

## **Using Servqual Model to Assess Service Quality and Students Satisfaction in Pavia University – Italy**

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### **ABSTRACT**

Service quality and students satisfaction are very important concepts that universities must understand to be able to survive and remain competitive and grow.

**Purpose:** The purpose of this study is to assess the overall students satisfaction perceptions from Pavia university in Italy and investigate the differences in satisfaction perceptions of 18 departments ( faculties ), To find out the degree of student satisfaction with the services provided to them from the university, Another objective of this study is to clarify the extent to which the university's administration to improve the services provided to students so that they become appropriate to the dimensions of quality, so as to reduce the gap between expectations and the actual perception.

**Methodology:** A SERVQUAL model questioner was distributed randomly among the students at the university in all faculties to assess the quality of service as perceived by students.

**Results :** The results of this study show that In general, the students' satisfaction about service quality dropped from Expectation to perception of the students' which means that expectations exceeded perceptions and all the dimensions showed higher expectations than perceptions of services.

**Keywords:** Quality, Service Quality, perceptions, expectations.

### **BACKGROUND**

Higher Education Institutions are currently facing a very fierce competition amongst themselves to acquire students for their survival; the ability of the university to attract a student is a very important factor for any university to survive and to enhance its financial stability. Students are the most important stakeholders for the survival and development of universities, far too little attention has been paid to explore students' experiences in their colleges and departments According to (Pariseau 1997), service quality is defined as the situation in which the consumer's perception of service performance meets or exceeds their expectation of what the service institution should do. The key to service quality, then, is to meet or exceed consumer expectations. One problem with measuring customers' satisfaction is that there may often be discrepancies between the consumer's viewpoints and the provider's understandings of what constitutes quality service.

The significance of this study is to help the university (Pavia) and other universities to improve the educational quality by using (adapting) SERVQUAL model, This study aims to answer the following main question: "What is the level of quality of services of Pavia university from the perspective of students according to SERVQUAL model?" this question will be stated in the following sub questions?

### **LITERATURE REVIEW**

Assessment involves the use of empirical data on student learning to refine programs and improve student learning. (Assessing Academic Programs in Higher Education by Allen 2004) ,While Customer service can be defined as a combination of activities offered by the supplier or provider in order to improve the quality of the service, Quality is key for the survival of organizations in the global economy, while service quality is an approach to manage business processes in order to ensure full satisfaction of the customers which will help to increase competitiveness and effectiveness of the

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industry, According to (Geotsch and Davis 2003), quality can be defined as: “a dynamic state associated with products, services, people, processes, and environments that meets or exceeds customer expectation. According to ( Lovelock 2001), education service is classified as a service with intangible actions, directed towards the minds of people, with continuous delivery, conducted through a partnership between the service organization and its client, while despite the fact that it provides high personal contact, there is low customization.

### Measuring Service Quality in Higher Education

The measurement of service quality is often a comparison between what customers feel the service should offer and their evaluation and/or perception of the service’s actual performance. Roberts and Rowley present this as the following formula: Quality = Customer’s perception - Customer’s expectations.

My study is mainly based on the discrepancy between expected service and perceived service from the university students' perspective. The ultimate goal is to obtain a better knowledge of how students perceive service quality in the university.

### Research Hypothesis H1

There are statistically significant differences at level of significance  $\alpha \leq 0.05$  between the perceptions and expectations of the students of Pavia University towards the service quality

## METHODOLOGY

Research methodology focuses mainly on quantitative method and while the survey study is considered as a research technique. The SERVQUAL approach of Parasuraman et al 1988, used for measuring service quality in the targeted university. **Population and Sample** Given that the study is about measuring service quality of higher education in the university of Pavia from Italy, the students of Pavia university is the population for my study , where as Pavia university has a population of (24000) students, **Data Analysis technique** ,Collected data analyzed by using appropriate statistical tools based on SERVQUAL method. – Statistical package for social science (SPSS), **Data analysis and results, Analysis of SERVQUAL (Service quality) model** ,Following, the most important results of the statistical analysis for Service quality model dimensions (Tangibles, Reliability, Responsiveness, Assurance and Empathy) according to Expectation and Perception of students of PAVIA UN in Italy. The mean, standard deviation, and the relative important index were calculated for each dimension and each item in each dimension.

