

## **ABSTRACT**

*The rapid development of information technology is currently underway, including providing ease of access to the internet through mobile devices. The emergence of social media applications also plays a role in increasing the number of internet users, especially through mobile devices. Besides serving as a virtual socializing platform, social media also functions as a promotional tool, one of which is online shopping applications. The rapid growth of social media is in line with the development of cooperatives and hydroponic activities at IT Telkom Surabaya. Thus, the existence of an online buying and selling platform is expected to increase market expansion. This research will use a Design Thinking approach in formulating ideas and problem-solving. Meanwhile, to design the application through an emotional user approach, this research uses the Kansei engineering method. Data collection is carried out through questionnaires, interviews, and literature studies. It will result in several selected Kansei words. Furthermore, to determine the best design that suits user needs, the application prototype is tested through performance metrics to determine effectiveness, efficiency, and errors, as well as performance and usability evaluation using the System Usability Scale (SUS) questionnaire. The research results show that the design of this E-commerce application is based on 10 Kansei words such as Appealing, Attractive, Organized, Practical, Innovative, Quick, Effective, Accessible, Interactive, and Unique. From the performance and usability tests, it is obtained that the "Friendly Concept" has superior value based on efficiency indicator calculations, error rates, and SUS tests. Thus, the "Friendly" design concept is chosen as an alternative to meet user emotional needs. Based on the usability test results using Performance Metrics and System Usability Scale (SUS) from the two design concepts of the ITTS Mart application, namely the Efficient concept, it has a System Usability Scale score of 71.95. Meanwhile, the Friendly concept has a slightly higher System Usability Scale score, namely 72.73.*

*Keywords: Design Thinking, Kansei Engineering, E-Commerce, Performance Metrics, System Usability Scale.*