

ABSTRACT

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ANALYSIS OF COMPARATIVE PERFORMANCE BETWEEN ARTIFICIAL INTELLIGENCE-BASED CHATBOTS: CHATGPT AND PERPLEXITY USING THE PIECES METHOD

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(xiii+83+ Appendices)

In the rapidly evolving digital era, AI-based chatbots have become highly popular across various sectors such as education, information search, business, and e-commerce. This study compares two chatbots, ChatGPT and Perplexity AI, using the PIECES method (Performance, Information, Economy, Control, Efficiency, and Service). The sample used in this research consisted of 100 respondents that used ChatGPT and Perplexity in Indonesian. Test results show that Perplexity AI outperforms in the performance variable with an A grade on GTmetrix compared to ChatGPT's B grade. However, ChatGPT excels in other variables. In the information variable, Perplexity slightly surpasses ChatGPT with a score of 4.05 (SATISFIED), while ChatGPT scores 4.04 (SATISFIED). In the efficiency variable, ChatGPT leads with a score of 4.285 (VERY SATISFIED) compared to Perplexity's score of 4.125 (SATISFIED). In the service variable, ChatGPT also excels with a score of 4.44 (VERY SATISFIED) compared to Perplexity's 4.3 (SATISFIED). Lastly, in the control variable, ChatGPT leads with a score of 74, while Perplexity scores 68.

References (2018–2023)