



DEPARTMENT OF MARKETING

2007-08 Research Highlights (07/2007 to 06/2008)

Dear Colleague,

I am pleased to present the research accomplishments of faculty members in the Department of Marketing at Lehigh University for the academic year 2007-2008.

My colleagues are committed to addressing exciting research questions that expand the frontiers of knowledge in managerially relevant domains. They incorporate knowledge areas from several other disciplines and the impact of their research also crosses disciplinary boundaries. 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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MARKETING AT LEHIGH
Student-Focused • Research-Oriented

PUBLISHED OR ACCEPTED ARTICLES (PLEASE SEE ABSTRACTS LATER IN THE REPORT)

Journal Articles

- Deepa Chandrasekaran** (Co-author: Gerard J. Tellis) (forthcoming), "Deepa Chandrasekaran and Gerard J. Tellis, "Global Takeoff of New Products: Culture, Wealth or Vanishing Differences," *Marketing Science*.
- Ravi Chitturi** (Co-authors: Raj Raghunathan and Vijay Mahajan) (2007), "Form Versus Function: How the Intensities of Specific Emotions Evoked in Functional Versus Hedonic Tradeoffs Mediate Product Preferences," *Journal of Marketing Research*, 44 (11), 702 - 714.
- Ravi Chitturi** (Co-authors: Raj Raghunathan and Vijay Mahajan) (2008), "Delight by Design: The Role of Hedonic and Utilitarian Benefits," *Journal of Marketing*, 72, (5), 48 - 63.
- Ravi Chitturi** (2008), "Antecedents of Brand Strength: Perceived Hedonic and Utilitarian Brand Benefits," *Journal of Global Brand Management*, 4, (2).
- Franklin Carter** and **Ravi Chitturi** (forthcoming), "Segmentation Based on Physician Behavior: Implications for Sales Forecasting and Marketing-Mix Strategy," *Journal of Personal Selling and Sales Management*, 29, (1).
- Reetika Gupta** (Co-author: Sucheta Nadkarni) (2007), "A Task-Based Model of Perceived Website Complexity," *Management Information Systems Quarterly*, 31 (3), 501-524.
- Reetika Gupta** (Co-author: Sertan Kabadayi) (forthcoming), "The Relationship between Trusting Beliefs and Web Site Loyalty: The Moderating Role of Consumer Motives and Flow," *Psychology and Marketing* (Special Issue on Online Consumer Behavior and Decision Making).
- Reetika Gupta** (Co-authors: James R. Coyle, Stephen J. Gould, and Pola Gupta) (forthcoming), "To Buy or To Pirate": The Matrix of Music Consumers' Acquisition-Mode Decision-Making, *Journal of Business Research*.
- Nevena T. Koukova** (Co-authors: P. K. Kannan and Brian T. Ratchford) (2008), "Marketing of Digital Products: Product Form Bundling," *Journal of Retailing*, 84 (2), 181-194.
- Nevena T. Koukova** (Co-author: Rebecca W. Hamilton) (forthcoming), "Choosing Options for Products: The Effect of Mixed Bundling on Consumers' Inferences and Choices", *Journal of the Academy of Marketing Science*, 36 (3), 423-433.
- K. Sivakumar** (2007), "Asymmetric Quality-Tier Competition: An Alternative Explanation," *Journal of Product and Brand Management*, 16 (6), 415-425.
- K. Sivakumar** (Co-authors: Zhen Zhu, Cheryl Nakata, and Dhruv Grewal) (2007), "Self-Service Technology Effectiveness: The Role of Design Features and Individual Traits," *Journal of the Academy of Marketing Science*, 35 (4), 492-506.

INVITED PRESENTATIONS

- Deepa Chandrasekaran** (Aug 2007), "Essays on the Turning Points of the Product Life Cycle", Presented at the panel discussion on Consumer Behavior, Meet Technology: New Insights from Doctoral Students and Dissertation Chairs, 2007 Summer Marketing Educator's Conference, Washington D.C.

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James Maskulka (January 2008), Invited to present a talk on the topic, “Advertising Management: Past, Present, Future” to the Hyderabad Management Association (HMA) in Hyderabad, India.

