

MARKETING MANAGEMENT JOURNAL

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FROM THE EDITORS

The Marketing Management Journal, first published in Fall, 1991, is dedicated as a forum for the exchange of ideas and insights into the marketing management discipline. Its purpose was and continues to be the establishment of a platform through which academicians and practitioners in marketing management can reach those publics that exhibit interests in theoretical growth and innovative thinking concerning issues relevant to marketing management.

Submissions to *The Marketing Management Journal* are encouraged from those authors who possess interests in the many categories that are included in marketing management. Articles dealing with issues relating to marketing strategy, ethics, product management, communications, pricing and price determination, distribution sales management, buyer behavior, marketing information, international marketing, etc. will be considered for review for inclusion in *The Journal*. *The Journal* occasionally publishes issues which focus on specific topics of interest within the marketing discipline. However, the general approach of *The Journal* will continue to be the publication of combinations of articles appealing to a broad range of readership interests. Empirical and theoretical submissions of high quality are encouraged.

The Journal expresses its appreciation to the administrations of the College of Business Administration of the University of Akron and the College of Business Administration of Missouri State University for their support of the publication of *The Marketing Management Journal*. Special appreciation is expressed to Lynn Oyama of HEALTHCAREfirst, Inc. and the Center for Business and Economic Development at Missouri State University for contributing to the successful publication of this issue.

The Co-Editors thank *The Journal's* previous Editor, Dub Ashton and his predecessor David Kurtz, *The Journal's* first Editor, for their work in developing *The Marketing Management Journal* and their commitment to maintaining a quality publication.

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Scope and Mission

The mission of *The Marketing Management Journal* is to provide a forum for the sharing of academic, theoretical, and practical research that may impact on the development of the marketing management discipline. Original research, replicated research, and integrative research activities are encouraged for review submissions. Manuscripts which focus upon empirical research, theory, methodology, and review of a broad range of marketing topics are strongly encouraged. Submissions are encouraged from both academic and practitioner communities.

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CUSTOMER RESPONSE MODELS: WHAT DATA PREDICTS BEST, HARD OR SOFT?

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The concept of marketing segmentation emerged in the 1950s with simple demographic and psychographic components. With the advent of the information age and intensified competition, marketers have adapted more sophisticated segmentation approaches such as level of customer profitability. While both of these segmentation approaches are widely accepted, researchers have noted the need to combine these methods to enhance the current understanding of customer response models. The goal of this research is to test such a model in order to offer marketers a more efficient and effective way to tailor their marketing campaigns and allocate resources. This study demonstrates the added value of incorporating both hard (actual customer purchase) data with the softer (demographic and psychographic) data. In order to conduct the analyses, a large database was secured of over 175,000 customer purchases over a two-year time span. Within the database, each individual consumer purchase was matched against advertising exposure as well as demographic and psychographic data available from secondary sources. The goal is to not only build an applicable customer response model, but more importantly, to examine comparative models in order to assess the relative importance and contribution of each type of data. The purpose of this analysis is to suggest predictive, more cost effective, customer response profiles for both practitioners and academics struggling to better understand how to predict consumer behavior.

INTRODUCTION

Traditionally, businesses have searched for the most expeditious and accurate ways to identify those customers who are most likely to make initial and repeat purchases of their products and services. Prior to automation these processes focused on personal one to one relationships with long term customers and their families. During the later part of the 20th century these personalized one to one relationships have shifted to more structured and, in many ways, more ambiguous groupings of individuals with similarly defined traits. In turn, the technological advances of the early 21st century have allowed marketers to blend the historical one to one relationships of the past with the macroscopic data driven segmentation schemes of the present. These groupings and segments have made the

customer identification processes more expeditious, but have they accurately identified the firm's most valued and valuable customers?

Even with the current technological advances, some of the most important questions businesses still face is which customers to target and how many resources to invest in each target market. While a plethora of customer information data is available, businesses need to know what data to use in order to answer a number of different strategic questions. In some cases, consumer shopping data (e.g., scanner data) have been used to attempt to model actual customer responses (i.e., hard data), while others have turned to syndicated data (i.e., soft data) in attempt to build possible segments of potentially profitable customers. In today's customer-centric environment the trend has shifted toward customer profitability and the lifetime value of a customer. Kumar (2006) indicates that evaluating the future profitability of customers is crucial for strategic planning of the firm, but feels that neither researchers nor

firms fully understand this concept. He posits that businesses still do not know which metric is best in assessing the lifetime value of a customer. Can customers be evaluated based only on their past contribution to the firm? Conversely, should analysts also consider other demographic and psychographic variables?

These questions and decisions are based on a rich array of segmentation and customer profitability research. The concept of marketing segmentation gained popularity in the 1950s with simple demographic segmentation (e.g., a target market of women aged 30-50). Shortly afterwards marketers attempted to increase their knowledge of their customer base through the use of psychographic or lifestyle segmentation (e.g., Prizm). With the advent of the current information age and intense competition facing many firms today, marketers have begun using more sophisticated behavioral segmentation approaches, such as customer profitability (e.g., A, B, and C accounts) and customer lifetime value (CLV). Incorporating customer profitability into segmentation strategies has enabled businesses to improve the quality of their customer knowledge base and their marketing decisions (Niraj, Gupta and Narasimhan 2001). Thus, it appears that the probability a customer will choose to buy a company's products is predicated on a wide range of variables and segmentation schemes, including demographic and psychographic data, past purchasing behavior, and the nature and quantity of the businesses' contact with the customer (Kumar, Venkatesan and Reinartz 2006).

Conceptualizing Customer Segmentation

Initially, marketing began with the simple notion of, "a good product will sell itself." The perfect example of this is Henry Ford's Model-T Ford. The car had only one model and only one color: black. In the 1950s, marketing segmentation was introduced to the discipline to reflect a change from mass marketing and the one size fits all approach to the new (at the time) marketing concept: targeting products and marketing campaigns to specific groups of

customers (Lemon and Mark 2006; Tedlow 1990). Since its adoption, marketers have most frequently used demographic (i.e., age, race, or gender) and psychographic dimensions (i.e., values, attitudes, and lifestyles) to segment customers into homogenous groups (Peltier and Scribrowsky 1997). Traditional segmentation methods have received widespread attention over the past sixty years and have become a fundamental principle of the marketing discipline. These target marketing and segmenting approaches are now commonplace with any firm looking to assess and analyze who their customers are, what products and services to produce, and how to best reach these customers. While segmentation can be particularly valuable to a new company or a new product with no existing transaction data, such a specific focus can result in marketers overlooking key elements of profitability and its dynamics (Reinartz and Kumar 2000, 2002; Bolton, Lemon and Veroeff 2004; Thomas, Reinartz and Kumar 2004).

Marketing experienced a significant shift in the 21st century in order to adapt to changing markets, consumer behavior patterns, and new technologies available to researchers. Gone are the days of mass marketing and so too are the days of simplistic segmentation models (Thomas, Lewison, Hauser and Foley 2007). With such saturated hypercompetitive environments, marketers simply cannot compete any longer by utilizing simple standalone factors like demographics and psychographics. Consumers are becoming much more educated and sophisticated. Thus, marketers must also become more educated in terms of how to reach these customers. Likewise, much of the demographic and psychographic data is purchased as secondary data from syndicated companies and only available at the zip code level rather than at the individual consumer level.

Profitability Modeling

While traditional segmentation may help lead to higher revenues and responsiveness, they tend to be costly to build and maintain and, most

importantly, do not typically take into account profitability levels. Within the past two decades marketers began employing segmentation methods utilizing both retention rates and acquisition rates. In order to do so, analysts have turned to more behavioral types of data, such as consumer purchase data. In fact, many times this type of data is already available to the company via their internal databases. Terms like key account management and customer profitability have emerged as markets began segmenting their customers based on continuums from the most profitable to the least profitable customers. Initial models were very simplistic and required little information and statistical analyses.

The RFM method (i.e., recency, frequency, and monetary value) has been one of the most widely used methods for identifying the most profitable customers (Keiningham, Aksoy and Bejou 2006; Hughes 1996). Based on the assumption that past purchase behavior can be utilized to predict and segment a firm's most profitable customers, the premise of the model is that the most recent, most frequent, and largest spending customers are the best customers since it is assumed they will act similarly in the future as well. The belief is that these customers are also probably the most profitable ones (Keiningham, Aksoy and Bejou 2006). Many companies continue to use this basic approach to identify segments of customers, such as the A, B, and C accounts. For example, Zeithaml, Rust and Lemon (2001), suggest segmenting customers into four different tiers: platinum, gold, iron, and lead. Numerous other comparable typologies have been used such as with banks that rate their customers from a "P1" for most profitable to a "P5" for not at all profitable.

Firms have also turned toward utilizing total revenue approaches where total sales dollars from each customer are identified and analyzed in order to optimize profitability. However, correlating revenue for each customer with profitability is very risky and, in many cases, an inaccurate task. For example, "lead customers" mentioned above are those that continually cost

the company more money. They demand more attention than their spending warrants and are many times big complainers, which in turn ties up too much of a firm's resources (Zeithaml, Rust and Lemon 2001).

The analytical shift toward actual customer purchase histories and the evaluation of customer profitability appears to be a step in the right direction. What a customer actually purchases is most likely a better determinant of future behavior than macroscopic variables such as age or race. However, these methods are still subject to the problem that the data models are based on past performance. What is needed is a forward-looking metric of the stream of profits (or losses) that a customer can be expected to contribute to the firm: in essence, the net present value of a customer's future stream of earnings or customer lifetime value (Keiningham, Aksoy and Bejou 2006).

Customer Lifetime Value (CLV) Segmentation

The difficulties associated with identifying valuable data, combined with the need to maximize revenue, has led to the segmentation approach referred to as Customer Lifetime Value (CLV) based segmentation. In its simplest form, CLV represents the present value of benefits less the burdens from customers (Dwyer 1989; Bolton, Lemon, Verhoef 2004). Dwyer (1989) and Blattberg and Deighton (1996) were some of the first marketing researchers to suggest the need to combine both customer acquisition and retention costs into the same analysis model. In terms of retention costs, these models incorporate marketing costs that are incurred for every customer in each period. Then, in its most basic formulation, the net present value of these earnings produces the resultant CLV (Keiningham, Aksoy and Bejou 2006; Dwyer 1989).

However, even though the premise of CLV seems simple at face value, the actual assessment of CLV is a complicated task. It is very difficult to precisely assess some of the

needed variables, such as, future revenues, expenditures, and churn statistics. Nevertheless, with the rapid growth of database mining, the vast availability of data on customers, and the abundance of models available, the task of assessing CLV is becoming widely accepted (Libai, Narayandas and Humby 2002; Kumar, Venkatesan and Reinartz 2006; Lemon and Mark 2006). In short, this segmentation approach is rapidly becoming accepted as one of the most preferred dimensions for grouping customers, as well as a basis to determine proper allocation of marketing expenditures (Lemon and Mark 2006; Libai, Narayandas and Humby 2002; Bolton, Lemon and Verhoef 2004). Furthermore, CLV based segmentation can also aid marketers in determining what segments they should (or should not) try to create a more profitable relationship with, as well as how to achieve that relationship (Johnson and Selnes 2004; Zeithaml, Rust and Lemon 2001; Libai, Narayandas and Humby 2002; Lemon and Mark 2006; Verhoef and Donkers 2001).

Customer Response Profitability Modeling

According to many researchers, evidence suggests that firms are increasingly relying on long-term customer profitability models to guide marketing strategy decisions (e.g., Libai, Narayandas and Humby 2002; Helf 1998; Peppers and Rogers 1997). Companies are also more and more integrating customer lifetime value (CLV) models into their marketing decisions (such as number of advertisements) in order to ensure that their strategies are effective, thus, optimizing their marketing mix across consumer segments (Libai, Narayandas and Humby 2002; Blattberg, Getz and Thomas 2001; Mulhern 1999; Rust, Zeithaml and Lemon 2000; Zeithaml 2000). However, since CLV modeling research is still in its infancy, researchers and practitioners continue to struggle with how to best assess and manage individual, as opposed to company level, brand level, or product level profitability over time, along with which data are the most valuable in terms of making these predictions (Libai, Narayandas and Humby 2002).

According to Keiningham, Aksoy and Bejou (2006), a serious concerted effort to truly understand individual customer profitability is only a decade old. In fact, they believe, "most firms today still would be hard pressed to say that they have a good understanding of their customers' profitability at the individual level" (2006, p. 37).

These implications are profound! Companies continue to waste precious time and resources in order to target unprofitable accounts. Thus, managers are currently faced with two dilemmas, (1) the fact that CLV and customer profitability research is still in its infancy and is in need of refinement, and (2) how much data and time is really necessary before appropriate targeting decisions can be made? While it is essential to advance the customer profitability knowledge base, in order to successfully do this, it is just as valuable to explain to managers the relative importance of each type of data to their decision making processes.

Current Customer Response Modeling Limitations

Since the majority of CLV modeling is barely more than a decade old, there is much room for improvement. As firms continue to improve their abilities to track and calculate customer lifetime value, there are several issues that need to be better understood. While the topic began to receive attention in the direct marketing literature in the 1990s (Dwyer 1997), only recently have a number of sophisticated mathematical models been proposed to advance the precision of CLV calculation (e.g., Ching, Ng, Wong and Altman 2004; Gupta, Lehmann and Stuart 2004; Jain and Singh 2002; Kumar, Ramani and Bohling 2004; Schmittlein and Peterson 1994; Shih and Liu 2003). CLV models have also advanced very recently in that they have evolved from aggregate measures to individual level calculations (Keiningham, Aksoy and Bejou 2006; Kumar, Ramani and Bohling 2004; Libai, Narayandas and Humby 2002; Venatesan and Kumar 2004; Hogan, Lemon and Rust 2002).

According to Hogan, Lemon, and Rust (2002), a needed change is to develop a truly dynamic individual customer profitability model. Although current CLV models claim to assess the value of a customer, most of the models in the literature still assess the “average” value of a customer and not individual level data (e.g., Blattberg and Deighton 1996; Blattberg, Getz and Thomas 2001). According to Hogan, Lemon and Rust (2002), average valuation models are unable to support the marketing decision making that increasingly occurs at the individual level. Likewise, Libai et al. (2002) indicate that current CLV models also suffer because they do not incorporate any variables other than various profitability statistics. Libai et al. (2002) suggest that researchers should incorporate demographic and psychographic variables into CLV models to further understand customer profitability. They use the example of family lifecycle and explain that it has been demonstrated that the changing needs of the family at various lifecycle stages affect its potential profitability (Javalgi and Dion 1999). Additionally, firms seeking to implement CLV models into their decision making have other challenges as well. According to Lemon and Mark (2006) there are multiple issues with CLV modeling ranging from data and analysis, strategy development, program implementation, and evaluation. According to the authors, while our mathematical computing power has expanded, researchers still need to understand some of the more practical issues dealing with CLV models. For example, what do the models tell managers to do in terms of resources allocation and how should the CLV modeling results affect strategies? More importantly, what type of data is the best to use in order to develop sound analytic tools?

Therefore, the purpose of this study is to evaluate comparative models in order to understand which type of data adds more value to the CLV models. Actual consumer transaction and sales data is termed “hard” data, whereas, individual consumer characteristics such as demographics and psychographics is termed “soft” data.

RESEARCH DESIGN AND METHODOLOGY

In light of the great importance of both traditional demographic and psychographic segmentation, as well as individual customer profitability response models, it is important that the two fields be integrated to produce even more powerful buyer behavior models. However, the successful combination of the two segmentation approaches is extremely difficult for numerous reasons, including: customer switching/fluctuation/changing (Rust, Lemon and Zeithaml 2004; Reinartz and Kumar 2000; Libai, Narayandas and Humby 2002), different drivers of customer behavior (Lemon and Mark 2006), different behavior patterns/paths in the decision process (Lemon and Mark 2006), the evolution of the relationship between customer and the firm (Johnson and Selnes 2004; Libai, Narayandas and Humby 2002), instability of segment membership (Lemon and Mark 2006), the limitation of mathematical models used to interpret data (Kumar, Venkatesan and Reinartz 2006), firms inability to calculate CLV and inability to forecast customer changes (Lemon and Mark 2006), the minimal correlation between traditional segmentation methods and profitability (Lemon and Mark 2006), the difference in cost of serving customers (Lemon and Mark 2006), the unstable relationship between customer thresholds and customer characteristics (Mittal and Kamakura 2001), and the variation of the dynamics that create value in different industries (Zeithaml et al. 2006).

The integration of analyzing both “hard” and “soft” types of data within the same model is desirable because it will look at between segment heterogeneity and within segment homogeneity. An integrated approach also will allow marketers to examine more dynamic, individual models. Marketers are concerned about getting the most money (or sales) they can for the least amount of expenditures (advertising dollars, product developments costs, etc.) required. With a two level data segmentation approach, marketers can both

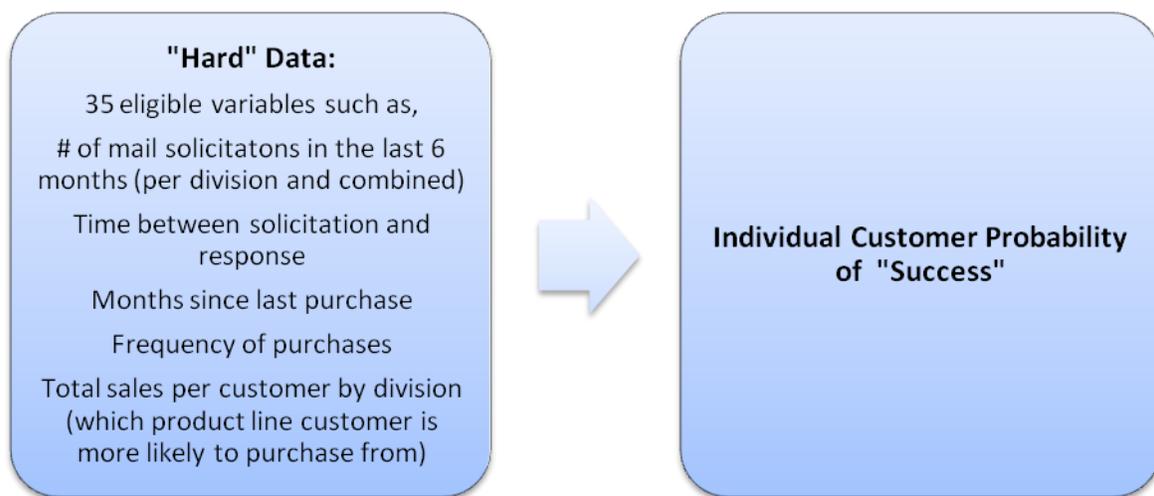
analyze and target homogeneous segments and find the most preferred segments that maximize profits by looking at within segment profitability and response. The goal though is not to replace traditional segmentation strategies based analyzing only one level of data, rather the plan is to integrate the traditional segmentation approach (i.e., based on soft data) with the customer profitability modeling approach (i.e., hard data). In many academic studies, passing comments have been made about this duel approach (Kumar, Venkatesan and Reinartz 2006; Lemon and Mark 2006; Zeithaml et al. 2006). The closest model found was performed by Mittal and Kamakura (2001) who developed a model that captured the relationship among “rated satisfaction, true/latent satisfaction, repurchase behavior, and consumer characteristics” (Mittal and Kamakura 2001, p.136). Although they provided a useful model to examine the relationship among these factors, they did not look at these factors in relationship to profitability.

provides the most valuable predictions. Given that marketing budgets are so tight and managers must be accountable for every dollar they spend, it is imperative to not only have a fully integrated model to predict consumer response, but also to have knowledge of the statistical value that each type of data adds to a model. In other words, why pay for demographic and psychographic data, if customer transaction data truly provides the most powerful statistical predictions? Conversely, if consumer transaction data does not do much for prediction, why spend hours combing through it? It all comes down to the age old question of what is best for limited time and limited resources.

What is of even further importance to marketers is understanding which of the two types of data

For the purposes of this study, the CLV model will enhance existing literature by utilizing individual data for both customer response and for the “soft” demographic and psychographic variables. In addition, the model uses rich customer purchase data rather than dichotomous transaction codes for the independent variables. This is important for managers and researchers alike, who need to understand consumer behavior segments and

FIGURE 1:
Alternative Models for Predicting Customer Response



Model A: “hard” predictors
Model B: “soft” predictors

make important resource allocation decisions within the firm. Also, in addition to refining existing customer response models, this study also builds comparative models in an effort to save executives time and money. As a result, this study postulates the following:

P₁: The added value of the demographic and psychographic data to the customer response model will be insignificant.

These alternative models are depicted in Figure 1.

A secondary outcome will to develop and test a model that investigates how differences in customer characteristics (demographics and psychographics) affect (1) purchase, (2) repurchase, and (3) the likelihood to respond to a direct mailing. Previous segmentation studies show that customers with different characteristics have systematically different thresholds to advertisements and response biases. The extent to which one's purchase behavior, repurchase behavior, and response to ads should vary systematically. Thus, a second postulate is:

P₂: Future profitability can be predicted using (a) past profitability, (b) timing of customer response to direct mailers, and (c) demographic and psychographic variables.

Although there are several challenges with integrating traditional segmentation and customer response data, this research builds upon previous research and offers marketers a more efficient and effective way to tailor their marketing campaigns and allocate resources. In order to do so, a database has been secured of over 175,000 customer purchases over a two year time span. All purchases were made via direct marketing methods. For all consumer responses modeled, the customers were targeted either through direct mail solicitations, Internet web sites, or television infomercials. Purchases were made through the company and sent to the customer through the mail. The purchased products in the sample represent many product categories in consumer durables and non-durables. Products cross many product

categories including jewelry, heaters, collectable coins, and diet products. Next, each individual purchase was matched with advertisements received, time from advertisement to purchase, and a large amount of demographic and psychographic data acquired from a major national vendor of data.

To create the dependent variable for the model, a contribution variable was created as a function of backend, lifetime customer sales. To be able to demonstrate P1 we created two categories: customers with contribution, and all other customers. We then modeled the success event. Further models can be developed to tailor our interest on particular customer groups. For example, within the success category we could model the high spenders, or in the failure category we could model the negative group which are customers solicited without any response.

As noted in Figure 1, Model A was created using inhouse, quantitative, independent variables, or so-called "hard" data. Model B utilized the matched demographic and psychographic data acquired. Model C used both the "hard" data and the "soft" data all as predictors of customer contribution. Model A began with 35 eligible independent variables, Model B with 39 eligible independent variables, and Model C with 74 eligible independent variables. (Given the multitude of variables, individual equations are not included in the paper.) Please refer to Tables 1, 2, and 3 for a full list of variables.

ANALYSIS

Strong correlations between variables will result in the existence of multicollinearity and this could cause parameter estimation problems. To analyze multicollinearity, Variance Inflation Factor Analyses were conducted. In the case of logistic regression, values greater than 2.5 could be problematic (Allison 1999). Thus, some variables causing multicollinearity were dropped. The remaining eligible variables had most VIFs ranging around 1.0 or 2.0.

For all models, data were analyzed via a

backward elimination logistic regression. This method initially evaluates all the variables, removes the first variable which contributes the least to the R², then the method moves to the rest of the variables repeating the first step. To stay in the model, any eligible variable had to meet a p < 0.05 significance level equivalent to a 95 percent confidence limit. For the final Model A, 15 variables remained in the model, for the final Model B, 6 variables remained in the model and for the final Model C, 20 variables remained in the model. In each case, the residual Chi-squared test

showed no evidence of model lack of fit with Pr>ChiSq values greater than 0.05. Tables 1, 2, and 3 detail the regression results for Models A, B, and C respectively.

Of importance here is the finding that all the traditionally accepted demographic variables, like age, race, gender, etc., and all of the psychographic variables fell out of this model. The remaining variables all have some association with the person's buying behavior. Chi-squared values show to what extent each variable contributes to the probability being

**TABLE 1:
Logistic Regression Results: Model A**

		<i>Model A: Hard Data</i>
<i>Independent Variables-</i>	<i>Predictive Power Rank</i>	<i>Estimate</i>
Lifetime company sales (ltpr)-	3	0.000222**
Months since last purchase from any division (recl)-	1	-0.0610**
Total sales in last 12 months in "c" division (csa12)-	9	-0.00016**
Total sales in last 12 months in "g" division (gsa12)-	14	0.00060**
Total sales in last 12 months in "o" division (osa12)-	11	0.00199**
Months since last purchase from "g" division (grec)-	15	0.00337*
Total sales in last 24 months in "o" division (osa24)-	12	-0.00108**
Number of mail solicitations in last 6 months from "c" division (coff6)-	4	0.0138**
Number of purchases in last 3 months in "g" division (gfreq3)-	8	0.01786**
Number of purchases in last 3 months in "c" division (cfreq3)-	2	0.1752**
Number of purchases in last 3 months in "o" division (ofreq3)-	13	0.5199**
Number of purchases in last 6 months in "o" division (ofreq6)-	5	-0.6527**
Number of purchases in last 24 months in "g" division (gfreq24)-	10	-0.0312**
Number of purchases in last 24 months in "s" division (sfreq24)-	6	0.0742**
Number of purchases in last 24 months in "c" division (cfreq24)-	7	0.0184**
* p < .05		
** p < .01		

TABLE 2:
Logistic Regression Results: Model B

		<i>Model B: Soft- Data</i>
<i>Independent Variables-</i>	<i>Predictive Power Rank</i>	<i>Estimate</i>
Household Income	4	- 0.00580**
Household with rental/interest/dividend income-	1	0.00512**
Income by ethnicity-	5	-0.00017
Those living in homes built prior to 1980-	3	-0.00216**
Median year house built-	6	0.000332*
Median real estate tax-	2	-0.00005**
* p < .05		
** p < .01		

modeled, allowing us to rank them by their predictive power.

