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Management Insights

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Management Insights

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Sex Hormones and Competitive Bidding (p. 249) [Burkhard C. Schipper](#)

Is there a gender difference in an auction setting? The author correlates competitive bidding and profits in first-price auctions with salivary testosterone, estradiol, progesterone, and cortisol in more than 200 subjects. The author finds that bids are significantly positively correlated and profits are significantly negatively correlated with basal salivary progesterone, but only for females who do not use hormonal contraceptives. Surprisingly, the author has null findings for basal testosterone, estradiol, and cortisol for both males and females. He shows that his finding for progesterone is not mediated by risk aversion or bidding mistakes. No hormone responds to total profits in the auctions except for a small positive response of the stress hormone cortisol in males. The insight for management: Profit performance in auctions is negatively correlated with the female hormone progesterone.

Identifying Expertise to Extract the Wisdom of Crowds (p. 267) [David V. Budescu](#), [Eva Chen](#)

Can a foolish outlier reduce the value of popular belief? Statistical aggregation is often used to combine multiple opinions within a group. Such aggregates outperform individuals, including experts, in various prediction and estimation tasks. This result is attributed to the “wisdom of crowds.” The authors seek to improve the quality of such aggregates by eliminating poorly performing individuals from the crowd. They propose a new measure of contribution to assess the judges’ performance relative to the group, and they use positive contributors to build a weighting model for aggregating forecasts. They analyze 1,233 judges forecasting almost 200 current events to illustrate the superiority of the weighted model. They then replicate their findings by using economic forecasts from the European Central Bank and show how the method can be used to identify smaller crowds of the top positive contributors. The insight for management: Identify

experts who consistently outperform the crowd, and predictive power is improved.

A Market Discovery Algorithm to Estimate a General Class of Nonparametric Choice Models (p. 281) [Garrett van Ryzin](#), [Gustavo Vulcano](#)

Can customer preferences among substitutable products be discerned from only sales transactions and product availability data? The authors assume reasonably that an arriving customer purchases the available option that ranks highest in their preference list. They propose a market discovery algorithm that starts with a limited set of options and enlarge it by automatically generating new options that increase the customer’s choice set. They test their model against a realistic data set in the hospitality industry. The insight for management: This approach improves the root mean square errors between predicted and observed purchases computed under independent demand model estimates by 67%–93%, vastly improving customer choice predictability.

Dynamic Bargaining in a Supply Chain with Asymmetric Demand Information (p. 301) [Qi Feng](#), [Guoming Lai](#), [Lauren Xiaoyuan Lu](#)

How does dynamic bargaining with asymmetric information in a supply chain affect outcomes? Imagine a dynamic bargaining game in which a seller and a buyer negotiate over quantity and payment to trade for a product. Both firms are impatient to reach an agreement, and they make alternating offers until an agreement is reached. The buyer knows his valuation, but the seller does not. The seller can screen, and the buyer can signal information through their offers. The authors find that both quantity distortion and information rent may be avoided depending on the firms’ relative patience. Furthermore, they find that improved demand forecast benefits the buyer but hurts the seller when the buyer’s forecasting accuracy is low, but, once the buyer’s forecasting accuracy exceeds a threshold, both firms will benefit from further improvement of the forecast. The insight for management: Patience and

improved forecasting can be virtues in negotiation for both buyer and seller.

Appointment Scheduling with Limited Distributional Information (p. 316)

Ho-Yin Mak, Ying Rong, Jiawei Zhang

How can a manager better schedule appointments when the time required for each appointment is relatively unknown? The authors show that a “min-max” appointment scheduling model, which minimizes worst-case expected waiting and overtime costs, can be formulated as tractable programs. The insight for management: It is optimal to sequence jobs in increasing order of job duration variance.

Sorting Effects of Performance Pay (p. 335)

Maris Goldmanis, Korok Ray

What’s it worth to pay managers well? Compensation not only provides incentives to an existing manager but also affects the type of manager attracted to the firm. As such, higher pay can both keep talented management and attract the same from other companies. Thus, it may appear that paying well does not reap the benefits that are expected; the “lift” from performance pay is dampened by attracting naturally talented management. Ironically, this effect causes the firm to turn away more candidates than would be efficient; performance pay increases in the cost of hiring the outside manager, and the firm becomes more selective in hiring as the manager’s outside option, the cost of hiring, risk aversion, output risk, or information risk increases. The insight for management: Pay for performance may be a better option than it may appear; high pay attracts better management, and as a result the lift from performance pay may appear smaller.

Do Temporary Increases in Information Asymmetry Affect the Cost of Equity? (p. 354)

Shai Levi, Xiao-Jun Zhang

Do temporary increases in information asymmetry affect the cost of equity? Prior literature finds that long-lasting changes in firms’ disclosure policies and information environment affect the cost of equity. Information asymmetry, however, also changes during the fiscal quarter. Firms disclose information periodically, and, in between disclosure dates, traders can obtain private information, and adverse-selection risk increases. Such temporary increases in information asymmetry are usually considered to be diversifiable or too small to impact expected stock returns. In addition, investors may postpone trades or sell other assets in their portfolio on high information asymmetry days. The insight for management: Returns increase significantly on days during the fiscal quarter when adverse-selection risk is

high and liquidity low; temporary asymmetry affects returns when investors demand liquidity and market makers bear risk for carrying capacity and providing it.