CONFERENCE PRESENTATIONS (PLEASE SEE ABSTRACTS LATER IN THE REPORT)

Reetika Gupta (Co-authors: Caglar Irmak, Peter Gollwitzer, Gabriele Oettingen) (April 2008), “Management of Web site Complexity in Pre- and Post-Decisional Goal Orientations,” Behavioral Decision Research in Management Conference (poster).

Nevena T. Koukova (Co-author: P. K. Kannan) (October 2007), “Designing Digital Products: The Role of Substitutability and Complementarity of Product Forms,” Association for Consumer Research Pre-Conference: Consumers Online, Memphis, TN.

K. Sivakumar (Co-Authors: Zhen Zhu, Cheryl Nakata, and Dhruv Grewal) (August 2007), “Fix it or Leave it: Customer Expectations, Intentions, and Reactions in Technology-Based Self-Service Failure and Recovery” American Marketing Association Summer Educators Conference.

K. Sivakumar (Co-Authors: Sangphet Hanvanich and Subroto Roy) (August 2007), “Inter-firm Collaboration, Cross Border Knowledge Transfer, And Firm Performance: An Empirical Study,” American Marketing Association Summer Educators Conference.

AWARDS & HONORS

Deepa Chandrasekaran, Christian and Mary Lindback Foundation’s 2008 Minority Junior Faculty Award.

K. Sivakumar (August 2007), Best Paper Award, Marketing Strategy Track, American Marketing Association Summer Educators’ Conference.

K. Sivakumar (August 2007), Best Paper Award, E-Commerce and Technology Track, American Marketing Association Summer Educators’ Conference.

K. Sivakumar, Top Ten Reviewer, *International Marketing Review* – 2005-2007.

CONFERENCE/SESSION ORGANIZATION

K. Sivakumar (September 2007), Organizer, Chair, and Moderator of the special plenary session on “Balancing Academic Rigor and Managerial Relevance in Innovation Research” Product Development and Management Association Research Forum.

RESEARCH LEADERSHIP

K. Sivakumar, Elected as the Vice President (Academic Affairs), Product Development & Management Association, 2008-2009. This is an international, interdisciplinary organization with some 3500 members.

EDITORIAL BOARD ACTIVITIES

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

K. Sivakumar, Editorial Board Member of six scholarly journals

REPRINTS/ CITATIONS

James Maskulka “Outdoor: An Effective Brand Communication Medium” published as a “Practical Tip” in *Advertising: Principles and Practice*, Moriarity, Mitchell, and Wells, Pearson /Prentice Hall 8th edition (2009).

During 2007-08, marketing faculty members’ research papers have been cited several times in refereed journals in disciplines such as Economics, Engineering, Management, Management Information Systems, Marketing, Production and Operations Management, Psychology, Technology Management, and some interdisciplinary journals. This demonstrates the cross-disciplinary impact of research by marketing faculty members.

ABSTRACTS OF PUBLISHED/ACCEPTED PAPERS

Deepa Chandrasekaran (Co-author: Gerard J. Tellis) (forthcoming), “Deepa Chandrasekaran and Gerard J. Tellis, “Global Takeoff of New Products: Culture, Wealth or Vanishing Differences”, *Marketing Science*.

The authors study the takeoff of 16 new products across 31 countries (430 categories) to analyze how and why takeoff varies across products and countries. They test the effect of 12 hypothesized drivers of takeoff using a parametric hazard model. The authors find that the average time to takeoff varies substantially between developed and developing countries, between work and fun products, across cultural clusters, and over calendar time. Products take off fastest in Japan and Norway, followed by other Nordic countries, the United States, and some countries of Midwestern Europe. Takeoff is driven by culture and wealth plus product class, product vintage, and prior takeoff. Most importantly, time to takeoff is shortening over time and takeoff is converging across countries. The authors discuss the implications of these findings.