The Wald Chi-square estimates give the importance of the contribution of each variable in the model. The higher the value, the more “important” it is. To better understand the magnitude of the differences in those estimates we calculated procentage relative weight values for each variable in Model C (“hard” and “soft” data). The “hard” data accounted for 97.787 percent of the total importance with the “soft” data contributing 2.233 percent of the model’s predictive power.

To evaluate how well each model predicts group membership in the dependent variable, we scored the datasets and calculated each decile’s predicted probabilities for Models A and C (see Graph 1). The added value provided by Model C when compared to Model A, evaluated from the percent of change point of view, was in the range of only 0.10 to 0.35 percent showing insignificant “soft” data contribution.

These findings strongly support the propositions, which state that “hard” data are much better predictors of future purchases than demographics and psychographics. The question that remains to be answered is whether the small added predictive power of the “soft” data justifies the additional costs associated with acquiring the third-party data and incorporating the information into a segmentation strategy. In other words, would different mail/do not mail decisions be made by incorporating these variables that could be directly attributable to increased profits?

DISCUSSION

The results from our analysis demonstrate several interesting and important findings for both academics and managers; however, the results come with their necessary caveats. All the data used in this study came from a single company. While the purchased products in the sample represent numerous product categories, therefore generalization is of course a concern. Targeting different groups of customers within categories might yield different results.

**TABLE 3:
Logistic Regression Results: Model C**

		<i>Model C: Hard and Soft Data</i>
<i>Independent Variables-</i>	<i>Predictive Power Rank</i>	<i>Estimate</i>
Lifetime company sales (ltpr)-	3	0.000223**
Months since last purchase from any division (recr)-	1	-0.0610**
Total sales in last 12 months in "c" division (csa12)-	12	-0.00015**
Total sales in last 12 months in "g" division (gsa12)-	18	0.00639**
Total sales in last 12 months in "o" division (osa12)-	14	0.00197**
Months since last purchase from "g" division (grec)-	19	0.00337*
Total sales in last 24 months in "o" division (osa24)-	15	-0.00106**
Number of mail solicitations in last 6 months from "c" division (coff6)-	4	0.0137**
Number of purchases in last 3 months in "g" division (gfreq3)-	10	0.1691**
Number of purchases in last 3 months in "c" division (cfreq3)-	2	0.1747**
Number of purchases in last 3 months in "o" division (ofreq3)-	17	0.5171**
Number of purchases in last 6 months in "o" division (ofreq6)-	5	-0.6462**
Number of purchases in last 24 months in "g" division (gfreq24)-	11	-0.0301**
Number of purchases in last 24 months in "s" division (sfreq24)-	6	0.0712**
Number of purchases in last 24 months in "c" division (cfreq24)-	7	0.0179**
Household Income-	13	-0.00521**
Household with rental/interest/dividend income-	9	0.00436**
Income by ethnicity-	20	-0.00013
Those living in homes built prior to 1980-	16	-0.00118**
Median real estate tax-	8	-0.00005**
* p < .05		
** p < .01		

Likewise, caution should be made to generalize the results into any service industry given that all responses were strict product responses.

Also, only main-effects were examined in the model. No additional variables were created such as, ratio, longitudinal, or interaction variables. This was done because the intent was

only to provide conceptual protocol and model evaluations to compare and contrast the models. Obviously, the addition of different variables could change the model dramatically. However, this was not the goal of the study.

The goal was to examine comparative models to assess the relative importance of adding each

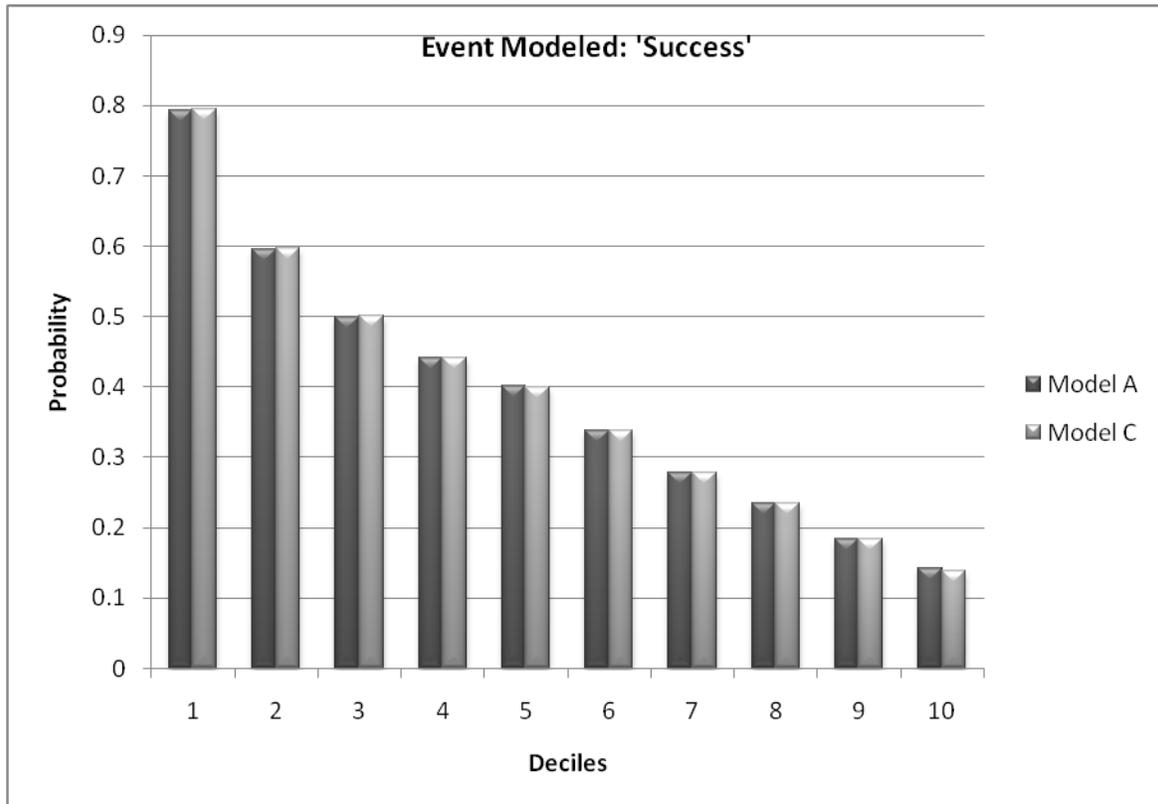
TABLE 4:
Logistic Regression Results: Model C

		<i>Model C: Hard and Soft Data</i>
<i>Independent Variables-</i>	<i>Predictive Power Rank</i>	<i>Wald X² Relative Weight %</i>
Lifetime company sales (ltpr)-	3	13.179
Months since last purchase from any division (recr)-	1	54.580
Total sales in last 12 months in "c" division (csa12)-	12	.462
Total sales in last 12 months in "g" division (gsa12)-	18	.169
Total sales in last 12 months in "o" division (osa12)-	14	.308
Months since last purchase from "g" division (grec)-	19	.062
Total sales in last 24 months in "o" division (osa24)-	15	.308
Number of mail solicitations in last 6 months from "c" division (coff6)-	4	9.207
Number of purchases in last 3 months in "g" division (gfreq3)-	10	.570
Number of purchases in last 3 months in "c" division (cfreq3)-	2	14.257
Number of purchases in last 3 months in "o" division (ofreq3)-	17	.200
Number of purchases in last 6 months in "o" division (ofreq6)-	5	1.632
Number of purchases in last 24 months in "g" division (gfreq24)-	11	.477
Number of purchases in last 24 months in "s" division (sfreq24)-	6	1.278
Number of purchases in last 24 months in "c" division (cfreq24)-	7	1.078
"Hard" data TOTAL		97.767
Household Income-	13	.385
Household with rental/interest/dividend income-	9	.739
Income by ethnicity-	20	.062
Those living in homes built prior to 1980-	16	.277
Median real estate tax-	8	.770
		2.233

type of data. The contribution of this analysis was to build predictive, more cost effective, customer response profiles for both practitioners and academics with limited resources struggling to better understand how to predict consumer behavior. This goal was

achieved in that the proposition in this study was supported. Proposition One stated that the added value of the demographic and psychographic data to the customer response model will be insignificant.

GRAPH 1:
Deciles' predicted probabilities for Models A and C



While many of the variables incorporated into the model predicted consumer response, some definitely predicted better than others. Most notably, the “hard” data represented much by predictors than the “soft” data. This result presents researchers with an interesting thought: accurate customer response models and CLV models can be built using just customer level purchasing transactions history without incorporating demographic and psychographic data. This eliminates additional costs associated with purchasing and processing the supplemental customer data from a third party.

Now, what about a new business venture absent a database with a significant number of customers with a history of customer-level transactions? Researchers can sometimes gain insights into customers from “soft” data. Nonetheless, being able to describe a customer using demographic and psychographic profiles does not imply that better business decisions

will be made with this picture in mind, or that more reliable predictions of buying behavior will be made possible by incorporating it. Responsible market testing that generates quantitative (versus qualitative) data can demonstrate the added value of incorporating this information, and should always be performed before incurring the additional costs.

This study also answered the calls by numerous researchers to integrate traditional segmentation models and quantitative consumer response models (e.g., Lemon and Mark 2006; Libai et al. 2002; Hogan, Lemon and Rust 2002; Kumar, Venkatesan and Reinartz 2006). Model C in this study does so. It provides an analytical look at how exactly both hard and soft data can be integrated into a single model to predict consumer response. As noted, this study may have given researchers a different answer than what the research called for. While this study did integrate the two approaches, the findings appear to indicate that this may not be essential

as the demographic and psychographic variables appear to have added little in terms of the prediction to the model.

CONCLUSIONS

Business firms and, especially, marketers continuously search for the most predictive models by which to initially segment the customers and, more importantly, maintain profitable relationships with them. The literature in this area strongly suggests the need for additional evidenced based research and model development in this area. With the right amount and type of information, executives can more accurately determine which customers to target with promotions, how often to target them, and even work to understand firm value in terms of combined customer lifetime valuation models.

This study has attempted to present a series of models using actual individual purchase data that has been appended with both customer demographic and psychographic data. The uniqueness of this fully integrated customer database has provided the researchers with the opportunity to test the models in the ideal, and seldom available, real world environment. The findings suggest the strength and robustness of actual consumer purchasing data for use in customer response models over the use of demographic and psychographic data.

However, the research presented here should be viewed as only one attempt in a growing body of research and knowledge building in the area of customer response models and segmentation. At minimum, the findings presented here, should evoke additional research in this area with fully integrated actual customer databases. More importantly, it is hoped that the model building effort here will further add to the discussion and debate over what are the most efficient and accurate ways to develop a customer segmentation strategy.

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CONSUMER SOPHISTICATION: THE DEVELOPMENT OF A SCALE MEASURING A NEGLECTED CONCEPT

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The theoretical background and various conceptualizations of the important concept of consumer sophistication are discussed, as well as the need for the development of measures of the concept. Three scales are subsequently developed and tested on a large national sample of households who have recently purchased a new home. All three measures were shown to have high degree of reliability as well as content, convergent, and criterion validity. The results revealed that the more time spent on specific decision making activities does not necessarily lead to higher perceived sophistication of consumers nor a greater level of perceived satisfaction with, confidence on, and anxiety with the home purchase decision. Rather, it is an individual's perceived level of sophistication that was highly correlated with satisfaction, confidence and lesser anxiety in the purchase decision.

INTRODUCTION

In the face of the increased complexity of today's marketplace, consumers are continually faced with the difficult task of choosing between a large number of competing products and services. Yet more choices are not necessarily leading to "better" decisions or increased consumer satisfaction (Schwartz 2004). Rather, reports of consumers falling victim to unscrupulous business practitioners in a variety of situations seems to be more and more common. Consumers making uninformed decisions has negative effects not only on the individual, but also on the overall perceptions of the fairness of the marketplace. A case in point. The financial collapse of 2008, which eventually spread to most developed nations, was partially the result of unsophisticated consumers securing ill-advised home mortgage loans at the behest of unscrupulous lenders. Consequently, developing a better understanding of what constitutes sophisticated consumer decision making, and how to measure it, seems particularly important.

Despite the need for a better understanding of sophisticated shopping behavior, little research has been undertaken to define and measure consumer sophistication. The purpose of this article is to fill this void by presenting the development of a scale to measure consumer's home purchase sophistication. The advent of such a measure should serve as a template for further instrument development and measurement of shopping sophistication in the consumer context.

BACKGROUND

Conceptual Definition

Various conceptualizations of consumer sophistication have been advanced (Wu and Titus 2000; Titus and Bradford 1996; Barnes and McTavish 1993; Hirschman 1980; Sproles, Geistfeld and Badenshop 1978). From these, two schools of thoughts have emerged. One focuses on factors which facilitate the *ability* or the *potential* of being sophisticated. Both Sproles, Geistfeld and Badenshop (1978) and Barnes and McTavish (1993) equated consumer sophistication to the relevant knowledge, education, and experiences which facilitate efficient decision making. Similarly, Hirschman

(1980) used the term “consumer creativity” to denote the notion of “the problem solving capability” of consumers (p.286) which increases the probability of selecting superior products (p.289). The other school of thought alternatively focuses on the need to expand the sophistication concept beyond the mere possession of knowledge and experience (i.e., potential), to the actual engagement in “wise” purchase practices (Wu and Titus 2000; Titus and Bradford 1996). Although it is interesting and beneficial to identify sophistication “potential,” it can be argued that it is the *actual practice* which impacts consumers’ well being. Public policy should be behavior driven, rather than ability driven. Thus, for the purpose of this research, consumer sophistication in purchasing decisions is defined as: “the participation in well-informed action(s) during each stage of the purchase process that is systematic, thoughtful, and goal-directed throughout the entire purchase process, undertaken with knowledge of the consequences associated with its performance.” Characteristics of this conceptualization are:

- Domain and Task Specificity: Similar to the concept of opinion leadership (Schiffman and Kanuk 2000), consumer sophistication levels are likely to vary across purchasing domains *and* stages of the consumer decision making process, making only a general (across) domain measure of sophistication futile.
- Goal independence: While consumer sophistication is “goal-directed,” it is *not a goal specific or goal dependent activity*. Sophisticated consumers may pursue entirely different shopping goals (e.g., convenience vs. lowest price) and thus, display variations with respect to their shopping activities (e.g., search in retail stores vs. searching the internet). However, the “manner or approach” employed in their shopping activities should be similar. That is, their shopping activities should still be carried out in a systematic and thoughtful manner. Thus, it is the behavioral “approach or process” that is independent of the specific goals that determine whether or not a behavior is

considered sophisticated. In essence, it’s not *what* the consumer does as much as it is *how* the consumer does it that counts.

- Decision Making Process: Consumers constantly face choices---whether to buy, what to buy, when to buy, where to buy, from whom to buy, and how to pay for it. It is widely held by most researchers that these decisions generally involve a process of stages (Koklic and Vida 2009; Kahn 2005; Engel, Kollatt and Blackwell 1973; Nicosia 1966). Since sophisticated consumer purchase behavior is defined as the participation in well-informed action(s) during *each* stage of the purchase process, a sophistication measure needs to cover all five stages identified above.

Operational Definition

Since sophisticated behavior is conceptualized as “the participation in well-informed action(s) during each stage of the purchase process,” three measures are advanced in this article to operationalize the concept: the actual time measure, the regret (actual-ideal-gap) measure, and the global-perception measure

- Actual Time Measure: It is generally true that the more time and effort one spends on an activity, the more informed and the better the outcome. Therefore, the actual amount of time one spends on each stage of purchase activities, in and of itself, should be a reasonable measure of “the participation in well-informed action(s).”
- The Regret (Actual-Ideal-Gap) Measure: Although greater effort and more deliberation leads to well thought-out decisions, there are cases where buyers may be spending a disproportionate amount of time on a task in relation to its effect on the end result. On the other hand, there are also cases where a buyer may wish he/she had spent more time on an activity. Therefore, spending too little or too much time on an activity can be considered a deviation from the ideal. A sophisticated buyer should be an “informed” buyer as well as a “wise” buyer who allocates time in a productive manner. Thus, to

understand a sophisticated buyer, one may also want to know not only how much time individuals *actually spent* on an activity, but also how much time they feel that they *should have spent* (ideal time spent). The difference between the time respondents' *actually* spent and what they think they *should* spend, is another indication of the level of consumer sophistication. The greater the gap (positive or negative), the lower the level of sophistication.

- Global Perception Measure: A third measure of sophistication used in this research was the subjects' self perception of the sophistication level of the entire buying process.

While all are measures of sophistication, each measures a slightly different dimension of the concept. For instance, consumers often experience cognitive dissonance after a major purchase decision manifest by questioning the wisdom of the decision (Cooper 2007). To reduce the feelings of not making a right decision, consumers often develop more favorable attitudes toward the product selected. By the same psychological process, since the actual-time measure derives from the time actually spent on activities, it would be expected to correlate closely with subjects' perceived appropriateness of efforts spent on each decision stage. However, since the regret measure deals with the difference between the actual time the consumer spent vs. the time the consumer thought he/she should spend, it represents a more holistic and more objective assessment of the merits and deficiencies of the decision. Therefore, it would be expected to correlate stronger with the global perception measure of sophistication than with the actual-time measure.

METHOD

Scale Development

Given that buying a home is often the single largest and most complicated purchase decision that many individuals or households will make, it was chosen as the focus of this research.

Questions covering home purchase activities of all decision stages were developed based on Kiplinger's (2006) *Buying & Selling a Home* and Schmitt's (1989) *Consumer's Guide For Smart Spending*. For each activity, subjects were asked "how much time *did* your household spend on each of the following home purchase activities" and "how much time *should* your household have spent." Each was measured on a five-point scale, anchored by "none at all" and "an extensive amount." For example, subjects were asked about how much time they spent/should have spent identifying the specific living requirements/needs of their household, determining when would be the best time to purchase a home, gathering information about the list price of prospective homes, assessing the physical conditions/construction of their prospective home, inspecting their home after closing, and performing routine maintenance checks and repairs after purchasing their home. These questions served as the inputs to both the actual time and regret measure. A total of sixty-two items were developed.

In addition to these activity based items, a global self perception measurement was undertaken. Specifically, subjects were asked to indicate their perception of their overall home buying decision-making on a five point Likert scale, ranging from strongly agree (1) to strongly disagree (5). Questions covered their perception of whether an appropriate amount of time was spent on *each* decision stage, as well as whether they believed that they carried out the *entire purchase process* in a sophisticated, prudent, consistent, and well informed manner.

The initial set of items were evaluated by four different realtors who independently assessed the item's ability to capture what would be considered generally-accepted wise home purchase practices, those items that were unnecessary, and any items not included that they believed should be added. Based on the comments of these expert judges, the measurement was revised. The final instrument consisted of 47 activity based items used for the actual and ideal measures as well as 13 items

that served as the global self perception measure. This latter measure consisted of five stage specific items, and eight overall-process items. All measurement items are shown in Appendix A and B.

Sample

Using an established national research panel of an independent research firm as the sampling frame, approximately 900 sets of questionnaires were randomly mailed to panel member households throughout the U.S. who had purchased a new home within the last 12 months (Park 1982; Munsinger, Weber and Hansen 1975). In married households, information was collected from the husband and wife separately (Levy, Murphy and Lee 2008; Bonds-Raacke 2006; Cosenza 1985; Hempel 1972; Davis 1971; Granbois and Willett 1970).

After eliminating questionnaires with incomplete responses or systematic response patterns (indicating possible validity problems), a total of 670 usable questionnaires remained. Of those, 494 questionnaires were returned from married panel members representing 247 different households while another 176 were from non-married households. Slightly more than half (52.8 percent) of the respondents were female. The largest percentage of respondents (48.4 percent) were between the ages of 25 and 44 years of age, with 65.7 percent indicating that they had at least some years of college education.

RESULTS

To validate the measures developed, a series of steps that were consistent with the procedures recommended and used by previous researchers (Newell and Goldsmith 2001; Bunn 1994; Churchill 1979) were undertaken. First, each set of items was purified by eliminating items that were ambiguous or that did not fit neatly to a specific underlying dimension. The remaining items were then subject to reliability and convergent validity checks. Finally, criterion validity was applied to the measures.

Since there is no theory or a priori foundation to expect that there is a difference in item-scale structure between gender, responses from husband and wife of the same household were treated as separate entities for the purpose of scale construction.

Exploratory Factor and Reliability Analysis

Activity Based Measures. Given the shortage of research studies attempting to measure consumer sophistication, it was difficult to predict with any degree of confidence the precise dimensionality associated with the concept. However, it is reasonable to expect consumer sophistication to have more than one dimension. In addition, given the belief that consumer sophistication is task specific, one might expect individual items to load on specific tasks associated with the home shopping process (a task-based dimensionality of shopping sophistication.) In order to assess the dimensionality of the activity-based sophistication scale (actual time and ideal measure), exploratory factor analysis was performed (Hair, Black, Babin and Anderson 2010). The results of the exploratory factor analysis on the actual time measure using varimax rotation, produced eight factors with eigenvalues higher than one, accounting for 63.34 percent of the variance. For the "ideal" measure, the analysis yielded seven factors with eigenvalues higher than one, accounting for 64.97 percent of the variance. For each factor, a reliability analysis was performed on those items highly loaded on that factor (Churchill 1979; Peter 1979). The factor structure and Alpha coefficients associated with each factor can be seen in Table 1.

As shown, all Alpha coefficients were above the .5 to .6 range deemed sufficient for an early stage of basic research (Nunnally 1967). Furthermore, the overall factor structures for the actual and ideal measurement were pretty much in agreement, especially for the first six factors. Since only one item was highly associated with the eighth factor for the actual measure, it was concluded that both the actual and ideal measure yielded essentially seven

TABLE 1
Factor Structure And Alpha Coefficients for the Actual and Ideal Measures:

Factors	Questionnaire	Items*	Reliability Alpha Coefficient
1	Actual	22, 26, 28, 29, 30, 31, 32, 33	.89
	Ideal	26, 28, 29, 30, 32, 33	.88
2	Actual	39, 40, 41, 42, 43, 44, 45, 47	.91
	Ideal	39, 40, 41, 42, 43, 44, 45, 46, 47	.92
3	Actual	15, 34, 36, 37, 38	.88
	Ideal	7, 15, 34, 36, 37, 38	.92
4	Actual	9, 10, 11, 12, 13, 14	.87
	Ideal	10, 11, 12, 13, 14	.88
5	Actual	1, 2, 3, 4, 5	.85
	Ideal	1, 2, 3, 4, 5, 6, 8	.88
6	Actual	17, 18, 19	.77
	Ideal	17, 18, 19, 20	.78
7	Actual	1, 6, 7, 8	.78
	Ideal	9, 21, 22, 23, 24, 25	.88
8	Actual	20	-
	Ideal		

factors. Despite the convergence between the actual and ideal measures, there existed some disparity requiring a further purification of the measure (Churchill 1979). As shown in Table 1:

- The items associated with the seventh factor were totally different between the two sets of measures.
- There were items which associated with one factor for the actual measure but not for the ideal measure such as items #22 and #31.
- There were items not associated with any factors for both measures. Specifically, items #16, #27, and #35. Clearly, a further purification of the measure was needed (Churchill 1979).

As a part of the purification process, the researchers independently reexamined the

original items to decide which items to delete. Seven items (#7, #16, #20, #26, #35, #46) were eliminated from the original list. Either they did not load on any factor (#16, #27, and #35), lacked convergence between the actual and ideal (#7, #46), or were ambiguous (#26, assessing the cost of maintaining and operating your prospective home). As shown in Table 1, item #20, (employing the assistance of a professional real estate lawyer), emerged as a single factor for the actual measure but not for the ideal. Therefore, it was judged to be idiosyncratic, seldom being employed by the general public, and subsequently deleted from the scale. After the item eliminations, the second round of analyses was performed. Table 2 presents the results of the factor and reliability analysis. As shown, the results for the actual measure using varimax rotation produced seven factors with eigenvalues higher

than one, accounting for 64.76 percent of the variance. Similarly, the ideal measure yielded seven factors with eigenvalues higher than one, accounting for 67.51 percent of the variance. Overall, the factor structures for the two measures are nearly identical, except item #9. As shown in Table 2, item #9 is grouped with Factor 5 on the actual measure and Factor 6 on the other. Upon close examination, item #9, gathering information about prospective neighborhoods, was positioned with Factor 5 for the following reasons: (1) item #9 was intended as a part of preliminary information gathering of the attractiveness of several neighborhoods, the domain of the Factor 5 group, while Factor 6 reflects the dimension of

assessment; and (2) removing item #9 from the items #21, #22, #23, #24 and #25 had little effect on the reliability of the group.

