

ABSTRAK

Penelitian ini mengembangkan *question answering system* pada topik fiqih wanita khususnya haid, nifas, dan istihadah. Tujuan penelitian ini adalah untuk memberikan kemudahan dalam memperoleh informasi terkait fiqih wanita (haid, nifas, istihadah) melalui sistem tanya jawab otomatis. Metode yang digunakan pada penelitian ini adalah pendekatan CRISP-DM. Sistem dibuat menggunakan model IndoBERT dan dilakukan implementasi ke Telegram. Dua model IndoBERT digunakan dalam proses *fine-tuning*, yaitu Rifky/Indobert-QA dan Wikidepia/Indobert-lite-squad. Hasil dari penelitian ini yaitu model Rifky/IndoBERT-QA memberikan performa lebih unggul pada sistem tanya jawab pada domain haid, nifas, dan istihadah. Evaluasi dengan BERTScore didapatkan hasil rata-rata *precision* 73.7%, *recall* 73.4%, dan *F1-Score* 73.3%. Adapun evaluasi performa dari sisi pengguna menggunakan *Mean Opinion Score* (MOS) dengan nilai rata-rata 4,09 menunjukkan bahwa *chatbot* dinilai baik. Penelitian ini berkontribusi pada pemahaman tentang penerapan model IndoBERT pada domain fiqih wanita (haid, nifas, istihadah).

Kata kunci: IndoBERT, *question answering system*, haid, nifas, istihadah, CRISP-DM.



ABSTRACT

This research focuses on developing a question answering system for women's jurisprudence (fiqh), specifically menstruation, postpartum bleeding, and istihadah. The purpose of this research is to facilitate the acquisition of information related to women's fiqh (menstruation, postpartum bleeding, and istihadah) through an automated question answering system. The method used in this research is the CRISP-DM approach. The system was built using the IndoBERT model and implemented in Telegram. Two IndoBERT models were used in the fine-tuning process: Rifky/Indobert-QA and Wikipedia/Indobert-lite-squad. The results of this study indicate that the Rifky/IndoBERT-QA model provides superior performance in the question-and-answer system for the menstruation, postpartum bleeding, and istihadah domains. Evaluation using BERTScore yielded an average precision of 73.7%, recall of 73.4%, and F1-Score of 73.3%. The user performance evaluation used a Mean Opinion Score (MOS) with an average value of 4,09 indicating that the chatbot was considered good. This research contributes to the understanding of the application of the IndoBERT model to the domain of women's Islamic jurisprudence (menstruation, postpartum bleeding, istihadah).

Keywords: *IndoBERT, question answering system, menstruation, postpartum bleeding, istihadah, CRISP-DM.*