Do Incumbents Improve Service Quality in Response to Entry? Evidence from Airlines’ On-Time Performance (p. 372)

Jeffrey T. Prince, Daniel H. Simon

Does the threat of competition improve on-time performance in the airlines? The authors examine whether and how existing firms respond to entry and entry threats using nonprice modes of competition. The analysis focuses on airline service quality. Surprisingly, the authors find that incumbent on-time performance (OTP) actually worsens in response to entry or entry threats by Southwest Airlines. Because Southwest is both a top-performing airline in OTP and a low-cost carrier (LCC), the authors speculate that this response by incumbents may be due to a cost-cutting strategy that allows for intense postentry price competition along with preentry deterrence. Analysis of entry and entry threats by other airlines is inconclusive, suggesting that Southwest is unique as an entry threat. The insight for management: Worsening OTP can be observed only when the (potential) entrant is an airline such as Southwest, JetBlue, or AirTran.

Strategic Resource Allocation: Top-Down, Bottom-Up, and the Value of Strategic Buckets (p. 391)

Jeremy Hutchison-Krupat, Stylianos Kavadias

How does information asymmetry between senior managers and project managers affect resource allocation? When senior managers make the critical decision of whether to assign resources to a strategic initiative, they have less precise initiative-specific information than project managers who execute such initiatives. Senior management chooses between a decision process that dictates the resource level (top-down) and one that delegates the resource decision and gives up control in favor of more precise information (bottom-up). Of course, the “penalty for failure” imposed upon project managers creates a challenging problem for the firm to efficiently allocate resources. The authors find that no single decision process is the “best.” Bottom-up processes are beneficial for more challenging initiatives. Increased organizational penalties may prompt the firm to choose a narrower scope and deter the approval of profitable initiatives. Such penalties, however, enable an effective decision process known as “strategic buckets” that holds the potential to achieve first-best resource allocation levels. The insight for management: Take care in resource allocation; senior managers tend to want to underallocate while project managers want to overallocate, resulting in an increased probability to reject profitable projects.

Macroeconomic Volatilities and Long-Run Risks of Asset Prices (p. 413)
Guofu Zhou, Yingzi Zhu

How do macroeconomic volatilities affect long-run risks of asset prices? There is existing and growing evidence on multiple macroeconomic volatilities. The authors extend the long-run risks model by allowing both a long-run and a short-run volatility component in the evolution of economic fundamentals. The new model shows that the stock market is driven by two volatility factors, rather than one. It also provides significant improvements in fitting various patterns, such as the size of market risk premium, the level of interest rate, the degree of dividend yield predictability, and the term structure of variance risk premiums, of both the equity and option data. The insight for management: Stock market valuations are driven by both long-run and short-run volatility.

The Effect of Electronic Commerce on Geographic Purchasing Patterns and Price Dispersion (p. 431)
Eric Overby, Chris Forman

How does electronic commerce affect geographic purchasing patterns and price dispersion? The “law of one price” states that if prices for the same or highly similar goods vary across geographic locations by more than the cost of transport, then traders will shift supply and demand to exploit the price differences. However, several frictions prevent traders from doing this, including lack of information about prices and difficulty trading across locations. Electronic commerce has the potential to reduce these frictions by increasing price visibility and lowering transaction costs. The authors study how the diffusion of an electronic channel affected geographic trading patterns and price dispersion in the wholesale used vehicle market from 2003 to 2008. They find that buyers used the channel to shift their demand geographically to exploit price differences, which reduced geographic price dispersion, but that sellers distributed supply due to electronic markets; however, the authors find little evidence that this led to reduced geographic price dispersion. The insight for management: Electronic commerce seems to affect price via changing demand patterns more than supply strategies.

Latent Homophily or Social Influence? An Empirical Analysis of Purchase Within a Social Network (p. 454)

Liye Ma, Ramayya Krishnan, Alan L. Montgomery

Latent homophily means that consumers who are connected to one another are likely to have similar characteristics and product preferences. Social influence refers to the ability of one consumer to directly influence another consumer’s decision based on their communication. Consumers who are close to one another in a social network often make similar purchase decisions; which is it—latent homophily or social influence? The authors present an empirical study of purchases of caller ring-back tones using data from an Asian mobile network that predicts consumers’ purchase timing and choice decisions. The insight for management: There are strong influence effects and latent homophily effects in both the purchase timing and product choice decisions of consumers.

Timing of Product Allocation: Using Probabilistic Selling to Enhance Inventory Management (p. 474)
Scott Fay, Jinhong Xie

If sellers hold back product to potential sales in favor of a more certain alternative, could this affect inventory management practices? The authors pay special attention to the impact of the timing of product assignment to buyers of probabilistic goods. In practice, sellers tend to offer probabilistic products only after major demand uncertainty has been resolved. By deferring product assignments, a firm is able to obtain more information about demand for each specific product before deciding which product to assign to consumers. The authors show that it may be more effective if the firm allocates products before knowing which product will be more popular and, thus, scarcer. Interestingly, they show that it can be more profitable for the firm to allocate products to consumers before, rather than after, learning the true demand for a product. This is because, although early allocation imposes higher inventory costs (as a result of larger required inventory levels), it also enables the firm to charge higher prices. The results also reveal that, when introducing probabilistic goods, the firm should order less inventory if costs are very low but more inventory otherwise. The insight for management: As an inventory-management mechanism, probabilistic selling can create a win-win situation, both improving profit and increasing social welfare.