Demand Analysis of Beer Consumption in the U.S.

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Title. Demand analysis of beer consumption in the U.S.
**Objectives.**
Two main objectives of this research are the following: 1) determine if the U.S. consumers of beer are biased towards domestic beer versus foreign beer, and 2) examine factors affecting consumers’ attitudes toward different product alternatives (categories) within each group.

**Introduction.**
Beer is losing its lead of the alcohol market share to wine; however, it still sells in huge volumes. As recent research shows, even a non-beer drinker can appropriately guess the top five bestselling domestic beers, which are Bud Light, Budweiser, Coors Light, Miller Light, and Natural Light (Anheuser-Busch). As concerns foreign brands, the top five imported beers sold in the U.S. are the following: Corona Extra, Heineken, Labatt Blue, Tecate, and Guinness (Professor's House, 2014).

One of the specific objectives of this research is to look at the consumers of beer as a group and determine if they prefer domestic beer over foreign beer or the opposite. The second specific objective is to determine factors that have statistically significant impact on consumers’ attitudes toward alternative products among domestic and foreign beers, and to determine substitution effect between main beer categories.

**Model.**
The first objective of this paper is fulfilled by applying logistic regression using consumers’ socio-demographic characteristics as explanatory variables. Logistic model is used to provide an answer to the question of if there is a stronger preference among U.S. consumers of domestic beer over foreign beer.

To study the second objective of this paper the multinomial logit (MNL) model is used. MNL model proposed by McFadden is used to model the choice of one among a set of mutually exclusive alternatives (1973). This discrete choice model is based on the principles of utility maximization and has advantages of ease of estimation. However, this model has been criticized for its property known as the independence of irrelevant alternatives. Later came the nested logit model, which allows interdependence between pairs of alternatives in a common group (McFadden, 1978; Ben-Akiva and Lerman, 1985; Borsch-Supan, 1990). McFadden’s MNL model is a special case of the generalized extreme value (GEV) model consistent with utility maximization will be applied in this research (McFadden, 1978 and 1981). Maximum likelihood techniques are used to estimate parameters of the MNL model.

**Data and Expected results.**
In this research we use the IRI Academic Data Set collected by M.W. Kruger and D. Pagni. This data set is obtained through a marketing survey of store sales and consumer panel data for 30 product categories. Current study uses only data on beer for the year 2011. A final set of files contains demographic and economic characteristics of consumers, a list and description of purchased products, stores where products were purchased.

To fulfill both objectives of this research, two models will be developed and analyzed. Expected results will reveal first if the US consumers overall prefer domestic beer to foreign beer and second, will determine cross elasticities for a set of categories of most popular domestic and foreign beers.

**References.**