Ravi Chitturi (Co-authors: Raj Raghunathan and Vijay Mahajan) (2007), “Form Versus Function: How the Intensities of Specific Emotions Evoked in Functional Versus Hedonic Tradeoffs Mediate Product Preferences,” *Journal of Marketing Research*, 44 (11), 702 - 714.

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 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.

Ravi Chitturi (Co-authors: Raj Raghunathan and Vijay Mahajan) (2008), "Delight by Design: The Role of Hedonic and Utilitarian Benefits," *Journal of Marketing*, 72, (5), 48 - 63.

What is the relationship between product design benefits (hedonic vs. utilitarian) and the post-consumption feelings of customer delight and satisfaction? The primary insights provided by this research are: 1) products that meet or exceed customers' utilitarian needs and fulfill *prevention* goals enhance customer satisfaction (e.g., a car with anti-lock brakes and vehicle stability assist); and, 2) products that meet or exceed customers' hedonic wants and fulfill *promotion* goals enhance customer delight (e.g., a car with panoramic sunroof and six speaker audio-system). Further, the research finds that the primary antecedent feelings of satisfaction are the prevention emotions of confidence and security provided by utilitarian benefits, while the primary antecedent feelings of delight are the promotion emotions of cheerfulness and excitement provided by hedonic benefits. Finally, the results show that delighting customers improves customer loyalty as measured by word-of-mouth and repurchase intent compared to merely satisfying them. The theoretical contribution and strategic insights provided by the research for product designers and marketers are discussed.

Ravi Chitturi (2008), "Antecedents of Brand Strength: Perceived Hedonic and Utilitarian Brand Benefits," *Journal of Global Brand Management*, 4, (2).

What are the antecedents of brand strength? In order for the chief marketing officer of a firm to identify and eliminate the sources of brand weakness and further improve the sources of brand strength, it is important to know the answer to this question. This paper studies the sources of brand strength along the two primary dimensions of customer benefits—hedonic and utilitarian. The results show that, 1) stronger brands are perceived by customers to offer greater hedonic benefits than utilitarian benefits; and, 2) weaker brands are perceived by customers to offer greater utilitarian benefits than hedonic benefits. The paper concludes with a discussion of the results and their implications for a firm's brand management strategy.

Ravi Chitturi (Co-authors: Franklin Carter) (forthcoming), "Segmentation Based on Physician Behavior: Implications for Sales Forecasting and Marketing-Mix Strategy," *Journal of Personal Selling and Sales Management*, 29, (1).

We calibrate a segmented diffusion model by incorporating the knowledge of physicians' prescription behavior using a sample of four product histories from the pharmaceutical industry. The results show that when compared to standard diffusion with retention model the segmented diffusion model based on the knowledge of physicians' prescription behavior has a better fit than models that are not based on physicians' prescription behavior. Our comparison also reveals a significantly different influence of marketing activity on potential innovator and imitator physicians across models.

Reetika Gupta (Co-author: Sucheta Nadkarni) (2007), "A Task-Based Model of Perceived Website Complexity," *Management Information Systems Quarterly*, 31 (3), 501-524.

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.

Reetika Gupta (Co-author: Sertan Kabadayi) (forthcoming), "The Relationship between Trusting Beliefs and Web Site Loyalty: The Moderating Role of Consumer Motives and Flow," *Psychology and Marketing* (Special Issue on Online Consumer Behavior and Decision Making).

This research i) examines how specific consumer motives (i.e., goal directed: searching for information, experiential: browsing for recreation) influence the trusting belief-loyalty relationship at a web site in a distinct manner and ii) investigates how the online flow experience in each of the motive states strengthens or weakens the trusting belief-loyalty relationship. The results suggest that the relative influence of specific trusting beliefs on loyalty varies based on the consumers' motives for visiting the web site. For consumers with an experiential motive, benevolence and integrity related beliefs were the key drivers of loyalty, while ability related beliefs were not. On the other hand, for consumers with a goal directed motive, the ability and integrity related beliefs were the key drivers of loyalty, while benevolence related beliefs were not that influential. Further, this research illustrates that when consumers with an experiential motive have a satisfying experience at a web site (i.e., high level of flow) the impact of the trusting beliefs on loyalty weakens. However, for consumers with a goal directed motive, the trusting beliefs continue to exert the same impact on loyalty across both high and low levels of flow.

