

Title: *PwC Strategy Navigator - Choosing the most impactful strategy in an era of disruptive change*

Presenter: Sachel Lakhavani, New Product Development – Digital & Analytics

Abstract:

PwC's Strategy Navigator platform is an agent-based consumer behavior model that simulates the response of consumers to changing market environment and the impact of these interactions on the overall performance of a business. Strategy Navigator provides executives in the retail and consumer space the ability to test their strategies under various competitive and environmental scenarios and determine which strategies are robust across a range of scenarios.

The model we will discuss is an application of the Strategy Navigator specifically customized towards the grocery retailers. The model provides certain strategic levers such as price, quality, assortment, etc. that can be adjusted for store formats to simulate consumer behavior changes and the corresponding impact on the market shares of the store format. The model supports the introduction of a disruptive change in the market (e.g. introduction of an aggressive online grocer) and demonstrates how the existing strategies will hold up in the situation.

Strategy Navigator leverages agent-based modeling to simulate real-world behavior of individual participants such as households and retailers in the retail ecosystem. The Strategy Navigator creates a set of households to demographically represent a metropolitan landscape with a key emphasis on attributes such as household size, income, distance from stores and purchasing behavior. It also recreates various store formats and their unique characteristics across the zip codes in the metropolitan area. The model simulates the needs generation pattern of the individual households, the factors leading to certain store choices and eventually the generation of a shopping trip. These shopping trips are aggregated to represent the dynamics of the market and the market shares of store formats. The Strategy Navigator uses word of mouth propagation from social cohorts and perceived utilities as drivers of new behavior adoption for households. The model uses state charts to represent the various stages of awareness and adoption of a new online grocer. The model uses GIS maps to provide a dynamic heat map visualization of change in market shares of a store format across different zip codes.

The Strategy Navigator model supports strategic decision making by trying to answer questions such as:

1. How do we gain or maintain market share in the current circumstances?
2. What strategy is the most impactful given the threat of new online grocery entrants?
3. What outcomes are possible if my competitor opens new stores in zip codes where my primary shopper base is located?