APPLICATION OF FACTOR ANALYSIS AND ORDINAL PROBIT LOGISTIC REGRESSION IN COSMETIC MARKETING STRATEGY

(Study Case: The Data is The Result of Cosmetic Consumer Questionnaire)

Aldira Intan Rizky Ali

Statistics Department, Faculty of Mathematics and Natural Sciences
Islamic University of Indonesia

ABSTRACT
The marketing of cosmetic is continues to increase from year to year with promotion and innovation. In conducting promotions and innovations, sellers must know the factors that influence the purchase of cosmetics. In addition, cosmetic sellers must know the target of their products. The type of product target that is commonly used is from age classification, because age is considered to be a factor that determines one's perception. Products that are marketed to the right target will produce far better sales. Therefore, this research is needed to help identify factors that influence a person in the decision to buy cosmetics and determine the right product targets based on age classification. The method that can be used to achieve this goal is factor analysis and ordinal logistic regression. Data collection was done by purposive sampling technique in Mutiara Cosmetics, Yogyakarta by taking as many as 384 respondents from the calculation of the Lemeshow formula. By using Microsoft Excel and XLSTAT, the results of the factor analysis of this study are the formation of new factors that influence the decision to buy cosmetics, namely for the main component factor 1 is called Verified, component 2 is called Endurance and Promotion, the component 3 is called Modern and Easy to Use, and Component 4 is called Guarantee. While the results for ordinal logistic regression are known that the variables that influence cosmetic decisions are Verified factors, Endurance and Promotion factors, and Modern and Easy to Use factors with the highest probability in the age group of less than 20 years that is 89.43%.

Keywords: Consumer, Cosmetic, Excel, Factor, Ordinal, Probit, XLSTAT