## **SUMMARY**

This research is entitled "Human Capital, Artificial Intelligence Mediated by Digital Twin to Improve MSME Performance in Purwokerto". This research aims to investigate the potential and effectiveness of using Human Capital, Artificial Intelligence mediated by Digital Twins in improving the performance of MSMEs. This study uses a quantitative approach. Based on a quantitative approach, this research uses a survey method using a questionnaire as a data collection tool. The population used in this research were employees who worked at several Alfamarts in Purwokerto. This research used a convenience sampling technique with a sample size of 40 employees.

Based on the results of research and data analysis, it shows that 1) Human capital has a positive effect on the performance of Alfamart MSMEs, 2) Artificial intelligence has a positive effect on the performance of Alfamart MSMEs, 3) There is a significant mediating effect of digital twin between human capital on the performance of Alfamart MSMEs, 4) There is a significant mediating effect of digital twin between artificial intelligence on the performance of Alfamart MSMEs.

The implication of this research is that Human Resources refers to the value and contribution provided by company employees through their skills, knowledge, experience and competence in carrying out operations and achieving business goals. The application of AI at Alfamart aims to increase operational efficiency, optimize the chain, improve customer experience and support business decision making. A digital twin is a digital representation of a physical entity, process, or system. For Alfamart, digital twin can refer to a digital model that accurately describes various aspects of its operations, such as physical stores, supply chains, or inventory management systems. MSME performance in the Alfamart context can be interpreted as an evaluation of the performance and results achieved by Alfamart in supporting and promoting micro, small and medium enterprise products.

**Keywords:** Human Capital, Artificial Intelligence, Digital Twin, MSME Performance.