



DEPARTMENT OF MARKETING

2006-07 Research Highlights (07/2006 to 06/2007)

Dear Colleague,

We are pleased to present the research accomplishments of faculty members in the Department of Marketing at Lehigh University for the academic year 2006-2007.

Our colleagues are researching exciting questions that expand the frontiers of knowledge and are relevant to managerial practice. Because this research often incorporates knowledge and advances from other fields, the research findings can relate to marketing and other disciplines. We have included descriptions of research projects and research interests of faculty members. We seek out areas of common interest and potential collaboration with colleagues from other departments at Lehigh and beyond.

We look forward to hearing from you.

With best regards,

K. Sivakumar
Arthur Tauck Chair, Professor of Marketing, and Chairperson
Department of Marketing

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PUBLISHED OR ACCEPTED ARTICLES (PLEASE SEE ABSTRACTS ON PAGE 3)**Journal Articles**

- Ravi Chitturi** (Co-authors: Raj Raghunathan and Vijay Mahajan) (forthcoming), "Form Versus Function: How the Intensities of Specific Emotions Evoked in Functional Versus Hedonic Tradeoffs Mediate Product Preferences," *Journal of Marketing Research*.
- Reetika Gupta** (Co-author: Sucheta Nadkarni) (forthcoming), "A Task-Based Model of Perceived Website Complexity," *Management Information Systems Quarterly*.
- K. Sivakumar** (Co-authors: Sangphet Hanvanich and G. Tomas M. Hult) (2006), "The Relationship of Learning and Memory with Organizational Performance: The Moderating Role of Turbulence," *Journal of the Academy of Marketing Science*, 34 (4), 600-612.
- K. Sivakumar** (Co-author: Subroto Roy) (2007), "The Role of Information Technology Adoption in the Globalization of Business Buying Behavior: A Conceptual Model and Research Propositions," *Journal of Business & Industrial Marketing*, 22 (4), 220-227.
- K. Sivakumar** (Co-authors: Zhen Zhu, Cheryl Nakata, and Dhruv Grewal) (forthcoming), "Self-Service Technology Effectiveness: The Role of Design Features and Individual Traits," *Journal of the Academy of Marketing Science*.

INVITED PRESENTATIONS

- K. Sivakumar** (June 2007), "Price and Quality Tier Brand Competition: Perspectives and Insights," *The Pricing Institute's 20th Anniversary Conference on Celebrating Excellence through the IMPACT of Pricing*.
- K. Sivakumar** (March 2007), "Asymmetric Price-Tier Competition: An Alternative Explanation and Pricing Implications," *Temple University*.

CONFERENCE PRESENTATIONS (PLEASE SEE ABSTRACTS ON PAGE 5)

- Ravi Chitturi** (Co-authors: Raj Raghunathan and Vijay Mahajan) (December 2006), "Emotions By Design: Can We Design Our Way to Better Emotional Experience and Loyalty?" PDMA 2006 Conference on Innovation, December 20-22 2006, *Chennai, India*
- Ravi Chitturi** (Co-authors: Raj Raghunathan and Vijay Mahajan) (December 2006), "Emotions By Design: Can We Design Our Way to Better Emotional Experience and Loyalty?" 2007 Marketing Conference, *Indian Institute of Management, Ahmedabad, India*. January 03-05 2007.
- Reetika Gupta** (Co-author: Sankar Sen) (September 2006), "Learning and Liking through Comparison: The Influence of multiple Analogies on New Product Interpretations and Preferences," Special Session (Chair), Association for Consumer Research Conference.
- Reetika Gupta** (Co-author: Stephen J. Gould) (September 2006), "Is it Really Complicated? Motivational Differences in the Effects of Structural and Outcome Complexity on Consumers' Web site and Brand Evaluations," Association for Consumer Research Conference.

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Reetika Gupta (Co-authors: Caglar Irmak, Peter Gollwitzer, Gabriele Oettingen) (June 2007), "Management of Web site Complexity in Pre- and Post-Decisional Goal Orientations," INFORMS Marketing Science Conference.

Nevena Koukova (Co-author: Joydeep Srivastava) (June 2007), "When Numbers are Talking: Effects of Message Framing on Judgments of Risk and Behavioral Intentions," INFORMS Marketing Science Conference.