Reetika Gupta (Co-authors: James R. Coyle, Stephen J. Gould, Pola Gupta) (forthcoming), "To Buy or To Pirate": The Matrix of Music Consumers' Acquisition-Mode Decision-Making, *Journal of Business Research*.

The decision to engage in music piracy may be preceded by consumer consideration of a wide range of issues. In this paper, we investigate the determinants of such piracy as embedded in a large matrix of acquisition-mode decision factors relevant to exchange theory, including economic, legal, ethical and consumer behavior aspects. This matrix depicts a number of interrelated factors and makes assessing the decision-making process regarding music piracy more contextual than previously considered. An empirical study of 204 American business students was conducted to test this matrix and the impact of the various factors was assessed. Implications for the issue of music piracy and future research regarding this decision-making matrix and exchange theory are provided. The significant factors predict whether or not exchange takes place between music consumers and the music industry.

Nevena T. Koukova (Co-authors: P. K. Kannan and Brian T. Ratchford) (2008), "Marketing of Digital Products: Product Form Bundling," *Journal of Retailing*, 84 (2), 181-194.

The retailing of information media either in a pure digital form or bundled with the conventional form has become increasingly common in product categories such as books, newspapers, music, etc. A general problem with these media is that much of the content that they offer is common to both conventional and digital formats. This makes the media inherently substitutes, and limits the attractiveness to consumers of acquiring both formats. However, the electronic and print formats often have advantages over one another in specific

usage situations. For example, a print book may be most suitable for casual reading, while an electronic version might be most suitable for locating specific passages. In this paper we investigate whether increased awareness of advantages that different forms may have over one another in different usage situations can increase demand for buying both items simultaneously. We do this through an experimental manipulation where participants are provided either with communications that emphasize using the different forms in different situations, or using the different forms in the same situations. Employing book and newspaper subscription categories, we find that the “different usage situation” manipulation does significantly increase intent to purchase both print and electronic forms as long as the second item is discounted. In addition, we provide evidence that communicating different usage situations and pricing the forms differentially are likely to be effective strategies in selling information product form bundles.

Nevena T. Koukova (Co-author: Rebecca W. Hamilton) (forthcoming), “Choosing Options for Products: The Effect of Mixed Bundling on Consumers’ Inferences and Choices”, *Journal of the Academy of Marketing Science*.

For product categories such as cars, computers, vacation packages, and new homes, consumers usually choose not only the product itself, but also various options for the product. Sellers decide how to present these options to consumers, and they often sell options both individually and in bundles (mixed bundling). In this research, we examine how mixed bundling affects consumers’ inferences about the options and choices among the options. We demonstrate that as long as the seller’s motives for bundling options are not perceived to be negative by consumers, options offered both individually and in bundles are perceived to be more important and are more likely to be chosen than options offered only individually.

K. Sivakumar (2007), “Asymmetric Quality-Tier Competition: An Alternative Explanation,” *Journal of Product and Brand Management*, 16 (6), 415-425.

Existing research has extensively focused on the phenomenon of high-quality brands benefiting more than low-quality brands from price reductions. This article offers a new explanation for quality-tier competition by using price–quality tradeoffs between brands in different tiers, and it demonstrates the results using scanner panel data. Implications for theory development and managerial practice are delineated.

K. Sivakumar (Co-authors: Zhen Zhu, Cheryl Nakata, and Dhruv Grewal) (2007), “Self-Service Technology Effectiveness: The Role of Design Features and Individual Traits,” *Journal of the Academy of Marketing Science*, 35 (4), 492-506.

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

Reetika Gupta (Co-authors: Caglar Irmak, Peter Gollwitzer, Gabriele Oettingen) (April 2008), "Management of Web site Complexity in Pre- and Post-Decisional Goal Orientations," Behavioral Decision Research in Management Conference.