The resulting factor structure in Table 2 can be described as follows: The first factor measures the *post-purchase sophistication*, the second factor the *need assessment sophistication*, the third factor the *overall value assessment sophistication*, the fourth factor the *financing acumen sophistication*, the fifth factor the *information gathering sophistication*, the sixth factor the *physical condition assessment sophistication*, and the seventh factor *external assistance utilization sophistication*. Although the original 47 items were constructed

TABLE 2
Factor Structure and Alpha Coefficients for the Actual and Ideal Measures:
Final Analysis

Factors***		Questionnaire Items* *	Reliability Alpha Coefficient
1	Actual	39, 40, 41, 42, 43, 44, 45, 47	.90
	Ideal	39, 40, 41, 42, 43, 44, 45, 47	.92
2	Actual	1, 2, 3, 4, 5, 6, 8	.86
	Ideal	1, 2, 3, 4, 5, 6*, 8	.88
3	Actual	28, 29, 30, 31, 32, 33	.87
	Ideal	28, 29, 30, 31*, 32, 33	.88
4	Actual	15, 34, 36, 37, 38	.88
	Ideal	15, 34, 36, 37, 38	.91
5	Actual	9, 10, 11, 12, 13, 14	.87
	Ideal	10, 11, 12, 13, 14	.88
6	Actual	21, 22, 23, 24, 25	.87
	Ideal	9, 21*, 22, 23, 24, 25*	.88
7	Actual	17, 18, 19	.77
	Ideal	17, 18, 19	.79

* All these items have loadings equal to or above .45. Although not as high as .5, it is the highest loading across all factors.

** Factor structure is based on items with a factor loading equal to or greater than .50

*** Factor 1: Post Purchase Sophistication

Factor 2: Need Assessment Sophistication

Factor 3: Overall Value Assessment Sophistication

Factor 4: Financing Acumen Sophistication

Factor 5: Information Gathering Sophistication

Factor 6: Physical Condition Assessment Sophistication

Factor 7: External Assistance Utilization Sophistication

(Churchill, 1999, p.459), other indicators are needed. The first indicator is the content validity or face validity of the scale. For the forty-one activity-based items, the content validity was established by the fact that the items were adapted from consumer guides for buying and selling home as previously discussed. The scale also covered the multifaceted stages of home purchase decision. In an attributes-consequences-value framework, consumers are said to look for product attributes which lead to certain consequences when in use, and ultimately produce the attainment of desired values (Gutman 1982). If the forty-one activity based items are the micro-level "attributes," then the twelve overall home buying decision items are the more aggregate level "consequences" derived from those activities. All items pertain to the perceived results because of the house-purchase activities performed. If the activity items are content valid, so are the consequence items derived from those activity items. Therefore, the content validity of these twelve items was established.

Convergent Validity. A multi-trait, multi methods approach was employed to establish the convergent validity and discriminate validity. There were essentially two measures of specific *dimensions/stages* of home purchase sophistication. A high correlation between these measures is an indicator of convergent validity. One was the different factors of the forty one activity-based items designed to measure a *specific dimension/stage* of the home purchase sophistication. Specifically, these factors were:

- Need Assessment Sophistication
- Information Search Sophistication
- External Assistance Sophistication,
- Physical Condition Assessment Sophistication
- Overall Value Assessment Sophistication,
- Financial Acumen Sophistication
- Post-Purchase Sophistication

Each of these dimensions was represented by the average score of all the items in that dimension. The other measure were the specific items on the Global Perception Measure designed to measure the perceived

overall sophistication of *each decision stage*. Specifically, these were:

- Overall Need Assessment Sophistication
- Overall Information Search Sophistication
- Overall Evaluation of the Alternatives Sophistication
- Overall Negotiation Sophistication
- Overall Financial and Safety Need Sophistication

As shown in Table 4, there exists significant correlations not only between two measures of the same dimension, but among almost all dimensions. However, the correlation between two measures of the same dimension is consistently higher than those of correlations between dimensions. For example, the correlation between the need assessment sophistication dimension measure and the overall need assessment sophistication item measure, .26, is higher than its correlation with all other overall item sophistication measures. Similarly, the correlation between information search sophistication dimension measure, .34, and overall information search sophistication item measure is higher than other overall sophistication measures.

Not only is the convergent validity of the measures established, but to some degree there is evidence of discriminate validity. The external assistance sophistication dimension measure consists of the following three items: employing the assistance of a professional real estate agent, real estate appraiser, and home inspector. Real estate professionals not only provide expert information, but also a sense of security. Therefore, it is not surprising to see the results presented in Table 4 revealing that there exists a high correlation (.11) with not only the overall information search sophistication perception, but also with the overall financial and safety protection sophistication perception (.16). Similarly, the financial acumen sophistication dimension measure has the highest correlation (.38) with the overall negotiating and securing financing sophistication perception. It is also highly correlated (.31) with financial and safety protection sophistication measure.

TABLE 4
Correlation Coefficients Between Time Based Sophistication Measures
(Actual Time Spent Items versus Overall Specific Activity Perception)

	<u>NEED*</u>	<u>INFO</u>	<u>EVAL</u>	<u>NEGO</u>	<u>FINA</u>
NAS*	.26**	.25**	.20**	.15**	.21**
ISS	.19**	.34**	.30**	.23**	.21**
EAS	.01	.11**	.04	.09***	.16**
PAS	.29**	.37**	.32**	.29**	.30**
OVS	.21**	.30**	.24**	.22**	.29**
FAS	.18**	.27**	.20**	.38**	.31**
PPS	.22**	.28**	.20**	.25**	.30**

* NAS: Need Assessment Sophistication

ISS: Information Search Sophistication

EAS: External Assistance Sophistication

PAS: Physical Condition Assessment Sophistication

OVS: Overall Value Assessment Sophistication

FAS: Financial Acumen Sophistication

PPS: Post-Purchase Sophistication

NEED: Overall NEED Assessment Sophistication

INFO: Overall INFOmation Search Sophistication

EVAL: Overall EVALuation of the Alternatives Sophistication

NEGO: Overall NEGOTiation Sophistication

FINA: Overall FINAncial & Safety Need Sophistication

** significant at .01 level

*** significant at .05 level

In addition to the actual measure, the regret (actual-ideal-gap) measure can be correlated with the first five activity specific overall home buying decision making items in the global perception measure to establish the convergent validity as shown in Table 5. First, the same pattern emerged as with the actual time measures. The correlation between two different measures of the same dimension is generally higher than the correlation between measures of different dimensions. For example, the correlation between the need assessment regret sophistication measure and the overall need assessment sophistication perception (-.33) is higher than its correlation with overall sophistication measures intended for other dimensions. Therefore, convergent validity, and to a lesser degree, discriminate validity are established. Secondly, the direction of the correlation is in the expected direction. Specifically, the higher regret (gap) is negatively associated with perceived “appropriate” amount of time spent on a particular decision stage.

With respect to establishing convergent validity, the actual and regret measures use the same 41 items to measure sophistication while the global measure uses 12 items. Therefore, a summary indicator of each of the three measures of sophistication can be obtained by calculating the average of each measure. For instance, a summery indicator of the actual time measure can be obtained by taking the average of the 41 actual time items with similar averages calculated for the regret and global perception measure. Each of these means would serve as a surrogate measure of sophistication. With the actual time measure and global perception measure, the *higher* the mean, the *greater* consumer sophistication. Since the regret measure represents that difference in actual time spent vs. the ideal, the *higher* the mean, the *less* consumer sophistication. As shown in Table 6, all three measures have significant ($p < .01$) correlations among themselves in the direction expected. The more time spent on home purchase activities, the higher the perceived overall

TABLE 5
Correlation Coefficients Between Time Based Sophistication Measures
(Regret versus Overall Specific Activity Perception)

	<u>NEED*</u>	<u>INFO</u>	<u>EVAL</u>	<u>NEGO</u>	<u>FINA</u>
NASGP*	-.33**	-.29**	-.32**	-.23**	-.22**
ISSGP	-.31**	-.47**	-.37**	-.34**	-.28**
EASGP	-.14**	-.22**	-.12**	-.17**	-.16**
PASGP	-.31**	-.37**	-.33**	-.27**	-.27**
OVS GP	-.28**	-.33**	-.25**	-.29**	-.28**
FASGP	-.28**	-.35**	-.26**	-.35**	-.27**
PPSGP	-.29**	-.31**	-.25**	-.30**	-.32**

* NASGP: Need Assessment Regret Sophistication

ISSGP: Information Search Regret Sophistication

EASGP: External Assistance Regret Sophistication

PASGP: Physical Condition Assessment Regret Sophistication

OVS GP: Overall Value Assessment Regret Sophistication

FASGP: Financial Acumen Regret Sophistication

PPSGP: Post-Purchase Regret Sophistication

NEED: Overall NEED Assessment Sophistication

INFO: Overall INFOmation Search Sophistication

EVAL: Overall EVALuation of the Alternatives Sophistication

NEGO: Overall NEGOTiation Sophistication

FINA: Overall FINAncial & Safety Need Sophistication

** significant at .01 level

*** significant at .05 level

sophistication $r = .38$). Also, the more time spent overall, the less overall regret ($r = -.26$). Similarly, the higher the overall regret, the lower the perceived overall sophistication ($r = -.46$). It seems that the overall self perceived sophistication is determined not so much by how much time one actually spent on home purchase activity overall, but more by the degree of gap between the actual amount of time spent and the amount of time one ought to spend. Finally, within the global perception measure, there is a high correlation ($r = .73$) between subjects' perception that they spent an appropriate amount of time on all stages of decision making and their own assessment of how sophisticated they are.

Criterion Validity. Criterion validity reflects whether a scale relates to other constructs in a theoretically predicted way. Since consumer sophistication reflects "wise", "well thought out" decisions, it is logical to expect that a sophisticated buyer would be more satisfied with his/her decision, more confident in the decision made, and experience less anxiety

about the decision. Three items were developed to measure the above constructs: "I am very satisfied with the purchase of my/our home," "I am very confident that I/we made the right decision to buy the house," "After the decision to buy my/our home, I felt very anxious about my/our purchase decision." All three overall measures of sophistication were correlated to the three separate items. The results are shown in Table 7.

As expected, the regret (actual-ideal-gap) measure correlates significantly with all three items. A high level of regret (low sophistication) correlates with low level of satisfaction, low level of confidence and high level of anxiety. Similarly, a high level of global perception indicating greater sophistication correlates highly and positively with satisfaction and confidence, but negatively with anxiety. However, The actual time measure correlates significantly with both satisfaction and confidence, but not with anxiety. Overall, there exist criterion validity for both the regret (actual-ideal-gap) measure

TABLE 6
Correlation Coefficients Between Overall Sophistication Measures
(Actual Time Spent versus Regret versus Global Perception)

	<u>TLPART1*</u>	<u>TLABSGAP</u>	<u>BUYOVALL</u>
TLPART1	--	-.26**	.38**
TLABSGAP		-	-.46**
BUYOVALL			--

* TLPART1 Overall Sophistication based on actual activity items
 TLABSGAP Overall Sophistication based on regret items
 BUYOVALL Overall Sophistication based on global perception
 ** significant at .01 level

TABLE 7
Correlation coefficients between sophistication and satisfaction, confidence, anxiety

	<u>Satisfaction</u>	<u>Confidence</u>	<u>Anxiety</u>
TLPART1*	.12**	.12**	.06
TLABSGAP	-.25**	-.29**	.24**
BUYOVALL	.49**	.51**	-.24**

* TLPART1 Overall Sophistication based on PART I activity items
 TLABSGAP Overall Sophistication based on Regret (ABS(PART I - PART II))
 BUYOVALL Overall Sophistication based on Global Perception
 ** significant at .01 level

and the global perception measure, but only partially with the actual time measure.

DISCUSSION

Based on the convergence of factor analysis results performed on the actual and ideal measures and the results of the subsequent reliability analysis, the original forty-seven activity-items were reduced to forty-one items. Similarly, one item was eliminated from the thirteen overall perception items. The actual time sophistication measure and the regret measure were then constructed based on the forty-one reduced items, while the global perception measure was constructed from the twelve overall perception items. All three measures were shown to have high degree of reliability. Furthermore, they were shown to have content validity, convergent validity, and criterion validity.

Additionally, it was found that the global perception measure has the highest convergent as well as criterion validity, followed by the regret measure, with the actual time measure the least. It seems that the more time spent on decision specific activities does not necessary lead to higher perceptions of decision making sophistication. Nor does more time spent lead to more perceived satisfaction with, confidence in, and less anxiety with, the home purchase decision. It is one's self perceived sophistication which has the highest correlation with one's satisfaction, confidence and anxiety.

Since the global perception measure are items stated in general terms, they can easily be adapted to study the sophistication level of other purchases as well, thus becoming the standard sophistication measure. The results of this measure over different purchase situations, for example, automobile purchase, computer

purchase, insurance purchase, investment decision, etc., can be used to construct a relative sophistication index over different purchase situation.

Although the regret measure does not perform as well as the global perception measure, it outperforms the actual time measure. It also offers an important advantage over the global perception measure in its ability to shed insight into the “causes” of a certain overall sophistication measure, the diagnostic power. For example, the overall regret measure is found to correlate highly with satisfaction, confidence and anxiety. However, which dimensional regret measure is responsible for this correlation? When regression analyses were performed, using satisfaction, confidence and anxiety as the dependent variables and the seven dimensional regret measures as the independent variables, it was found that the overall value assessment regret sophistication measure was the sole factor significantly related to the anxiety about home purchase decision. On the other hand, the physical condition assessment regret sophistication measure is the sole factor responsible for the correlation with both the overall home purchase satisfaction as well as the expressed confidence that right decision has been made.

In addition to its diagnostic power, the regret measure also provides policy makers with the ability to understand in which sophistication factors consumers seem to be most deficient. Subsequently, policy initiatives can be designed and implemented to alleviate this deficiency. In future research, the overall regret measure, as well as the dimensional regret measures, should be analyzed based on important demographic variables as well as family structural variables. This would provide deeper insights into the differences in sophistication among gender, race, family size, and stage of family life cycle, etc.

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**APPENDIX A:
Activity Based Measures***

Home Purchase Activity items

1. Determining whether your household really needed to purchase a home.
2. Identifying the specific living requirements/needs of your household.
3. Prioritizing your household's specific living requirements/needs.
4. Determining how various home designs or layouts would satisfy the specific living requirements of your household.
5. Prioritizing the desired features your household wanted in a home.
6. Determining how much your household could reasonably afford to pay for a home.
7. Determining how much of a down payment your household could afford to put down.
8. Determining when would be the best time for your household to purchase a home.
9. Gathering information about prospective neighborhoods.
10. Visiting prospective homes.
11. Gathering buying information/advice from different sources.
12. Verifying the accuracy of gathered home buying information.
13. Gathering information about the list price of prospective homes.
14. Gathering information about the actual sale price of recent home sales.
15. Gathering information about financing options and interest rates.
16. Utilizing modern technologies (e.g., internet) to assist your information gathering activities.
17. Employing the assistance of a professional real estate agent.
18. Employing the assistance of a professional real estate appraiser.
19. Employing the assistance of a professional home inspector.
20. Employing the assistance of a professional real estate lawyer.
21. Assessing the physical condition/construction of your prospective home.
22. Assessing the strengths and weaknesses of your prospective neighborhood.
23. Assessing the strengths and weaknesses of the design/layout of your prospective home.
24. Assessing the strengths and weaknesses of the location of your prospective home.
25. Assessing the size and condition of the lot and landscaping.
26. Assessing the cost of maintaining and operation your prospective home.
27. Assessing the working condition of the major appliances in your prospective home.
28. Assessing the actual market value of your prospective home.
29. Assessing the tax advantages of purchasing your prospective home.
30. Considering the future appreciation value of your prospective home.
31. Considering the hidden costs of purchasing your prospective home (insurance, real estate taxes).
32. Estimating the cost of necessary repair/improvements to your home.
33. Assessing the physical condition/construction of surrounding homes.
34. Locating favorable financing terms and options to pay for your home.
35. Developing a strategy for negotiating the purchase price of your home.
36. Assessing the financial terms and condition of your mortgage agreement.
37. Reviewing the legal and financial terms of the real estate sales contract prior to signing them.

38. Ensuring that the purchase contract included the appropriate purchase contingencies (e.g., securing acceptable financing).
 39. Inspecting your home after closing to ensure it had no hidden or undisclosed defects.
 40. Verifying that all the terms and conditions of the purchase contract were executed and upheld.
 41. Learning about all the mechanical features (e.g., heat/AC, appliances) after purchasing your home.
 42. Verifying the working condition of the appliances and fixtures after purchasing your home.
 43. Inspecting the physical condition of the lot and landscaping after purchasing your home.
 44. Securing the proper insurance to protect your financial investment after purchasing your home.
 45. Performing routine maintenance checks and repairs after purchasing your home.
 46. Re-evaluating your financial status after purchasing your home.
 47. Familiarizing yourself with all the product warranty information related to the mechanical devices after purchasing your home.
2. Overall I believe an appropriate amount of time was spent gathering home buying information and assistance prior to purchasing our/my home.
 3. Overall I believe an appropriate amount of time was spent evaluating housing alternatives prior to purchasing our/my home
 4. Overall I believe an appropriate amount of time was spent negotiating and securing financing for our/my home.
 5. Overall I believe an appropriate amount of time was spent ensuring that the household's financial and safety needs associated with the purchase of our/my home

*Two responses were obtained from each respondent on each item.

(1) "How much *did* your household spend on the following home purchase activities;" (Actual Measure)

(2) "How much time *should* your household have spent on each of the following home purchase activities?" (Ideal Measure).

APPENDIX B:

Home Buying Decision Items

Stage Specific Items

1. Overall I believe an appropriate amount of time was spent assessing the needs and resources of the household prior to purchasing our/my home.

Global Sophistication Items

6. Overall I believe my/our household acted in a very sophisticated manner through the entire home shopping effort.
7. Overall I believe my/our household wasn't very well-informed when deciding to purchase the home.
8. Overall I believe my/our household carried out the home purchase process in a very systematic manner.
9. Overall I believe my/our household effort was very consistent with wise purchase practice.
10. Overall I believe my/our household acted in a very thoughtful manner throughout the home purchase process.
11. Overall I believe my/our household acted in a very prudent manner throughout the home shopping effort.
12. Overall I believe my/our household displayed a high degree of shopping competence throughout the home shopping process.
13. Overall I believe my/our home shopping effort was very through.

ASSESSING THE IMPACT OF ACQUIESCENCE RESPONSE BIAS ON MARKETING DATA

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Although marketing researchers have long been aware of acquiescence response bias (ARB), there are conflicting views regarding its prevalence in and impact on marketing data. In this article, the effects of ARB on survey data are evaluated in four studies using a method of identifying ARB developed by the authors. Results of this investigation indicate that a significant portion of survey respondents may exhibit ARB, though there is wide variance in the incidence of ARB. However, even when ARB is present to a substantial extent, its effects on the psychometric properties of sound construct measures are minimal. This implies that ARB may not be as serious an issue for marketing researchers as has been suggested in prior research. Implications for marketing researchers are put forth, as are directions for future research.

INTRODUCTION

Almost from the inception of attitude measurement, it has been known that survey data are often plagued by respondent acquiescence (Lorge 1937). Acquiescence response bias (ARB) can be problematic for marketing researchers for a variety of reasons, foremost that it “causes respondents in interview or questionnaire situations to misrepresent their true attitudes” (Javeline 1999, p. 2). Like all forms of systematic bias, ARB has the potential to create problems with survey data. Various suggestions have been offered as to how to deal with ARB, though these are seldom heeded by marketing researchers, as noted by the dearth of research which makes any attempt to assess, control, or minimize ARB.

Acquiescence response bias is defined as the propensity of respondents to agree with items without regard to their content (Javeline 1999; Netemeyer, Bearden and Sharma 2003; Ray 1983). Disacquiescence response bias (DARB), the tendency of respondents to disagree with items without regard to their

content (Couch and Keniston 1960), can be thought of as the inverse of ARB. Research regarding the extent and type of effects of ARB has produced widely disparate findings. For instance, Rorer (1965) and Gove and Geerken (1977) assert that ARB is neither widespread nor seriously problematic, though Ray (1983) and Heaven (1983) both state that ARB is present in most survey data and has adverse effects. In more recent research, Baumgartner and Steenkamp (2001) purport that ARB can significantly distort survey data, while Billiet and McClendon (2000) assert that ARB has minimal effects on construct measures.

Given this conflict, marketing researchers are left with very few, if any, insights regarding whether and how ARB should be handled. As such, there are two goals for this research: (1) to gauge the prevalence of ARB in marketing survey data and (2) to assess the impact of ARB on this data. We begin by giving a brief review of prior efforts aimed at controlling ARB. Next, we discuss some of the potential negative effects that ARB can have on survey data, along with a method we propose for identifying ARB. The results of four studies in which ARB is examined are then reviewed. Finally, we discuss implications of this research for marketing researchers and directions for future research efforts.

Previous Efforts in Controlling ARB

Researchers concerned with controlling ARB have typically used combinations of both positively and negatively worded items concurrently in measures, a practice known as balancing a scale. This appears to be the predominant method of explicitly controlling for ARB (e.g., Baumgartner and Steenkamp 2001; Couch and Keniston 1960; Mirowsky and Ross 1991; Ray 1983). The argument for this procedure is that it ‘cancels out’ the bias of positively and negatively worded statements in that acquiescence to a positively worded item will be negated by acquiescence to a negatively worded item when the items are summed (Baumgartner and Steenkamp 2001; Mirowsky and Ross 1991; Ray 1983).

However, there are three problems with this approach. First, negatively worded items are not usually complete reversals with regard to content, an issue which is more serious when survey respondents are well educated or particularly discriminating (Rorer 1965; Schuman and Presser 1981). Second, responses to positively and negatively worded items tend to be reflective of different dimensions, an effect which often results in considerable degradation of the unidimensionality of scales which include both types of items (Herche and Engelland 1996). Third and most important of all, ARB is a systematic bias, not random error (Spector 1992). Unlike measurement errors, biases such as ARB are not random and do not come from a population whose mean is zero, meaning that the summation of positively and negatively worded items does not reduce the bias present in a scale. The seeming reduction of ARB from the use of balanced scales is highly deceptive in that it comes from simply changing the sign of one biased response against that of another so that the mere appearance of ARB is reduced. Consequently, balancing a scale may not even reduce the appearance of ARB unless there are an equal number of positively and negatively worded items in a scale (e.g., Baumgartner and Steenkamp 2001). In sum, ARB cannot be controlled for or eliminated by simply

summing measures which contain both positively and negatively worded items (Javeline 1999; McClendon 1991; Spector 1992), particularly in situations where individual items are used as is often the case when structural equation modeling is used. Thus, another means of eliminating or controlling ARB must be employed.

Effects of ARB on Survey Data

Respondents’ acquiescence has been acknowledged to potentially have several adverse effects on survey data. There are at least four ways that ARB can affect these data, one of which is that it falsely intensifies the correlation between similarly worded items (Winkler, Kanouse and Ware Jr. 1982). With the majority of marketing scales utilizing positively worded Likert-type items, ARB is very likely to bias a scale’s reliability in an upward direction (herein referred to as Bias 1). Similarly, ARB is likely to increase the observed convergent validity of scales. To the extent that respondents answer a specific construct’s items in a uniform pattern, this bias will increase the observed convergent validity for a set of items (Bias 2).

ARB may also result in the underestimation of a measure’s discriminant validity. Research has suggested that this may be the case (Billiet and McClendon 2000), but has not empirically examined this possibility. In order for a measure to display discriminant validity, respondents must treat that measure differently than other measures. However, if respondents are significantly influenced by ARB, they may be apt to respond so similarly to disparate measures that the ability of each measure to yield substantially divergent results is reduced (Bias 3). Fourth, ARB may erroneously strengthen relationships between constructs whose indicator items are worded positively and weaken relationships between constructs whose indicator items are worded negatively (Winkler et al. 1982). Since the majority of marketing scales do not include negatively worded items, marketing researchers are most likely to observe construct relationships which

are positively biased when ARB is present (Bias 4).

One would expect, then, that a method of identifying ARB would, in general, result in the observation of these biases. This is particularly relevant for evaluating the method we propose for assessing ARB in the following section.

Proposed Method for Assessing ARB

To assess ARB, the authors recommend employing a method which uses difference scores between positively and negatively worded items of a construct. As stated above, the inclusion of negatively worded items in a psychometric scale has been shown to adversely affect the unidimensionality of the construct that the scale is intended to measure. Hence, such items should not be used for the measurement of latent constructs, but can be used for the control of ARB.

