

### **Analysis of consumer demand for Arrack in Sri Lanka: A preliminary study on coconut-based distillery industry**

Coconut-based arrack accounts 9 percent of the total arrack production in Sri Lanka. Evaluation of the arrack consumers' responses to changes in price and other related variables might provide useful guidelines on the development of coconut-based arrack and toddy tapping industries. The purpose of this study is to identify the major factors that determine the arrack demand in Sri Lanka and to estimate the demand elasticity of arrack. Based on the economic theory, an econometric model of the arrack demand was specified as;  $Q_a = f(P_a, P_b, P_w, I, Time)$  Where,  $Q_a$  is the per capita arrack consumption in liters,  $P_a$ ,  $P_b$  and  $P_w$  are the real prices of arrack, beer and whiskey in rupees per liter,  $I$  is the consumer real income in rupees.  $Time$  is to represent the tastes and preferences of consumers. The model was estimated using Ordinary Least square method, corrected for autocorrelation for the period of 1978 to 1999 using annual data, collected from the Excise Commissioners Department.

The results revealed that the quantity of arrack demand in Sri Lanka is significantly determined by arrack price, price of beer and the consumer per capita income level. Both beer and whiskey behave as substitutes for arrack. The own price elasticity of arrack demand was found to be elastic value of -1.6, which indicates that the degree of change in the arrack demand is nearly one and half times higher than that of the price change. The income elasticity of arrack demand was 2.4, indicating that the arrack is a superior good to the consumer. The cross price elasticities with respect to two substitute prices; beer and whiskey were 0.65 and 0.87 respectively.

Since the tax on arrack is the major component in the consumer price of arrack, a small manipulation of the tax would result greater implications on arrack demand as indicated by the price elasticity value. The income growth of the country would enhance the arrack demand further more. However, there is an insignificant decline in tastes and preferences for arrack over time as revealed by the results. Considering these factors, a slight reduction in prices with preserved qualities may make the coconut-based arrack industry more profitable and can trickle down its benefits to revitalize the coconut toddy tapping industry in Sri Lanka.