

ABSTRAK

Proses pengadaan barang di Perumahan Albizi mengalami kendala akibat belum adanya sistem digital, yang menyebabkan keterlambatan dan potensi kesalahan dalam alur pengadaan. Masalah ini penting untuk diselesaikan karena digitalisasi berperan dalam meningkatkan efisiensi operasional dan menurunkan biaya pengadaan. Penelitian ini bertujuan untuk meningkatkan efisiensi proses pengadaan barang di Perumahan Albizi melalui pengembangan sistem *e-procurement* berbasis web dengan pendekatan *Lean Management*. Permasalahan yang dihadapi sebelumnya adalah lamanya waktu proses pengadaan dan tingginya aktivitas yang tidak bernilai tambah. Metode yang digunakan dalam penelitian ini adalah *Value Stream Mapping* (VSM) untuk memetakan alur proses serta mengidentifikasi *waste*. Hasil evaluasi menunjukkan bahwa pada kondisi awal (*current state*), nilai *Process Cycle Efficiency* (PCE) hanya sebesar 47,32%, dengan total lead time 560 menit. Setelah dilakukan perancangan sistem (*future state*), nilai PCE meningkat menjadi 72,60% dengan *lead time* menurun menjadi 292 menit. Peningkatan efisiensi sebesar 25,28% ini menunjukkan bahwa sistem yang diusulkan berhasil meminimalkan aktivitas yang tidak bernilai dan mempercepat proses pengadaan. Dengan demikian, penerapan *Lean Management* dan pengembangan sistem *e-procurement* terbukti efektif dalam meningkatkan kualitas layanan pengadaan di lingkungan perumahan.

Kata kunci: *E-Procurement, Lean Management, Value Stream Mapping, Current State, Future State, Process Cycle Efficiency.*

ABSTRACT

The procurement process at Perumahan Albizi faces challenges due to the absence of a digital system, leading to delays and potential errors in the workflow. Addressing this issue is crucial, as digitalization plays a significant role in enhancing operational efficiency and reducing procurement costs. This study aims to improve the efficiency of the procurement process at Perumahan Albizi through the development of a web-based e-procurement system using a Lean Management approach. The primary problems identified were the lengthy procurement process and the high number of non-value-added activities. The method used in this research is Value Stream Mapping (VSM) to map the process flow and identify waste. The evaluation results show that in the initial condition (current state), the Process Cycle Efficiency (PCE) was only 47.32%, with a total lead time of 560 minutes. After system design and implementation (future state), the PCE increased to 72.60%, and the lead time decreased to 292 minutes. The efficiency improvement of 25.28% demonstrates that the proposed system successfully minimized non-value-added activities and accelerated the procurement process. In conclusion, the application of Lean Management and the development of an e-procurement system have proven to be effective in enhancing the efficiency and service quality of the procurement process in the residential environment.

Keywords: *E-Procurement, Lean Management, Value Stream Mapping, Current State, Future State, Process Cycle Efficiency.*