

# Application of the Level of Community Satisfaction with Services at the Education Office of the District of North Bengkulu Using the Csi (Customer Satisfaction Index)

Deddy Pertan Sagala<sup>1\*</sup>, Jusuf Wahyudi<sup>2</sup>, Jhoanne Fredricka<sup>3</sup>

<sup>123</sup>Dehasen University Bengkulu

DOI:

<https://doi.org/10.53697/jkomitek.v4i2.1846>

\*Correspondence: Deddy Pertan Sagala

Email: [deddypertan75@gmail.com](mailto:deddypertan75@gmail.com)

Received: 29-07-2024

Accepted: 22-08-2024

Published: 25-09-2024



**Copyright:** © 2024 by the authors. Submitted for open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license

(<http://creativecommons.org/licenses/by/4.0/>).

**Abstract:** The North Bengkulu Regency Education Office is one of the government agencies in North Bengkulu Regency, Bengkulu Province. So far, the process of evaluating the services of each employee at the Education Office of North Bengkulu Regency is still carried out internally without the views of the community. This certainly cannot be used fully in knowing the level of service satisfaction. The application of the level of public satisfaction with services at the North Bengkulu Regency Education Office using the CSI (Customer Satisfaction Index) Method can assist the admin in managing the results of the service satisfaction assessment survey at the North Bengkulu Regency Education Office and provide information on the results of the public satisfaction assessment survey on the services provided. In addition, the application can also facilitate the community in providing an assessment of satisfaction with services at the North Bengkulu Regency Education Office. The application of the level of public satisfaction with services at the North Bengkulu Regency Education Office using the CSI (Customer Satisfaction Index) Method is made with the PHP programming language and MySQL database. Based on system testing that has been carried out, it can be concluded that the application of the level of public satisfaction with services at the North Bengkulu Regency Education Office has run well and can be able to provide information in the form of the level of public satisfaction with services at the North Bengkulu Regency Education Office through the stages of the CSI (Customer Satisfaction Index) Method.

**Keywords:** Satisfaction Level, Service, CSI (Customer Satisfaction Index) Method

## Introduction

The rapid development of information and communication technology has made many people aware of the importance of information. Information and telecommunication media are media that can be used in the information transaction process. In everyday life, information technology is very useful, with the existence of information it will help us to make decisions more precisely based on data obtained in the form of information. In an effort to improve the quality of service, supporting facilities and infrastructure are needed in the service process provided. Where there needs to be proper treatment starting from input, process, to output of the service provided. Good relations and communication with

the community are needed in an effort to maintain the continuity of the continuous service process. In addition, a service process environment is also needed that can provide comfort and convenience for the community (Oh, 2023). The Bengkulu Utara Regency Education Office is one of the government agencies in Bengkulu Utara Regency, Bengkulu Province. So far, the service evaluation process for each employee at the Bengkulu Utara Regency Education Office has still been carried out internally without any views from the community. Of course, this cannot be used entirely to determine the level of service satisfaction. Therefore, an application is needed that can help make it easier for the community to provide value to the services at the Bengkulu Utara Regency Education Office. The results of this assessment will be used as a basis for determining the level of satisfaction with employee services at the North Bengkulu Regency Education Office. An application is a ready-to-use program that is created to carry out a function for users of application services and the use of other applications that can be used by a target to be targeted (Ramesh, 2021). Application means problem solving that uses one of the application data processing techniques that usually focuses on a desired or expected computation or expected data processing. In assisting the satisfaction survey analysis process, this study will use the CSI (Customer Satisfaction Index) method which defines service quality as how far the difference is between reality and expectations for the service received.

## Methodology

The research method used by the author is the system development method. The system development method used is Waterfall. The stages of the waterfall method include:

1. Needs Analysis, Needs analysis is carried out to identify problems and provide solutions to these problems, so that it can be known what kind of system is needed.
2. System Design, System design is carried out to design the desired system according to the results of the system needs analysis. System design is needed before writing program code.
3. Writing Program Code, Writing program code is a translation of the design into a language that can be recognized by the computer through the PHP Programming Language and MySQL database.
4. Program Testing, The program will be tested to check whether the program is running properly or not. If not, then improvements will be made first before the program is applied to the research site.
5. Program Implementation and Maintenance, This stage can be said to be final in creating a system. After analyzing, designing and coding, the finished system will be used by the user (Hagal, 2024).

