Retailers are the customer-facing stage of the typical supply chain because they directly interface with consumers in the online (Click) channel and/or the traditional (Bricks & Mortar) channel. One of the important decisions retailers must make is setting the product price to present to customers. But for any particular product, to what extent does the price vary for identical items sold across multiple channels (such as online vs. in-store)? Knowledge about this is important for consumers, and for competing retailers; this price variance is referred to as price dispersion and it represents the magnitude of price variation for physically identical product items that is either spatial (across sellers at one point in time) or temporal (prices vary within a seller over time). Researchers at the University of Wisconsin-Milwaukee’s Lubar School of Business empirically studied price dispersion in an effort to improve upon the conflicting results reported by other researchers. There was thus a need to quantitatively generalize and understand the patterns of price dispersion among retail members of the supply chain. In practice, many companies face significant challenges developing business models for these channels.

Marketing Professor Dr. Sanjoy Ghose, in the Supply Chain Management Institute, conducted research with Dr. Yiyuan Liu (a recent doctoral graduate). Their article, “A Meta-Analysis of Price Dispersions,” reported a meta-analytic review on 814 price dispersions collected from studies across 36 articles between 1998 and 2011. Using a hierarchical linear model, they systematically: 1) identified significant underlying factors that are driving price dispersion; these include product base price, product category, distribution channel type, etc., and 2) studied whether neglect of the issue of price heterogeneity in past studies explained the discrepancy of findings. A detailed analysis revealed some findings about channel member pricing behavior that are of relevance to decision makers in retail firms and to retail customers in search of low prices. Those findings include:

1. Bricks-and-clicks (multi-channel retailers) tend to use more consistent pricing strategies across channels, while pure-play firms tend to set up dynamic pricing strategies.

2. Higher price dispersion is observed when there are more online sellers carrying the same product in the market -- indicating that customers have the opportunity to search across different retailers for a better price. However, if it is a niche market with less competition, retailers tend to charge a consistent price without too much variation.

3. Across retailers, service products show the highest price variations in dollar amount, followed by consumer electronics, and then fast-moving consumer goods. But when controlling for the base price, fast-moving consumer goods show higher price dispersion than consumer electronics, while service products remain the highest. This can be explained by the non-linear effect of base price on price dispersion.

4. Although retailers tend to differentiate their services by charging various shipping and handling fees, price dispersion persists. Including or not including shipping and handling fee does not significantly influence the magnitude of online price variations.

5. Retail supply chains in the U.S. and Canada show significantly higher price variations than those in Europe and in emerging markets in Asia.