ABSTRACT

This study discusses the economic impact of the COVID-19 pandemic in Indonesia, particularly on the food sector, and proposes a solution in the form of a rice ATM machine for the distribution of social assistance. The pandemic has caused many people to lose their jobs, inflation to increase, and the purchasing power of the population towards food staples, especially rice, to drastically decrease. Many poor families struggle to meet their daily food needs, and some even have to go hungry because they cannot afford rice. The government has provided rice assistance to the poor (raskin) to address this issue, but conventional distribution often creates problems such as fraud and inaccurate data collection. Therefore, a system is needed that can minimize fraud and ensure accurate and automatic rice distribution.

The proposed rice ATM machine uses a database system to record aid recipients, so only registered people can withdraw rice by entering their Family Registration Number (KK) and a pin. The machine consists of several components such as an input keypad, a microcontroller for processing, mechanical sensors, a monitor display, and an IoT-based monitoring system. This system is designed to ensure fair and even distribution of rice and to reduce fraud in the distribution process. This study concludes that the implementation of the rice ATM machine can be an effective solution in distributing food aid to the poor more efficiently and transparently.