Title: Consumer Behavior, Revenue Management, and the Loyalty Program Operations

Abstract:

While originally viewed as marketing efforts, consumer reward loyalty programs have grown substantially in size and scope during the last two decades, to the extent that they now significantly interact with other firm functions.

This talk consists of two parts: the first is concerned with the point earning side of loyalty programs and employs analytical models and rationality assumptions regarding consumer behavior. The second deals with the point redemption side and relies on empirical investigations and behavioral experiments.

We start by considering a contemporaneous change where firms across several industries switch their loyalty programs from quantity-based toward spending-based designs: many firms are now awarding points and premium status based more on the money spent rather than on quantity or frequency of purchases. We present a model for the decision faced by strategic consumers and endogenously derive the demand as a function of prices, loyalty program design, and premium status qualification requirements. We characterize the conditions under which firms that coordinate pricing and loyalty program design decisions can benefit from strategic consumer behavior. We also analyze two variants of combined designs and show how they can be used to better manage the transition, possibly minimizing negative consumer reactions.

In the second part of the talk, we focus on the redeemable loyalty program points and examine how the program design characteristics—the stability and the scaling (numerosity) of the exchange rate between money and points—affect consumers’ redemption choices. We analyze both secondary data from an airline loyalty program and primary data from experimental studies to show that consumers treat loyalty program points as a valuable resource, and they try to maximize the purchasing power of the points they redeem, which is rational. However, we also observe systematic behavioral biases in consumers’ redemption choices, which are specific to points. That is, we do not observe such biases in choices to spend foreign currencies. We propose an underlying mechanism that can explain these systematic differences and discuss managerial implications.