## Result and Discussion

The application of the level of public satisfaction with services at the North Bengkulu Regency Education Office using the CSI (Customer Satisfaction Index) method can help admins manage the results of service satisfaction assessment surveys at the North Bengkulu Regency Education Office and provide information on the results of public satisfaction

assessment surveys on the services provided (Mingcan, 2024). In addition, the application can also make it easier for the public to provide satisfaction assessments of services at the North Bengkulu Regency Education Office. The application of the level of public satisfaction with services at the North Bengkulu Regency Education Office using the CSI (Customer Satisfaction Index) method is built web-based and can be accessed online with internet access (Chu, 2024). The application of the level of public satisfaction with services at the North Bengkulu Regency Education Office using the CSI (Customer Satisfaction Index) method is made with the PHP programming language and MySQL database. The application has been embedded with the CSI (Customer Satisfaction Index) method which is used to determine the level of public satisfaction with services that are summarized per assessment year. The interface of the application of the level of public satisfaction with services at the Bengkulu Utara Regency Education Office using the web-based CSI (Customer Satisfaction Index) method includes:

### Web Homepage

This is the web interface page that appears first when opening the web link for the application of the level of public satisfaction with services at the Bengkulu Utara Regency Education Office. On the homepage there are submenus that can be accessed, namely filling instructions, respondent biodata, and administrator login which have different functions. The web homepage page on the application of the level of public satisfaction with services at the Bengkulu Utara Regency Education Office is as in Figure 4.1.

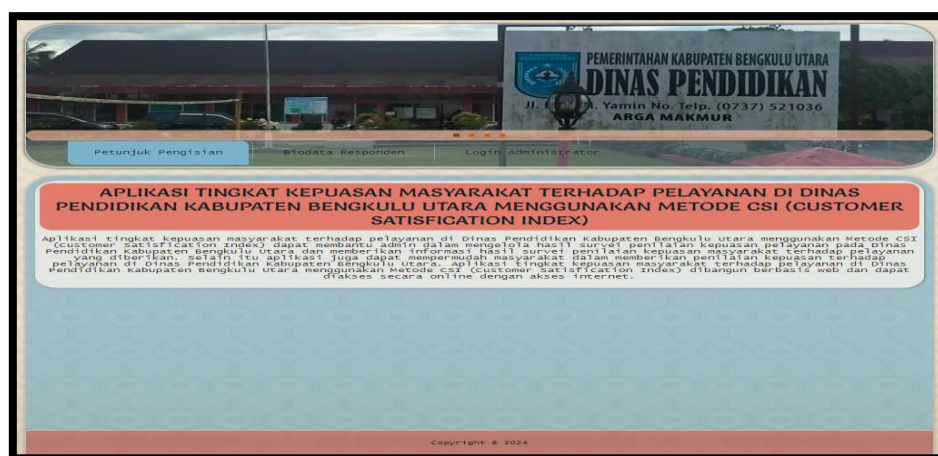


Figure 1 Web Homepage

### Filling Instructions

Is a web interface page on the application of the level of community satisfaction with services at the North Bengkulu Regency Education Office which is used to obtain information on the procedures for filling out the community satisfaction assessment. The filling instructions page on the application for the level of community satisfaction with services at the North Bengkulu Regency Education Office, as shown in Figure 2.



Figure 2. Filling Instructions

## Respondent Biodata

Is a web interface page on the application of the level of public satisfaction with services at the North Bengkulu Regency Education Office which is used to fill in the respondent's biodata by entering data in the fields provided, namely NIK, name, place and date of birth, gender, and address of the respondent. The respondent's biodata page in the application of the level of public satisfaction with services at the North Bengkulu Regency Education Office is as shown in Figure 3.

