ABSTRACT

DEVELOPMENT OF THE ANDROID-BASED SI-EMOO APPLICATION FOR CATTLE DISEASE CLASSIFICATION USING RAPID APPLICATION DEVELOPMENT

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Dairy farming in Tumiyang Village is an important commodity, yet its management remains traditional. Farmers face obstacles in monitoring livestock health accurately and quickly due to a lack of technology utilization. The gap between its economic potential and non-modern management leads to suboptimal productivity and compromised animal welfare. Therefore, a technological solution is required to assist farmers in independently performing early detection of livestock diseases. A "Deteksi Sakit" feature was developed in the Android-based Si-eMOO application using the Rapid Application Development (RAD) method. This feature utilizes computer vision technology to classify cattle diseases by analyzing images captured with the user's mobile phone camera. Functional testing using the black box method showed that all test scenarios were 100% successful without any errors. Usability testing with the System Usability Scale (SUS) questionnaire, administered to 15 respondents, yielded an average score of 76.2, which is categorized as "Good" and "Acceptable". It is concluded that the developed feature is proven to be functional and easy for farmers to use.

Keywords: cattle disease detection, si-emoo, rapid application development (rad), system usability scale (sus), computer vision, farmer empowerment