AWARDS & HONORS

K. Sivakumar, Martin J. Whitman Distinguished Ph.D. Alumni Award, Whitman School of Management, Syracuse University – 2007.

RESEARCH LEADERSHIP

K. Sivakumar, Member, International Advisory Committee, Product Development & Management Association India International Conference, 2006 and 2007.

K. Sivakumar, Chair, *Product Development & Management Association* Annual Research Competition, 2006.

EDITORIAL BOARD ACTIVITIES

Ravi Chitturi, Guest Editor for *Design & Emotion Society*

K. Sivakumar, Editorial Board Member of six scholarly journals

REPRINTS/ CITATIONS

Jim Maskulka's 1999 chapter titled "Outdoor Advertising: The Brand Communication Medium" will be reprinted in the 8th edition of *Advertising Principles and Practice*, an introductory textbook published by Prentice Hall.

During 2006-07, marketing faculty members' research papers have been cited several times in refereed journals in disciplines such as Accounting, Economics, Engineering, Management, Marketing, Technology, and some interdisciplinary journals. This demonstrates the cross-disciplinary impact of research by marketing faculty members.

ABSTRACTS OF PUBLISHED/ACCEPTED PAPERS

Ravi Chitturi (Co-authors: Raj Raghunathan and Vijay Mahajan) (forthcoming), "Form Versus Function: How the Intensities of Specific Emotions Evoked in Functional Versus Hedonic Tradeoffs Mediate Product Preferences," *Journal of Marketing Research*.

This paper examines the emotional and behavioral consequences of making functional vs. hedonic tradeoffs. Building on the proposed correspondence between functionality and prevention-focus and hedonics and promotion-focus (Chernev 2004), the authors predict that contexts involving functional vs. hedonic tradeoffs evoke a variety of both negative and positive emotions, including guilt/anxiety, sadness/disappointment, cheerfulness/excitement, and confidence/security. These predictions are confirmed. Further, an analysis of the intensities of these specific emotions reveals the following additional insights: (1) under conditions where the options in a choice-set meet or exceed both functional and hedonic

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cutoffs, consumers attach greater importance to the hedonic attribute, and (2) whereas the functionally superior option is preferred in choice tasks, the hedonically superior one is preferred in willingness-to-pay tasks.

Reetika Gupta (Co-author: Sucheta Nadkarni) (forthcoming), "A Task-Based Model of Perceived Website Complexity," *Management Information Systems Quarterly*.

In this study, we propose that *perceived website complexity* (PWC) is central to understanding how sophisticated features of a website such as animation, audio, video, and rollover effects affect a visitor's experience at the site. Although previous research suggests that several elements of perceived complexity (e.g., amount of text, animation, graphics, range and consistency of web pages configuring a website, ease of navigating through it, and clarity of hyperlinks) affect important user outcomes, conflicting results yielded by previous research has created an important debate: *does complexity enhance or inhibit user experience at a website*. In this study, we draw on the task complexity literature to develop a broad and holistic model that examines the antecedents and consequences of PWC. Our results provide two important insights into the relationship between PWC and user outcomes. First, the positive relationship between objective complexity and PWC was moderated by user familiarity. Second, online task goals (goal-directed search and experiential browsing) moderated the relationship between PWC and user satisfaction. Specifically, the relationship between PWC and user satisfaction was negative for goal-directed users and inverted-U for experiential users. Based on the finding that users' task goals influence their perceptions of web site complexity, implications for the practice of website design are discussed.

K. Sivakumar (Co-author: Subroto Roy) (2007), "The Role of Information Technology Adoption in the Globalization of Business Buying Behavior: A Conceptual Model and Research Propositions," *Journal of Business & Industrial Marketing*.

Advances in information technology (IT) and the globalization of business are both realities and opportunities of the 21st century. In this article, we examine the role of IT in influencing the globalization aspect of business buying behavior and consider how this role is moderated by a number of contextual factors. We propose a conceptual model, develop research propositions, delineate managerial implications, and offer future research directions. We argue that globalization of industrial purchasing is a function of IT adoption by the buyer and supplier firms and the integration of the IT systems. The actual globalization of business buying behavior is moderated by global environmental factors like political stability, cultural distance, and availability of competitive local suppliers and firm level moderators such as the nature of the buy task, perceived risk, and digitizability. Our aim is to contribute to organizational buying literature, globalization and technology literature.

