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Michael F. Gorman

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Management Insights

Michael F. Gorman
School of Business Administration, University of Dayton, Dayton, Ohio 45469,
michael.gorman@udayton.edu

Willingness to Compete: Family Matters (p. 2149)
Ingvild Almås, Alexander W. Cappelen, Kjell G. Salvanes, Erik Ø. Sørensen, Bertil Tungodden

What is the role of family background in explaining differences in the willingness to compete in a cognitive task? The authors show that family background is fundamental in two important ways. First, boys from low socioeconomic status families are less willing to compete than boys from better-off families, even when controlling for confidence, performance, risk preferences, time preferences, social preferences, and psychological traits. Second, family background is crucial for understanding the large gender difference in the willingness to compete. Girls are much less willing to compete than boys among children from better-off families, whereas the authors do not find any gender difference in willingness to compete among children from low socioeconomic status families. The authors suggest that the main explanation of the role of family background is that the father's socioeconomic status is strongly associated with boys' willingness to compete. They did not find any association between the willingness to compete for boys or girls and the mother's socioeconomic status or other family characteristic that may potentially shape competition preferences, including parental equality and sibling rivalry. The insight for management: Family background and gender have a direct effect on kids' willingness to compete.

Asymmetric Effects of Favorable and Unfavorable Information on Decision Making Under Ambiguity (p. 2163)
Alexander Peysakhovich, Uma R. Karmarkar

When facing an ambiguous situation, what is the effect of favorable and unfavorable information? Most daily decisions involve uncertainty about outcome probabilities arising from incomplete knowledge, or ambiguity. The authors explore how the addition of partial information affects these types of choices. The results for both gain and loss demonstrate that when such information supports a favorable outcome, it strongly increases valuation of an ambiguous financial prospect. However, when information supports an unfavorable outcome, it has significantly less impact. The authors find that two mechanisms drive this asymmetry. First, unfavorable information decreases estimates of a good outcome occurring but also reduces aversive uncertainty. These factors act in opposition, minimizing the effects of unfavorable information. Second, when information can be subjectively interpreted, unfavorable information is less likely to be integrated into evaluations. The insight for management: Increasing the salience of unfavorable information in uncertain contexts promotes unbiased decision making.

Multidimensional Ellsberg (p. 2179)
Kfir Eliaz, Pietro Ortoleva

How is decision making affected by uncertainty probabilities and payouts? The classical Ellsberg experiment presents individuals with a choice problem in which the probability of winning a prize is unknown (uncertain). The authors study how individuals make choices between gambles in which the uncertainty is in different dimensions: the winning probability, the amount of the prize, the payment date, and the combinations thereof. The insight for management: There are systematic behavioral patterns in decision making under uncertainty: (i) no uncertainty is preferred to uncertainty on any single dimension and to uncertainty on multiple dimensions, and (ii) "correlated" uncertainty on multiple dimensions is preferred to uncertainty on any single dimension.

Jumps in High-Frequency Data: Spurious Detections, Dynamics, and News (p. 2198)
Pierre Bajgrowicz, Olivier Scaillet, Adrien Treccani

How do jumps in high-frequency data affect spurious detection? Applying tests for jumps to financial data sets can lead to an important number of spurious detections. Bursts of volatility are often incorrectly identified as jumps when the sampling is too sparse. At a higher frequency, methods robust to microstructure noise are required. The authors argue that whatever the jump detection test and

the sampling frequency, a large number of spurious detections remain because of multiple testing issues. They propose a formal treatment based on an explicit thresholding on available test statistics. Their method eliminates asymptotically all remaining spurious detections. In Dow Jones stocks between 2006 and 2008, spurious detections can represent up to 90% of the jumps detected initially. For the stocks considered, jumps are rare events, they do not cluster in time, and no cojump affects all stocks simultaneously, suggesting jump risk is diversifiable. They relate the remaining jumps to macroeconomic news, prescheduled company-specific announcements, and stories from news agencies that include a variety of unscheduled and uncategorized events. The insight for management: The vast majority of news does not cause jumps but may generate a market reaction in the form of bursts of volatility.