With this method of identifying ARB, the mean level of the positively worded items for a construct is first obtained. Next, negatively worded items related to the same construct are reverse-coded (i.e., when using seven-point response scales, '7' becomes '1', '6' becomes '2', etc.). Lastly, the mean score of the negatively worded items is subtracted from the mean score of the positively worded items. The absolute value of the resulting difference now represents an index of ARB. Small index values are consistent with random error effects, whereas large index values are suggestive of logically inconsistent responses. If a respondent is indeed agreeing with items without regard to their content, then only comparatively large values of this index are suggestive of ARB.

The key question is how large values of this index must be to be truly indicative of ARB. Though varying approaches have been taken with similar indices (e.g., Baumgartner and Steenkamp 2001; Winkler et al. 1982), we argue that two primary considerations must be made. First, the inconsistency of respondents who truly exhibit ARB should be fairly reliable.

Accordingly, in order to ensure that inconsistent responses are not merely the result of a single potentially questionable item, we recommend that multiple negatively worded items be included in instruments when utilizing this approach to assess ARB. Second, some leeway is appropriate since a respondent may be able to logically agree with both types of items to a limited extent (Billiet and McClendon 2000; Javeline 1999; Schuman and Presser 1981), some asymmetry with regard to the strength of responses to positively and negatively worded items is to be expected (Herche and Engelland 1996), and no multi-item scale is perfectly reliable. Thus, low index values cannot be asserted to be evidence of ARB, but rather are likely to be due to one or more of the above referenced factors.

Given these needed considerations, potential responses to both positively and negatively worded items should be examined in order to determine what values of this index are likely due to ARB. For instance, when a seven point Likert-type response scale is used, if a respondent indicates moderately strong agreement (denotes '6') with multiple positively and negatively worded items (scoring an ARB index value of 4), such a response is highly illogical and very likely the result of ARB. Conversely, if a respondent indicates only slight agreement with both item types (denotes '5' for each; scoring an ARB index value of 2), such a response cannot conclusively be stated to be the result of ARB. In such an instance, the respondent's agreement with both item types is not strong enough to rule out the possibility that he or she may be logically agreeing with both types of items concurrently. Since the responses of individuals who are truly exhibiting ARB are the result of their acquiescing to the items and not their true attitudes, we recommend that such responses be, in general, eliminated from further analysis. No type or quantity of post hoc statistical analysis can help researchers determine what respondents' 'true' attitudes are in such a situation.

However, identifying a specific cut-off value for this index is inherently somewhat arbitrary, not unlike many of the psychometric standards frequently used in the social sciences (i.e., coefficient alpha, fit indices in structural equation modeling, etc.). Using relatively high cut-off values will result in fewer respondents being removed from a dataset, which helps to preserve the statistical power that marketing researchers obviously desire, while using lower cut-off values may result in fewer responses contaminated by ARB being included in the dataset and more valid data. As such, in Study 1 we empirically examine ARB with a seven point scale using cut-off values of both three and four to examine how varying cut-off values affect the data.

METHOD AND RESULTS

In order to examine the prevalence and effects of ARB, we conducted four studies in which we examine whether the method we developed identifies the biases identified above across various research contexts, samples, and constructs. In Study 1, we investigate the differences between using cut-off values of 3 and 4 for our ARB index. Studies 1, 2, and 3 use survey data primarily gathered from college students; Study 4 uses survey data collected from executives. Varying constructs are used in each study. In Study 3, a semantic differential response scale, rather than a Likert-type response scale, is used to assess ARB.

Study 1

In Study 1, survey data regarding consumers' brand attitudes toward the Apple iPod were utilized. The rationale for choosing this brand is that the Apple iPod would be a brand that young adult respondents would have an active interest towards and would be less likely to acquiesce with questions regardless of content. Four brand related constructs were included: self-brand connection (Escalas and Bettman 2003), brand user identification, perceived connectedness to brand users, and brand commitment (Beatty, Kahle and Homer 1988; Yoo, Donthu and Lee 2000). Brand user

identification refers to the degree to which an individual's identity is perceived to overlap with that of the users of a brand; perceived connectedness to brand users (PCBU) is defined as an individual's feeling of being linked to the users of a brand. Scales for these two constructs were developed by one of the authors, judged for face validity by six expert judges, and purified in a pilot study in which they and the two existing scales exhibited unidimensionality, convergent and discriminant validity, and high reliability by established standards. All four of these measures use a seven point Likert-type response scale anchored by "Strongly Disagree" (1) and "Strongly Agree" (7). Two negatively worded items related to PCBU were included for the purpose of assessing ARB.

Data were gathered via invitations to participate in the survey which were posted in online forums oriented around the Apple iPod and emailed to the students of a major university in the U.S. Entry into a drawing for \$25 iTunes gift certificates was used as an incentive for participation. This resulted in 862 responses.

We used the above referenced method for assessing ARB to identify respondents exhibiting ARB. In doing so, we used two different cut-off values, three and four. Using a cut-off value of three, 223 respondents were identified as exhibiting ARB; using a cut-off value of four, 147 respondents were identified as such. We then split the sample into three groups: a 'total' group, which included all of the responses, a 'less restricted' group which included only the responses for which the absolute value of the ARB index was less than four, and a 'more restricted' group which included only the responses for which the absolute value of the ARB index was less than three. Consequently, the size of the total group was 862, the size of the less restricted group was 715, and the size of the more restricted group was 639. To investigate whether our method identified responses which biased the data as expected, the reliability, convergent validity, discriminant validity, and construct

relationships among all four scales were examined by comparing these groups.

First, the less restricted group and the more restricted groups were compared to one another to examine whether there were substantial differences between using different cut-off values of the ARB index. The reliability of the measures was assessed using coefficient alpha. For all four constructs, coefficient alpha was greater in the less restricted dataset, though the differences in each instance were relatively small. Thus, the data are exhibiting Bias 1 and support the validity of our method of assessing ARB. Next, the convergent validity of the scales was assessed by examining the differences in the standardized loading estimates for each of the items, as well as the average variance extracted (AVE) for each scale in three confirmatory factor analyses (CFAs), one among the total group ($\chi^2 = 667.23$, $df = 98$, $p < .001$; $RMSEA = .082$; $CFI = .97$; $NNFI = .96$), one among the less restricted group ($\chi^2 = 575.73$, $df = 98$, $p < .001$; $RMSEA = .083$; $CFI = .96$; $NNFI = .95$), and one among the more restricted group ($\chi^2 = 558.12$, $df = 98$, $p < .001$; $RMSEA = .086$; $CFI = .96$; $NNFI = .95$). The results, including the coefficient alpha of each measure, are shown in Table 1.

Across the four construct measures investigated, the difference in coefficient alpha between the less restricted and the more restricted groups ranged from zero to .005. Differences in the standardized loading estimates for each item ranged from zero to .03; for eight of the sixteen items, there was no difference in these estimates. AVE was nearly identical in both groups; differences ranged from zero to .01. The discriminant validity of the measures was assessed by comparing the AVE of each measure to its squared correlation coefficient with each other measure (Fornell and Larcker 1981). To compare the differences in the discriminant validity of each construct between the two groups, the ratio of each construct's AVE to its squared correlation coefficient with the other constructs was examined for all four constructs. For instance,

in the less restricted group, self-brand connection and brand user identification had ratios of 2.08 and 2.06. Eight of these ratios were larger in the more restricted group, two were equal, and two were smaller; the largest difference was .62.

Taken together, there are slight differences between these two groups, though we conclude that they are too small to justify eliminating such a large number of responses, as is the case with the more restricted group. The less restricted group consists of 82.9 percent of the original sample, while the more restricted group only consists of 74.1 percent of the total responses. Since some responses which are not truly exhibiting ARB may be eliminated from the more restricted group, further reducing the sample size by nearly nine percent is not justified by the miniscule differences such an action yields. As such, we only investigate differences between the total group and the less restricted group hereafter.

Coefficient alpha was smaller in the less restricted group than in the total group; differences ranged from .005 to .021. Standardized loading estimates were higher for fourteen of the sixteen items in the total group; differences ranged from zero to .04. AVE for each measure ranged from .02 to .07 higher in the total group. Finally, the measures' discriminant validity was investigated by examining the standardized construct correlation matrices for both of the CFAs. These matrices are shown in Table 2.

The AVE/squared correlation ratios were higher for every pair of constructs in the less restricted group. Though the AVE of each construct was smaller in the restricted group than in the total group, the relationships between the constructs were reduced to a greater extent. The size of the correlation estimates between constructs was diminished by .02 to .08 in the less restricted group.

In sum, we find that the data exhibit all of the expected biases, which suggests that our method of identifying ARB is performing as

TABLE 1
Standardized Loading Estimates for Study 1

Scale	Total Group (N = 862)		Less Restricted Group (N = 715)		More Restricted Group (N = 639)	
	Coefficient Alpha	Standardized Loading Estimates	Coefficient Alpha	Standardized Loading Estimates	Coefficient Alpha	Standardized Loading Estimates
Self-Brand Connection	.937		.923		.921	
-This brand reflects who I am.		.86		.83		.81
-I can use this brand to communicate who I am to other people.		.87		.83		.83
-I think that this brand could help me become the type of person I want to be.		.90		.88		.88
-I consider this brand to be "me."		.93		.92		.92
Brand User Identification	.937		.918		.913	
-Most of the people who use this brand have a nature that is very much like mine.		.86		.83		.82
-The identity of the people who use this brand is almost identical to my own.		.92		.90		.89
-When I think of the people who use this brand, I think of myself.		.85		.80		.79
-My identity is very similar to that of the people who use this brand.		.93		.91		.91
PCBU	.967		.946		.946	
-I feel linked to those who use this brand.		.92		.88		.88
-I sense a bond with others who use this brand.		.92		.88		.85
-I sense a connection with those who use this brand.		.95		.92		.91
-When I think about this brand, I feel attached to those who use it.		.95		.92		.93
Brand Commitment	.929		.924		.926	
-I consider myself to be highly com- mitted to this brand.		.96		.96		.96
-I feel strongly devoted to this brand.		.95		.95		.95
-Even if another brand were less ex- pensive, I would always purchase this brand.		.80		.79		.79
-This brand would be my first choice of brands in this product category.		.75		.74		.75

theoretically expected. However, based on this study, the differences in the data caused by eliminating responses contaminated by ARB are very slight. Also, we conclude from this study that the differences produced in the data by utilizing an ARB index cutoff value of three, rather than four, are so minute that they do not justify eliminating additional responses from the dataset, nearly 9 percent of the original sample in this study, compared to the less restricted group.

Study 2

In Study 2 a different context was used to assess if our proposed method for capturing ARB would extend past the initial setting of Study 1 and to evaluate what effect ARB had on other data. In this study, survey data regarding Internet shopping behavior and price-related attitudes were used. Four constructs and measures were included in this study: consumer novelty seeking (Manning et al. 1995); market maveness (Feick and Price 1987); compulsive

TABLE 2
Construct Correlation Matrix across Groups for Study 1

	Self-Brand Connection	Brand User Identification	PCBU	Brand Commitment
Self-Brand Connection	.79	.46	.50	.36
Brand User Identification	.68	.80	.58	.21
PCBU	<i>14.56</i>	.76	.88	.26
Brand Commitment	.71	<i>15.42</i>	.51	.77
	<i>14.03</i>	<i>16.03</i>	<i>12.81</i>	

Standardized Construct Correlation Matrix – Total Group

	Self-Brand Connection	Brand User Identification	PCBU	Brand Commitment
Self-Brand Connection	.75	.38	.40	.34
Brand User Identification	.62	.74	.52	.14
PCBU	<i>12.12</i>	.72	.81	.21
Brand Commitment	.63	<i>12.62</i>	.46	.75
	<i>12.21</i>	<i>13.58</i>	<i>10.54</i>	

Standardized Construct Correlation Matrix – Less Restricted Group

Standardized Construct Correlation Matrix – More Restricted Group

Note: diagonal values represent the AVE for each construct; values below the diagonal are correlation coefficient estimates with t-values italicized on the line below; values above the diagonal are squared correlation coefficient estimates.

buying (Valence et al. 1988); and value consciousness (Lichtenstein et al. 1990). Two negatively worded items related to consumer novelty seeking were included for the purpose of assessing ARB.

Respondents consisted of a convenience sample of 518 subjects from two universities and

included students enrolled in marketing and marketing communications courses. Students were offered extra credit in return for their participation in the study. Participants were required to view a specific website, seek out certain information, and then answer questions in an online format.

Using the ARB index value of four or greater as the criterion for identifying ARB, seven of the 518 responses were classified as such. The sample was separated into two groups: a total group in which all of the responses were included and a restricted group in which only the responses which were not classified as exhibiting ARB. Consequently, the size of the total group was 518 and the size of the restricted group was 511. The reliability, convergent validity, discriminant validity, and construct relationships among all four scales were examined by comparing the total and restricted groups. In addition to computing coefficient alpha, two CFAs were conducted, one in the total group ($\chi^2 = 1956.15$, $df = 399$, $p < .001$; RMSEA = .087; CFI = .87; NNFI = .86) and one in the restricted group ($\chi^2 = 1925.90$, $df = 399$, $p < .001$; RMSEA = .087; CFI = .87; NNFI = .86). The results are shown in Table 3.

Coefficient alpha was from .002 to .013 greater in the total group. Standardized loading estimates were between .01 and .03 higher for sixteen of the items in the total group, thirteen were identical in both groups, and one was higher in the restricted group. The AVE of three of the four scales was higher in the total group; differences ranged from .01 to .02. Lastly, the standardized construct correlation matrices for both of the CFAs were investigated. These matrices are shown in Table 4.

A comparison of the ratio of each construct's AVE to its squared correlation coefficient with the other constructs was then conducted. This revealed that the AVE/squared correlation ratios were higher for every pair of constructs in the restricted group. Further, the construct correlation estimates were stronger in every instance in the total group.

As with Study 1, our method of identifying ARB is performing as expected, though again there are only minimal differences in the data when responses contaminated by ARB are removed from the dataset, likely due in large part to the samples being almost identical since

only 1 percent of the original sample was categorized as displaying ARB, a much smaller portion than was observed in Study 1.

Study 3

To broaden the generalizability of our method of assessing ARB, different scale formats were utilized in Study 3. Survey data regarding consumers' word-of-mouth were utilized. Four constructs were included in this study: source trustworthiness (Pornpitakpan 2004), attitude toward the product (Iyer 1988; MacKenzie and Lutz 1989), purchase intentions (Putrevu and Lord 1994), and purchase involvement (Zaichowsky 1985). With the exception of purchase intentions, which was measured using a seven-point Likert-type response scale anchored by "Strongly Disagree" and "Strongly Agree," all of the measures utilized a seven-point semantic differential response scale. Two negatively worded items related to purchase involvement were included in order to make use of our method of assessing ARB.

Data were gathered via the student referral method (Babin et al. 2003) from students at a major university in the U.S., resulting in the collection of 589 responses. Randomly contacted respondents verified the validity of the responses. Six responses with missing data were eliminated from the dataset.

Using the method for assessing ARB, thirty-seven responses were identified as exhibiting ARB. The sample was again separated into two groups: a total group which included all of the responses, and a restricted group which included only the responses for which the absolute value of the ARB index was less than four. As a result, the size of the total group was 583 and the size of the restricted group was 546. Coefficient alpha was observed and two CFAs were conducted, one in the total group ($\chi^2 = 575.62$, $df = 129$, $p < .001$; RMSEA = .077; CFI = .96; NNFI = .95) and one in the restricted group ($\chi^2 = 571.44$, $df = 129$, $p < .001$; RMSEA = .079; CFI = .95; NNFI = .94). The results are shown in Table 5.

TABLE 3
Coefficient Alpha and Standardized Loading Estimates across Groups for Study 2

Scale	Total Group (N = 518)		Restricted Group (N = 511)	
	Coefficient Alpha	Standardized Loading Esti- mates	Coefficient Alpha	Standardized Loading Esti- mates
Consumer Novelty Seeking	.877		.864	
- I often seek out information about new products and brands.		.66		.63
- I like to go places where I will be exposed to information about new products and brands.		.86		.85
- I like magazines that introduce new brands. I frequently look for new products and services.		.83		.82
- I am continually seeking new product experiences.		.81		.80
- I take advantage of the first available opportunity to find out about new and different products.		.69		.67
Market Maveness	.913		.911	
-I like introducing new brands and products to my friends.		.73		.73
-I like helping people by providing them with information about many kinds of products.		.78		.78
-People ask me for information about products, places to shop, or sales.		.82		.82
-If someone asked where to get the best buy on several types of products, I could tell him or her where to shop.		.84		.83
-My friends think of me as a good source of information when it comes to new products and sales.		.87		.87
-Think about a person who has information about a variety of products and likes to share this information with others. This person knows about new products, stores, sales, and so on, but does not necessarily feel that he or she is an expert on one particular brand. Do you think this description fits you very well?		.74		.73
Compulsive Buying	.901		.899	
-When I have money, I can't help but spend part or all of it.		.63		.63
-I am often impulsive in my behavior.		.63		.63
-For me, shopping is a way of facing the stress of my daily life and of relaxing.		.83		.83
-I sometimes feel that something inside me pushed me to go shopping.		.86		.85
-There are many times when I have a strong urge to buy.		.77		.77

Continued

TABLE 3 (continued)
Coefficient Alpha and Standardized Loading Estimates across Groups for Study 2

Scale	Total Group		Restricted Group	
	Coefficient Alpha	Standardized Loading Estimates	Coefficient Alpha	Standardized Loading Estimates
Compulsive Buying (continued)	.901		.899	
-At times I have felt guilty after buying because it seemed unreasonable.		.52		.51
- There are some things I buy that I do not show to anybody for fear of being perceived as irrational in my buying behavior.		.45		.45
- I often have an unexplainable urge, a sudden and spontaneous desire, to go and buy something in a store.		.84		.84
- As soon as I enter a shopping center, I have an irresistible urge to buy something.		.84		.85
- I am one of those people who often respond to direct mail offers.		.40		.40
- I have often bought a product I don't need, while knowing that I have very little money left.		.65		.65
- I have sometimes thought, "if I had to do it all over again, I would.." and felt sorry for something I have done or said.		.32		.31
Value Consciousness	.910		.904	
- I am very concerned about low prices, but I am concerned about product quality.		.76		.76
- When grocery shopping, I compare the prices of different brands to be sure I get the best value for the money.		.81		.80
- When purchasing a product, I always try to maximize the quality I get for the money I spend.		.86		.85
- When I buy products, I like to be sure that I am getting my money's worth.		.87		.86
- I generally shop around for lower prices on products, but they still must meet certain quality requirements before I will buy them.		.85		.84
- When I shop, I usually compare the "price per ounce" information for brands I normally buy.		.51		.50
- I always check prices at the grocery store to be sure I get the best value for the money I spend.		.78		.77

Coefficient alpha was from .001 to .005 greater in the total group for three of the four measures; there was no difference in coefficient alpha for one of the measures. Standardized loading estimates were .01 higher for eight of the eighteen items in the total group, identical for nine of the items, and .01 higher for one item in the restricted group. AVE was equal for three of the four measures and was .01 higher for one

of the scales in the total group. The standardized construct correlation matrices for both of the CFAs were then examined. These matrices are shown in Table 6.

A comparison of the ratio of each construct's AVE to its squared correlation coefficient with the other constructs revealed that of the six AVE/squared correlation ratios present, only

TABLE 4
Construct Correlation Matrix across Samples for Study 2

	Consumer Novelty Seeking	Market Maveness	Compulsive Buying	Value Consciousness
Consumer Novelty Seeking	.60	.36	.13	.09
Market Maveness	.60	.64	.06	.07
	<i>18.11</i>			
Compulsive Buying	.39	.25	.45	.00
	<i>9.39</i>	<i>5.57</i>		
Value Consciousness	.30	.26	.05	.61
	<i>6.73</i>	<i>5.89</i>	<i>1.06</i>	

Standardized Construct Correlation Matrix in Total Group
 Standardized Construct Correlation Matrix in Restricted Group

	Consumer Novelty Seeking	Market Maveness	Compulsive Buying	Value Consciousness
Consumer Novelty Seeking	.58	.34	.14	.07
Market Maveness	.58	.63	.05	.05
	<i>16.80</i>			
Compulsive Buying	.37	.23	.45	.00
	<i>8.60</i>	<i>5.02</i>		
Value Consciousness	.27	.23	.06	.60
	<i>5.80</i>	<i>5.02</i>	<i>.56</i>	

Note: diagonal values represent the AVE for each construct; values below the diagonal are correlation coefficient estimates with t-values italicized on the line below; values above the diagonal are squared correlation coefficient estimates.

one was greater in the restricted group; the others were higher in the total group, contradictory to our expectations. In addition, only one of the construct correlation estimates was stronger in the total group; the rest were stronger in the restricted group.

In this study, we find further support for our method in that ARB is increasing the measures' reliability and convergent validity. Six percent of the respondents in this study were found to exhibit ARB. Interestingly though, we do not find in this study that ARB weakens the measures' discriminant validity or strengthens the relationships between constructs. In all cases, however, the effect of ARB on the data is very minimal. Many of the indicators we examined remained unchanged whether responses exhibiting ARB were present in the data or not.

Study 4

In Study 4, the proposed method for assessing and controlling ARB was examined in a sample that did not include students. This study included survey data on product development executives' views regarding innovativeness in new product development. Five construct measures were included in this study: organizational new product innovativeness, using a measure developed by one of the authors; organizational innovativeness (Miller and Friesen 1982); personal innovativeness (Oliver and Bearden 1985); organizational analysis (Venkatraman 1989); and performance satisfaction (Venkatraman 1989). Six negatively worded items related to organizational new product innovativeness were included for the purpose of testing for ARB.

TABLE 5
Coefficient Alpha and Standardized Loading Estimates across Groups for Study 3

Scale	Total Group (N = 583)		Restricted Group (N = 546)	
	Coefficient Alpha	Standardized Loading Estimates	Coefficient Alpha	Standardized Loading Estimates
Source Trustworthiness	.855		.853	
-Very Untrustworthy/Very Trustworthy		.80		.80
-Very Insincere/Very Sincere		.86		.86
-Very Dishonest/Very Honest		.85		.84
-Very Unpredictable/Very Predictable		.61		.61
Attitude Toward the Product	.905		.905	
-Bad/Good		.80		.81
-Unfavorable/Favorable		.91		.91
-Unpleasant/Pleasant		.90		.89
-Harmful/Beneficial		.78		.77
Purchase Intentions	.959		.958	
-It is very likely that I will buy this product.		.92		.91
-I will definitely try this product.		.88		.88
-I plan on buying this product.		.97		.97
-I will certainly purchase this product.		.94		.94
Purchase Involvement	.960		.955	
-Unimportant/Important		.83		.82
-Of No Concern/Of Concern to Me		.89		.88
-Irrelevant/Relevant		.92		.91
-Meant Nothing to Me/Meant a Lot to Me		.87		.86
-Didn't Matter/Mattered to Me		.92		.92
-Insignificant/Significant to Me		.93		.93

Data were gathered by mailing a questionnaire booklet to 680 product development executives working for major corporations in the electronics, transportation, and food products industries. After reminders, 200 usable responses were received, resulting in a 29.4 percent response rate.

Surprisingly, no responses had an ARB index value greater than four. This means that apparently no responses were contaminated by ARB. While the precise reason for this is unknown, there are some interesting possibilities. For one, the tendency for ARB to occur may be less among paper-and-pencil questionnaires than online questionnaires. Another factor may be the previously cited relationship between ARB and education level (Heaven 1983; Schuman and Presser 1981; Ware 1978) or income (Ware 1978).

Consequently, students with less education and lower income may be more likely to exhibit ARB than business executives. Business executives' interest and involvement with relevant research topics may also reduce ARB.

CONCLUSION

Prior research regarding acquiescence response bias has produced a gamut of findings. Some researchers assert that ARB is widespread, while some claim that it is virtually nonexistent. Its effects on survey data have been purported by some to be extensive, whereas others state that its effects are only negligible. This has left marketing researchers wondering what the effects of ARB are on their data and whether and how they should attempt to assess and control it. In this article, we investigate the prevalence of acquiescence response bias in

TABLE 6
Construct Correlation Matrix across Samples for Study 3

	Source Trustworthiness	Attitude Toward the Product	Purchase Intentions	Purchase Involvement
Source Trustworthiness	.62	.34	.13	.12
Attitude Toward the Product	.58	.72	.30	.24
	<i>17.91</i>			
Purchase Intentions	.36	.55	.86	.18
	<i>9.26</i>	<i>17.73</i>		
Purchase Involvement	.35	.49	.43	.80
	<i>8.91</i>	<i>14.42</i>	<i>12.04</i>	

Standardized Construct Correlation Matrix in the Total Group

Standardized Construct Correlation Matrix in the Restricted Group

	Source Trustworthiness	Attitude Toward the Product	Purchase Intentions	Purchase Involvement
Source Trustworthiness	.62	.38	.14	.15
Attitude Toward the Product	.62	.72	.31	.26
	<i>19.80</i>			
Purchase Intentions	.38	.56	.86	.18
	<i>9.62</i>	<i>17.72</i>		
Purchase Involvement	.39	.51	.42	.78
	<i>9.66</i>	<i>14.73</i>	<i>11.56</i>	

Note: diagonal values represent the AVE for each construct; values below the diagonal are correlation coefficient estimates with t-values italicized on the line below; values above the diagonal are squared correlation coefficient estimates.

marketing data and examine its impact on those data. A method of identifying ARB among survey responses is developed and shown to perform as theoretically expected. Further, a variety of marketing measures, response scale formats, and sample populations are investigated across four studies.