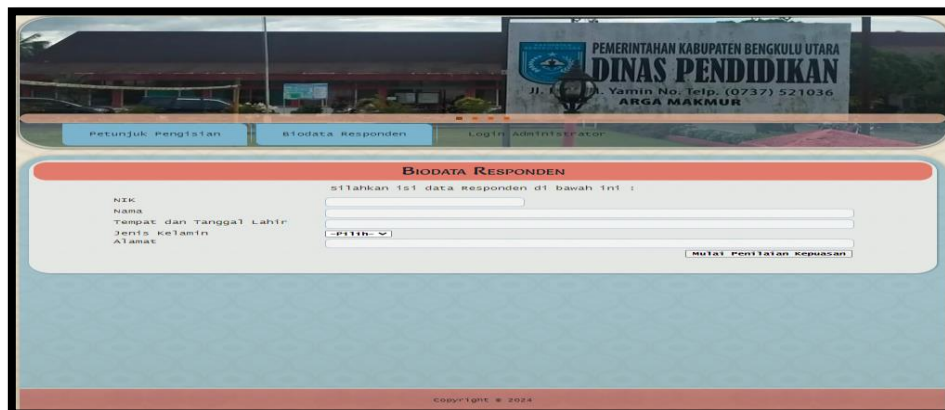
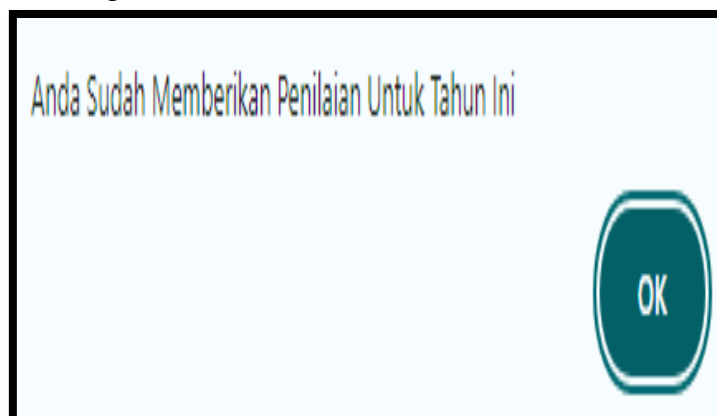


Figure 3. Respondent Biodata Page

In Figure 3. There is a start satisfaction assessment button that can be accessed if the respondent has filled in the respondent's biodata, because there is a verification process in the field. If the respondent has given a satisfaction assessment in the same year, a message will appear as shown in Figure 4.



**Figure 4.** Error Message

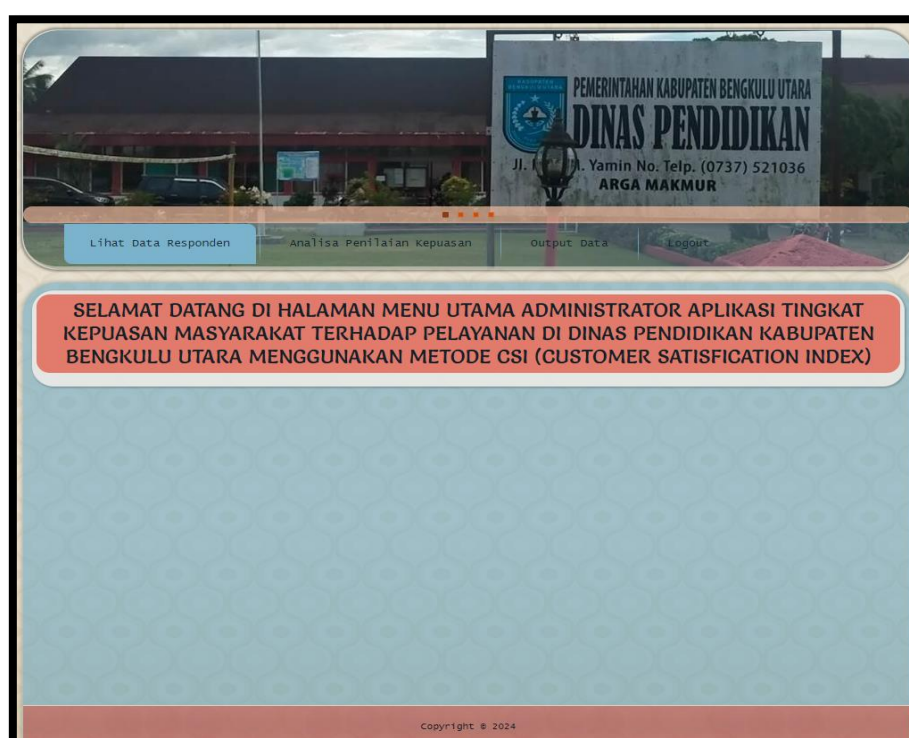
### Administrator Login

This is a web interface page for the application of the level of public satisfaction with services at the Bengkulu Utara Regency Education Office which is used by administrators to enter the application to process data and see the results of the public satisfaction assessment of services that are recapitulated every assessment year. On this page there is a login verification process that requires entering the correct username and password. The administrator login page is as shown in Figure 5

