

Application of Profit Level Analysis to Verify Product Mix Impacts on Net Profit Changes

Hung, W. -S, 陳獻清, Y, -C. Chung, R. -K. Li, C. -H. Tsai

Program of Tourism and MICE Management

Tourism

hcchen@chu. edu. tw

Abstract

The traditional net profit analysis categorizes impacting factors into four categories: sales price, material cost, sales volume, and operating cost. However, traditional perspectives typically overlook a fifth factor: product mix. The profit level analysis method proposed by Maxager Technology that computes the optimal product mix can be utilized to verify the importance of product mix in determining the net profit changes. The goal of this study is to conduct a thorough analysis on whether the calculation used in the profit level analysis can accurately analyze the factors that has an impact on net profit along with their respective weights.

Although product mix problems are traditionally solved by applying linear programming methods, the Theory of Constraints (TOC) focuses on the capacity constrained resource (CCR) to simplify product mix problem and ordering the product mix combination by their respective throughput/per CCR Time (T/CU) values. This study applies the profit level analysis to show the increase in sales of high T/CU products results in increased influence of product mix and higher net profits.

Keyword : Theory of Constraints, Net profit analysis, Product mix, Profit Level Analysis