Departmental Research Seminar

How Much Do Consumers Know About the Quality of Products?
Evidence from the Diaper Market

By
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Date: 22 May 2017 (MON)
Time: 2:30 PM – 4:00 PM
Venue: M802

Abstract
To measure the extent of incomplete information about brand qualities faced by consumers, recent research in marketing and economics has extended traditional static choice models to explicitly allow for consumer learning. These models tend to be complicated and make stringent assumptions such as Bayesian updating. In this paper, we provide a simpler alternative method to measure how much consumers know about the quality of quasi-durable products. Our key insight is that for products that depreciate over time and require repeated purchases, individuals' observed inter-purchase spells provide an objective measure of brand qualities in terms of durability. This is simply because the higher the durability, the longer a product can last in general, and hence its observed inter-purchase spells should also be longer. Based on this argument, we use a scanner panel data set for diapers to estimate both the subjective perceived brand qualities (based on revealed preference data) and the objective brand qualities (based on brand-specific inter-purchase spells). Our estimates allow us to compare these two measures of qualities and infer the extent of incomplete information faced by parents. With our results, we can address questions such as: Do parents make the right choice in the diapers category? Can they save some money by switching from a national brand to a store brand, or the other way around? How much savings can they get?

Prof. Andrew Ching is a Professor of Marketing and Economics at University of Toronto (Rotman School of Management and Department of Economics). He is an Associate Editor for Management Science, and a member of editorial board for Marketing Science and Journal of Marketing Research. His research focuses on developing new empirical models and estimation methods to understand choices of consumers and firms. His research has led to a new discrete choice model that outperforms the commonly used multinomial logit or nested multinomial logit models. He has also developed a new Bayesian estimation algorithm that reduces the computational burden of estimating discrete choice dynamic programming models, which are commonly used to capture forward-looking agents’ behavior. He has applied these models to study how credit/debit cards’ rewards programs would affect consumer choice of payment methods, how word-of-mouth (WOM) affects consumer choice in the prescription drug markets, and how firms decide their marketing mix when consumers need to learn about product qualities via WOM, and new technology adoption decisions by consumers. He is currently using this modeling framework to study the demand for new and used digital products, late mover advantages in an information spillover environment, consumer stockpiling decisions, and campaign finance by US Congressmen and Senators. He has published research articles in Econometrica, Marketing Science, Management Science, Quantitative Marketing and Economics, Journal of Banking and Finance, International Economic Review, Journal of Applied Econometrics, International Journal of Industrial Organization, Journal of Choice Modelling, Marketing Letters, Journal of Medical Internet Research.

All interested are welcome.