The Information Value of Credit Rating Action Reports: A Textual Analysis (p. 2218)
Sumit Agarwal, Vincent Y. S. Chen, Weina Zhang

What is the informational value of credit rating action reports? The authors examine whether Standard & Poor's (S&P) *credit rating action reports* contain new default-related information beyond credit rating actions such as rating changes, credit watch, and outlooks. They find that the net linguistic tone (negative minus positive tone) in the reports is significantly and negatively related to abnormal returns and predicts future rating changes. They discover that the provision of tone does not seem to be inflated by the conventional proxies of conflict of interest faced by S&P, as higher conflict of interest is related to more negative net tone. Moreover, the tone can predict future rating changes even when conflict of interest is high. The insight for management: There is novel evidence on the information value of credit rating action reports.

The Determinants of Bank Mergers: A Revealed Preference Analysis (p. 2241)
Oktay Akkus, J. Anthony Cookson, Ali Hortaçsu

What is the value created by mergers? The authors provide new estimates of merger value creation by exploiting revealed preferences of merging banks. They find that merger value arises from cost efficiencies in overlapping markets, relaxing of regulation, and network effects exhibited by the acquirer-target matching. Their method has notable advantages that warrant its application beyond the bank merger market. The insight for management: A new method outperforms reduced form alternatives out of sample, enables sensible counterfactual experiments, and can be used to evaluate private-to-private mergers, which have been understudied because of lack of stock market data.

Agency Selling or Reselling? Channel Structures in Electronic Retailing (p. 2259)
Vibhanshu Abhishek, Kinshuk Jerath, Z. John Zhang

Should online retailers engage in agency selling or reselling? In recent years, online retailers (also called e-tailers) have started allowing manufacturers direct access to their customers while charging a fee for providing this access, a format commonly referred to as agency selling. The authors find that agency selling is more efficient than reselling and leads to lower retail prices; however, the e-tailers end up giving control over retail prices to the manufacturer. Therefore, the reaction by the manufacturer, who makes electronic channel pricing decisions based on their impact on demand in the traditional channel (brick-and-mortar retailing), is an important factor for e-tailers to consider. The authors find that when sales in the electronic channel lead to a negative effect on demand in the traditional channel, e-tailers prefer agency selling, whereas when sales in the electronic channel lead to substantial stimulation of demand in the traditional channel, e-tailers prefer reselling. This preference is mediated by competition between e-tailers—as competition between them increases, e-tailers prefer to use agency selling. The insight for management: E-tailers benefit from positive externalities from the sales of the focal product (such as additional profits from sales of associated products), retail prices may be lower under reselling than under agency selling, and the e-tailers prefer reselling under some conditions for which they would prefer agency selling without the positive externalities.

Matching Platforms and HIV Incidence: An Empirical Investigation of Race, Gender, and Socioeconomic Status (p. 2281)
Brad N. Greenwood, Ritu Agarwal

How does the entry of platforms for the solicitation of casual sex influence the incidence rate of human immunodeficiency virus (HIV) infection by race, gender, and socioeconomic status? Although recent work has examined the adverse implications of Internet-enabled matching platforms, limited attention has been paid to whom the negative externalities accrue. Using a census of 12 million patients subjected to a natural experiment in Florida, the authors find a significant increase in HIV incidence after platform implementation, with the largest effect accruing to historically at-risk populations (i.e., African Americans) despite documented lower rates of Internet utilization. Strikingly, the analysis reveals that HIV incidence increases in historically low-risk populations as well (e.g., individuals of higher socioeconomic status) and that men and women experience similar penalties. Identifying granular effects across subpopulations allows us to offer additional insight into the mechanisms by which matching platforms

increase HIV incidence. The insight for management: The cumulative effect of platform entry over the five-year period of the study of 1,149 additional Floridians contracting HIV has a cost of $710 million.