K. Sivakumar (Co-authors: Sangphet Hanvanich and G. Tomas M. Hult) (2006), "The Relationship of Learning and Memory with Organizational Performance: The Moderating Role of Turbulence," *Journal of the Academy of Marketing Science*, 34 (4), 600-612.

Extensive research has documented how firms' learning orientation and memory are related to organizational performance. The objective of this study is to examine the moderating role of turbulence on the relationships between firms' learning orientation and memory and their organizational performance and innovativeness. The study also provides insight into the differential relationships of firms' learning orientation and memory to their performance and innovativeness. The results suggest that the extent to which learning and memory are associated with organizational performance is contingent on the level of environmental turbulence. Specifically, under low environmental turbulence, learning orientation and organizational memory appear to be related to performance and innovativeness; however, under high environmental turbulence, only learning orientation is a useful predictor.

K. Sivakumar (Co-authors: Zhen Zhu, Cheryl Nakata, and Dhruv Grewal) (forthcoming), "Self-Service Technology Effectiveness: The Role of Design Features and Individual Traits," *Journal of the Academy of Marketing Science*.

Self-service technologies (SSTs), such as in-store kiosks, are increasingly prevalent and becoming a critical component of marketing. Researchers and practitioners alike have recognized the need to understand the effectiveness of these computer-based innovations for self-services-in particular, how to strengthen customers' perceived control over and evaluations of SSTs. Drawing on the resource-matching theory and the technology-based services and self services literature, the authors hypothesize the interactive effects of two SST design features—namely, comparative information and interactivity—on customers' perceived control and interface evaluations. The authors then propose that the interaction pattern is further moderated by two individual traits: prior experience and technology readiness. The hypotheses are tested in two separate computer-based experiments with representative samples of the general U.S. population in a shopping environment. The findings support the hypotheses, enhancing knowledge in this emerging domain and providing important implications for managers and researchers.

ABSTRACTS OF CONFERENCE PRESENTATIONS

Ravi Chitturi (Co-authors: Raj Raghunathan and Vijay Mahajan) (December 2006), "Emotions By Design: Can We Design Our Way to Better Emotional Experience and Loyalty?" 2007 Marketing Conference, *Indian Institute of Management, Ahmedabad, India*. January 03-05 2007.

The findings demonstrate that: 1) a positive experience with hedonic designs makes consumers feel greater excitement, cheerfulness, and delight whereas a positive experience with utilitarian designs makes consumers feel more secure and confident ; 2) a negative disconfirmation with utilitarian designs leads to greater customer sadness, disappointment and anger whereas a similar experience with hedonic designs leads to greater customer guilt and anxiety; 3) customer delight (anger) is significantly more responsive to hedonic vs. utilitarian design changes than customer satisfaction (dissatisfaction); and, 4) hedonic designs lead to greater positive word-of-mouth and repurchase intentions than utilitarian designs. Overall, the results show that the relative differences in the design of a product (hedonic vs. utilitarian) and the corresponding hedonic and utilitarian consumption benefits lead to significantly different emotional experiences and customer loyalty.

Reetika Gupta (Co-author: Sankar Sen) (September 2006), "Learning and Liking through Comparison: The Influence of Multiple Analogies on New Product Interpretations and Preferences," Special Session (Chair), Association for Consumer Research Conference.

While the use of analogy cues with their emphasis on structural relations has known to be effective in communicating the core functionality of new products, the use of a single analogy cue has its shortcomings. Specifically, in the absence of surface similarity between the new product and an analogy cue, consumers are often unable to retrieve the common functionality between the new product and the analogy cue. We use the theory of analogical encoding to show that the comparison and alignment of two analogy cues illuminates the common functionality, leading to superior knowledge transfer and greater product preference for the new product.

Reetika Gupta (Co-author: Stephen J. Gould) (September 2006), "Is it Really Complicated? Motivational Differences in the Effects of Structural and Outcome Complexity on Consumers' Web site and Brand Evaluations," Association for Consumer Research Conference.

As marketers spend significantly to enhance the aesthetics and sophistication of consumer experiences, they are increasing the complexity of interactive consumption environments (e.g. web sites). However, little is known about how

consumers react to such complexity, in terms of their evaluations. In this research, we examine two specific types of complexity: Structural Complexity is defined as the number of distinct cues at the web site that the consumer has to process, and Outcome Complexity is defined as the abstractness of icons and symbols that the consumer uses to navigate the web site. We focus on consumer motivations, to analyze if complexity will lead to negative or positive outcomes at a web site.

