

ABSTRACT

The purpose of this graduate project is to focus on developing a suitable forecasting model for a Solid State Drive (SSD) manufacturing company. There had been no systematic forecasting in this company; consequently, the company faced the situation of uncertain demand. Moreover, according to government policy, minimum wages will increase in the near future. The company needed an effective production plan in order to reduce overtime expense, while fulfilling customer demand, including sudden unexpected demand.

Time series forecasting techniques are applied in this case study. Simple exponential smoothing and double exponential smoothing techniques are developed and tested. The results show that the double exponential smoothing technique performs better than the simple exponential smoothing technique. The application of the double exponential smoothing technique provides a low percentage of forecast error, which indicates that the application can reduce demand variations. Consequently, it can identify cost saving for the company, in two categories, carrying cost and opportunity cost.