### Tangibles

Table 5 show that the relative important index of students expectations of service tangibles is (71.6%) from students point of view, whereas the relative important index of students Perception of service tangibles is (64.8%) from students point of view. that indicates that the level of satisfaction of Pavia students on service tangibles dropped (6.8%).

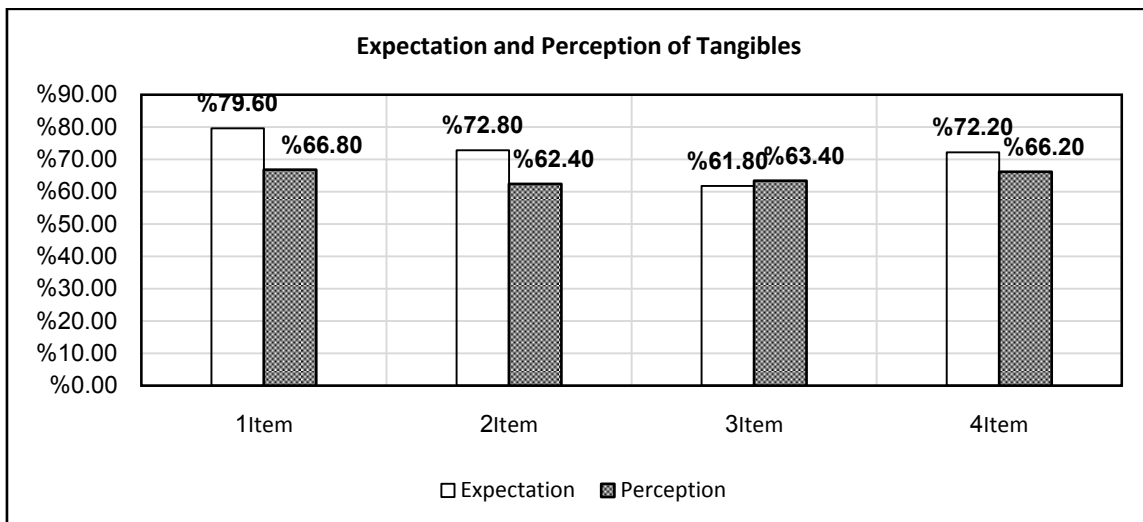


Figure1. Level of Expectation and Perception for each item in Tangibles dimension

Figure1. Illustrate the level of Expectation and Perception for each item in service tangibles dimension from students' point of view.

### Reliability

Table 1 show that the relative important index of students expectations of service reliability is (81.4%) from students point of view, whereas the relative important index of students Perception of service reliability is (68.6%) from students point of view. that indicates that the level of satisfaction of Pavia students on service reliability dropped (12.8%).Figure 3 illustrate the level of Expectation and Perception for each item in service reliability dimension from students' point of view.

