

## **Gap Analysis on Politeknik Negeri Bali Library Services: Expectation Versus Reality**

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### **ABSTRACT**

The library is the heart of a University. It is purportedly the center of information and science. Because of its vital role, the library is expected to provide good service, especially in facilitating the visitors' sense of comfort. Politeknik Negeri Bali (PNB) as one of the universities in Indonesia currently has one library located on the 2nd floor of the PNB Central Building. In the year 2017, only 15% of its students visited the library. This number strongly indicate that PNB library has not been utilized to its optimal capacity. The purpose of this research is to evaluate the PNB library service, whether it already fulfils its visitors' expectation and vice versa. This research used 150 library visitors as the sample, collected by using accidental sampling. The variables used are five service dimensions, namely tangibles, reliability, responsiveness, assurance, and empathy. The method of analysis used in this study is gap analysis using paired-samples t-test between expected service by the visitors and PNB library service in reality. Results show that in general, there is a significant difference between the visitors' service expectation and PNB library service in reality. The findings indicated the same results in terms of five dimensions of library services mentioned in the present research.

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## **INTRODUCTION**

University is one of the institutions of higher education in Indonesia. In carrying out their duties namely *Tri Dharma Perguruan Tinggi*, various facilities are needed. One of the main facilities in universities is the library. The library is considered a treasure of knowledge and is also known as a storehouse of knowledge. The library has various reading materials and knowledge such as books, journals, films, pictures, manuscripts, and audio-visual material (Patil and Pradhan, 2014). As one of the facilities that play an important role in carrying out the *Tri Dharma Perguruan Tinggi*, the

library is a scientific information center for the academic community of higher education (Yunanta, 2015). The library is a supporting facility for the success of a university in carrying out the Tri Dharma Perguruan Tinggi through providing, organizing, and describing services to library users (Samosir, 2005). Undari (2015) states that the existence of a library can be said to be the heart of higher education, because almost all academic activities on campus, both learning, research and community service activities depend on the support from the library. Among other facilities provided in universities, libraries play an important role in serving the academic needs of their visitors (Mallya and Patvardhan, 2018).

The library as the heart of the university must provide good services. Collection studies are the main focus of research into the quality of traditional library services. However, over the past ten years, research has increasingly emphasized the evaluation of library services (Mallya and Patvardhan, 2018). In accordance with its function, the library must be able to provide services that provide a sense of satisfaction for its users, namely those that meet the needs and expectations of users (Dharma, Budi, and Sugata, 2013). According to Lupiyoadi (2005), consumers will feel satisfied if the products/services they use are of high quality. Good service can give satisfaction to library users, on the contrary, if the service provided is not good it will bring disappointment to library users. Therefore, user satisfaction is a benchmark in the success of library services (Yunanta, 2015).

According to Zeithaml, Parasuraman, and Berry (1990), only customers can assess the quality of service. The service quality model which is the basis in research is called Servqual. This model was developed and applied by them to become Libqual (Library Quality Model). The quality of the service in question is (1) Tangibles (physical evidence); (2) Reliability (reliability service); (3) Responsiveness (responsive service); (4) Assurance (guaranteed service); and (5) Empathy (empathy service). There are 5 gaps that need to be concerned in Libqual. One of them is the gap between the costumers' expectation and the service delivered by the library. The goal of the library as a service organization should be to minimize this gap (Einasto, 2014).

Politeknik Negeri Bali (PNB) as one of the universities in Indonesia currently has one library located on the second floor behind the central building of the PNB. PNB library collection includes various forms of resources such as audio-visual (CD), books, handouts, research reports, street vendors reports, final assignments, reference books, journals and magazines, tabloids, and newspapers. Based on the data, the average number of PNB library visitors in 2017 is 770 people each month. The number of visitors is only 15% of the total PNB civitas. This shows that the PNB library has not been used optimally by the PNB community. The PNB Library has tried to provide good services to the PNB academic community. But of course, the service needs to be reviewed from the library visitors, whether the services provided are satisfactory to the visitors of the library or not. Therefore, this study aims to do a gap analysis of services expected by visitors and services obtained by visitors in reality.