Based on these four studies, we make a number of conclusions. First, the method that we have developed to identify ARB, which makes use of differences between responses to positively and negatively worded items, appears to be performing as theoretically expected. Using this method, we find, in general, that the presence of ARB appears to increase the reliability and convergent validity of measures, as well as the relationships between constructs, while it diminishes measures' discriminant validity.

Second, the frequency of ARB among survey respondents varies considerably. In our four studies, the rate of ARB's occurrence varied from zero to 17 percent of participants. Interestingly, we observed ARB in each of our studies which included data obtained from college students, though we found no ARB among survey data gathered from business executives. While some efforts can undoubtedly be made to reduce this bias, they are much more apt to be related to the design of the survey than the content of the items since ARB is, by definition, unaffected by item content. However, even when the survey's topic is of presumed keen interest to respondents, as was the case in Study 1, ARB may still arise.

Third, even when ARB is present to a sizeable extent, its effects on the data are quite small. When responses which exhibited ARB were

present, coefficient alpha increased in size, but by a mean level of only .008. Similarly, standardized loading estimates averaged .01 higher when ARB was present. Discriminant validity was only slightly lessened in the presence of ARB; correlations between constructs were stronger by a mean level of .018. Such trivial differences call into serious question whether removing as many as 17 percent of respondents from a sample is justified by the resultant loss of statistical power. Given these findings, we conclude that while ARB appears to be present to a varying extent in marketing survey data, it does not seem likely to result in the distortion of psychometrically sound construct measures such that eliminating responses which appear to exhibit ARB can be rationalized.

FUTURE RESEARCH AND LIMITATIONS

Future research should seek to determine the generalizability of our findings regarding ARB, particularly regarding whether ARB has a significant impact on marketing data in instances other than those we examined. In this research endeavor, we did not assess the factors which may lead respondents to engage in ARB, such as their motivation to participate in the surveys. It may well be that ARB stemming from different sources produces varying effects. An intriguing possibility is that two different types of ARB exist. For instance, it is possible that one form of ARB may indeed stem from respondent-based characteristics, such as education, age, income, or culture, while another form may be attributed to item-based characteristics, such as an item's form or content. This may be of keen interest to marketing researchers since the features of items can be controlled with relative ease, though controlling ARB which emanates from respondents may be exceedingly difficult.

In our examination of ARB, we only included negatively worded items that were relevant to a single construct measure. Future research should examine how the inclusion of negatively worded items related to multiple construct

measures might affect the appraisal of the ARB present in data. In addition, we did not investigate the potential impact that placement of the negatively worded items in the questionnaire might have on ARB. It is possible that a respondent might not exhibit ARB in the early stages of completing a questionnaire, but may do so during the course of completing the questionnaire. This may be more likely for lengthy questionnaires since respondents may grow weary and become disinterested in completing such questionnaires (DeVellis 2003). Further research is needed to examine how the placement of negatively worded items in a questionnaire as well as questionnaire length may affect the assessment of ARB.

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GENDER AS A MODERATOR OF ROLE MODEL INFLUENCE AND ADOLESCENTS' CONSUMER-RELATED BEHAVIORAL INTENTIONS

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The study explores gender as a moderator of the relationship between the influence of various role models and adolescents' consumer-related behavioral intentions. A quantitative survey of 175 adolescents was conducted measuring role model influence and behavioral intentions. The LISREL model showed that gender was a significant moderator of the relationship and indicated that mothers and entertainers had a more positive impact on adolescent females' behavioral intentions while fathers had a negative influence. Fathers and teachers had a more positive influence on adolescent males' behavioral intentions. By better understanding gender differences among adolescents, marketers can develop more meaningful marketing communications programs to appeal to and motivate an adolescent target audience.

INTRODUCTION

Adolescents are an influential consumer market segment since they are trendsetters not only for one another, but also for the population at large (Noble, Haytko and Phillips 2009; Paul 2001). Children and adults look to teens to identify and adopt the latest fashion. Even more, adolescents often influence family purchase decisions and parental expenditures (Flurry and Burns 2005; Kennedy 2001; Wang, Holloway, Beatty and Hill 2007). These technologically savvy consumers are likely to play an even greater role in family decision making because of their expertise in terms of Internet use and because of their interests (Kim, Yang and Lee 2009; Sutherland and Thompson 2003).

The adolescent consumer segment also deserves attention from marketers because of its potential buying power. Raised in a consumption-driven society, these young consumers have more money at their disposal than any teen group in history and directly contribute to \$600 billion worth of spending

each year (Morton 2002; Noble et al. 2009). Further, this group's distinctive buying habits are likely to continue as its members enter the high-spending years of young adulthood (Lee 2009; Neuborne 1999). This builds on Wolburg and Pokrywczynski (2001) who suggest that the adolescent market is receptive to new products and has great potential for becoming lifetime customers. Hsieh, Chiu and Lin (2006) reinforce this point in noting that "more than half the brands used in childhood continue to be used in adulthood" (p. 1079).

Adolescents are also an important target for social marketers who spend millions of dollars each year in attempts to inform and influence teens about critical issues and behaviors related to smoking, drinking, and obesity. Brennan and Binney (2010) note that while the use of social marketing is growing, there is still some doubt as to the efficacy of the "three common social marketing appeals – fear, guilt, and shame – in terms of their capacity to induce compliant behaviors" (p. 140). Identifying significant influencers of adolescents may aid social marketers in successfully reaching and communicating to this important and oftentimes vulnerable consumer segment.

While there has been growing interest in children's consumptive behavior since the 1980s, (Bao, Fern and Sheng 2007), there has been a renewed research interest in adolescents. Gavish, Shoham and Ruvio's (2010) recent investigation of consumption interactions of adolescent daughters, mothers, and vicarious role models suggest a bi-directional influence between adolescent daughters and mothers. While this study adds to the literature by qualitatively taking an integrative perspective on adolescents and role model influence, the authors call for future research in this important area with respect to brand loyalty and consumption. Moreover, the authors encourage research to examine the role model influence of "father-son dyads" (p. 51). This reinforces Hsieh et al. (2006) who note that "little research focuses on the influence of fathers on their children" (p. 1080). In response to Gavish et al. (2010) and following Hsieh et al. (2006) the present study includes the examination of mother-son, mother-daughter, father-son, and father-daughter role model influence by quantitatively investigating role model influence and adolescents' consumption-related activities such as word-of-mouth communication, brand loyalty, and brand switching by gender.

Gender is another consumer behavior research topic garnering renewed interest. Kolyesnikova, Dodd and Wilcox (2009) identify gender as a moderator of reciprocal consumer behavior for adult wine consumption. Other research uncovering differences between males and females includes viewing preferences for sports consumption (McDaniel, Lim and Mahan III 2007), the importance of core service (merchandise) quality relative to relational (interaction) quality (Babakus and Yavas 2008), information search (Barber, Dodd and Kolyesnikova 2009), and response to unfair prices (Maxwell, Lee, Anselstetter, Comer and Maxwell, 2009). Noteworthy is that this line of research tends to focus on adults.

Though gender has been a topic of interest in the child consumer socialization literature, there is much still to be learned (Gavish et al. 2010;

Hsieh et al. 2006; Noble et al. 2009). One topic that appears to be largely unexplored is gender's potential moderating effects on the relationship between role model influence and the behavioral intentions of adolescents. While past studies have examined the influence of role models on adolescents in general (Bush, Martin and Bush 2004; Bush, Smith and Martin 1999; Carlson, Walsh, Laczniak and Grossbart 1994; Clark, Martin and Bush 2001), none examine gender as a moderator of specific role model influence on behavioral intentions.

The purpose of this study is to explore gender as a moderator of role model influence for five common role models – mothers, fathers, teachers, entertainers, and athletes – on teens' behavioral intentions since previous research indicates they play a significant role in consumer socialization (Bush et al. 1999; Moschis and Churchill 1978; Ward 1974). Consumer socialization is important since it is through this process that behavioral intentions are formed and carried out. The question that remains is whether males and females differ with respect to how they are influenced by various role models. If gender does moderate the influence of particular role models on adolescents' consumer-related behavioral intentions, marketers can be more effective in selecting the appropriate role model(s) to appeal to and motivate an adolescent target audience.

Consumer Socialization and Role Model Influence

"Socialization theory is the most common ground for understanding how young consumers learn to shop" (Noble et al. 2009). Consumption-related attitudes, decisions, skills, and behaviors are shaped in part by role models through the consumer socialization process, which are then reflected in young consumers' behavioral intentions. The most popular theory of consumer socialization is the social learning model, which views socialization as an outcome of environmental forces, such as role model influence, applied to the individual. For this theory, the individual is a passive

participant in the learning process and the development of beliefs and attitudes result from interaction with others (Moschis 1978).

Consumer socialization emphasizes sources of influence, or socialization agents, who transmit attitudes, norms, motivations, and beliefs to the learner (Moschis and Churchill 1978). In the consumer behavior literature, these agents include role models like parents (Ward, Wackman and Wartella 1977), teachers and peers (Moschis and Churchill 1978), opinion leaders (including entertainers and athletes), and the mass media (Bush et al. 1999, Bush et al. 2004). This process produces consumer skills that in turn can impact behavioral intentions (Moschis 1978). Behavioral intentions, as an outcome of socialization, are of particular importance to marketers because they are related to the behaviors that consumers exhibit toward a given product or brand through word-of-mouth communication, brand loyalty, or switching behavior (Zeithaml, Berry and Parasuraman 1996).

Social learning theory is often used to examine and explain the consumer decision making process of adolescents (Moschis and Churchill 1978). This theory proposes that individuals develop attitudes and behaviors through a variety of learning experiences as they interact with various influencers over time (King and Multon 1996). As models of attitudes, skills, and behavior, these influential others help shape the young consumer's consumption-related decisions and actions (Bandura 1977). Those having the greatest impact are often referred to as role models (Bandura 1977). Peers, parents, and the media have been studied in terms of their influence on the consumption behaviors of young consumers (Bush et al. 1999; Carlson, Grossbart and Walsh 1990; Carlson et al. 1994; Goodrich 2008; Keillor, Parker and Schaefer 1996; Martin and Bush 2000; O'Guinn and Shrum 1997).

While businesses have long relied on mass media appeals and scare tactics to influence adolescents, recent research has investigated more personal variables. For example, Thakor

and Goneau-Lessard's (2009) investigation of adolescents' skepticism toward advertising highlights the importance of normative peer influence and socio-oriented parental communication in shaping adolescents' perceptions. In the marketing of goods and services, more personal approaches, in the form of role models, are frequently used to appeal to adolescents to generate product interest and improve sales among this segment. Because the teen segment is so influential in its own right, of particular interest to marketing practitioners and researchers alike is the influence of various role models on teens' purchasing decisions, intentions, and, ultimately, behavior. Understanding how gender influences the impact that particular role models have on consumer-related behavioral intentions is of significant value to marketers who may be misallocating resources in trying to appeal to young male and female audiences with the same marketing communications.

Gender Differences and Adolescent Consumer Behavior

Ward's (1974) early research on consumer socialization underlined the importance of understanding not only the significance of the youth market but also of understanding the role of gender on consumer behavior (Stevens, Lathrop and Bradish 2005), as gender is a universal marketing segmenting method (Putrevu 2001). In fact, many have identified differences between the genders in some important respects. For instance, young males and females differ with regards to consumer knowledge and purchasing patterns (Moschis 1985; Moschis and Churchill 1978; Moschis, Moore and Stephens 1977), risk perceptions (Smith and Rosenthal 1995) and with respect to processing and responding to marketing communications (Wolin 2003). Mangleburg, Grewal and Briston (1997) report differences between males and females concerning how consumer socialization agents affect product label use. Lachance, Beaudoin and Robitaille (2003) not only report gender differences among adolescent consumers with respect to how parents, peers, and television, as

socialization agents, impact brand sensitivity, but also call for more research on the consumer socialization of children.

While gender has been a topic of interest in the consumer socialization literature, its potential moderating effects on the relationship between role model influence and the behavioral intentions of adolescents appears to be largely unexplored. Studies focusing on adolescents exploring gender's potential moderating effects include Hsieh et al. (2006) and Thakor and Goneau-Lessard (2009). Hsieh et al. (2006) expected to find gender differences in their study of parental style influence on children's brand attitudes, but found no moderating effects, perhaps due to the young age of the sample (8-12 years old). Thakor and Goneau-Lessard (2009) examined the possible moderating effects of gender on adolescents' skepticism of social and commercial advertising, however, theirs was a study that involved ads that focused specifically on health-related behaviors such as smoking, drinking, and drinking and driving. While the authors proposed gender differences, none were found, though this, and the fact that gender did not moderate the effects of other study variables, may be indicative of the behaviors being too sensitive in nature to ferret out gender differences. However, Shim (1996) suggests that gender is a distinctive variable in predicting the influence of socialization agents and that, in assessing adolescent consumer skills, gender differences should be taken into consideration. Though Gavish et al.'s (2010) recent investigation of adolescent mother-daughter role model influence uncovered the bi-directional influence between mothers and their daughters, male adolescents were not studied in this endeavor. Explored in the present study is whether and to what extent gender moderates the influence of particular role models (mothers, fathers, teachers, entertainers and athletes) on adolescents' consumer-related behavioral intentions. The following research question is investigated:

RQ₁: Does gender moderate the relationship between role model influence and the

consumer-related behavioral intentions of adolescents?

Since gender differences are expected in adolescents concerning role model influence (Shim 1996), the additional following research question is investigated:

RQ₂: Does role model influence affect adolescent males and females differently concerning their consumer-related behavioral intentions?

METHODOLOGY

Subjects

Adolescents between the ages of 13 and 18 (mean = 16.4) who were recruited from seven separate high schools and junior high schools in the mid-south area of the United States participated in this study. Fifty-three percent (94) of the 175 respondents were female. Sixty-two percent of all respondents were Caucasian, twenty-eight percent were African American, and ten percent were classified as other. Adolescents were the focus of this study because they are an important and influential market segment still in the learning stages of the consumer socialization process (Noble et al. 2009).

Measures

Existing scales were used to measure role model perceptions in general and how specific role models may influence a respondent's consumer-related behavioral intentions. Role model influence was assessed using an adapted version of the Rich (1997) role model scale. This seven-point, five-item Likert scale has anchors of strongly disagree (1) and strongly agree (7). Each respondent completed the scale for *five different potential* role models – the respondent's mother, father, favorite teacher, favorite entertainer, and favorite athlete. The reliabilities of the five role model scales were as follows: mother ($\alpha=.94$); father ($\alpha=.97$); favorite teacher ($\alpha=.92$); favorite entertainer ($\alpha=.93$); and favorite athlete ($\alpha=.94$).

Behavioral intentions were measured using an adapted version of the Zeithaml et al. (1996) multidimensional measure, which includes the sub-dimensions word-of-mouth communications, brand loyalty, and switching behavior. Each respondent completed the seven-point, twelve-item scale, anchored by strongly disagree (1) and strongly agree (7), which contains a variety of purchase and behavioral intention questions. The reliabilities for the three behavioral intention factors were as follows: word-of-mouth communications (three items, $\alpha=.90$); brand loyalty (three items, $\alpha=.85$); and switching behavior (six items, $\alpha=.91$). For this scale, the composite scores of each set of items were used, whereby the sums of scores were divided by the number of items comprising each of the measure's sub-dimensions and subsequently used in the structural model as indicators of behavioral intentions. Since behavioral intentions (consumer socialization) were not explicitly modeled as a higher-order construct, the use of composite scores to represent a partially aggregated model acknowledges the construct's multidimensional nature (Bagozzi and Heatherton 1994).

A LISREL model was developed to test the research questions. The measures for both scales (role model influence and behavioral intentions) were subjected to exploratory and confirmatory factor analyses to address issues of dimensionality, convergent, and discriminant validity (Anderson and Gerbing 1988; Joreskog and Sorbom 1993). Exploratory factor analysis was conducted using a maximum likelihood (ML) extraction with oblique rotation. Six factors (mother, father, favorite teacher, favorite entertainer, favorite athlete, and behavioral intentions) clearly emerged as expected with each of the items loading under its expected component with factor loading values of at least .76. This extraction led to 78.3 percent variance explained. The internal consistency reliability (coefficient alpha) of each measure (as indicated above) was above the commonly accepted threshold of .70 (Nunnally 1978).

Results of the confirmatory factor analysis using LISREL 8 (Joreskog and Sorbom 1993) and the sample covariance matrix as input indicated that each item loaded significantly on its respective underlying concept. A variety of fit indices were examined and, with the exception of the chi square test statistic (χ^2), the results indicated a relatively good fit of the measurement model ($\chi^2=564.81$, $df=335$, $p=.00$; *Root Mean Square Error of Approximation* [RMSEA] =.06; *Nonnormed Fit Index* [NNFI] =.94; *Comparative Fit Index* [CFI] =.94) (Bentler and Bonnett 1980; Hu and Bentler 1999; Joreskog and Sorbom 1993).

As shown in the Appendix, the magnitudes of the standardized loading estimates ranged from .79 to .97, and all loadings were significant (i.e., all *t-values* were larger than 2.00) (Anderson and Gerbing 1988). In addition to these loadings and the various model fit statistics, average variance extracted (AVE) was used to demonstrate convergent validity (Fornell and Larcker 1981). All AVE values were greater than .50, demonstrating convergence. Discriminant validity is present since the largest value for shared variance between all pairs of constructs (.32) is less than the lowest value for AVE (.69) (Fornell and Larcker 1981).

RESULTS

RQ₁: Does gender moderate the relationship between role model influence and the consumer-related behavioral intentions of adolescents?

After establishing the structure of the measurement model, ten indicators were used to measure the five separate latent role model constructs, with two indicators per construct. Since the constructs were measured with several items, the items were randomly divided into two or three indicator variables to enhance parsimony and facilitate model estimation for each construct (Pechmann, Zhao, Goldberg and Reibling 2003). However, prior to testing for the moderator, an analysis to confirm the measurement metric equivalency of the two

gender groups was conducted (Marsh and Hocevar 1985; Vandenberg and Lance 2000). Once measurement equivalence was confirmed, the structural model using LISREL 8 (Joreskog and Sorbom 1993) was tested with the male and female sample covariance matrices as input. The unweighted least squares (ULS) estimation approach was used. The model fit statistics collectively indicate that the proposed model fits the data very well ($\chi^2=53.7$, $df=98$, $p=.99$; $RMSEA=.00$; *Goodness of Fit Index [GFI]* =1.00; *NFI*=.96; and *CFI* =1.00) (Hu and Bentler 1999).

A base model established the relationships and a best-case scenario in which the error variances were set free for both the behavioral intentions and role model composite indicators. As well, each predicted latent role model construct was allowed to correlate. In an effort to fully examine the impact of gender as a moderator on adolescent behavioral intentions, a role model from one of the groups was constrained prior to performing chi-square difference tests on each of the role models using the previously referenced base model (Hughes, Price and Marrs 1986). In all cases, the revised models deteriorated for each role model scenario, as indicated by increasing chi-square values. In particular, the chi-square differences with respect to mother (MOT) ($59.07-53.7=5.37$, $df=1$), father (FAT) ($82.27-53.7=28.67$, $df=1$), teacher (TEA) ($69.86-53.7=16.16$, $df=1$), and entertainer (ENT) ($63.21-53.7=9.51$, $df=1$) were all significant at the $\alpha=.05$ level based on $\chi^2(1)=3.84$ (Groebner, Shannon, Fry and Smith 2004). The chi-square difference for athlete (ATH) as a role model did not indicate a significant difference ($56.36-53.7=2.66$, $df=1$). *The results clearly show that gender is a significant moderator of role model influence on the consumer socialization of adolescents, as measured by behavioral intentions, for four of the five potential role model influencers examined.*

RQ₂: Does role model influence affect adolescent males and females differently concerning their behavioral intentions?

The results were further examined to determine which gender was more influenced by each of the four role models for which significant differences were observed. The standardized path coefficients found in the completely standardized common metric solutions indicated that teachers (TEA) as role models had a more positive influence on males than on females (male $g=.20$, female $g=.10$). Fathers (FAT) as role models had a more positive influence on males but a stronger negative influence on females (male $g=.04$, female $g=-.19$). Entertainers (ENT) (male $g=.23$, female $g=.24$) and mothers (MOT) (male $g=.02$, female $g=.35$) both had a stronger influence on females than on males, with mothers being the stronger influencer of the two (See Table 1 for a summary of the findings).

DISCUSSION AND FUTURE RESEARCH

The goal of the present study was to assess the influence of various role models on adolescents' consumer-related behavioral intentions by investigating whether, and to what extent, the adolescents' gender moderates the relationship. The results reveal that gender does moderate the relationship in the quantitative model with one exception, athlete role model influence. Further, all relationships were positive, except in the case of fathers' negative role model influence on adolescent females' behavioral intentions.

While utilizing relatively stringent evaluation procedures, the proposed model was supported by the data and the covariance structure analysis allowed for an extended examination of the impact of the various role models on male versus female consumer-related behavioral intentions. The findings suggest that teachers and fathers have a significantly more positive influence on adolescent males' behavioral intentions than on females'. On the other hand, mothers and entertainers have a significantly more positive influence on adolescent females' behavioral intentions than on males'.

TABLE 1
Strength of role model influence on consumer-related behavioral intentions by gender.

Role Model	Influence Strength by Gender	Gender as a Moderator?
Mothers	male $g = .02$, female $g = .35$	Yes
Fathers	male $g = .04$, female $g = -.19$	Yes
Teachers	male $g = .20$, female $g = .10$	Yes
Entertainers	male $g = .23$, female $g = .24$	Yes
Athletes	male $g = .15$, female $g = .18$	No

In corroborating the qualitative findings of Gavish et al. (2010), this quantitative study showed a significant relationship between mothers and adolescent females' behavioral intentions. While the bi-directionality of the mother-daughter role model influence was not assessed, the findings indicate that mothers can be a powerful influence on their daughters when it comes to word-of-mouth communications about brands, brand loyalty and brand switching. That the role model influence of mothers was significant for both males and females is perhaps because "mothers are often the purchasing agents for the family" (Flurry and Burns 2005, p. 595). What is more, the results are consistent with Ward (1974) who notes that mothers, more than fathers, tend to hold discussions with their children and allow them to learn from their own experiences to teach them consumer skills. That mothers were more influential for females than for males is consistent with the finding that mothers and daughters tend to experience greater agreement than mothers and sons (Beatty and Talpade 1994; Saunders et al. 1973).

In contrast to the qualitative findings of Gavish et al. (2010), this quantitative study indicated a strong positive relationship between entertainers and adolescent females' behavioral intentions. These differences may be attributed to the nature of the study (in-depth interviews versus anonymous surveys) and/or cultural differences. In fact, Gavish et al. (2010) note that the lack of significant findings for celebrities may be due to the fact that,

"imitating celebrities was perceived as a weakness" (p. 48). The results of the present study do make sense given Noble et al.'s (2009) phenomenological investigation of the antecedents/motivations of American college age consumers' purchasing and patronage behavior which revealed the subjects of that study to be "very focused on the styles celebrities wear" (p. 626). A future research opportunity to further understand the influence of entertainers exists since marketers often rely on celebrity endorsers to for marketing campaigns.

A key finding of interest is the direction of the role model influence of fathers in that father role model influence on behavioral intentions revealed results in the opposite direction for the genders, with females being more strongly, though negatively, influenced. This may be explained by prior research that has found parents to be more responsive to same-sex children (Ackock and Bengston 1978; Baumrind 1971; Margolin and Patterson 1975; Noller 1980). For example, fathers typically have more paternal involvement with sons, and may therefore be more influential for them. Further, males tend to perceive their relationship with their fathers as more supportive than do females (Furman and Buhrmester 1992). While all of this suggests gender plays a significant role in the relationship between parental influence and children's behavioral intentions, Lachance et al. (2003) note that little is known about the role of fathers as consumer socialization agents – its nature or importance. Though Carlson and

Grossbart (1988) state that maternal effects dominate children's socialization, Lee and Collins (2000) did find father-daughter and mother-son coalitions. The present study's results, like those of Hsieh et al. (2006), suggest that the socialization practices of fathers and mothers may be different. More studies, therefore, "are necessary for investigating the parental influences among parent-child dyads" (Hsieh et al. 2006, p. 1084). Since "parents play distinctive roles in their children's development" (Bao et al. 2007, p. 673), and given that "for marketers, an awareness of parental influence is very important, because they may be able to influence children's attitudes toward the brand by marketing to adults (parents)" (Hsieh et al. 2006, p. 1084), there is still much to learn in exploring parental-child influence. Further, though the findings provide additional insight into adolescent males in revealing that fathers can be powerful influencers of their sons' word-of-mouth communications about brands, brand loyalty and brand switching behavior, the bi-directionality of influence was not assessed. An additional future research opportunity exists to study this important dyad.

