

***Flutter-Based Cafe Menu Recommendation Application Using Google Vision
Ocr And Gemini Ai (Case Study: Amor Coffee Kediri)***

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ABSTRACT

The rapid growth of the cafe industry, such as Amor Coffee Kediri, demands innovation to enhance customer experience, particularly in the menu selection process. Many customers often face dilemmas when choosing menus that match their preferences or struggle with uninformative physical menus. Although previous studies have demonstrated the high accuracy of Google Vision OCR in text extraction and the superiority of Gemini AI in context comprehension separately, research integrating both technologies into a single mobile application platform to solve personalized service issues in the cafe industry remains highly limited. Therefore, this study aims to develop a mobile-based cafe menu recommendation application using the Flutter framework to bridge this gap. The system integrates Google Vision OCR (Optical Character Recognition) technology to scan text from physical menus, which is then processed by Gemini AI as a Large Language Model (LLM) to provide personalized menu recommendations based on user preferences. The system development method employed is the Waterfall model, comprising requirement analysis, design, implementation, and testing phases. System functionality testing was conducted using the Black-box Testing method through test case scenarios, achieving a 100% pass rate. Furthermore, user experience evaluation was measured using the System Usability Scale (SUS), yielding a score of 80.37, which falls into the "Excellent" category and is highly acceptable to users. This application is proven to assist customers of Amor Coffee Kediri in making digital and personalized menu choices easily.

Keywords: Menu Recommendation, Flutter, Google Vision OCR, Gemini AI, Amor Coffee Kediri.