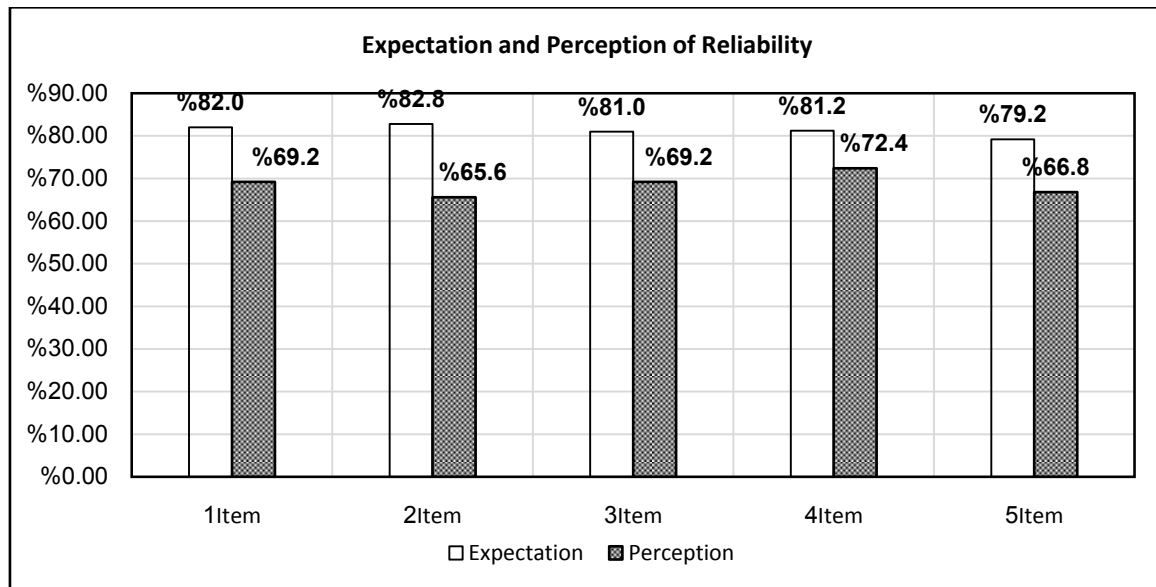


Figure2. Level of Expectation and Perception for each item in Reliability dimension

### Responsiveness

Table 2 show that the relative important index of students expectations of service responsiveness is (82.2%) from students point of view, whereas the relative important index of students Perception of service responsiveness is (67%) from students point of view. that indicates that the level of satisfaction of Pavia students on service responsiveness dropped (15.2%). Figure 2 illustrate the level of Expectation and Perception for each item in service responsiveness dimension from students' point of view.

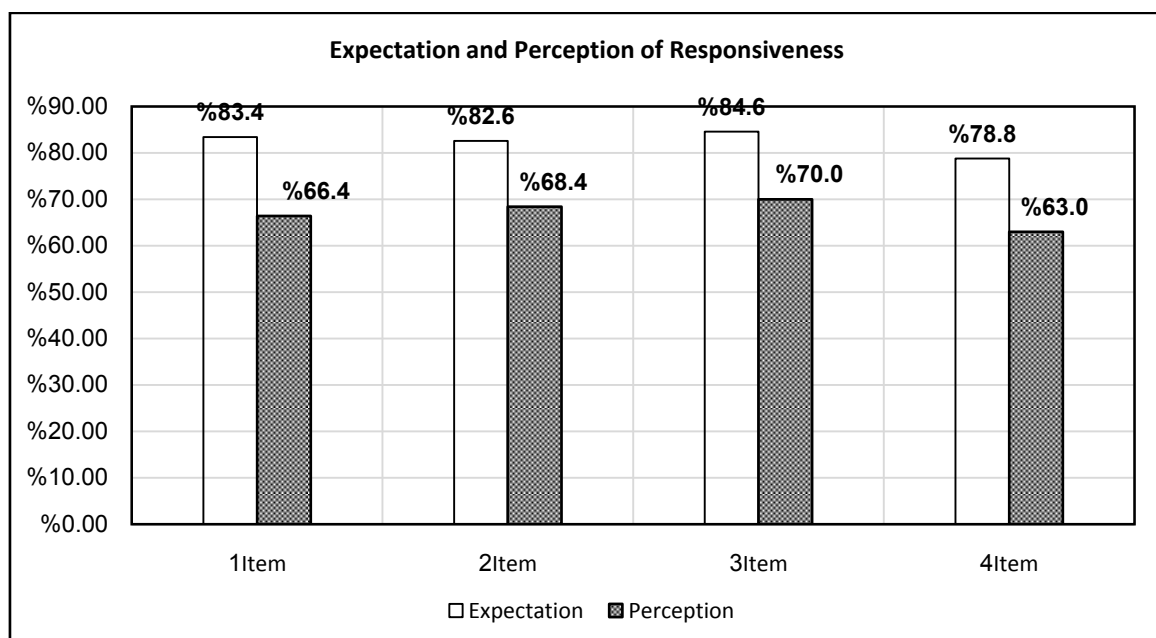


Figure3. level of Expectation and Perception for each item in Responsiveness dimension

**Assurance**

Table 3 show that the relative important index of students expectations of service assurance is (82.8%) from students point of view, whereas the relative important index of students Perception of service assurance is (70.4%) from students point of view. that indicates that the level of satisfaction of Pavia students on service assurance dropped (12.4%).

Figure 3 illustrate the level of Expectation and Perception for each item in service assurance dimension from students' point of view.

