

## Profiling Thrift Store Shoppers with a Decision Tree Predictive Model

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**Research Background** Thrift stores selling mostly donated second-hand goods are growing fast. While older or low-income consumers are their major customers due to low prices, young or high-income consumers are increasingly looking for used clothing to find unique or vintage styles that are not available in traditional retail stores. This study attempts to determine which factors influence thrift store clothing shopping behavior based on retail attributes (self-oriented) and personal orientations (others-oriented) using a decision tree model.

**Method** An online consumer panel survey was distributed to individuals in the US via MTurk. Self-oriented attributes (i.e., name brands, unique style, vintage style, treasure hunting experience, and social interaction with others) were measured with a 6-point rating scales (1=not at all important, 6=extremely important). Other-oriented consumer factors (i.e., ECCB, SCCB, and responsible behavior) were measured with a 6-point rating scale.

**Results** A decision tree of thrift store shopping (TS) is created with RPART. The target variable is the number of items purchased at a thrift store within the past 12 months. Total responses are partitioned into a testing data set (65%,  $n = 200$ ) and a validating data set (35%,  $n=103$ ). The root node is split into two branches by treasure hunting ( $<5.5$ , 93%;  $\geq 5.5$ , 7%) with 100% certainty. The first node-split demonstrates that the treasure hunting experience is certainly the most crucial factor in predicting TS segments (7%,  $p=1.0$ ). Further, the consumers who display a low level of treasure hunting ( $<5.5$ , 93%) and show responsible behavior ( $\geq 3.4$ , 71%) are identified as a high TS segment when treasure hunting is greater than 4.5 (13%,  $p=0.73$ ). The largest segment of high TS (28%) is characterized by low treasure hunting experience ( $<5.5$ ), responsible behavior ( $\geq 3.4$ ) while treasure hunting is less than 4.5 and brand name is greater than 2.5 (28%,  $p=0.61$ ). Results indicated appropriate accuracy (ROC 0.70 for the testing data set).

**Conclusion and Implications** Membership in the High TS occurs when consumers value the self-oriented attribute of the treasure hunting experience and display the other-oriented attribute of the responsible behavior to some extent. While TS shoppers are generally conscious about the price point in their consumption behavior, the modest influence of the name brand is apparent in consumers' TS purchase behavior. Thrift stores must re-position themselves as a "sustainable fashion shopping destination" rather than a resale shop, mainly focusing on strategies of affordable pricing and social responsibility. In marketing strategies, TS retailers must incorporate

the other-oriented attribute of responsible behavior as another key motivator of TS purchase behavior. This behavior can be implemented by emphasizing social initiatives and good citizenship in advertisements that facilitate thrift stores to attract more responsible customers through their conscience.