

REDESIGN SISTEM PENGELOLAAN BANK SAMPAH BERBASIS APLIKASI WEB SIMBAH (SISTEM INFORMASI BANK SAMPAH) DI BANK SAMPAH REKSO HUSADA RSUD KABUPATEN TEMANGGUNG

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ABSTRAK

Latar Belakang : Pengelolaan Bank Sampah Rekso Husada RSUD Kabupaten Temanggung masih dilakukan secara manual sehingga berpotensi menimbulkan kesalahan pencatatan, kehilangan data, dan kesulitan pelaporan. Selain itu, dari 997 karyawan hanya 55 orang yang menjadi nasabah bank sampah dengan rata-rata 10 nasabah aktif setiap kegiatan, padahal rumah sakit menghasilkan rata-rata 1.337,3 kg sampah per hari. Kondisi tersebut menunjukkan perlunya penerapan aplikasi web SIMBAH untuk meningkatkan efektivitas pengelolaan bank sampah.

Tujuan: Mengetahui pengaruh redesign sistem pengelolaan bank sampah berbasis aplikasi web SIMBAH terhadap efektivitas pengelolaan Bank Sampah Rekso Husada di RSUD Kabupaten Temanggung.

Metode: Penelitian kuantitatif dengan desain *Quasi Experimental* menggunakan *one group pretest-posttest design*. Penelitian dilaksanakan pada April–Juni 2026 dengan 37 responden yang terdiri atas 5 pengelola dan 32 nasabah. Pengambilan sampel menggunakan *total sampling* pada pengelola dan *purposive sampling* pada nasabah. Data dikumpulkan melalui kuesioner, lembar observasi, dan dokumentasi, kemudian dianalisis menggunakan *Paired Sample t-Test*.

Hasil: Penelitian menunjukkan bahwa rata-rata skor efektivitas pada nasabah meningkat dari 30,91 menjadi 36,66, sedangkan pengelola meningkat dari 28,40 menjadi 35,00. Hasil *Paired Sample t-Test* menunjukkan nilai signifikansi 0,000 ($p < 0,05$), yang menunjukkan adanya pengaruh implementasi aplikasi web SIMBAH terhadap efektivitas pengelolaan Bank Sampah Rekso Husada.

Kesimpulan: Redesign sistem pengelolaan sampah berbasis aplikasi web SIMBAH berpengaruh terhadap efektivitas pengelolaan Bank Sampah Rekso Husada RSUD Kabupaten Temanggung. Aplikasi SIMBAH memudahkan pengelola dalam mengelola data, mencatat transaksi, menyusun laporan, serta mendukung peningkatan jumlah nasabah dan jumlah sampah yang dikelola.

Kata Kunci: aplikasi web, bank sampah, efektivitas, pengelolaan sampah, SIMBAH.

Redesign of the Waste Management System Based on the SIMBAH Web Application (Bank Waste Information System) at Rekso Husada Waste Bank Temanggung Regency Public Hospital

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ABSTRACT

Background: The waste management system at Rekso Husada Waste Bank, RSUD Kabupaten Temanggung, is still managed manually, resulting in potential recording errors, data loss, and difficulties in reporting. In addition, out of 997 employees, only 55 are registered as waste bank customers, with an average of only 10 active customers participating in each waste collection activity, despite the hospital generating an average of 1,337.3 kg of waste per day. These conditions indicate the need for implementing the SIMBAH (Waste Bank Information System) web-based application to improve the effectiveness of waste bank management.

Objectives: To determine the effect of redesigning the waste management system based on the SIMBAH web application on the effectiveness of waste management at Rekso Husada Waste Bank, Temanggung Regency Hospital.

Methods: This quantitative study employed a quasi-experimental approach using a one-group pretest-posttest design. The study was conducted from April to June 2026 and involved 37 respondents, consisting of 5 waste bank managers and 32 customers. Total sampling was applied to the managers, while purposive sampling was used for the customers. Data were collected through questionnaires, observation sheets, and documentation, and were analyzed using the Paired Sample t-Test.

Result: The mean effectiveness score of customers increased from 30.91 to 36.66, while the managers' mean score increased from 28.40 to 35.00. The Paired Sample t-Test showed a significance value of 0.000 ($p < 0.05$), indicating that the implementation of the SIMBAH web-based application significantly improved the effectiveness of waste management at the Rekso Husada Waste Bank.

Conclusion: The redesigned waste management system using the SIMBAH web-based application significantly improved the effectiveness of waste management at the Rekso Husada Waste Bank, RSUD Kabupaten Temanggung. The application facilitates data management, transaction recording, report generation, and supports an increase in both the number of waste bank customers and the amount of waste collected.

Keyword: effectiveness, SIMBAH, waste bank, waste management, web application.