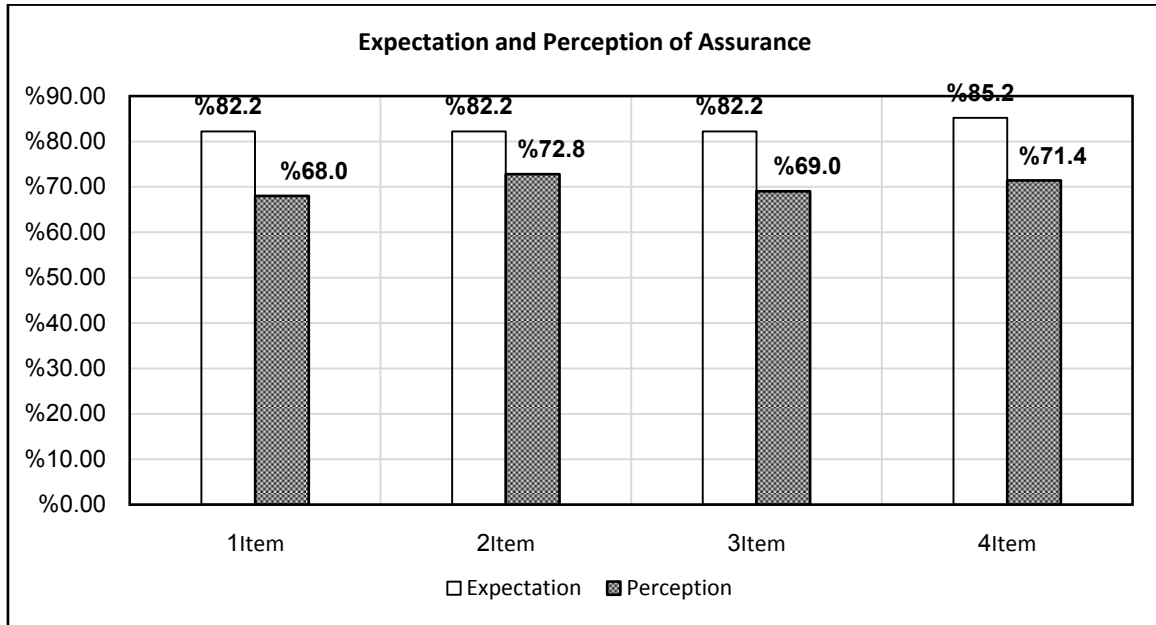


Figure4. Level of Expectation and Perception for each item in Assurance dimension

**Empathy**

Table 4 show that the relative important index of students expectations of service empathy is (78.6%) from students point of view, whereas the relative important index of students Perception of service empathy is (64.6%) from students point of view. that indicates that the level of satisfaction of Pavia students on service empathy dropped (14%).Figure 4 illustrate the level of Expectation and Perception for each item in service empathy dimension from students' point of view.