Competing for Attention in Social Communication Markets (p. 2304)
Ganesh Iyer, Zsolt Katona

What are the incentives for social communication in the new social media technologies? The authors describe three features of online social communication. First, new social media platforms allow for increased connectivity; i.e., they enable sending messages to many more receivers, for the same fixed cost, compared to traditional word of mouth. Second, users contribute content because they derive status- or image-based utility from being listened to by their peers. Third, they examine social differentiation, or how social distance between people affects their preferences for messages. The authors find that social communication incentives diminish even as the reach or the span of communication increases. As the span of communication increases, competition between senders for receiver attention becomes more intense, resulting in senders competing with greater equilibrium messaging effort. This in turn leads to lower payoffs and the entry of fewer senders. The authors provide a strategic rationale for the so-called participation inequality phenomenon, which is a characteristic of many social media platforms. The authors suggest social differentiation may enhance or deter sender entry depending on whether it can be endogenously influenced by senders. Finally, they examine how the underlying network structure affects communication and uncover a nonmonotonic pattern in that increased connectivity first increases and then reduces the entry of senders. The insight for management: Social media sites have unique incentives for its participants.

An Empirical Model of Drug Detailing: Dynamic Competition and Policy Implications (p. 2321)
Qiang Liu, Sachin Gupta, Sriram Venkataraman, Hongju Liu

The practice of detailing—personal selling through representatives—in the marketing of prescription drugs is undergoing significant changes. How do these changes affect drug prescription choices of doctors? In September 2013, the Physician Payment Sunshine Act went into full effect. The accompanying transparency requirements have prompted physician practices and hospitals to severely restrict pharmaceutical sales representatives' direct access to their physicians. Despite all the attention in the popular press, little is known about how these restrictions on physician access impact physician prescription behavior and competitive detailing to physicians. To analyze the impact of these restrictions, the authors evaluate how pharmaceutical firms compete dynamically to schedule detailing to physicians. Detailing activities are known to have significant carryover effects that are captured in a first-stage model of physicians' demand for prescription drugs. The authors specify detailing policy functions that describe each firm's observed detailing actions. The estimated structural model is used to examine the implications of restrictions on the amount of detailing via counterfactual simulations. The authors find that restriction policies would increase the market share of a nondrug-treatment-only option but impact firms asymmetrically; firms that are strong in detailing and/or rely more on detailing would be hurt more. The insight for management: A policy that imposes a ceiling on detailing frequency could significantly reduce detailing of all firms in the market, including those firms with average detailing levels below the ceiling, and effectively would soften competition between firms and enhance their profits.

Supply Chain Contract Design Under Financial Constraints and Bankruptcy Costs (p. 2341)
Panos Kouvelis, Wenhui Zhao

How should supply chain contracts be structured when participants have financial constraints and risk of bankruptcy? In a supply chain in which supplier and retailer are capital constrained and in need of short-term financing for their operations via bank loans, there is some risk of failure of loan repayment which leads to bankruptcy. Default costs may include variable (proportional to the firm's sales) and fixed costs. Without default costs, simple contracts (e.g., revenue-sharing, buyback, and quantity discount) can coordinate and allocate profits arbitrarily in the chain. With only variable default costs, buyback contracts remain coordinating and equivalent to revenue-sharing contracts, but are dominated by revenue-sharing contracts when fixed default costs are present. Thus, for general bankruptcy costs, contracts without buyback terms are of most interest. Quantity discount contracts fail to coordinate the supply chain, since a necessary condition for coordination is to proportionally reallocate debt obligations within the channel. With only variable default costs and with high fixed default costs exhibiting substantial economies-of-scale, revenue-sharing contracts with working capital coordination continue to coordinate the chain. Unexpectedly, for fixed default costs with small economies-of-scale effects, the two-firm system under a revenue-sharing contract with working capital coordination might have higher expected profit than the one-firm system. The insight for management: The use of revenue-sharing contracts with working capital coordination for decentralized management of supply chains is preferred when there are bankruptcy risks and default costs.

