

Segmenting consumers purchase intention towards edible bird's nest products using the decision tree techniques

ABSTRACT

Domestic consumption of nutritional products and food supplements are on the rise. This is due to the fact that consumers have become more affluent and aware of their health. Edible bird's nest (EBN) is used as a health supplement for medicinal benefits to improve health quality. However, issues such as contamination and counterfeit EBN have caused fluctuation of the product's price over time and consumers are slowly shunning away from consuming EBN products. Marketing effort is a strategy tool often used to convince buying intention among consumers and therefore relieve the public's anxiety. Presently, the extent of marketing mix that can convince consumers' intention to purchase EBN products remains unknown. Thus, this study aimed to analyze the influence of marketing mix towards consumers' intention to purchase EBN products. Principle component analysis and decision tree models were used to analyze the data. The performance of three decision tree models was compared based on accuracy and sensitivity rate. Result showed that all three models possessed similar accuracy rate (CART = 84.35%, C5.0 = 84.73%, QUEST = 83.08%), while C5.0 had the highest sensitivity (CART = 84.7%, C5.0 = 87.46%, QUEST = 85.59%). The important variables derived from C5.0 model are health conscious, gender, promotion, race, price, employment, and income. The outcomes from the present study through the performance prediction have provided informative profile of the consumers which will be useful to target potential consumers and to narrow down the market segment for the marketers' benefit.

Keyword: Edible bird's nest; Classification; Decision tree; Marketing mix; Purchase intention