Reetika Gupta (Co-authors: Caglar Irmak, Peter Gollwitzer, Gabriele Oettingen) (June 2007), "Management of Web site Complexity in Pre- and Post-Decisional Goal Orientations," INFORMS Marketing Science Conference.

As marketers spend a lot of resources to enhance the aesthetics and sophistication of consumer experiences, they are increasing the complexity of web sites, defined as the number of distinct cues at the web site that the consumer has to process (Berlyne, 1960). However, little is known about how consumers react to such complexity, in terms of their task performance at the web sites. Drawing on the theory of mindsets (e.g., Heckhausen and Gollwitzer 1987), we theorize and show (through two completed studies) that the goal orientation in various phases of decision making (pre-decision, post-decision) determine the varied effects of complexity on consumers' task performance. Consumers in a pre-decision phase (e.g., searching for information to decide which brand of car to buy) display efficiency at a high complexity web site because in this phase they are receptive to variegated information. However, a high complexity web site poses a cognitive strain to consumers in a post-decision phase (e.g. searching for information about a brand of car they have decided to purchase) because consumers in this phase are focused only on specific information, suggesting that they will be more efficient at a low complexity web site.

The findings provide insights into how and why complexity triggers two distinct processes, leading to the varying task performance outcomes. From a managerial standpoint, the results of this research suggest that if marketers can assess the consumers' goal orientations at the web site, they can tailor and manage the complexity at a web site leading to favorable consumer task performances.

Nevena Koukova (Co-author: Joydeep Srivastava) (June 2007), "When Numbers are Talking: Effects of Message Framing on Judgments of Risk and Behavioral Intentions," INFORMS Marketing Science Conference.

In this paper we focus on the fact that consumers' judgments of risks may be highly susceptible to numerically framing of the "impact" information. Specifically, numerical framing may cause decision makers to respond differently to objectively equivalent descriptions of a problem (e.g., communicating the possibility that a computer will require repairs using relative frequency [1 out of 20] vs. probability [5%]). Building upon the cognitive-experiential self-theory (Epstein 1990) and the affect as information model (Schwarz and Clore 1983), we show that under negative (positive) attribute framing consumers are more likely (equally likely) to engage in risk-reducing behaviors under relative frequency as compared to percentage numerical framing, and this effect is mediated by perceived risk. We outline boundary conditions for the differential effect of numerical framing, and suggest how this effect can be minimized. We also relate the risk perceptions to behaviors relevant to policy makers and marketers (e.g., importance of a warranty and likelihood to buy a warranty). From a practical point of view, our study suggests how risk communications can be made more effective and instrumental in promoting positive and reducing negative consumer behaviors and outcomes. Specifically, consumers may be encouraged to engage in risk-reducing behaviors (e.g., breast self-examination, AIDS preventive behaviors) by using negative relative frequency framing in risk communications. Further, consumers may be made aware of framing techniques that marketers use to increase the likelihood of purchasing unnecessary products or services, and be educated on how to avoid excess spending (e.g., buying insurance, gambling).

RESEARCH INTERESTS OF MARKETING FACULTY

Franklin Carter, *Assistant Professor of Marketing*

Pharmaceutical Marketing, Salesforce Management, Diffusion of Innovation

Deepa Chandrasekaran, *Assistant Professor of Marketing* (Joined Lehigh in July 2007)

New products, Global Marketing Strategy, Consumer Innovativeness and Response Biases, Open Source Software Development and Historical Research

Ravi Chitturi, *Assistant Professor of Marketing*

Technology & Innovation, Design & Consumer Emotions, Brand Value & Marketing Strategy

Reetika Gupta, *Assistant Professor of Marketing*

Complexity in Interactive Consumption Environments, Consumer Learning of New Products

Nevena Koukova, *Assistant Professor of Marketing*

Pricing, Bundling, Digital Products, Consumer Decision Making

James Maskulka, *Associate Professor of Marketing*

Marketing Communications, Branding, Media Research

K. Sivakumar ("Siva"), *Arthur Tauck Chair, Professor of Marketing, and Chairperson*

Pricing, Global Marketing, Innovation Management

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