**Figure 5.** Administrator Login Page

### Administrator Main Menu

Is a web interface page on the application of the level of public satisfaction with services at the North Bengkulu Regency Education Office which will appear when the admin successfully logs in, where there are sub menus that can be accessed, namely see respondent data, analysis of satisfaction assessment, data output and logout. The administrator's main menu page on the application of the level of public satisfaction with services at the North Bengkulu Regency Education Office, as shown in Figure 6





**Figure 6.** Administrator Main Menu Page**View Respondent Data**

Is a web interface page on the application of the level of public satisfaction with services at the North Bengkulu Regency Education Office which is used by the admin to view information on respondent data that has provided satisfaction ratings through this application. The page for viewing respondent data on the application of the level of public satisfaction with services at the North Bengkulu Regency Education Office is as shown in Figure 7.

**Figure 7.** View Respondent Data Page**Satisfaction Assessment Analysis**

This is a web interface page on the application of the level of community satisfaction with services at the North Bengkulu Regency Education Office which is used by the admin to analyse the satisfaction assessment data that has been filled in by the community every assessment year. On this satisfaction assessment analysis page, the CSI (CustomerSatisfaction Index) method is embedded to obtain a conclusion on the level of community satisfaction with the services provided by the North Bengkulu Regency Education Office.

**Conclusion**

Based on the results of the discussion and testing that has been done, it can be concluded that:

1. The application of the level of public satisfaction with services at the North Bengkulu Regency Education Office using the CSI (CustomerSatisfaction Index) Method can assist the admin in managing the results of the service satisfaction assessment survey at the North Bengkulu Regency Education Office and provide information on the results of the public satisfaction assessment survey on the services provided. In addition, the

application can also facilitate the community in providing an assessment of satisfaction with services at the North Bengkulu Regency Education Office.

2. The application of the level of public satisfaction with services at the North Bengkulu Regency Education Office using the CSI (Customer Satisfaction Index) Method is made with the PHP programming language and MySQL database.
3. Based on system testing that has been carried out, it can be concluded that the application of the level of public satisfaction with services at the North Bengkulu Regency Education Office has run well and can be able to provide information in the form of the level of public satisfaction with services at the North Bengkulu Regency Education Office through the stages of the CSI (Customer Satisfaction Index) Method.