LIMITATIONS

A key study limitation study is the exclusion of peers as a role model group of interest. As an imperative part of an adolescent's social context (Brown 1990), peer groups are a significant socializing force during adolescence (Hay and Ashman 2003). A recent study by Lee (2009) identifies peer influence to be the top predictor of adolescents' green purchase behavior. Further, Thakor and Goneau-Lessard (2009) showed peer influence to play a significant role in adolescents' skepticism of advertising. In fact, evidence suggests that peer influence becomes stronger as teens mature. Though younger children tend to acquire consumer norms through observations of their parents, adolescents and teenagers are likely to look to their friends for models of acceptable consumption behavior (Goodrich 2008; Shiffman and Kanuk 2004). The present study

can therefore be extended to include peers as potential roles models.

Another limitation is the implicit presumption of a traditional family household. U.S. Census data, for instance, suggest that traditional families have declined as other household types have emerged. These new households include single parent households resulting from rising divorce rates. Hill and Rodgers (1964) suggest that events such as a divorce or birth can alter the role relationships in a family and transition the family into a new phase of the family lifecycle, potentially impacting a child's socialization process. Further, as children develop parents are the ones who teach their children consumer skills, consumption-related preferences, and consumption-related attitudes (Hawkins, Best and Coney 2004). However, this study did not consider the potential influence of family structure when examining the differences among the respondents. It may, therefore, be important to examine the potential differences in consumer socialization among teenagers with nontraditional family structures such as married parents with stay-at-home fathers, dual-income working parents, single parents due to divorce or death, and same sex parents. Belch and Willis (2001) report that the changing structure of American households has resulted in changes in the family decision-making process such that females have gained more influence in most consumer decision-making, while that of men has decreased. Further, Roberts, Manolis and Tanner (2006) suggest family structure directly influences adolescent compulsive buying behavior. Future studies should, therefore, test for any effects based on differences in family structure. Knowledge of, and closer attention to, household structure may enhance the understanding of how various role models influence teens' behavioral intentions given the father role model's unexpected negative influence on female behavioral intentions. Additional limiting factors include the absence of measurement of family communication or level of parent-child interaction as family communication is a fundamental part of, and parent-child interactions play a critical role in,

consumer socialization (Bakir, Rose and Shoham 2006; Kim et al. 2009).

Final study limitations include the use of a convenience sample and the measurement of behavioral intentions versus actual behavior giving rise to the potential for self-generated validity effects (Chandon, Morwitz and Reinartz 2005). The generalizability of this study could have been enhanced by gathering behavioral data from a control group that did not answer the survey and by including multiple indirect measures of behavioral intentions that the survey does not influence. Limitations with respect to causality also apply. This study does not indicate that casual relationships exist among the study variables. Nevertheless, the overriding goal of the study was to explore the possibility of gender as a moderator of the relationship between various role model influences and adolescents' consumer-related behavioral intentions. Despite the noted study limitations, the study has demonstrated the importance of gender with respect to role model influence.

CONCLUSION

This study extends the present literature by focusing on gender differences among teens given their differential responses to various role model influences within the consumer socialization process. These findings also have important managerial implications. The results suggest that attention to gender differences is important for marketing managers utilizing role models in their marketing communications efforts to target young consumers. Marketing managers may wish to carefully consider their selection of an advertising spokesperson when targeting along the demographic lines of age and gender. For instance, the use of entertainers may have a more significant influence on adolescent females' behavioral intentions than on males'. Marketing managers may also wish to reconsider utilizing athlete spokespersons if they are segmenting teens along gender lines since in this study, favorite athletes as role models did not significantly differentially

influence males' or females' behavioral intentions.

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APPENDIX A
Confirmatory factor analysis (ULS) of items and measurement
properties of the role model influence scale

Scale Items*	Standardized Loadings	t-values
Role Model Influence – Mother (MOT) (a=.94)		
Provides a good model for me to follow	.91	15.53
Leads by example	.87	14.46
Sets a positive example for others to follow	.93	16.12
Exhibits the kind of work ethic and behavior that I try to imitate	.81	12.83
Acts as a role model for me	.93	16.18
Role Model Influence – Father (FAT) (a=.97)		
Provides a good model for me to follow	.97	17.42
Leads by example	.90	15.33
Sets a positive example for others to follow	.96	17.26
Exhibits the kind of work ethic and behavior that I try to imitate	.93	16.25
Acts as a role model for me	.95	16.96
Role Model Influence – Favorite Teacher (TEA) (a=.92)		
Provides a good model for me to follow	.86	14.05
Leads by example	.86	14.00
Sets a positive example for others to follow	.85	13.80
Exhibits the kind of work ethic and behavior that I try to imitate	.87	14.14
Acts as a role model for me	.79	12.15
Role Model Influence – Favorite Entertainer (ENT) (a=.93)		
Provides a good model for me to follow	.89	14.94
Leads by example	.90	15.01
Sets a positive example for others to follow	.88	14.60
Exhibits the kind of work ethic and behavior that I try to imitate	.79	12.43
Acts as a role model for me	.82	13.00
Model Influence – Favorite Athlete (ATH) (a=.94)		
Provides a good model for me to follow	.90	15.23
Leads by example	.93	15.95
Sets a positive example for others to follow	.88	14.71
Exhibits the kind of work ethic and behavior that I try to imitate	.82	13.09
Acts as a role model for me	.82	12.96
Behavioral Intentions**		
Word-of-Mouth Communications (WOM) (a=.90)	.89	14.18
Brand Loyalty (BRALOY) (a=.85)	.84	13.12
Switching (SWITCH) (a=.91)	.83	12.84

* Each item is measured on a 7-point scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree) (Rich 1997). All loadings are significant at the .01 level or better.

** Based on composite scores derived from the original 12-item scale (Zeithaml, Berry and Parasuraman 1996).

CRM AND SALES PIPELINE MANAGEMENT: EMPIRICAL RESULTS FOR MANAGING OPPORTUNITIES

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Numerous Customer Relationship Management (CRM) studies have focused on utilization and acceptance (or failure). Few studies have looked at one of the original purposes of CRM, contact management, i.e., how leads become prospects and then valued clients. In this large sample study, the results indicate that when CRM systems are believed to be credible and useful, firms tend to have comprehensive prospecting plans, follow a standardized process for qualifying opportunities, and work across departments to close deals. The findings also suggest valid CRM systems (technology and culture) will improve the ability to manage opportunities in the pipeline.

INTRODUCTION

To maintain competitiveness in a challenging business environment, sales-intensive organizations are investing in state-of-the-art technologies, to help manage prospect information, improve customer relationships (Jelinek, Ahearne, Mathieu and Schillewart 2006), and increase client communication (Tanner et al. 2005), in order to increase sales force productivity (Hunter and Perreault 2006). In a survey of 1300 companies, executives ranked sales force effectiveness second only to revenue generation as their top priority (Dickie 2004). However, Customer Relationship Management (CRM) revenue ranking, continues to drop. In the most recent survey on the benefits of CRM systems, "increased revenues" was considered ninth, behind several others including improved forecast accuracy, best practices sharing, improved order process accuracy, etc., (Dickie 2010).

Sales managers need to consider the myriad benefits CRM provides. Advances in CRM technology offer opportunities for sales professionals to access detailed client information, communicate productively with management, and organize sales-related

activities (Rodriguez 2009). "A common (and tactical) misconception equates CRM with technology. In other words, this notion boils down CRM to a hardware/software tool that can be purchased and implemented without much effort" (Thakur, Summey and Balasubramanian 2006, p. 148). As the sales environment continues to evolve (Jones et al. 2005; Tanner et al. 2005) and becomes more complex and competitive, CRM technology will continue to grow in importance.

Management needs a better understanding of how sales technology, such as CRM, can assist salespeople perform tasks and build improved relationships with their customers (Hunter and Perreault 2006). The positive impact that information sharing has on client satisfaction because salespeople have data at their fingertips is considerable (Steward 2008). The main driver of these CRM initiatives has been the increased strategic emphasis on building partnership relationships with buyers (Cannon and Perreault 1999). In a recent study (Reimann, Schilke and Thomas 2010), it was found that CRM has a mediated effect on performance. The authors called for a wider look at what impacts the effectiveness of CRM solutions.

While there has been much attention and research on CRM utilization and acceptance, often with conflicting results, there has been

little theory testing on the impact of CRM technology on sales opportunity management: can a CRM help the process of a lead becoming a client? In order to meet the various objectives set by sales and marketing mandates, organizations first need to effectively create and manage sales opportunities. In essence, what is being done at the infancy of building client relationships and what role does CRM play before a lead is a prospect, then eventually a loyal client? The purpose of this paper is to offer an initial exploration of the relationship of CRM and opportunity management by looking at the sales pipeline process prior to someone becoming a client.

THEORETICAL BACKGROUND

CRM and Its Benefits

Significant influences on sales professionals include the growth of information technology (IT), electronic commerce (Moore and Breazeale 2010), and the integration of relationships between different business areas. The presence of computer technologies has increased dramatically (Venkatesh et al. 2003) and many organizational technology initiatives are driven by increased pressure from competition and the demand to meet client requests. The most dramatic investment in technology has been in CRM solutions. In one study, CRM implementation strategy ranked among the top five initiatives for 60 percent of companies (Nelson 2004).

CRM is a technology blending sales, marketing, and service information systems to build partnerships with customers (Shoemaker 2001). CRM technology supports relationships at touch points where the customer and firms interact. More than technology, CRM is both a strategy and philosophy that companies should adopt and implement. "CRM can be thought of as a set of business practices designed to put an enterprise into closer touch with its customers, in order to learn more about each one and to deliver greater and greater value to each one with the overall goal of making each one more valuable to the firm" (Peppers and Rogers

2004, p. 6). The goal of CRM is to align business processes to the strategy of the customer in order to build client loyalty and long-term profitability (Rigby et al. 2002). For the sales organization, benefits of CRM include:

- Improved efficiency and increased productivity in sales, marketing, and customer support (Li 2001)
- An improved and smoother sales process
- Better sales forecasting and performance
- The ability to provide ideal solutions for clients
- Documenting customer needs quickly and efficiently (Baran, Galka and Strunk 2007).

Sales-based CRM technology tools are designed to assist a firm and its salespersons meet objectives in managing customer relationships (Hunter and Perreault 2006) by collecting, analyzing, and distributing information that enhances prospecting, improves communication and sales, and delivers tailored product configurations.

Another important component of CRM is its ability to share critical client information with other departments and colleagues within the firm. CRM enables sales professionals to collaborate with their peers and direct other departments in assisting those clients (Baran, Galka and Strunk 2007). Thus, benefits of CRM are not found in a vacuum; they require interaction from others. Through internal collaboration, CRM solutions enable sales professionals to better serve their clients and provide information to management in "real time."

Collaboration - Key Component for the Sales Professional

Collaboration is the process by which people accomplish work (Weitz, Castlberry and Tanner 2004). It enables individuals to conform to a standardized way of working and to develop and improve their own work routine given their abilities and the unique customer needs. Collaboration, both internal and external, is increasingly important for customer-focused

firms. From a sales perspective, collaboration entails a value chain model where supply chain stakeholders (e.g., clients, support personnel, shipping, marketing) offer data input into the selling process (Tanner et al. 2005).

How do sales professionals collaborate with managers and colleagues when they are away from the office visiting clients, prospecting, or networking with partners? CRM technology enables sales professionals to coordinate the sales effort with other individuals within their company, i.e., inside sales, customer service, engineering, and marketing (Tanner et al. 2005). "CRM in these environments provides the foundation for true collaboration, co-knowledge creation, and opportunity exploitation" (Plouffe, Williams and Leigh 2004, p. 334).

Successful CRM collaboration is the ability to gather customer information through interactions across all functions and areas of the firm (Yim, Anderson and Swaminathan 2004) and disseminate this customer knowledge throughout the organization. Therefore, CRM technology enables effective collaboration between customers, salespeople, and a firm's internal functional areas.

Opportunity Management

Sales professionals are boundary spanners and, therefore, are responsible for sales-related tasks both inside and outside the organization (Hunter 1999). One task sales professionals spend a lot of time on is opportunity management, i.e., the process of taking prospects and making them clients if there is a value match. Research on sales process effectiveness incorporates opportunity management. Sales process effectiveness is defined as the ability to complete short term outcomes in the sales exchange by being able to analyze opportunities and improve closing rates (Stoddard, Clopton, and Avila 2006). Sales force automation tools, such as CRM, have proven to help sales professionals improve closing rates and generate revenue faster (Erffmeyer and Johnson 2001). By taking

advantage of the many CRM capabilities, salespeople can expand their knowledge, improve their targeting skills, and enhance their presentation skills (Ahearne, Hughes and Schillewaert 2007), culminating in a more effective sales process.

This study measures CRMs impact on how sales organizations manage prospects. Therefore, the measures of sales performance are based on four different areas, as they relate to the sales professional's job functions, including use of a standardized comprehensive process, lead conversion, internal organizational collaboration, and average sales cycle time.

HYPOTHESIS DEVELOPMENT

Early CRM research sought to show the effectiveness of the systems by comparing business results between firms that do not have a CRM tool with other firms that have a CRM implementation (e.g., Mithas, Krishnan and Fornell 2005). A more nuanced approach would be to compare CRM firms differing on implementation effectiveness of CRM systems because not all CRM firms succeed equally. In this study we looked at CRM implementation from a functional perspective. For example, is the user confident that the CRM system provides information to perform his/her function adequately? Does the user perceive that the CRM system helps improve the productivity of sales people? If so, the system is high on effective implementation. We hypothesize and find evidence for such nuanced influences on several intermediate firm outcomes.

Prospecting Plans and Qualified Leads

Prospecting is the first of the seven-step classical approach to sales (Moncrief and Marshall 2005). It is the most important first-step because most firms lose customers every year and there is a constant business need to expand the customer base (Jolson and Wotruba 1992). A well-implemented CRM system can deliver effective prospecting and provide for

directed search on where to look for potential customers. Prospecting can be a highly complex process that pools information on geographical information systems, customer segmentation, and census data (Levy and Weitz 2008). For example, one proprietary business analysis module for customer segmentation provides information on 65 customer segments based and in-depth statistical analysis (ESRI 2009). Detailed information on spending habits, income, tastes, and preferences are available for each segment. This information is integrated to information at a census block level greatly increasing the likelihood that the prospecting locations will yield qualified leads. Effectively implemented CRM should facilitate such comprehensive prospecting. Prospects may be qualified in three different ways—company initiated, salesperson generated or prospect initiated (Jolson and Wotruba 1992) and a good CRM implementation should provide consistency on qualifying leads.

H₁: The higher the CRM effectiveness, the higher the use of prospecting plans.

H₂: The higher the CRM effectiveness, the higher the use of a standardized process to qualify leads.

CRM Implementation and Collaboration

A strong market or customer-oriented behavior (Jaworski and Kohli 1993) is a theme that runs throughout strategic approaches to value creation. Information collection and firm-wide dissemination (Jaworski and Kohli 1993) is at the heart of market orientation. It leads to superior value and owes its success to collaboration among different departments and functions. A market/customer-oriented focus starts with a detailed analysis of customer benefits within end-use segments and then works backward to identify the action(s) needed to improve performance. Market research, defined by Moller and Anttila (1987) as the set of processes needed to discover information about customer needs, is found to be a key capability for a market-driven firm to develop (Vorhies, Harker and Rao 1999). While information collection and dissemination is broadly construed to be a marketing function, in

practice, such information is largely performed by the sales team (Guenzi and Troilo 2007). A well-implemented CRM system should facilitate timely, accurate, and seamless intra-organizational collaboration across different departments.

H₃: The higher the CRM effectiveness, the higher collaboration across departments to pursue deals.

Closure Accountability and Sales Cycle Time

A well-implemented CRM enables salespersons to work on prospecting and qualifying, and not investing in information searches if the data/knowledge has already been established. Salespersons can spend time building relationships with the right customers and refining the proper solutions based on CRM expertise. When the salespersons believe and adopt the CRM system with confidence, they collaborate with relevant departments from the field to provide compelling recommendations from similar customers, identify any appropriate discounts to apply, provide information on anticipated delivery times, and payment plans. When there is organizational buy-in for the CRM system, accountability for all parties, especially for the closure of leads by the sales force, may be more prevalent. Robust CRM implementations that include an advanced planning system have shown to reduce order cycle time by 50 percent (Chen 2001). Thus, a well-implemented CRM system should enable salespersons to quickly address customer concerns and move toward resolution.

H₄: The higher the CRM effectiveness, the higher the accountability for lead closure.

H₅: The higher the CRM effectiveness, the lower the sales cycle time.

METHODOLOGY

Sample Selection

The focus of the current study is to investigate whether organizations with effective CRM systems achieve better prospecting results as measured by criteria relevant to the beginning

stages of the sales pipeline management. Data was gathered for a global research study conducted by Miller Heiman, a leader in sales performance consulting and training. Respondents were offered an executive summary of the results, as well as a copy of the results from the previous year's study in return for their involvement.

Surveys were sent via email to business people in a variety of revenue-oriented positions. The email contained a link to the survey and all data was collected online. A total of 14,080 individuals opened the link and 1,502 respondents completed the survey for a 14.1 percent response rate. Only surveys that noted

their sales process was "complex" (involving at least three buying influences) were used for data analysis. Early and late respondent means were compared (Armstrong and Overton 1977) which revealed no statistically significant differences between the respondents.

Sample Demographics

Respondents identified themselves from various industries (see Table 1). The preponderance of replies came from consulting and professional services, technology software, and manufacturing. Business services, technology hardware, finance and investment, and telecommunications industries were also evenly

TABLE 1
Industry Profiles

Industry	Frequency	Percent
Consulting and Professional Services	183	12.2
Technology – Software	166	11.1
Manufacturing	156	10.4
Business Services	141	9.4
Technology – Hardware	112	7.5
Finance and Insurance	101	6.7
Telecommunications	99	6.6
Healthcare – Capital	61	4.1
Healthcare – Consumables	61	4.1
Energy (Oil/Gas)	45	3.0
Industrial and Chemical	44	2.9
Consumer Products	43	2.9
Education	40	2.7
Transportation	39	2.6
Pharmaceuticals	35	2.3
Energy (Other)	31	2.1
Construction	27	1.8
Government	24	1.6
Hospitality and Food Service	22	1.5
Wholesale	17	1.1
Media	16	1.1
Utilities	12	.8
Others/Missing	27	1.2
Total	1475	100

TABLE 2
Job Function /Level

Job Level	Frequency	Percent
Sales VP/Director	395	26.4
Sales Manager	285	19.0
Business Development	178	11.9
Sales Representative	141	9.4
President/GM	117	7.8
C-Level Executive	108	7.2
Account Management	96	6.4
Sales Operations	59	3.9
Marketing	48	3.2
Training	43	2.9
Human Resources	15	1.0
Customer/Client Service	14	.9
Missing	3	.2
Total	1502	100

represented. The size of the firms ranged from employing fewer than 24 salespeople to many employing 500 or more salespeople. Females totaled 17.3 percent of the respondents. Table 2 contains job title information for the respondents with the largest percentage (26.4 percent) being sales vice-presidents/sales directors, with sales managers constituting 19.4 percent of the sample.

Measures

A series of measures was developed and used to understand CRM conventions and the subsequent performance outcomes. Each of the measures was an individual, single-item, question posed to understand the interaction of the two functions or outcome results. While multi-item measures increase measure reliability (Churchill 1979), Bergkvist and Rossiter (2007) showed that single-item measures are equally predictive where the construct is concrete and singular (Rossiter 2002). Each of the questions was measured via a seven point scale (1 “strongly disagree” and 7

“strongly agree”). Below is a description of the items used for the study:

CRM effectiveness was measured on two items, “Our sales management team is highly confident in the data available from our CRM system,” and “Our CRM system significantly improves the productivity of our salespeople,” on a seven-point scale (Cronbach’s alpha .83).

Use of comprehensive prospecting plans via a seven-point scale with the item “We consistently utilize comprehensive prospecting plans.”

Standardized process to qualify opportunities was measured with the item, “We consistently follow a standardized process to qualify opportunities.”

Lead conversion accountability was measured with the item, “Our salespeople are always held accountable for converting leads to closed business.”

Internal organizational collaboration was measured with the item, "Our organization regularly collaborates across departments to manage strategic accounts."

Average sales cycle time was measured by asking the respondent to assess during the previous year if sales cycle time has decreased significantly, decreased slightly, remained unchanged, increased slightly, or increased significantly.

DATA ANALYSIS AND DISCUSSION OF RESULTS

Of the 1502 responses received, 222 indicated that they did not have a CRM system within their firm. These firms were set aside from further analysis as the focus in this paper was to study the user-based implementation effectiveness of the CRM system. The remaining responses were divided into two groups using a median split with 51.5 percent of the responses categorized as low on user-based CRM effectiveness. Group differences were analyzed on opportunity management parameters identified in this paper. As shown in Table 1, a significant difference ($t_{1255} = 9.54$, $p < .0001$) exists between the mean value of the prospecting process between the low and high CRM effectiveness groups. As a result, Hypothesis 1 is supported. Hypothesis 2, which examined differences in the standardization of lead qualification, resulting in a significant difference ($t_{1252} = 9.19$, $p < .0001$) between the low and high CRM effectiveness groups. Hypothesis 3, which examined differences in the level of inter-departmental collaboration, was also found to differ ($t_{1263} = 9.53$, $p < .0001$) between the low and high CRM effectiveness groups. Hypothesis 4 examined the potential differences in the degree of accountability for closure of qualified leads. This relationship was also supported ($t_{1260} = 8.24$, $p < .0001$), meaning the low and high CRM effectiveness groups were not similar. Finally, Hypothesis 5 examined the sales cycle time and, surprisingly, was not supported ($t_{1261} = 1.80$, $p > .05$). Thus, using an effective CRM

system did not reduce the time it took to close the typical sale.

DISCUSSION AND MANAGERIAL IMPLICATIONS

This study offers several important implications for managers who are currently utilizing CRM, are evaluating their current return on investment, or are contemplating a CRM initiative.

First, sales organizations need to look differently at how CRM can benefit their firm. CRM should not be seen as a magic wand that will automatically increase revenues, but rather as a tool that improves sales process effectiveness. Our findings show that there is a positive relationship between CRM and opportunity management. Therefore, sales managers who are challenged with qualifying leads and managing prospects can garner higher outcomes by using CRM technology. As previously discussed, prospecting is the most important first step in making the sale. If the sales organization is to follow a standardized sales process, managers need to utilize CRM to capture the wants of the prospective client and create an accurate profile. Sales professionals are then able to focus on the right type of customer and use their time more efficiently.

Second, the findings confirmed that a positive relationship exists between CRM and collaboration across departments. When CRM is supported by a culture that embraces a customer-focused structure (Thakur and Summey 2005), the technology is a resource for all areas of the organization. Managers who rely on, or should rely on, other departments (i.e., support, marketing, and engineering) need technology to disseminate information efficiently to others who are involved in the sales process. As the sales process has evolved into more complexity, it is essential for sales professionals to communicate with their managers and colleagues to gain an in-depth understanding of their prospects' needs. Through the effective use of CRM, sales professionals can work closely with co-workers

and managers to offer a customized solution for their prospective clients.

Third, this study found that CRM effectiveness leads to higher accountability for lead closure. Converting a lead to an actual customer is the most important and challenging aspect of the sales process. CRM enables sales professionals to capture touch points from all areas of the organization, thus creating a 360 degree view of the client. Having a detailed understanding of the prospect and the buying process should enable firms to close more leads into actual sales. Therefore, there is more accountability for each lead while using an effective CRM system. If the accuracy of the system is credible, the “chain of evidence” will show who (salesperson) is doing what, when, based on what information, and in this environment of full disclosure, accountability will be rather transparent.

The one area of the research that was not supported was sales cycle time. Contrary to Chen’s findings (2001), CRM effectiveness did not decrease the sales cycle time. Though CRM may make sellers more efficient and productive, it may not change the way buyers make decisions. As discussed earlier, the sales environment has become more challenging due to more decision makers and educated buyers accessing product information. These buyers may be provided with an ideal product or solution but still need to follow their buying process. Thus, even if they have the information they need to make a decision, a seller cannot move faster than a buyer wishes.

Overall, our study supports CRM’s impact on sales opportunity management. Sales organizations who are faced with the challenges of qualifying leads, lead conversion, or sharing information with other departments may consider investing in CRM technology. Firms who already utilize CRM should also consider investing in cross-functional training on how CRM increases collaboration in order to improve CRM adoption and utilization (Rodriguez 2009).

LIMITATIONS AND FUTURE RESEARCH

There are certainly some limitations associated with the study. First, there was a reliance on several single item measures, which, while robust, can be improved by triangulation with additional data collection methods. Second, the CRM construct tends to touch many relationships across the firm and into the marketplace which makes it difficult to simultaneously measure and explore in isolation. Third, the only outcomes examined were pipeline-related, but a more robust approach with additional variables might lead to important interaction effects, or perhaps mediators that were not ascertained in this study.

