

ABSTRAK

Pengelolaan keuangan di Pondok Pesantren Nurul Amanah Bangkalan selama ini masih dilakukan secara manual, sehingga rentan menimbulkan kesalahan pencatatan, membuang banyak waktu, dan kurang transparan. Penelitian ini bertujuan untuk merancang sekaligus mengimplementasikan sistem informasi keuangan berbasis web sebagai solusi dari permasalahan tersebut. Metode pengembangan yang digunakan adalah *Waterfall*, melalui tahapan analisis kebutuhan, perancangan, implementasi, pengujian, hingga pemeliharaan. Sistem dibangun dengan bahasa pemrograman PHP dan basis data *MySQL*, serta didukung pemodelan UML (*Use Case Diagram*, *Activity Diagram*) dan ERD untuk memastikan struktur sistem yang terarah. Pengujian fungsionalitas dilakukan menggunakan metode *Black Box Testing*, dan hasilnya menunjukkan seluruh fitur berjalan sesuai yang diharapkan. Sistem ini memiliki fitur utama seperti pengelolaan data santri, tagihan, pembayaran, tabungan, serta laporan keuangan. Diharapkan, keberadaan sistem ini mampu meningkatkan efisiensi, ketepatan, dan transparansi dalam pengelolaan keuangan pesantren. Hasil penelitian juga membuktikan bahwa metode *Waterfall* efektif digunakan dalam pengembangan sistem informasi keuangan di lingkungan pondok pesantren.

Kata Kunci: Sistem Informasi Keuangan, *Waterfall*, PHP, *Black Box Testing*, Pondok Pesantren.

ABSTRACT

Financial management at Nurul Amanah Islamic Boarding School in Bangkalan has been conducted manually, resulting in a higher risk of recording errors, inefficient processing time, and limited transparency. This study aimed to design and implement a web-based financial information system to address these challenges. The system was developed using the Waterfall software development model, which includes the stages of requirements analysis, system design, implementation, testing, and maintenance. The application was developed using PHP as the programming language and MySQL as the database management system. Unified Modeling Language (UML), including Use Case Diagrams and Activity Diagrams, as well as an Entity Relationship Diagram (ERD), were utilized to support the system design process. Functional testing was performed using the Black Box Testing method, and the results indicated that all system features operated as intended. The developed system provides functionalities for managing student data, billing, payments, savings, and financial reports. The implementation of the system is expected to enhance the efficiency, accuracy, and transparency of financial management within the boarding school. The findings also demonstrate that the Waterfall model is effective for developing financial information systems in the context of Islamic boarding schools.

Keywords: financial information system, Waterfall model, PHP, Black Box Testing, Islamic boarding school.