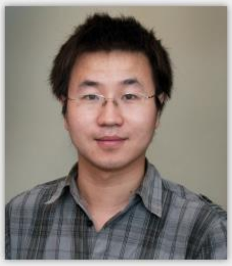
The Hong Kong University of Science and Technology
Dept of Information Systems, Business Statistics and Operations Management

Frontiers in Operations Management Workshop



A Model of Credit Refund Policies

by

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Date : 2 December 2021 (Thursday)
Time : 2:30 - 3:00 PM
Venue : Room G012, LSK Business Building, HKUST

Abstract: Consumers often receive a full or partial refund for product returns or service cancellations. Much of the existing literature studies cash refunds, where consumers get their money back minus a fee upon a product return or service cancellation. However, not all refunds are issued in cash. Sometimes consumers receive credits that can be used for future purchases, often times with an expiration date after which the credits are forfeited. A prominent example is the airline industry, where consumers who purchase non-refundable fares are often issued a credit that is valid within a fixed time window (typically a year) upon ticket cancellation. We study the optimal design of credit refund policies. Different from models that consider cash refunds, we explicitly model repeated interactions between the seller and consumers over time. We assume that consumers' valuation for the product/service varies over time, and that there is an exogenous probability for product returns. Several interesting results emerge. First, a credit refund policy facilitates intra-consumer price discrimination for a single type of consumers with stochastic valuation. Second, an optimal policy often involves an intermediate credit expiration term, under which a consumer with a high product valuation always makes a purchase, while a consumer with a low product valuation may be induced to make a purchase as the credit approaches expiration, leading to a demand induction effect. Finally, a credit refund policy can be more profitable than a cash refund policy, and can lead to a win-win outcome for both the firm and consumers under certain conditions. We also consider several extensions to check the robustness of our findings.

Bio: Dr Yan Liu is an Assistant Professor of Operations Management in the Department of Logistics and Maritime Studies at the Hong Kong Polytechnic University. He obtained his PhD from University of Minnesota, Twin Cities. His research interests mainly lie in revenue management and pricing, interface between operations management and marketing. His work has been published in Management Science, Operations Research, and Production and Operations Management.

All interested are welcome!

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