## **METHODS**

This study uses quantitative methods. The population in this study is the entire PNB academic community. Samples were taken as many as 150 visitors of the PNB library using accidental sampling technique and were recruited in the PNB library. The variables used in this study are five

service dimensions, namely (1) Tangibles (physical evidence), namely physical facilities owned by the library such as buildings, rooms, books / collections, equipments, etc; (2) Reliability (service reliability) which includes the ability of library staff to provide services; (3) Responsiveness, namely responsiveness of library staff in responding to complaints and needs of library users; (4) Assurance (guaranteed service) which includes security from library users; and (5) Empathy (empathy service) is the care of library staff for the needs of library users.

The data was analyzed for gap analysis using paired-samples t-test. This test is used to measure the difference between the expectations of visitors to library services and the services obtained in reality, whether there is a significant gap or not. The data measurement tool in this research uses a questionnaire. Before the questionnaire was used, the validity and reliability of this questionnaire were tested to determine the feasibility of questionnaires. Validity and reliability tests were applied to 30 research samples and the results as follows:

Variable	Question	Expected Service		Reality Service	
		r -value	validity	r -value	validity
Tangible	item1	0.383	Valid	0.590	Valid
	item2	0.758	Valid	0.474	Valid
	item3	0.756	Valid	0.503	Valid
	item4	0.844	Valid	0.735	Valid
	item5	0.790	Valid	0.597	Valid
	item6	0.668	Valid	0.629	Valid
	item7	0.713	Valid	0.642	Valid
	item8	0.562	Valid	0.729	Valid
	item9	0.581	Valid	0.607	Valid
Reliability	item10	0.969	Valid	0.485	Valid
	item11	0.937	Valid	0.788	Valid
	item12	0.857	Valid	0.866	Valid
	item13	0.899	Valid	0.776	Valid
	item14	0.969	Valid	0.630	Valid
Responsiveness	item15	0.884	Valid	0.853	Valid
	item16	0.961	Valid	0.769	Valid
	item17	0.884	Valid	0.826	Valid
Assurance	item18	0.799	Valid	0.744	Valid
	item19	0.747	Valid	0.602	Valid
	item20	0.587	Valid	0.366	Valid
	item21	0.865	Valid	0.551	Valid
	item22	0.876	Valid	0.538	Valid
Empathy	item23	0.553	Valid	0.642	Valid
	item24	0.721	Valid	0.687	Valid
	item25	0.858	Valid	0.651	Valid
	item26	0.723	Valid	0.738	Valid

Table 1: Validity Test Results  
 Source : Primary Data Analyzed

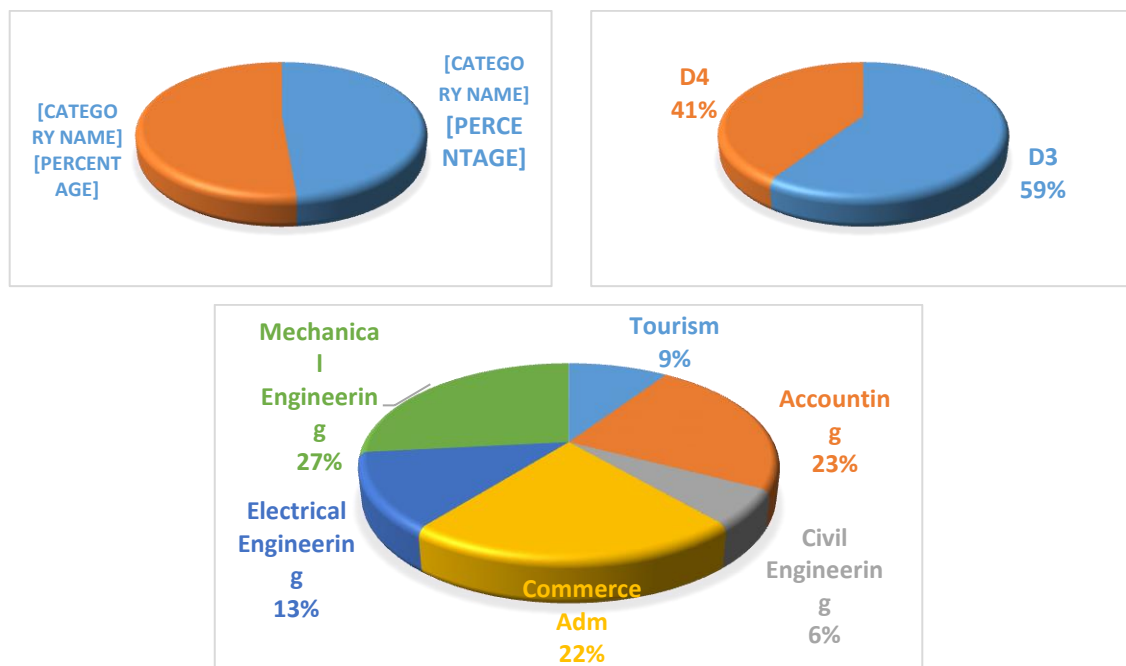
Variable	Expected Service		Reality Service	
	Cronbach's Alpha	Reliability	Cronbach's Alpha	Reliability
Tangible	0.891	Reliable	0.873	Reliable
Relability	0.974	Reliable	0.874	Reliable
Responsiveness	0.957	Reliable	0.902	Reliable
Assurance	0.910	Reliable	0.764	Reliable
Empathy	0.856	Reliable	0.831	Reliable

