

***Chatbot Implementation as a Customer Service Automation Solution for  
Daweera Batik MSMEs***

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**ABSTRACT**

*This study aims to implement a website-based chatbot as an automated customer service solution for Daweera Batik SME. The primary issue faced by the enterprise was the manual handling of customer inquiries through social media and direct communication, which resulted in delayed responses, inconsistent information delivery, and limited service availability outside operational hours. This research employed the System Development Life Cycle (SDLC) method, consisting of analysis, design, implementation, and testing stages. The chatbot was developed using the Flowise AI framework integrated with the GroqChat Large Language Model (LLM), Vector Store for embedding storage, and Document Loader as the knowledge base management system. The chatbot was then integrated into a Google Sites-based website through an API endpoint. System evaluation was conducted using User Acceptance Testing (UAT) to measure functionality, usability, and user satisfaction. The results indicate that the chatbot successfully provides real-time responses to customer inquiries regarding products, pricing, custom orders, and general information, with consistent 24-hour availability. UAT results demonstrate a highly positive user acceptance level. The implementation of this chatbot significantly improves operational efficiency, enhances service responsiveness, preserves the cultural value of batik through informative interactions, and creates opportunities for data-driven business development based on conversation history.*

***Keywords:*** Chatbot, Flowise AI, Customer Service, MSMEs, User Acceptance Testing