Future research may wish to continue as it relates to CRM and its effectiveness further down the sales pipeline. How specifically are sales professionals supported by CRM? Are certain management practices better suited for highly effective versus less effective CRM systems? What moderating or mediating effects do CRM systems have on various parts of the sales process? Moreover, samples that look across national boundaries or industries would be beneficial to theory and practice. Given the importance and the amount of money spent on CRM solutions, longitudinal studies should be a main concern for future research. CRM’s effect on sales cycle time is truly in need of further exploration. While potentially intuitive that the time required to close a piece of business may be shortened if you are using an effective CRM system, this was not found to be significant ($p=.07$). A finer microscope should be used to discern if certain correlations exist, especially those that might be influenced by industry type, the relationship with the buyer (transactional or relational), or possibly the complexity of the sale itself. Perhaps CRM does affect sales cycle times in some industries involving complex multi-step sales processes, such as in technology solution sales, and perhaps less in B2B sales in the manufacturing sector. The moderating role of the industry sector on the influence of CRM effectiveness on sales cycle

times is a possible and interesting future extension.

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MARKET MAVENS' MOTIVATIONS TO ACQUIRE INFORMATION

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Market mavens are distinguished by two key behaviors: acquiring relevant and valuable marketplace information and sharing this information with other, less-involved consumers. This study focuses on the former, whereas past studies have focused on the latter behavior. A hypothesized model describes relationships among two competing possible motivations (i.e., a socially construed and more affective one, social consumption motivation, and a more utilitarian and cognitive one, maximization), market mavenism, and materialism. Findings reveal that market mavens are driven to find the best option available and are less concerned with social status.

INTRODUCTION

Market mavens have a panoramic view of the marketplace and are eager to share their information with other consumers. Specifically, they are especially interested in keeping abreast of changes in the marketplace, pay close attention to new information about many products, and enjoy actively engaging with other consumers to share their marketplace knowledge (Feick and Price 1987, p. 85). Since market mavens initiate word-of-mouth communications, a more personal and trusted source of information (Kiel and Layton 1981), they serve a powerful role in diffusing marketing messages and information to consumers. Overall, they play an influential role in shaping other consumers' purchase decisions (Feick and Price 1987). Therefore, marketers and many large, cross-category retailers seek to better understand how to appeal to and target market mavens.

Market mavens, opinion leaders, and innovators are three groups of consumers who play key roles in getting products to diffuse through the marketplace (Ruvio and Shoham 2007). Although all three groups willingly share information with other consumers, their type of expertise and their behavior differ (Goldsmith et al. 2003). The defining characteristic of the

opinion leader is his/her expertise, personal experience, and enduring involvement in a particular product category (Childers 1986). When consumers need guidance or information about a particular product category (i.e., computers, cars, fashion, etc.), they often choose to seek advice from opinion leaders.

In contrast to opinion leaders, the innovator is mainly distinguished by his/her willingness and follow-through to purchase new products in the early stage and ahead of other consumers. Innovators eagerly venture to learn about and be the first to try new products. Their willingness to take the risks associated with being the first to try a new product gives them the personal experiences before other consumers are aware of, try, or purchase the product. This first-hand experience in trying and using new products is how innovators acquire their information to share with other consumers.

Compared to opinion leaders and innovators, market mavens act as a conduit of information about more generalized marketplace knowledge. Market mavens disseminate both positive and negative information more than non-mavens (Schneider and Rodgers 1993) and "acquire and pass on information on products they do not buy themselves" (Walsh et al. 2004, p. 112). Researchers suggest that market mavens seek out information they deem will be valuable in conversations and useful to other consumers (Feick and Price 1987). Both

innovators and opinion leaders play a pivotal role in the early stages of a product's life cycle, whereas a market maven's interpersonal communications and influence may occur throughout a product's life cycle. Although all three segments engage in interpersonal communication with other consumers, the market maven's broader knowledge across product categories and general marketplace knowledge mainly distinguishes them from the opinion leaders and innovators.

Market mavens' generalized knowledge about a variety of products (both durable and non-durable), services, retailers, and purchase related information is valuable to some consumers (Slama and Williams 1990). Walsh et al. (2004) suggest that market mavens help consumers by gathering and sifting through the available products and information in the marketplace and, thereby, save consumers time and money. Why do market mavens take on the challenging and effortful responsibility of gathering and sifting through marketplace information for a variety of products and do so continually?

Research has investigated what motivates market mavens to share their knowledge with others and a variety of psychological and personality variables have been examined (Brancaleone and Gountas 2007, Goldsmith et al. 2003, Goldsmith et al. 2006, Goodey and East 2008). However, less is known about what motivates the market maven to face the nearly overwhelming amount of information available and to push forward to process, sift-through, collect, and store key information so that they have valuable knowledge to share with consumers. Understanding what motivates market mavens to engage in information search and acquire marketplace knowledge across product categories will help marketers better understand how to communicate with them. In addition, this insight may also assist marketers in designing more effective campaigns to break through the clutter and noise in the marketplace.

Market mavens are "information seekers and diffusers" (Price et al. 1987, p. 332). Academic research has been directed at understanding the "diffusion" but little is known about how market mavens seek their information. Accordingly, the purpose of the current study was to provide a better understanding of what motivates market mavens to acquire their information. Two possible motivations are discussed, and a theoretical model and hypotheses linking these motivations to market mavenism and materialism is tested. Results, managerial implications, and avenues for future research are discussed.

MARKET MAVENS

Past research on market mavens has focused on profiling the demographic and media usage characteristics of market mavens and found that market mavens engage in substantially more frequent interactions with other consumers about retailers (Higie et al. 1987). In addition, they perceive themselves to be smart buyers (Price et al. 1988, Slama et al. 1992), enjoy shopping (Goldsmith et al. 2003), are highly social (Clark and Goldsmith 2005) and can recall more brands (Elliott and Warfield 1993) than non-mavens. Also, market mavens have a greater affinity for technology (i.e., "the degree to which an individual likes or looks forward to learning about and being involved with new technology" (Geissler and Edison 2005, p. 77) and their influence may extend to high-tech products.

A variant of the original market maven construct has been recently developed to acknowledge the growing role of the internet as an information source for consumer decision-making. The teen internet maven has been identified as a teenager who enjoys using the internet and whose ability to surf the internet makes him/her a valuable contributor to family decision-making (Belch et al. 2003). A twist on the term market maven, manmaven, has been used to refer to male market mavens (Wiedman et al. 2001).

Research has begun to investigate whether market mavens can be distinguished by personality traits. Clark and Goldsmith (2005) found that four personality traits (i.e., global self-esteem, the tendency to conform, consumer susceptibility to normative influence, and need for uniqueness) were each positively related to market mavenism. Brancalone and Gountas (2007) considered four personality orientations that all individuals possess to some degree (i.e., thinking/logical oriented, physical/sensing, feeling/action oriented, and imaginative-oriented). This particular study's context was in the restaurant industry and these researchers found that market mavens have the strongest correlation with the physical/sensing orientation. In other words, market mavens frequent restaurants primarily for the food (i.e., physical experience) and not to gain social status. Other researchers have sought to better understand the role of the market maven by investigating their decision-making style (Wiedmann et al. 2001). Across product categories, market mavens considered functional quality to be more important than emotional or other criteria when evaluating purchase alternatives (Williams and Slama 1995).

RESEARCH HYPOTHESES

With the explosion of product information, new channels of information (e.g., internet, social networking, etc.), new products, and new or changing channels of product offerings, staying current and informed across a variety of product categories would entail concerted, consistent effort. In other words, a question to address is what goal drives the market maven to collect, sift-through, process, and store this information and then to energize himself to keep repeating this process? Market mavens continually seek out a variety of market knowledge across product categories and this research examines motivations fueling this effortful and continuous search behavior. For parsimony, this model includes two competing motivations: a socially construed and more affective one, social consumption motivation, and a more utilitarian and cognitive one,

maximization. Both of these motivations attempt to uncover the root impetus motivating the market maven to continually update their knowledge.

Social Consumption Motivation

Social norms play a key role in consumer behavior (e.g., Fishbein and Ajzen's (1975) Theory of Reasoned Action). Social consumption motivation (Moschis 1981) assesses the overall importance of others' opinions. Specifically, social consumption motivation encompasses opinions about what other people think about a consumer's purchases and how making these purchases will affect how others think of the consumer. The scope of social consumption motivation is broader than status consumption (Eastman et al. 1999) which focuses solely on the tendency to purchase products with status appeal.

Market mavens may be motivated to continually collect, sift-through, and process marketplace information because they understand the social and symbolic meaning of many products (Richins 1994b) and like to stay updated and current in this knowledge. They find shopping enjoyable (Feick and Price 1987) and stay current on knowing about sales and other marketplace news. Market mavens exert informational and normative influence and also understand the symbolic meanings of status brands (Goldsmith et al. 2006). Market mavens have "normative boundaries that dictate how they operate as consumers" (Clark and Goldsmith 2005, p. 306). So, although they do like to showcase their individuality (i.e., need for uniqueness) and may engage in conspicuous consumption to improve their own status (Goldsmith et al. 2006), they are highly attuned to social norms and feel good acting within these social boundaries. Therefore, market mavens' concern for social norms and their high, positive self-esteem suggest that a driving motivation for their information seeking behavior may be social consumption motivation.

The value of market mavens' information is that it is valuable to other consumers and does influence other consumers' purchase decisions. Therefore, in the information seeking stage, market mavens search for and collect nuggets of information that they deem will be valuable to disseminate to the information seekers (Thorelli and Engledow 1980). Walsh et al. (2004) find three motivations explaining why market mavens are so willing to share marketplace information with other consumers: 1) obligation to share information, 2) pleasure in sharing information, and 3) desire to help others. In part, market mavens feel connected to others and establish their social position by sharing their valuable information. Initiating word-of-mouth interactions and sharing marketplace knowledge is rewarding to market mavens and is also viewed as a responsibility they have to their community.

Market mavens' influence and interactions with consumers distinguish this role from the role of a referent. A referent's influence is due to his specific group membership and to the fact that a consumer views the reference group as an aspirational one (Escalas and Bettman 2005). Although reference groups and market mavens influence consumer decision-making in part due to their status, the market maven does so by personal, direct interactions and these interactions depend on the informational value conveyed. Thus, the first hypothesis states that:

H₁: Social consumption motivation is positively related to market mavenism.

Maximization

Maximizers "aim to make the best possible choice" whereas satisficers "aim for 'good enough,' whether or not better selections may be out there" and maximizers are driven to read labels, try products, and investigate reviews (Schwartz 2004). Maximizers engage in more upward and downward social comparisons both in general and in a consumer behavior situation than do satisficers (Schwartz et al. 2002). If market mavens' motivation is fueled by the desire to "find the best," then they continually collect, sift-through, and process marketplace

information because they are driven to continually scan the market in order to hunt for and find the optimal choice among alternatives – across product categories. Their involvement with the marketplace leads them to be more knowledgeable consumers (Price et al. 1995). Gathering and processing information about competing brands across product categories requires concerted, thoughtful effort. Research has shown that market mavens have a high need for cognition (Geissler and Edison 2005).

Market mavens' need for uniqueness (Clark and Goldsmith 2005), within the bounds of social norms, in a sense, drives them to scour the marketplace and discriminate among competing brands within a product category. Market mavens, on a continual hunt to find the best option available in the marketplace, enjoy taking risks, are open to learning about new products, are eager to try new brands, and are curious to seek new information (Ruvio and Shoham 2007). They are not mainly concerned with price (Goldsmith et al. 2003) but instead strive to find the best, quality products (Goodey and East 2008, Williams and Slama 1995).

Both their strong need for cognition and high degree of self-efficacy (Geissler and Edison 2005) are personality traits that may enable market mavens to sort through marketplace clutter and extract valuable nuggets of information. Chowdhury, Ratneshwar and Mohanty (2009) find that maximizers engage in more pre-purchase browsing than do satisficers. Since market mavens collect information, not necessarily to make a purchase-decision for themselves, they continually are assessing offerings in the marketplace. Maximizers are willing to exert energy and spend time to seek more options in their choice set (Dar-Nimrod et al. 2009). Therefore, it can be expected that market mavens are adept at tracking and assessing brands. Logically, market mavens' continual efforts to gather, sift-through, and process generalized marketplace information across a variety of products would correspond to having a higher level of maximization. Thus, the second hypothesis states that:

H₂: Maximization is positively related to market mavenism.

Materialism

Materialism has garnered much attention from researchers and materialism is generally viewed as having a negative connotation (Hirschman 1991) and a negative relationship to both life satisfaction (Richins and Dawson 1992) and well-being (Tatzel 2002). However, Micken and Roberts (1999) suggest that materialists are not aiming to acquire possessions but, instead, are striving to fix (i.e., make certain) their identity. Materialists have a strong desire to own a lot of "creature comforts" (e.g. latest gadgets, designer clothes, etc.) because these consumers so strongly value certainty and both the acquisition and use of possessions enable these consumers to create a concrete self-identity. Other researchers have suggested that the extent to which materialism has a negative effect on well-being depends on one's profile of values (especially values related to religion and family) (Burroughs and Rindfleisch 2002).

Richins and Dawson (1992) view materialism at an individual, not cultural, level and define materialism as a "set of centrally held beliefs about the importance of possessions in one's life." A value is a "centrally held, enduring belief which guides actions and judgments across specific situations and beyond immediate goals to more ultimate end-states of existence" (Rokeach 1968, p. 161). Specifically, Richins and Dawson's (1992) conceptualization of materialism comprises three components: acquisition centrality, acquisition as the pursuit of happiness, and possession-defined success. Therefore, materialists direct their energy and focus to pursue acquiring possessions, think this pursuit is the path to happiness, and judge others primarily by their amassed possessions, as well.

Increased television viewing is associated with higher levels of materialism (Richins 1987). Market mavens, by definition, seek marketplace information and then disseminate it to other consumers. Studies have shown that market

mavens read more advertisements than non-mavens and try new products ahead of other consumers (Higie et al. 1987). Similarly, materialists continually scan the environment to figure out what to purchase next and are very active skimming through marketing materials and catalogs and engaging in window shopping (Richins and Fournier 1991).

Richins (1994a) found that high-materialists' most treasured possessions were more likely to be publicly, as opposed to privately, visible; were relatively more expensive; and were less likely to involve interpersonal relationships, as compared to the low-materialists. Materialists had higher levels of product involvement and were more likely to understand the symbolic meaning of products, for clothing (Browne and Kaldenberg 1997). Respondents from Thailand who rated the Mercedes-Benz brand as being higher in status, also reported higher levels of personal materialism (Sangkhawasi and Johri 2007). In another study, high-materialism participants reported higher social consumption motivation scores compared to low-materialism participants (Fitzmaurice and Comegys 2006). A four-item, personal materialism scale was found to be positively correlated with market mavenism for all data and for only males, but not for only females (Goodey and East 2008). Therefore, it is suggested that being more attuned to the prestige, status, and symbolic meanings of brands, will be associated with being more materialistic. This leads to the final two hypotheses:

H₃: Market mavenism is positively related to materialism.

H₄: Social consumption motivation is positively related to materialism.

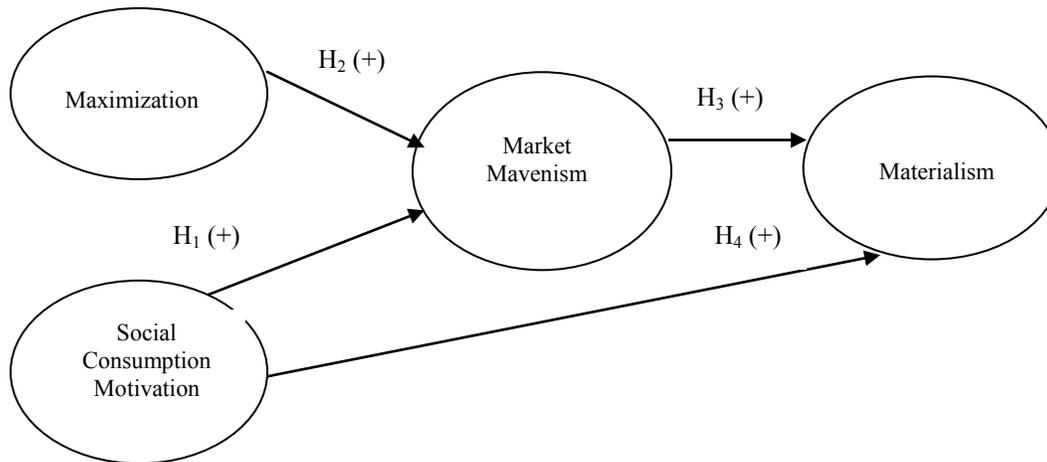
Figure 1 presents the hypothesized model and four hypotheses.

METHOD

Sample

Two hundred and two structured surveys were conducted in the northeastern United States. Four surveys were not included due to missing

FIGURE 1
Hypothesized Model of Market Maven's Motivations to Acquire Information



data. Although student samples are appropriate for theory testing, an objective of this study was to broaden our understanding of market mavens by focusing on adult females and, therefore, only women 25 years or older were included in the sample. Past research has shown market mavens are more likely to be female (Higie et al. 1987) but others do not support this claim (Geissler and Edison 2005). Research on motivations and personality characteristics of market mavens do differ by gender (Goodey and East 2008) and, therefore, this study included females only.

The sample ranged in ages from 25-34 (11.1 percent), 35-44 (31.8 percent), 45-54 (36.9 percent), 55-64 (17.2 percent), and over 65 years (3 percent). Household income ranged from under \$25,000 (2.5 percent), \$25,000-\$50,000 (9.6 percent), \$50,000-\$75,000 (15.7 percent), \$75,000-\$100,000 (21.7 percent), \$100,000-\$150,000 (21.2 percent), and over \$150,000 (17.7 percent). Seventy eight percent reported being married and twenty percent reported being single. Respondents reported their education level as being less than high school (.5 percent), high school graduate (15.2 percent), junior college or some college (21.2 percent), college graduate (41.4 percent), post-graduate (21.2 percent).

Measures

Social Consumption Motivation. Social consumption motivation was measured using a four item scale (Moschis 1981). The scale measures the importance consumers place on knowing what others think or buy before making their own purchase decision. In particular, each item starts with the phrase "before purchasing a product, it is important to know" and one of the following: what others think of people who use certain brands or products, what kinds of people buy certain brands or products, what others think of different brands or products, or what brands or products to buy to make good impressions on others. Participants responded to each item using a five-point Likert scale. Item scores were summed. Cronbach's alpha was .77.

Maximization. Maximization was measured with 13 items (Schwartz et al. 2002). Participants responded to each item using a seven-point Likert scale (1 = strongly agree, 7 = strongly disagree). A sample item is, "Whenever I'm faced with a choice, I try to imagine what all the other possibilities are, even ones that aren't present at the moment." We tested whether item elimination would improve the Cronbach's alpha coefficient ($\alpha = .65$) substantially, and it did not. However, six

item-to-total correlations fell below the standard cutoff of 0.30. The remaining seven items were retained.

Materialism. Materialism was measured using the 18-item scale (Richins and Dawson 1992) and five-point Likert scales were used for the items. A sample item is, "I admire people who own expensive homes, cars, and clothes." Cronbach's alpha was .80. Item-to-total correlations fell below 0.30 for six items. The remaining 12 items were retained. A parceling procedure was used to combine items into three composites, one for each subscale (Bagozzi and Heatherton 1994). Parceling simplifies the model, reduces the number of indicators for a latent construct, and reduces the random error. These three indicators entered the measurement model as indicators of this latent construct.

Market Maven. The original six-item market maven scale (Feick and Price 1987) was used. The scale measures general marketplace knowledge and propensity to diffuse information. Items were measured using a seven-point scale with endpoints strongly disagree (1) and strongly agree (7). A sample item is, "If someone asked where to get the best buy on several types of products, I could tell him or her where to shop." Scores were summed as in previous studies. A common factor analysis showed that the market maven scale formed one factor explaining 55.7 percent of the total variance. Cronbach's alpha was .77. Eliminating one item (i.e., "I like introducing new brands and products to my friends.") did increase Cronbach's alpha to .87 and the item-to-total correlation for this item was .21 (compared to the others which ranged from .53 to .73). The remaining five items were retained as indicators of this construct.

RESULTS

Measurement Model

Structural equation modeling (SEM) using EQS6.1 was used to analyze the data. Following Anderson and Gerbing (1988), a two-step approach was used. The measurement

model had acceptable fit measures. Specifically, the $\chi^2/\text{degrees of freedom}$ ratio was 1.56, well below the recommended level of 5.0 (Hair et al. 1998). Similarly, the NNFI (.91), CFI (.92), and IFI (.92) exceeded the .90 acceptable threshold level (Hoe 2008). In addition, RMSEA (.056) was below .08 and, therefore, also indicated a reasonable model fit. The structural model was examined next.

Hypotheses Testing

The correlation coefficients (see Table 1) and analysis of variance results for maximization, social consumption motivation, and materialism by market maven groups (see Table 2) are reported. High market mavens reported significantly higher scores on maximization, social consumption motivation, and materialism compared to the low market maven group. Further testing was done using SEM. Standardized estimates and model fit statistics are reported in Figure 2. The structural model had acceptable fit measures. Specifically, the $\chi^2/\text{degrees of freedom}$ ratio was 1.59. In addition, the NNFI (.90), CFI (.92), and IFI (.92), and the RMSEA (.058) indicate an acceptable model fit.

SEM analysis supported two hypothesized relationships in the structural model. First, H2 was supported. Maximization was a significant and positive predictor of market mavenism ($\gamma=.657$, $p<0.01$) but social consumption motivation was not ($\gamma=-.142$) (i.e., H1 was not supported). Second, H4 was supported. Social consumption motivation was a positive and significant predictor of materialism ($\gamma=.711$, $p<0.01$) but market mavenism was not ($\gamma=-.013$) (i.e., H3 was not). Market mavenism had an R^2 of .34 and materialism had an R^2 of .50. In summary, H2 and H4 were supported by the SEM analysis, while H1 and H3 were not.

DISCUSSION

The main purpose of this study was to better understand market mavens' acquisition of marketplace information. While the definition of market mavens describes them as

TABLE 1
Correlation Matrix of Market Mavenism, Motivations

	Market Mavenism	Maximization	Social Consumption Motivation	Materialism
Market Mavenism				
Maximization	.356*			
Social Consumption Motivation	.254*	.347*		
Materialism	.256*	.285*	.436*	

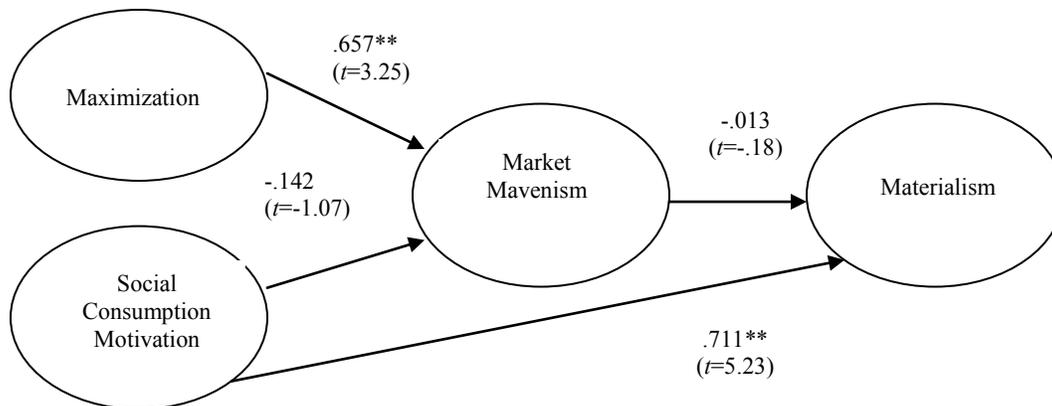
to Acquire Information, and Materialism

TABLE 2
ANOVA Results: Effects of Market Mavenism on Maximization,

	Low (58)	Medium (71)	High (63)	Contrast ^a	F
Maximization	3.58	3.95	4.22	L<M,H	11.85**
Social Consumption Motivation	7.12	8.37	8.87	L<M,H	6.36**
Materialism	43.18	46.01	47.97	L<H	4.58**

Social Consumption Motivation, and Materialism

FIGURE 2
Structural Model



$\chi^2=234.40$, $p<.0001$, $\chi^2/df=1.59$, CFI=.92, IFI=.92, NNFI=.90, and RMSEA=.058
** $p<.01$

Fully standardized solutions are reported.
Note: Market mavenism ($R^2=.34$) and materialism ($R^2=.50$)

“individuals who have information about many kinds of products, places to shop, and other facets of markets, and initiate discussions with consumers and respond to requests for market information” (Feick and Price 1987, p. 85), the research emphasis to date has been on investigating what motivates market mavens to share information with others. The present study extends understanding of market mavens by examining what drives market mavens to acquire information. Market mavens do seem to be more participatory in marketing-related activities. Feick and Price (1987) find that market mavens use coupons, enjoy shopping, and attend to advertisements more than non-mavens. Market mavens are distinguished by two key behaviors: acquiring relevant and valuable marketplace information and sharing this information with other consumers and this study focused on the former. Research investigating personality characteristics of market mavens has found that they are social and enjoy helping others. This study contributes to the developing nomological network of market mavenism and suggests that these individuals' pursuit to find the best products in the marketplace drives their continual information search behavior.

