ABSTRAK

I MADE WIDIARTA. Multimarket Model Application Development (Multimarket Express Version 1.0). Supervised by YANI NURHADRYANI.

Multimarket model is a model that simulates the impact of price or quantity of one commodity to other commodities. For an example, a decrease in corn price has an impact on the price of rice as a competitor. The multimarket model were developed by InterCAFE LPPM IPB. Currently, the implementations of multimarket model was used in InterCAFE is using Microsoft Excel.

The study focus on developing a multimarket model application system, so that it could supports the researcher in simulating the changes impact of price or quantity of one or more commodities. This research uses The Prototyping Oriented Software Development Methodology, VB.Net as programming language, and Microsoft Access as the DBMS. Prices, commodities elasticity, household’s income, and total demand were used as input of this system. The output produced were the percentage effect of a changes of commodities to others commodities. This system is tested using white box, black box and heuristic evaluation (questionnaires). White box testing is applied to multiplication and matrix inversion. The result of the black box testing shows that every tested function is working properly as expected with 99.32% accuracy rate compared to the Microsoft Excel simulations. On the other hand, the result of the heuristic evaluation using questionnaires shows that 58% of the respondents said that they were satisfied, 27% less satisfied and the rest was not satisfied.

Based on the result of the study, it can be concluded that this system may facilitate the users in performing data management and simulation. However, this system still have a deficiency, in that it cannot change the pre-determined model. Hence, further study can be done to develop an application with a dynamic modeling system.

Keywords: Heuristic Evaluation, Multimarket Model, Object Oriented Programming.