Table 2: Reliability Test Results  
Source : Primary Data Analyzed

The item in research questionnaire is stated valid if the correlation (r-value) is higher than r-table (for alpha 5%, the r-table is 0.361). Table 1 shows that all of the items in the questionnaire have r-value higher than 0.361. Thus, all the questionnaire items are stated as valid. Beside validity, the questionnaire should also be tested using reliability test. A research questionnaire is stated as reliable if the Cronbach's Alpha Value is higher than 0.6. Based on the results shown in Table 2, all of the Cronbach's Alpha value is higher than 0.6, thus the questionnaire is states as reliable. Because it has passed the validity and reliability test, the questionnaire is declared feasible to be used as a data measurement tool in this study.

## RESULTS AND DISCUSSION

There were 150 respondents taken to be sampled in this study using accidental sampling technique. The sampling process took place at the PNB library. The characteristics of the respondents were shown as below:

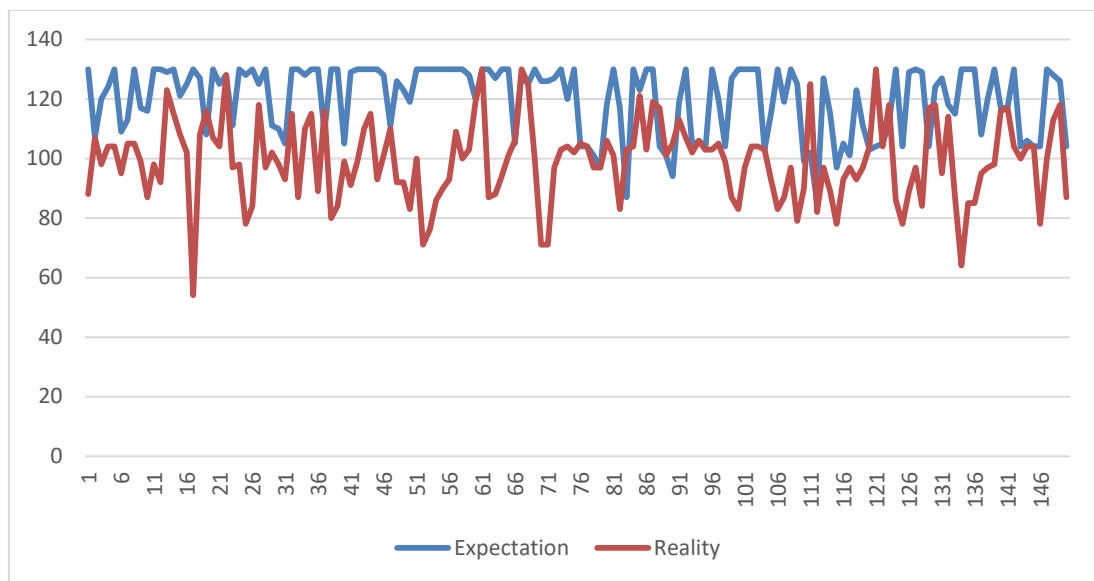


Picture 1: Characteristic of Respondents  
Source : Primary Data Analyzed

The picture shows that based on gender, 51% of respondents were female and 49% of respondents were male. Based on the level of education, there are 41% of respondents with D4 (Diploma 4)

education level and 59% D3 (Diploma 3) education level. There were 27% of respondents from Mechanical Engineering, 23% of students majoring in Accounting, 22% of students majoring in Business Administration, 13% of students in Electrical Engineering, 9% of students majoring in Tourism, and 6% of students majoring in Civil Engineering.