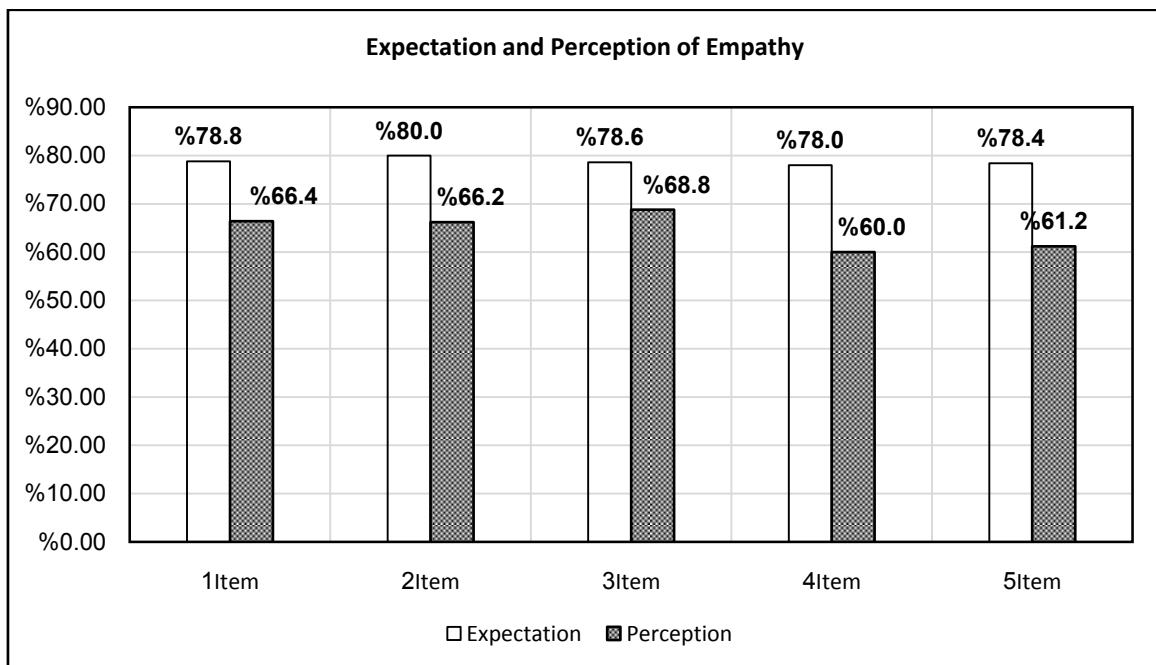


Figure5. level of Expectation and Perception for each item in Empathy dimension

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**Table1.** Mean, standard dev., Rank and Relative important index for each item in each dimension for Service quality model.

Expectation of Tangible					Perception of Tangible				
Items	Mean	SD	Rank	RII	Items	Mean	SD	Rank	RII
You Expect that Excellent university will have modern looking equipment.	3.98	0.91	1	79.6%	Your university has modern looking equipment.	3.34	1.03	1	66.8%
You Expect that The physical facilities at excellent university will be visually appealing.	3.64	0.94	2	72.8%	Your university physical facilities are visually appealing.	3.12	1.03	4	62.4%
You Expect that Employees at excellent university will be neat appearing.	3.09	1.30	4	61.8%	Your university reception desk employees are neat appearing.	3.17	1.97	3	63.4%
You Expect that Materials associated with the service (such as pamphlets or statements) will be visually appealing at an excellent university.	3.61	1.04	3	72.2%	Materials associated with the service (such as pamphlets or statements) are visually appealing at Your university.	3.31	1.13	2	66.2%
<b>Total</b>	<b>3.58</b>	<b>0.70</b>		<b>71.6%</b>	<b>Total</b>	<b>3.24</b>	<b>0.91</b>		<b>64.8%</b>
Expectation of Reliability					Perception of Reliability				
Items	Mean	SD	Rank	RII	Items	Mean	SD	Rank	RII
You Expect that When excellent university promise to do something by a certain time, they do.	4.10	1.00	2	82.0%	When your university promises to do something by a certain time, it does so.	3.46	0.91	2	69.2%
You Expect that When a student has a problem, excellent university will show a sincere interest in solving it.	4.14	1.02	1	82.8%	When you have a problem, your university shows a sincere interest in solving it.	3.28	1.15	4	65.6%
You Expect that Excellent university will perform the service right the first time.	4.05	0.90	4	81.0%	Your university performs the service right the first time.	3.46	0.93	2	69.2%
You Expect that Excellent university will provide the service at the time they promise to do so.	4.06	0.86	3	81.2%	Your university provides its service at the time it promises to do so.	3.62	0.88	1	72.4%
You Expect that Excellent university will insist on error free records	3.96	0.88	5	79.2%	your university insists on error free records	3.34	0.95	3	66.8%
<b>Total</b>	<b>4.07</b>	<b>0.71</b>		<b>81.4%</b>	<b>Total</b>	<b>3.43</b>	<b>0.69</b>		<b>68.6%</b>
Expectation of Responsiveness					Perception of Responsiveness				
Items	Mean	SD	Rank	RII	Items	Mean	SD	Rank	RII
You Expect that Employees of excellent university will tell students exactly when services will be performed.	4.17	0.86	2	83.4%	Employees in your university tell you exactly when services will be performed.	3.32	0.97	3	66.4%
You Expect that Employees of excellent university will give prompt service to students.	4.13	0.85	3	82.6%	Employees in your university give you prompt service.	3.42	1.00	2	68.4%
You Expect that Employees of excellent university will always be willing to help students.	4.23	0.86	1	84.6%	Employees in your university are always willing to help you.	3.50	0.98	1	70.0%
You Expect that Employees of excellent university will never be too busy to respond to	3.94	0.91	4	78.8%	Employees in your university are never too busy to respond to your request.	3.15	0.99	4	63.0%