This research focuses on consumers' goal orientations during different phases of decision making (pre-decisional, post-decisional) to analyze how deliberative and implemental mindsets evoked in these two phases affect consumer information processing in shopping environments. In two studies, we illustrate that although consumers in a deliberative mindset prefer websites with higher amount of information, their recall performance does not change with the amount of information presented at the website; on the other hand, although consumers in an implemental mindset recall information better at websites with lower amount of information, their website evaluations do not change with amount of information at the website. Further, we show that consumers can process types of information that are not congruent with their mindset when they have their preferred amount of information at a web site.

Nevena T. Koukova (Co-author: P. K. Kannan) (October 2007), "Designing Digital Products: The Role of Substitutability and Complementarity of Product Forms," Association for Consumer Research Pre-Conference: Consumers Online, Memphis, TN.

Technological advances enable companies to offer products such as books, music and movies in electronic form over the Internet, in addition to providing content in traditional forms (print books, tapes, CDs and DVDs, etc.). The emergence of such multiform products presents interesting challenges for marketers, including how to design the digital forms. Unlike the standard product line design problem where the product line items are generally viewed as substitutes, the product forms in content design context could also be complements. Hence, the perception of substitutability and complementarity can be instrumental in forming relative preferences for each of the individual product forms and the bundle, and in choosing between them, significantly affecting the revenue streams generated by the firms. In this paper we examine how customers' perceptions of substitutability and complementarity and actual purchases are impacted by design and usage factors. Specifically, we investigate how perceptions and purchase likelihood are affected by the relative attributes of the forms, the perceived similarity of the forms, and their specific usages. Based on data from an online field experiment with actual consumers, we demonstrate the importance of designing forms with similar relatively high attribute qualities so that the bundle becomes more attractive. Our results show that the higher the perceived similarity between the forms on the attribute quality dimensions, the more complementary they are viewed, and the higher the purchase probability of the product form bundle. Our study provides important insights to marketers on how to design different forms of content.

K. Sivakumar (Co-Authors: Zhen Zhu, Cheryl Nakata, and Dhruv Grewal) (August 2007), "Fix it or Leave it: Customer Expectations, Intentions, and Reactions in Technology-Based Self-Service Failure and Recovery" American Marketing Association Summer Educators Conference.

This study explores customers' reactions to self-service technology (SST) failures. Drawing from the attribution and expectancy theory, the authors probe the psychological process customers undergo during SST failures and, in particular, the formation of customers' expectations for fixing the problem by themselves. The authors also examine the behavioral intentions and actual reactions of customers in recovering SST failures. In addition, they investigate the impacts of perceived interface interactivity and customers' innovativeness on this process. They test the research model and hypotheses through a computer-based experiment in car-

rental kiosk and intelligent ATM settings, in which 296 subjects participated in four shopping malls in the United States. The results provide support for most of the hypotheses. The authors conclude with a discussion of the theoretical and managerial implications of the findings.

K. Sivakumar (Co-Authors: Sangphet Hanvanich and Subroto Roy) (August 2007), "Inter-firm Collaboration, Cross Border Knowledge Transfer, And Firm Performance: An Empirical Study," American Marketing Association Summer Educators Conference.

This paper investigates the relationship between interfirm collaboration activity and two key collaboration characteristics (i.e., strategic interdependence and repeated partnering) and the level of cross-border knowledge transfer. The study also scrutinizes how the level of cross-border knowledge transfer is related to a firm's financial performance. Using longitudinal data, the paper shows that both the level of interfirm collaboration activity and the level of strategic interdependence positively influence the level of cross-border knowledge transfer. The results also suggest that the level of repeated partnering fosters cross-border knowledge transfer, but beyond a certain point, it decreases the knowledge transfer level. Finally, the results show that the financial performance impact of cross-border knowledge transfer is significantly positive until the knowledge transfer level reaches a certain level. The results point to strategic implications of cross-border knowledge transfer, which could be obtained through a well-designed portfolio of alliance partners and cross-border knowledge transfers.

RESEARCH INTERESTS OF MARKETING FACULTY

Deepa Chandrasekaran, *Assistant Professor of Marketing*

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, Corporate Social Responsibility

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