

ABSTRAK

RANCANG BANGUN APLIKASI BERBASIS *MOBILE* UNTUK PERHITUNGAN DAN PELAPORAN PADA AGEN PENIMBANGAN SAWIT

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Abstrak

Industri kelapa sawit memiliki peran penting dalam perekonomian Indonesia, namun proses penimbangan dan pelaporan hasil panen masih banyak dilakukan secara manual, sehingga rentan terhadap kesalahan dan ketidakefisienan. Penelitian ini bertujuan merancang dan membangun aplikasi berbasis mobile untuk membantu agen penimbangan dalam menghitung berat sawit, mengelola data hasil panen, serta membuat laporan digital. Aplikasi dikembangkan menggunakan framework Flutter dan memanfaatkan Firebase sebagai basis data. Berdasarkan hasil pengujian, aplikasi dapat melakukan perhitungan berat dan harga sawit secara otomatis, menampilkan laporan dalam bentuk tabel maupun grafik, serta mempermudah akses data historis. Hasil tersebut menunjukkan bahwa aplikasi yang dirancang dapat menjadi alternatif solusi dalam meningkatkan ketepatan pencatatan dan efisiensi proses pelaporan pada agen penimbangan sawit.

Kata Kunci : Aplikasi Mobile, Penimbangan Sawit, Pelaporan Digital, Flutter, Firebase

ABSTRACT

DESIGN AND DEVELOPMENT OF A MOBILE-BASED APPLICATION FOR CALCULATION AND REPORTING IN PALM OIL WEIGHING AGENCIES

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Abstract

The palm oil industry plays an important role in Indonesia's economy, yet the weighing and reporting processes are still predominantly manual, making them prone to errors and inefficiencies. This study aims to design and develop a mobile-based application to assist weighing agents in calculating palm oil weights, managing harvest data, and generating digital reports. The application was developed using the Flutter framework and utilizes Firebase as the database. Based on the testing results, the application can automatically calculate the weight and price of palm oil, present reports in both table and graph formats, and provide easier access to historical data. These results indicate that the application can serve as an alternative solution to improve the accuracy of record-keeping and the efficiency of reporting processes in palm oil weighing agencies.

Keywords : Mobile Application, Palm Oil Weighing, Digital Reporting, Flutter, Firebase