The data analysis technique in use is Gap Analysis. Gap analysis is carried out to test statistically whether there is a significant difference between the services expected by library visitors and the service in reality. The analysis is done by comparing the total score of respondents between expectations and reality. The following figure shows the difference in scores of the total expectations and reality of 150 respondents.



Picture 2: Overall Difference in Expectation and Reality of PNB Library Services

Source : Primary Data Analyzed

The figure shows that at some points, PNB library services, in fact, have fulfilled expectations or met visitors' expectations. However, in general, at many points, there is a considerable gap between expectation and reality. To clarify the results of the analysis, paired-samples t-tests were applied against the total expectation score and total service score in reality. The hypothesis is:

H0 :  $\mu$  expectation =  $\mu$  reality (The expected service is not significantly different from the reality services of PNB library)

H1 :  $\mu$  expectation  $\neq$   $\mu$  reality (The expected service is significantly different from the reality services of PNB library)

The statistical test used in this research is t paired test, which the t-value is computed using the following equation:

$$t_{value} = \frac{\overline{X_1} - \overline{X_2}}{s_{\overline{X_1} - \overline{X_2}}}$$

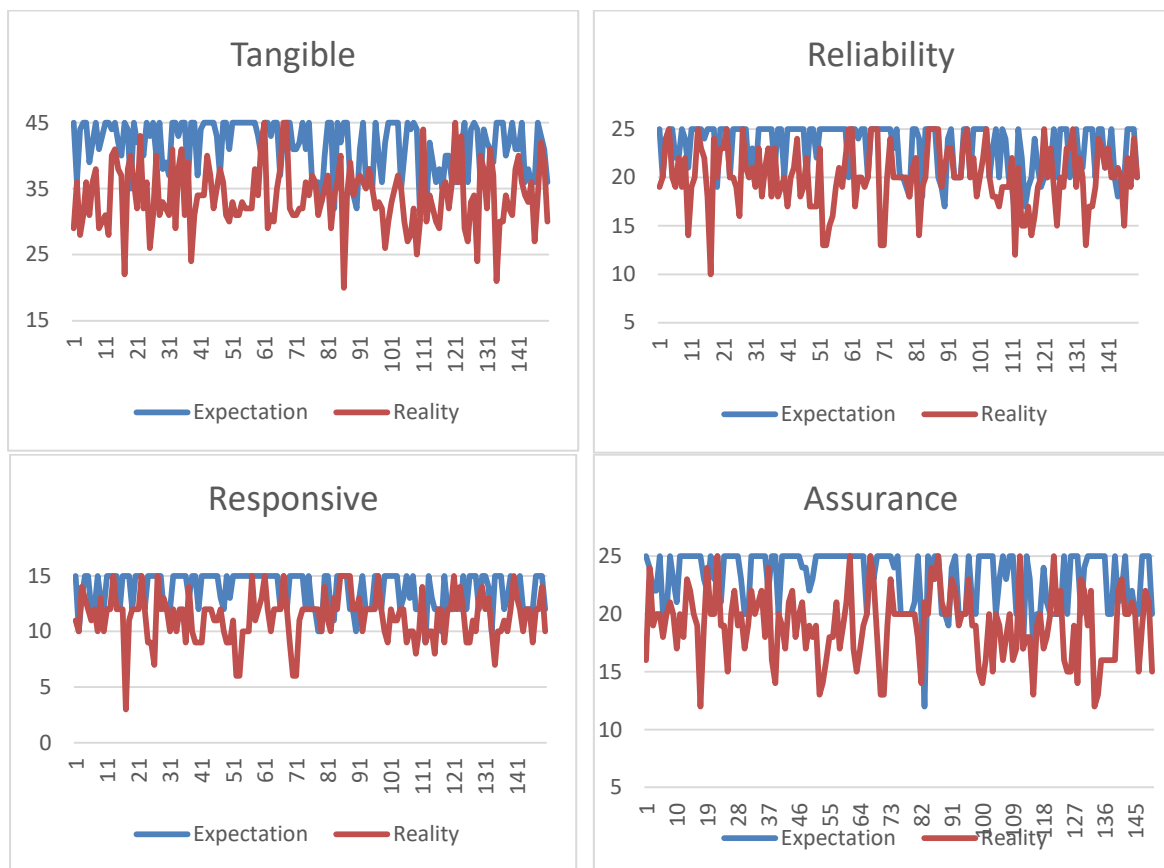
The H<sub>0</sub> is rejected if |t-value| > t table ( $\alpha/2$ ; n-1) or sig <  $\alpha$ . The following table shows the result of the t-paired test in general.