## References

- Amri, H. R., Subagio, R. T. & Kusnadi, 2020. Penerapan Metode CSI untuk Pengukuran Tingkat Kepuasan Layanan Manaje. *Jurnal Sistem Cerdas*, Volume Vol.3 No.2 e-ISSN:2622-8254.
- Chu, Y. (2024). Presenting a new method for optimal placement of reliability-based distributed generation units in the transmission system considering the demand response schedule. *Electrical Engineering*. <https://doi.org/10.1007/s00202-024-02504-7>
- Elgamar, 2020. *Buku Ajar Konsep Dasar Pemrograman Website Dengan PHP*. Malang: CV. Multimedia Edukasi.
- Enterprise, J., 2019. *PHP Untuk Programmer Pemula*. Jakarta: PT. Elex Media Komputindo.
- Haerani, R. & Nugraha, D., 2019. Rancangan Aplikasi Pemesanan Makanan Dengan Macromedia Dreamweaver dan MySQL. *Seminar Nasional Sains Teknologi dan Inovasi Indonesia (Senastindo AAU)*, Volume Vol.1 No.1 ISSN:2685-8991.
- Hagal, M. (2024). A Framework for Improving Software Development Process Hybridization of Extreme Programming, Feature - Driven Development and Waterfall. *2024 IEEE 4th International Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control and Computer Engineering, MI-STA 2024 - Proceeding*, 13–19. <https://doi.org/10.1109/MI-STA61267.2024.10599741>
- Hardiansyah, A. D. & Dewi, C. N. P., 2020. *Perancangan Basis Data Sistem Informasi Perwira Tugas Belajar (SIPATUBEL) Pada Kementrian Pertahanan*. Jakarta, Senamika ISBN.978-623-93343-1-4.
- Harisjati, R. A., 2022. Hubungan Kualitas Pelayanan Terhadap Tingkat Kepuasan Masyarakat Kota Bandung di Bidang Pendidikan Periode 2019-2020. *JDPL (Jurnal Demokrasi dan Politik Lokal)*, Volume Vol.4 No.1 e-ISSN:2721-3730.
- Karima, H. Q., Rachmawaty, D. & Sidik, E. F., 2022. Analisis Tingkat Kepuasan Pelanggan Menggunakan Metode Customer Satisfaction Index Terhadap Kedai Kopi X Di Kabupaten Tasikmalaya. *Jurnal Teknik Industri (JURTI)*, Volume Vol.1 No.2 ISSN:2089-7561.
- Mingcan, F. (2024). Power Outages Quota Decomposition Method Based on Power Supply Mesh Reliability Comprehensive Evaluation. *Green Energy and Technology*, 135–149. [https://doi.org/10.1007/978-3-031-49787-2\\_14](https://doi.org/10.1007/978-3-031-49787-2_14)

- Oh, D. G. (2023). How to measure service quality, customer satisfaction and loyalty of public library users: Application of library customer satisfaction index (LCSI) lite model. *Journal of Librarianship and Information Science*, 55(3), 719–733. <https://doi.org/10.1177/09610006221101193>
- Ramesh, S. (2021). Influence of knowledge management system on customer satisfaction index – An application study of CRM by offering performance enhancement for transmission. *International Journal of Knowledge Management Studies*, 12(4), 375–391. <https://doi.org/10.1504/IJKMS.2021.118347>
- Pane, S. F., Zamzam, M. & Fadillah, M. D., 2020. *Membangun Aplikasi Peminjaman Jurnal Menggunakan Aplikasi Oracle Apex Online*. Bandung: Penerbit Kreatif Industri Nusantara.
- Purbobinuko, Z. K. & Wurianing, R., 2020. Analisis Kepuasan dengan Metode CSI dan IPA Terhadap Pelayanan Penyediaan Rekam Medis Rawat Jalan di RS. Dr Soetarto Yogyakarta. *Indonesian of Health Information Management Journal*, Volume Vol.8 No.2 ISSN:2354-8932.
- Setiawan, A. D., Yamani, A. Z. & Winati, F. D., 2022. Pengukuran Kepuasan Konsumen Menggunakan Customer Satisfaction Index (CSI) dan Importance Performance Analysis (IPA) (Studi Kasus UMKM Ahul Saleh). *Jurnal Teknologi dan Manajemen Industri Terapan (JTMIT)*, Volume Vol.1 No.4 e-ISSN:2829-0038.
- Siahaan, S. D. N. & Agustini, F., 2021. ANalisis Kepuasan Pelanggan Dengan Metode Customer Satisfaction Index (CSI) (Studi Kasus Pada BNI UNIMED). *Journal of Business and Economics Research (JBE)*, Volume Vol.2 No.1 ISSN:2716-4128.
- Suprpto, U., 2021. *Pemodelan Perangkat Lunak (C3) Kompetensi Keahlian : Rekayasa Perangkat Lunak Untuk SMK/MAK Kelas XI*. Jakarta: Grasindo.
- Widia, I. D. M. & Asriningtias, S. R., 2021. *Cara Cepat dan Praktis Membangun Web Dengan PHP dan MySQL*. Malang: Universitas Brawijaya Press.
- Widodo, S. M. & Sutopo, J., 2018. Metode Customer Satisfaction Index (CSI) Untuk Mengetahui Pola Kepuasan Pelanggan Pada E-Commerce Model Business to Customer. *Jurnal Informatika UPGRIS*, Volume Vol.4 No.1 e-ISSN:2447-6645.
- Yendrianof, D. et al., 2022. *Analisis dan Perancangan Sistem Informasi*. Medan: Yayasan Kita Menulis.