hypotheses

**Table7: Mean, standard deviation and significance level of service quality dimensions
evaluate dusing t-Test**

S. No	Dimensions	Average Perception		Average Expectation		T-test Value	Decision R={t1.96}
		Mean 1	Std Dev. 1	Mean 1	Std Dev. 1		
1	Tangible	3.58	0.144	4.58	0.176	-11.612	Significant
2	Reliability	3.35	0.115	4.65	0.106	-18.597	Significant
3	Responsivenes s	3.53	0.287	4.46	0.132	-6.624	Significant
4	Assurance	3.90	0.406	4.47	0.142	-2.980	Significant
5	Empathy	3.63	0.374	4.52	0.218	-4.573	Significant

<u>**TANGIBLE DIMENSION:**</u>

Hypothesis 1- There is no significant difference between users' expectations and perceptions
of the Tangible dimension.

Since it is observed that t-value is -11.612. The p-value is <.00001. The result is significant
p<.05. Then it is concluded that the null hypothesis is rejected.

<u>**RELIABILITY DIMENSION:**</u>

Hypothesis 2- There is no significant difference between users' expectations and perceptions
of the Reliability dimension

Since it is observed that t-value is -18.597. The p-value is <.00001. The result is significant
p<.05. Then it is concluded that the null hypothesis is rejected.

<u>**RESPONSIVENESS DIMENSION:**</u>

Hypothesis 3- There is no significant difference between users' expectations and perceptions
of the Responsiveness dimension

Since it is observed that t-value is -6.624. The p-value is <.00001. The result is significant
p<.05. Then it is concluded that the null hypothesis is rejected.

ASSURANCE DIMENSION:

Hypothesis 4- There is no significant difference between users' expectations and perceptions of the Assurance dimension

Since it is observed that t-value is -2.980. The p-value is <.00001. The result is significant p<.05. Then it is concluded that the null hypothesis is rejected.

EMPATHY DIMENSION:

Hypothesis 5- There is no significant difference between users' expectations and perceptions of the Empathy dimension

Since it is observed that t-value is -4.573. The p-value is <.00001. The result is significant p<.05. Then it is concluded that the null hypothesis is rejected.

DATA ANALYSIS AND INTERPRETATIONS:

Data presented from Table 1 to 5, illustrated all the statements under five SERVQUAL dimensions. All statement shows negative Gap Score. Wider the gap, least level of user's satisfaction and vice versa. The statement having widest gap score (-1.62) in overall ranking - Thelibrarymakeseffortstoknowtheir usersand theirneeds (32nd Statement) from Empathy Dimension and the statement having least gap score (-0.18) in overall ranking – Thelibrarystaffhasrespectfor allclassofusers (21st Statement) from Assurance Dimension.

Table 7 demonstrates that users' perception and expectation on each of the SERVQUAL dimensions showed significant difference. It found that the expectation scores higher than perception scores on each dimensions. The result is significantat p< .05, means Architecture student's expectations not met the services quality offered by the University libraries of Haryana.

CONCLUSION:

The objective of the study is to visualizethe gap between perceptions and expectations of Architecture students' on library services in the universities of Haryanausing a modified SERVQUAL Model. The finding of the study shows Architecture student's expectations not met the services quality offered by the University libraries of Haryana. The university libraries need to implement quality measure tool to evaluate their performance and user satisfactionon services offered by University libraries. The result obtained will help the university librarians to monitor the user's requirement, recognize the gap and fill the gap by providing rich resources, upgraded technology and better library services. Therefore, regular feedback from the library users is important for the library betterment.

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