An application of postponement strategy to perishable products

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ABSTRACT

Due to ever-increasingly fierce competition in Taiwan food market and huge fluctuation and uncertainty in the market, corporations need to cope with uncertain market demands by applying forecasting to respond to the demand fluctuation and maintain service level. One critical feature of food industry is its tendency to perishable. That makes excess stock will cause serious consequence of perished products that have negative impact on the profits. However, shortage of products will cause loss of goodwill and lower service level. Therefore it is a great challenge to maintain service level and customers ' satisfaction at the same time it can keep the perished products to the minimal level. A case study has been conducted on a large-scale food dough processor in Taiwan. The concepts of Postponement Strategy, Single-Period Model, and Periodic Review Policy have been applied to conduct a comprehensive analysis. Based on the analysis results, the findings are addressed as follows. (1) the forecasting obtained from Single-Period Model is proven to be more precise than that of traditional production models. (2) It has been shown that periodic Review Policy controlling warehousing inventory volume can maintain high service standards and reduce the inventory volume of finished products with the application of postpone strategy and increase the inventory volume of finished products. (3) The reduction in inventory volume of finished products contributes the reduction of food perishing rates. (4) The reduction of food perishing rates decreases, and the amount of the dumping away perished products is lower and thus it can increase corporate profitability.

Keywords: Perishable, Postponement Strategy, Single-Period Model, Periodic Review Policy

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