A Simple Heuristic for Joint Inventory and Pricing Models with Lead Time and Backorders (p. 2358)
Fernando Bernstein, Yang Li, Kevin Shang

How should pricing and inventory be managed in a supply chain with positive lead times and backorders? The problem is, in general, intractable due to its computational complexity. The authors develop a simple heuristic that establishes a pricing policy based on the initial inventory level and a base-stock policy for inventory replenishment. In each period, the firm monitors its inventory position and places an order to reach a target base-stock level. The price-deflated inventory position weights the on-hand and pipeline inventory according to a factor that reflects the sensitivity of price to the net inventory level. The authors suggest that the heuristic is near-optimal. The insight for management: A heuristic approach that can be applied to a wide variety of inventory systems uses price as a lever to balance supply and demand and leads to a more stable pricing policy.

Maximizing Stochastic Monotone Submodular Functions (p. 2374)
Arash Asadpour, Hamid Nazerzadeh

How can one maximize a stochastic monotone submodular function? The authors study the problem of maximizing a stochastic monotone submodular function with respect to a matroid constraint. Because of the presence of diminishing marginal values in real-world problems, the authors' model can capture the effect of stochasticity in a wide range of applications. The authors show that the adaptivity gap—the ratio between the values of optimal adaptive and optimal nonadaptive policies—is bounded and is equal to $e/(e-1)$. They propose a polynomial-time nonadaptive policy that achieves this bound. The insight for management: An adaptive myopic policy obtains at least half of the optimal value; furthermore, when the matroid is uniform, the myopic policy achieves the optimal approximation ratio of $1-1/e$.

Coordinating Complex Work: Knowledge Networks, Partner Departures, and Client Relationship Performance in a Law Firm (p. 2392)
Forrest Briscoe, Michelle Rogan

How should management deal with knowledge worker mobility? The mobility of individual managers has long presented a problem for firms in knowledge-intensive industries. Shifting to more complex work often reduces the importance of a single individual's knowledge for the firm's exchange relationships because complex work requires inputs from a broader set of the firm's members. The authors propose that complex work increases the vulnerability of the firm's performance to departures of those individual managers who act as coordinators of knowledge. They examine the effect of internal knowledge networks and lead partner departures on the performance of the relationships. The insight for management: The negative performance effect of a lead partner departure is greater when the network has high knowledge heterogeneity and involves more experts and lower when the network has high cohesion.

Optimal Price/Lead-Time Menus for Queues with Customer Choice: Segmentation, Pooling, and Strategic Delay (p. 2412)
Philipp Afèche, J. Michael Pavlin

How should a firm design a price/lead-time menu and scheduling policy to maximize revenues from heterogeneous time-sensitive customers with private information about their preferences? The authors consider a queueing system with multiple customer types that differ in their valuations for instant delivery and their delay costs. The ranking of customer preferences depends on lead times: patient customers are willing to pay more than impatient customers for long lead times, and vice versa for speedier service. The insight for management: There are three features of the optimal menu and segmentation: *pricing out the middle of the delay cost spectrum* while serving both ends, *pooling* types with different delay costs into a single class, and *strategic delay* to deliberately inflate lead times.

Real-Time Dynamic Pricing with Minimal and Flexible Price Adjustment (p. 2437)
Qi (George) Chen, Stefanus Jasi, Izak Duenyas

How should a monopolist seller with a finite amount of inventories and a finite selling season set prices? Despite the potential benefits of dynamic pricing, many sellers still adopt a static pricing policy because of (1) the complexity of frequent reoptimization, (2) the negative perception of excessive price adjustments, and (3) the lack of flexibility caused by existing business constraints. The authors develop a family of pricing heuristics that can be used to address all these challenges. The heuristic is computationally easy to implement; it requires only a single optimization at the beginning of the selling season and automatically adjusts the prices over time. Further, the heuristic only needs to adjust the prices of a *small* number of products and do so infrequently. The approach helps the seller focus his effort on the prices of the most important products instead of all products. In addition, in the case where not all products are equally admissible to price adjustment (due to existing business constraints such as contractual agreement, strategic product positioning, etc.), the heuristic can immediately substitute the price adjustment of the original products with the price adjustment of similar products and maintain an equivalent revenue performance. The insight for management: A simple but effective heuristic allows for improved dynamic pricing.