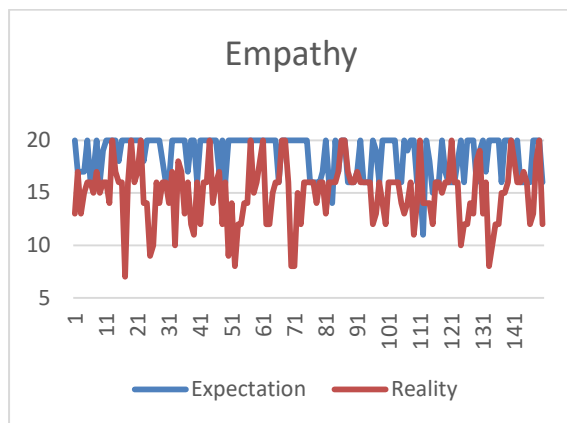
Mean of Expectation	Mean of Reality	Gap	T value	Sig (2-tailed)	Decisions
120.14	99.31	20.83	13.799	0.000	Reject H <sub>0</sub>

Table 3: T Paired Test in General

Source : Primary Data Analyzed

These results indicate that there is a gap or the difference between the services expected by visitors with services in reality at 20.83 where this value produces a T value of 13.799 and a significance value of 0.000. This significance value is smaller than the alpha used which is 5% or 0.05 so the H<sub>0</sub> can be rejected as per the statistical norms. So the conclusion that can be drawn is that there is a significant difference between the services expected by library visitors and services that visitors get from the PNB library in reality. If viewed from the five dimensions of service used, the difference between expected library services and the reality is shown as Picture 3 and the T paired test is shown in Table 4.





Picture 3: Difference in Expectation and Reality of PNB Library Services in Five Dimensions of Service. Source Primary Data Analyzed

Dimension	Mean of Expectation	Mean of Reality	Gap	T value	Sig (2-tailed)	Decision
Tangible	41.53	33.88	7.65	14.133	0.000	Reject $H_0$
Reliability	23.12	20.08	3.04	9.766	0.000	Reject $H_0$
Responsive	13.75	11.31	2.44	11.095	0.000	Reject $H_0$
Assurance	23.16	19.04	4.12	12.706	0.000	Reject $H_0$
Empathy	18.58	15.01	3.57	12.034	0.000	Reject $H_0$

Table 4: T Paired Test in Five Dimensions of Service  
Source : Primary Data Analyzed

The results show that in every dimension/variable, the null hypothesis ( $H_0$ ) which stated “The expected service is not significantly different from the reality services of PNB library” is rejected. Thus, the alternative hypothesis ( $H_1$ ) which stated “The expected service is significantly different from the reality services of PNB library” is accepted. The value of Expectation means in each dimension is higher than the value of reality means. It can be concluded that the visitors' expectation service in each dimension (tangible, reliability responsiveness, assurance and empathy) is significantly different from the reality services of PNB library. The visitors expect higher library quality service than the service that they get in reality.

## CONCLUSION

Based on the results of the analysis it can be concluded that there is a significant difference between the library services expected by PNB library visitors and the services obtained in reality. The findings indicated the same results in terms of five dimensions of library services mentioned in the present research (tangible, reliability, assurance, responsiveness, and empathy). Visitors expect higher library quality service than the service that they get in reality.

It is expected that the PNB library can improve services provided to library visitors so the gap between expectation and reality can be minimized, or even eliminated. Some services that can be improved as include the following:

1. Add the quantity of the library collection such as books, magazines, and journals; the collection should be updated; maintain the neatness and cleanliness of the library and library facilities

2. Simplify the administrative and lending procedure
3. Increase the responsiveness of the librarians in serving visitors' complaint
4. Add the quantity of the locker
5. Improve the concern of the librarians to library visitors

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