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students' requests.									
<b>Total</b>	<b>4.11</b>	<b>0.67</b>		<b>82.2%</b>	<b>Total</b>	<b>3.35</b>	<b>0.78</b>		<b>67.0%</b>
<b>Expectation of Assurance</b>					<b>Perception of Assurance</b>				
<b>Items</b>	<b>Mean</b>	<b>SD</b>	<b>Rank</b>	<b>RII</b>	<b>Items</b>	<b>Mean</b>	<b>SD</b>	<b>Rank</b>	<b>RII</b>
You Expect that The behavior of employees in excellent university will instill confidence in students.	4.11	0.80	4	82.2%	The behavior of employees in your university instills confidence in you.	3.40	1.02	4	68.0%
You Expect that students of excellent university will feel safe in transactions.	4.11	0.84	3	82.2%	You feel safe in your transactions with your university.	3.64	0.93	1	72.8%
You Expect that Employees of excellent university will be consistently courteous with students.	4.11	0.87	2	82.2%	Employees in your university are consistently courteous with you.	3.45	1.09	3	69.0%
You Expect that Employees of excellent university will have the knowledge to answer students' questions.	4.26	0.89	1	85.2%	Employees in your university have the knowledge to answer your questions.	3.57	1.09	2	71.4%
<b>Total</b>	<b>4.14</b>	<b>0.65</b>		<b>82.8%</b>	<b>Total</b>	<b>3.52</b>	<b>0.81</b>		<b>70.4%</b>
<b>Expectation of Empathy</b>					<b>Perception of Empathy</b>				
<b>Items</b>	<b>Mean</b>	<b>SD</b>	<b>Rank</b>	<b>RII</b>	<b>Items</b>	<b>Mean</b>	<b>SD</b>	<b>Rank</b>	<b>RII</b>
You Expect that Excellent university will give students individual attention.	3.94	0.99	2	78.8%	Your university gives you individual attention.	3.32	1.06	2	66.4%
You Expect that Excellent university will have operating hours convenient to all their students.	4.00	0.92	1	80.0%	Your university has operating hours convenient to all its students.	3.31	1.17	3	66.2%
You Expect that Excellent university will have employees who give students personal attention.	3.93	0.97	3	78.6%	Your university has employees who give your personal attention.	3.44	0.92	1	68.8%
You Expect that Excellent university will have their student's best interests at heart.	3.90	0.91	5	78.0%	Your university has your best interest at heart.	3.00	1.05	5	60.0%
You Expect that The employees of excellent university will understand the specific needs of their students.	3.92	0.96	4	78.4%	The employees of your university understand your specific needs.	3.06	0.96	4	61.2%
<b>Total</b>	<b>3.93</b>	<b>0.71</b>		<b>78.6%</b>	<b>Total</b>	<b>3.23</b>	<b>0.76</b>		<b>64.6%</b>

*SD=Standard Deviation, RII=Relative Importance Index.*

$$RII = \text{Mean} \div 5 * 100\%$$

## HYPOTHESES TESTING

### Hypothesis1

Stated that, “There are statistically significant differences between the perception and expectation of the services’ quality of the students in Pavia University at 0.05 level”. This hypothesis divided to five sub – hypotheses.H1.1: there are statistically significant differences between the perception and expectation level of Tangibles of the services' of the students of Pavia University at 0.05 level. H1.2: there are statistically significant differences between the perception and expectation level of Reliability of the services' of the students of Pavia University at 0.05 level. H1.3: there are statistically significant differences between the perception and expectation level of Responsiveness of the services' of the students of Pavia University at 0.05 level. H1.4: there are statistically significant



differences between the perception and expectation level of Assurance of the services' of the students of Pavia University at 0.05 level. H1.5: there are statistically significant differences between the perception and expectation level of Empathy of the services' of the students of Pavia University at 0.05 level.

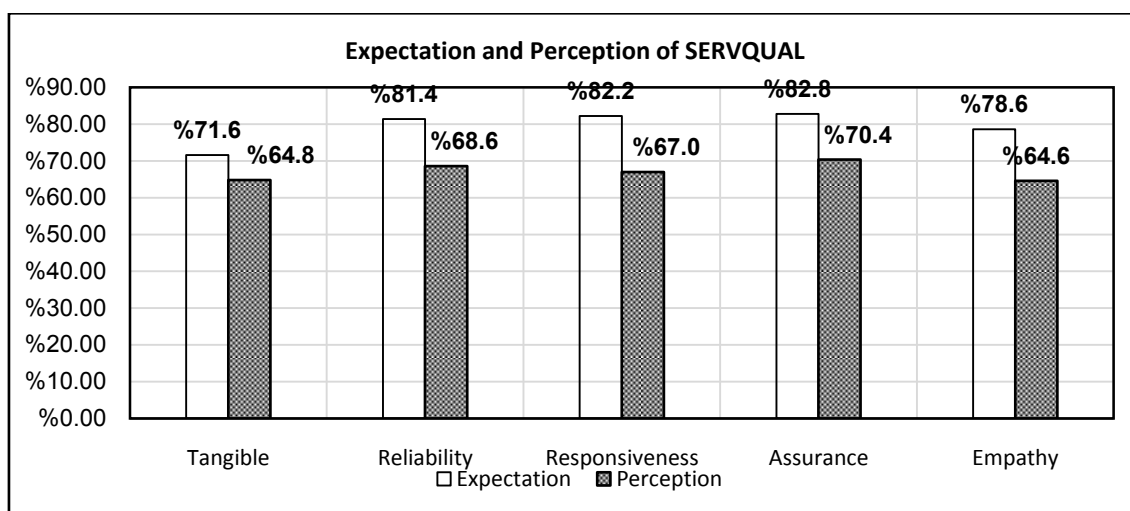
To test these hypotheses Paired samples T-Test used to test if there are differences between the students’ expectations and perceptions in Pavia University. The following table illustrates this:

**Table2.** Paired samples T-test results

Dimensions		Mean	St. Dev	Difference		T-test	Sig.
				M	RII		
Tangible	Expectation	3.58	0.70	-0.34	%6.8	-6.40	0.000
	Perception	3.24	0.91				
Reliability	Expectation	4.07	0.71	-0.63	%12.6	-12.08	0.000
	Perception	3.43	0.69				
Responsiveness	Expectation	4.11	0.67	-0.77	%15.2	-13.43	0.000
	Perception	3.35	0.77				
Assurance	Expectation	4.14	0.65	-0.62	%12.4	-10.28	0.000
	Perception	3.52	0.82				
Empathy	Expectation	3.93	0.71	-0.71	%14.0	-13.06	0.000
	Perception	3.23	0.76				
Total	Expectation	3.97	0.54	-0.62	%12.4	-14.61	0.000
	Perception	3.35	0.60				

From the previous table we noticed that there is a statistically differences between the students’ expectations and perceptions due to all dimensions (Tangibles, Reliability, Responsiveness, Assurance and Empathy); where the significance level of paired samples T-test was (0.000) for each dimension which is lower than 0.05 level. These results supported the first hypothesis.

Figure 6 shows comparison between Expectation satisfaction and Perception satisfaction, where the students’ satisfaction level about “Tangibles” dropped (6.8%), the students’ satisfaction level about “Reliability” dropped (12.6%), “Assurance” dropped (12.4%), the students’ satisfaction level about “Responsiveness” dropped (15.2%) and the students’ satisfaction level about “Empathy” dropped (14%).In general, the students’ satisfaction about service quality dropped (12.4%) from Expectation to perception of the students’ of Pavia University.



**Figure6.** Level of Expectation and Perception for dimensions of SERVQUAL

## RECOMMENDATIONS

- [1] Regarding to the first dimension (tangible), we recommend the university should have and use more modern equipment's, and the physical facilities have to be attractive appearance.
- [2] Regarding to the second dimension (Reliability), we recommend that the university should show a sincere interest in solving student's problems. And encourages its employees to show constant willingness to serve students.

- [3] Regarding to the third dimension (Responsiveness), we recommend the university to encourage their employees to (tell the students exactly when services will be performed, give the students prompt service, never too busy to respond to the students' request.).
- [4] Regarding to the fourth dimension (Assurance), we recommend the university to provide their Employees with the required knowledge to answer the students' questions, and to ensure that the behavior of the employees instills confidence with students, and they are consistently courteous with the them.
- [5] Regarding to the fifth dimension (Empathy), we recommend the university to give the student individual attention, and the employees of the university should understand the student specific needs.

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