The findings of the SEM analysis supported two of the paths in the hypothesized model. Specifically, maximization (i.e., the desire to find the best option) drives market mavens but concern for social norms (i.e., social consumption motivation) does not. Although past research has found that market mavenism has a positive relationship to status consumption and that market mavens strive to show their uniqueness, and social status, within social norms (Goldsmith et al. 2006), market mavens' ability to acquire valuable nuggets of marketplace knowledge to share with other consumers is, in part, driven by their desire to find the best brand or product. Thirty-four percent of the variation in market mavenism is explained by maximization.

Market mavens' ability to sift through the seemingly overwhelming amount of marketplace information and continually extract

relevant information that will be useful to other consumers is a valuable function. Non-market mavens can use their time more efficiently by interacting with a market maven. It was hypothesized that market mavens' continual and relatively intense engagement with marketing-related activities may lead them to be more materialistic than non-mavens. However, this finding was not supported by the study. Instead, a person's sensitivity to the social and symbolic meanings of brands and products (i.e., social consumption motivation) was positively and significantly associated with materialism. Fifty percent of the variation in materialism was explained by social consumption motivation.

In summary, market mavens are not driven primarily by status. Having a pulse on the marketplace and acquiring first-hand information about the best products across product categories may be inherently rewarding to the market maven. Market mavens' sustained engagement with the marketplace and acquisition of marketplace information may be objective driven (that is, they are on the quest to stay current on the best option in a variety of product categories). Yet, at the same time, their extended involvement in the marketplace and attention to marketing stimuli does not necessarily lead them to be more materialistic than other consumers.

Market mavens actively seek more information in the marketplace in a quest to uncover the optimal offering delivering an optimal benefit. Their information search activities seem to be purposeful and objective-driven. In contrast to innovators and opinion leaders, who both are focused on learning about and purchasing new products in a specific product category, it may be that market mavens' primary focus is marketing knowledge and information and not the actual product itself. Their general, rich, and useful marketplace knowledge gives them prestige and draws other consumers to them. Nonetheless, market mavens are both information seekers and information transmitters.

MANAGERIAL IMPLICATIONS

This study investigated market mavens' acquisition of information. A key finding is that these consumers are driven more by their desire to find the best product across product categories, as opposed to being primarily driven to gain social status. Therefore, marketing managers may want to target more detailed communications to this segment. Although market mavens enjoy sharing information with others and exhibit a need for uniqueness, they seem to be primarily driven to acquire information which distinguishes and discriminates alternatives.

Market mavens are attracted by product-relevant information. Product comparisons test results and factual information supporting product claims and performance on key attributes may also be appealing to market mavens. Results of this study suggest that market mavens are continually searching the marketplace to uncover the latest, best brand in a variety of product categories. So, for example, if a product has been selected as a top-performing product by a third party, marketers should consider adding a seal highlighting this information. For example, adding a "'x' editor choice award" to the exterior packaging or putting it on the product itself may more easily draw market mavens' attention to the marketing manager's brand.

Marketers may be more effective at breaking through the overwhelming amount of options and marketing information if they include information-intensive news and findings about their product's performance. Also, marketers may want to design some communications that clearly articulate the main benefit and provide evidence from third-parties, other consumers, or market testing results supporting this claim. Market mavens may be drawn to this detailed information and, therefore, retain it and pass this information along to other, less-involved consumers. Searching for, sifting through, and analyzing product information on a regular and continuing basis requires concerted effort. This study suggests that the market maven is

continually hunting for information in the marketplace. Marketers, wanting to appeal to these consumers, need to focus on packaging their product information so that it is positioned as valuable information in the marketplace. With the growing number of new products entering the marketplace and new, innovative ways to reach consumers with marketing messages, it is critical to view the "packaging" of product information as a valuable product, itself.

LIMITATIONS AND FUTURE RESEARCH

The study has four key limitations. First, this study was restricted to females over 25 years old. Second, the findings may be limited by the specific measures used. For instance, the study included a measure, maximization, not used widely in the area of marketing, although it has been used and tested in psychology research. Third, the generalizability of the findings is limited in that a convenience sample was used in the data collection. Fourth, the study design was a self-report survey and since, therefore, no experiment was performed, no causal claims can be made. Despite these limitations, this research contributes to the understanding of market mavens by focusing on their acquisition of information.

Future research could investigate male market mavens' motivations for acquiring information. Also, younger consumers may also be another population to sample. Motivations to acquire information may be driven more by social status for this population. Another avenue to pursue is scale development for the maximization (i.e., maximizing versus satisficing) scale. When used in this study, the reliability of the original scale did not meet standard thresholds and, therefore, further work is needed so that it can be included in other marketing contexts.

Additional work needs to be directed at testing these ideas in experimental studies to assess causation. Controlled experiments could manipulate types of information available and

investigate which information is retained by market mavens and then which is passed along in conversations with other consumers. Finally, more generally, market mavens may sift through and analyze available marketing stimuli and product information differently than non-mavens. Their continual engagement in the marketplace does not seem to exhaust them and, therefore, perhaps they employ some valuable strategies for sorting through, extracting, and using nuggets of marketplace information. Understanding more about how market mavens use strategies to screen and discern valuable tidbits of information across product categories is another area for future research.

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PRODUCT EXPERTISE: A MODERATOR OF INFORMATION SEARCH IN SEQUENTIAL CHOICE

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People usually focus on just some of the available information when making decisions. This is especially true for experts, which has implications for how firms should provide product relevant information to consumers. To determine the extent to which the sequential acquisition of product-attribute information is moderated by expertise, a preferential choice task for a consumer product (cameras) was studied. When information about alternatives is acquired sequentially, a decision must be made as to when to stop acquiring additional information and commit to a course of action. The stopping strategies of more expert consumers were found to differ from those of novices in two noteworthy aspects. First, experts were more directed in their search strategies, making greater use of certain core product attributes when selecting a brand. Second, they were more successful in rejecting undesirable alternatives. Because expert and novice consumers evidently search not only for different information, but in different orders and in different quantities, there are important implications for practice. One is that producers and retailers should be prepared to provide tailored information to different segments of consumers. Another is that limiting the amount of information readily accessed by less-experienced consumers may increase their confidence, and thus their satisfaction.

INTRODUCTION

When consumers make purchase decisions they usually do not consider all available information. Instead they acquire sufficient information to complete their decision. Traditional economic models typically assume that rational decision makers strive to choose the superior alternative while balancing the costs and benefits of acquiring additional information (e.g., Stigler 1961). However, in empirical studies, information acquisition has been observed to vary not just with the cost of acquiring information (e.g., Zwick, Rapoport, Lo and Muthukrishnan 2003), but with the characteristics of the decision itself, such as the number of attributes and alternatives (e.g., Payne 1982; Lurie 2004), and the characteristics of the decision maker (Johnson and Russo 1984; Moreau, Lehmann and Markman 2001). Peterson and Merino (2003) note, for example, that information search is

influenced by the prior knowledge of consumers (see also, Barrick and Spilker 2003). Indeed, in the opinion of Alba and Hutchinson (1987), consumer expertise is a “prime determinant of search behavior” (p. 418).

The present work examines the amount and the kind of information acquired by knowledgeable consumers in a sequential binary-choice task. Consumer knowledge or expertise is a factor of interest to marketers because of the possibilities it offers for segmenting markets for complex consumer products like computers. In a sequential choice situation (in contrast to a choice situation where all of the information is available simultaneously), decision makers first examine one piece of information, then decide whether to acquire another piece of information (and if so, which one). Consumers often come to a point at which they have winnowed their set of alternatives to a binary choice between two competing brands (e.g., Dell and H-P) and are comparing those brands attribute by attribute to make a decision. They must therefore decide when to stop acquiring additional information and commit to a course

of action. According to Russo and Saad (1999), in such a context the essential decision is to determine the most appropriate time to stop acquiring additional information. Thus for the decision maker the question changes from *Which of the alternatives is best?* to *Should I seek more information before committing to a course of action?*

In such sequential search behavior, decision makers have been observed to acquire either too little information (e.g., Sonnemans 1998; Seale and Rapoport 2000) or too much (e.g., Zwick, Rapoport, Lo and Muthukrishnan 2003) when there is an optimal search quantity. Zwick, Rapoport, Lo and Muthukrishnan (2003) conclude that the amount of information sought is influenced by task circumstances. It also appears to be influenced by decision maker characteristics, as more knowledge seems to improve a decision maker's ability to judge the correct amount of information needed (Shapira and Venezia 1981). Of course, there is not always an optimal or "correct" amount—such as in the selection of a personal computer—because of personal tastes and preferences. There is usually a superior alternative, however, and knowledgeable consumers are better at identifying it. In the present work we ask if knowledgeable consumers also distinguish themselves in the amount (and kind) of information they acquire in a sequential binary-choice decision, and thus in their stopping strategies.

Knowing when to stop acquiring information and make a decision is crucial in many choice situations, especially given the kind and quantity of information available to consumers today. The availability of virtually limitless—and in many ways, costless—product information via the Internet means that the implications of product knowledge for search behavior are "especially important" (Peterson and Merino 2003). Although not all attribute information search through the Internet is sequential in nature, it can serve as an illustration of why different search strategies and stopping strategies might be adopted by consumers with different levels of product

knowledge. In part, differences may evolve because sequential choice can be a compensatory form of attribute-oriented information processing. That is, it is compensatory in nature because the deficiency of one attribute can be offset by another compensating attribute. Thus one brand is not ruled out because it scores low on the dimension of one particular attribute. The next piece of information may offset the deficiency—indeed, may actually reverse the relative rankings of two brands if the counterweight of the next attribute is great enough. Usually, however, one alternative begins to emerge as a "leader." The leadership may be tentative, existing only until the next attribute is acquired. But when information acquisition ceases, the leading alternative becomes the candidate to be selected. Because information processing in sequential search is attribute-based, it should accentuate differences in stopping strategies adopted by consumers with different levels of product expertise (Su, Comer and Lee 2008). For this reason a sequential choice task is useful in illustrating potential differences in the decision making strategies of high and low knowledge consumers.

THEORETICAL BACKGROUND AND HYPOTHESES

Information Acquisition

It might be presumed that one of the faculties of an expert is the ability to meaningfully integrate large volumes of information during the decision process. But experts often use surprisingly few pieces of information (Shanteau 1992). The amount acquired seems to depend on the task characteristics. In structured tasks such as solving physics, mathematics, or programming problems, experts tend to use less information than novices (see, e.g., Chi, Feltovich and Glaser 1981). Then, experts' greater knowledge yields more focused (planned or "top-down") search strategies, so they tend to concentrate on information that is important and ignore information which is irrelevant. According to

Shanteau (1992), in these situations what chiefly distinguishes experts from novices is the kind rather than the quantity of information they acquire. Ettenson, Shanteau and Krogstad (1987) have argued that “skilled omission,” in other words, the ability to ignore irrelevant information, is a defining characteristic of experts. In ill-structured tasks, on the other hand, experts often search for *more* information (e.g., Devine and Kozlowski 1995). In such circumstances, experts adopt more of a bottom-up, or data-driven, approach as they search for appropriate information (Adelson 1984). In the present work, decision makers engaged in a preferential choice task (i.e., one in which the best option or brand depends at least to some extent on the idiosyncratic preferences of the decision maker), a task that is much less structured than problem solving. In such circumstances, decision makers are expected to use a combination of a top-down and bottom-up based information search. Initial preferences and knowledge dictate some directed search behavior. But bottom-up factors influence information acquisition as well because in a sequential choice task, even if decision makers have control over the attributes acquired, they do not control the product attribute levels, such as price or quality. Thus the relative superiority (or inferiority) of one alternative to the other is revealed only after an attribute is selected. Additional attributes may be needed to sufficiently differentiate the two alternatives. Therefore, an information search incorporating bottom-up information processing is to be expected as well. Because of the greater product knowledge of experts, not only are the benefits of incremental information greater than for novices, but the cognitive costs of assimilating it are less. That is because if incremental costs are largely cognitive, then acquiring and processing more attribute information should be relatively easier for experts than novices (Johnson and Russo 1984; Su, Comer and Lee 2008).

H₁: Experts will acquire a greater number of attributes than novices.

Stopping Strategies

Early work by Wald (1947) posited that when decision makers judge they have acquired sufficient information, they choose the alternative that is ahead or leading at that point. Following the work of Wald is the “criterion-dependent” choice model of Aschenbrenner, Albert, and Schmalhofer (1984). In their model, decision makers are assumed to acquire one attribute of information at a time and to calculate the subjective difference between two competing alternatives, A and B, on that attribute. New information is acquired until the cumulative attribute-difference exceeds some threshold set by the decision maker. According to Aschenbrenner, Albert and Schmalhofer (1984), this process of sequential sampling continues until a decision maker has “accumulated enough evidence to be convinced that one alternative is better than the other” (p. 154). At that point the decision maker stops acquiring information. Later research by Saad and Russo (1996) identified the use of a different stopping strategy. In their study of sequential choice, some decision makers adopted an approach based on the number of attributes acquired before making a decision. Saad and Russo (1996) referred to this acquisition of a relatively stable set of key product features as a “core attributes” (CA) heuristic.

Use of the CA heuristic implies that decision makers stop acquiring information after a specific set of important attributes has been considered, then commit to a course of action (e.g., choosing an alternative). Although slight variation in the number of attributes acquired is to be expected across choices (because the core attributes alone may not provide sufficient discrimination between the alternatives in every choice situation), Saad and Russo (1996) found the number of core attributes to be relatively constant for an individual, but to vary substantially across decision makers. One individual variable that is likely to have an effect on behavior during a sequential decision is expertise in a product category. For the CA heuristic to be invoked, decision makers must

first be able to identify the most important attributes (see, for example, Spence and Brucks 1997). That is precisely the area in which experts should have greater strength than novices. Attribute information acquired by experts tends to be more relevant (i.e., have more diagnostic value) for differentiating between alternatives. As Su, Comer and Lee (2008) point out, the more detailed knowledge of experts makes it easier for them to think in terms of the relative value of attributes. That means not only can experts identify the objectively important attributes (e.g., installed RAM), but also the subjectively important ones (e.g., size of a laptop computer). By focusing on the most important attributes, an expert should be able to readily determine when to stop acquiring information and to choose the brand leading at that point. In essence, in a complex decision experts will be more likely to impose a structure on information acquired, whereas novices are more likely to accept the structure imposed by the sequential presentation of attribute information (Barrick and Spilker 2003):

H_{2a}: Compared to novices, the stopping strategies of experts will be based more heavily on use of the CA heuristic.

H_{2b}: More experts than novices will invoke the CA heuristic.

Decision Confidence

In sequential decision, stopping occurs once decision makers are certain about their decision. Certainty may arise either because they have acquired the most important information (e.g., the core attributes), or because they have reached a certain degree of confidence that one alternative is superior to the other. Hausmann and Lage (2008) refer to this “desired level of confidence” as a “validity threshold” (p. 231) and White and Hoffrage (2009) use the term “confidence threshold” (p. 281). How might experts differ from novices in their achieved levels of confidence? Spence and Brucks (1997) reported that in a real-estate task, experts were more confident of their decision than novices. Spence and Brucks (1997) were mute on the

reasons their experts were more confident, but work by Muthukrishnan (1995) offers one plausible explanation, the effect of cognitive elaboration on brand choice confidence: Consumers who spent more time thinking about the brands they were considering had more confidence in their choice. Huneke, Cole and Levin (2004) proffer a supplementary explanation: They correctly predicted that, compared to low knowledge consumers engaged in a laptop-selection task, high knowledge consumers would have more confidence in their decisions because experts were more likely to appreciate what information was most important for selecting brands. Part of the increase in confidence they report for experts may derive from the higher efficiency of the experts in the choice tasks. In the present work, if the more elaborate knowledge structures of experts lead to more cognitive activity during the decision, we would expect them to be more confident. And due to the repeated-measures design of the present study, the potential for experts to process information more efficiently implies greater confidence on their part, as well.

H_{3a}: Experts will be more confident in their decisions than novices.

Hausmann and Lage (2008) noted that decision makers who acquired more information had higher levels of confidence (but not necessarily of objective performance). Consequently, consistent with H1 of the present work (viz., experts will acquire more information), we also expect that experts will be *increasingly* more confident than novices in their decisions as they acquire additional information. That is because experts assimilate information more easily than novices, so the benefits of more information should be greater. On the other hand, novices are therefore likely to engage in additional information acquisition only in situations where they have been unable to sufficiently discriminate between the alternatives early on. The acquisition of additional, yet possibly uninformative, attribute information, implies that the confidence of novices relative to experts should decline as more information is sought:

H_{3b}: Acquiring a greater number of attributes will lead experts to have greater confidence in their decisions than novices.

Choosing Versus Rejecting Alternatives

Knowledgeable consumers possess the ability to identify superior alternatives. But what do they do when they face two brands that are approximately equal in overall value? One option is to continue to acquire additional information to further discriminate between them. That strategy is appropriate when both alternatives are good ones. Another option is to choose neither of them, which is more likely when both alternatives are weak options. If there are several alternatives, the natural process may be to screen out the poorer ones, then select from among the more attractive ones (Ordonez et al. 1999). For a choice set perceived to be generally lacking in quality overall, the logical conclusion may be to reject all the alternatives. As Misra (2005) notes, instead of selecting the best brand, consumers may undertake to reject alternatives when the product category is known to be relatively homogeneous (that is, if brands are poorly differentiated). Knowledgeable consumers should be better able to correctly assess the degree of homogeneity of the marketplace than less-knowledgeable consumers. This implies that experts should be more discriminating not only in their selection, but in their rejection, of alternatives.

H_{4a}: Experts will reject alternatives as unsatisfactory more often than novices reject alternatives.

H_{4b}: Compared to novices, more experts will reject alternatives.

METHOD

Materials and Apparatus

Participants were exposed to a decision problem in which they were directed to choose between two alternative brands of compact cameras. Prior to the choice task, knowledge about cameras was experimentally manipulated

by having participants read information that was either relevant to the product category, or irrelevant. In the present research, the designation of an expert consumer as “someone who has the [product domain] knowledge necessary to select an appropriate product for a particular usage situation” (attributed to Brucks 1985, by Mitchell and Dacin 1996, p. 220; see also Spence and Brucks 1997) is adopted. A similar definition of an expert consumer promulgated by Alba and Hutchinson (1987) has been adopted by Su, Comer and Lee (2008). Accordingly, in the present study those having higher knowledge were designated as experts, and those having lower knowledge were designated as *novices*.

Cameras were identified in earlier pre-tests as an appropriate product category. The camera choice task was presented on a desktop computer using software designed to track the sequential acquisition of information. As part of the choice task, information for a single attribute was acquired from a list of 25 product features (brand names were not included). Participants selected information by clicking on a specific feature in the list, which presented a complete attribute description for both brands (e.g., for the *weight* information, participants would see the following information—“Scale: 1 = lightest; 7 = heaviest”; “Camera A = 5; Camera B = 4”). Attributes previously viewed were dimmed in the list. After examining an attribute description, participants judged their cumulative confidence in the camera that was the leading alternative at that point in time. Their confidence was reported on a directional scale having a lower boundary of 50 percent (the starting point before any information has been acquired) and an upper confidence boundary of 100 percent (“zero chance that the leading camera will change”) for each alternative.

After indicating their confidence at that point, three options were available to the decision makers: (a) choose camera A or camera B; (b) choose neither camera; (c) acquire additional attribute information for cameras A and B. If either of the first two options was selected, a

new binary choice for a different pair of cameras was presented. If the decision maker elected to acquire additional information, the list of 25 product attributes was again presented. The procedure described above was repeated until the decision maker chose either camera A, camera B, or neither. In total, participants were exposed to 15 pairs of cameras. In keeping with the approach adopted by Saad and Russo (1996), each trial was treated as an independent trial given that acquisition and stopping strategies were contingent on the conditions of the trial as well as the participant. They were independent in that in some trials the software was programmed to present small attribute differences between the options regardless of the features acquired; in other trials medium differences; and in still others, large differences. Simultaneously, across the trials the program also controlled whether overall levels of the attributes were attractive or not. Thus all participants sometimes faced choices in which the two options were similar, sometimes attractively so and sometimes not; and choices in which the two options were dissimilar, sometimes greatly, sometimes less so. For all participants, the first trial was discarded to remove non-representative observations resulting from their practicing the use of the various features of the software program.

Participants

A student sample was employed of sixty-three business students in an introductory marketing course at a medium-size West Coast university. Students were in their junior year of studies; the median age was 20.5. College students were judged a suitable population to study because of their experience using Internet search engines, and their level of comfort in acquiring and using information presented on computers. All participants had low initial technical knowledge of the product category of interest, cameras. Each was randomly assigned to one of two conditions, "Expert" or "Novice." Two participants in the novice condition failed to complete the task and were excluded from all

analyses, yielding 32 participants in the expert group and 29 in the novice group.

Design and Procedure

The study was conducted in two separate stages set several days apart. In Stage 1, participants were screened for prior knowledge of cameras by having them complete an eight-question multiple-choice test. The questions were selected on the basis of earlier pre-testing. An example of a question is: "The camera lens providing an image most nearly like that of the human eye is: (a) 25mm, (b) 50mm, (c) 75mm." All participants scored lower than four correct responses (50 percent) on the test, which was the cut-off point for screening out high initial knowledge. Participants were randomly assigned to either one of two knowledge conditions, Novice or Expert, given an information packet to study, and instructed to learn the information sufficiently to pass a knowledge test when they participated in Stage 2 of the experiment. Those assigned to the expert condition received a packet of information about cameras to study and a practice exercise to complete before the choice task. The information provided, which was complicated and technical, was essentially a crash course in the various features of cameras and their benefits. Participants in the novice condition received a packet of information and an exercise pertaining to an unrelated product, all-terrain bicycles.

In Stage 2 participants met with the experimenter in groups that ranged in size from five to twenty participants. Groups met in a dedicated computer lab equipped with twenty computers running the sequential-choice software program. The procedure was the same in all cases. First, the experimenter collected participants' packets and exercises, described the task, then provided a demonstration of the software program using a choice situation different from the experimental choice task but familiar to participants. The demonstration lasted about fifteen minutes, during which the experimenter actively involved all or most of the participants in the demonstration task while

explaining the features of the program. Questions from the group were encouraged. Second, participants individually began the task by viewing the display of the 25 attributes. Attribute ranks and weights for each were then elicited. Participants ordered the 25 attributes from most to least important (re-ordering was permitted), then assigned an importance weighting to each using a scale of 5-100, with 100 reflecting the highest importance. This was to establish the attribute list for each participant to select from, ordered from most important to least important. After the attribute weighting procedure, participants engaged in 15 binary choice tasks, one after the other, for the 15 pairs of cameras. At the end of each task they indicated whether they chose camera A, camera B, or neither. For each choice, participants acquired information about both cameras at the same time, one attribute at a time, then decided whether to acquire additional information or to stop and choose.

Finally, after finishing the choice task, all participants completed a 20-question multiple-choice test of their knowledge about cameras. An example of a camera-related test questions is, "Fast lenses: (a) open faster, (b) are longer, (c) admit more light, (d) are quick-change, (e) all of the above." Although it would have been preferable to have had the knowledge test at the beginning of the experiment, we knew from prior experience that the time required by participants to answer the 20 multiple-choice questions varied substantially. In order to have the undivided attention of all participants during the software demonstration, an understanding of which was crucial to the success of the study, the test was placed after the choice task.

In summary, participants were first screened for prior knowledge, then randomly assigned to one of two knowledge conditions, either high (Expert) or low (Novice). Those in the Expert condition received materials in advance to increase their knowledge of cameras. Afterwards, participants in both conditions engaged in the camera choice task, which required them to choose between 15 pairs of

alternatives, one pair at a time. As part of the binary choice task, participants could acquire up to 25 pieces of information about the pairs of alternatives. The information was presented to them sequentially in any order they wished. In each of the 15 trials, after viewing sufficient information participants selected one of the alternatives, then moved on to the next trial.

RESULTS

To ensure that the expertise manipulation was successful, results from the second knowledge test administered at the end of the study were compared for the two groups, Expert ($n = 32$) and Novice ($n = 29$). Expert scores on the test ($M_{Expert} = 10.56$ out of 20) were significantly higher than Novice scores ($M_{Novice} = 4.76$, $t[59] = 3.45$, $p < .001$). Furthermore, the minimum Expert score was 9, with all Novice scores falling below that. Many of the test questions were designed to be quite challenging (the highest expert score was 13). In this task, a score of at least 9 out of 20 correct responses indicated a successful expertise manipulation. Before turning to the broader stopping strategies used by Expert and Novice consumers, we address the specific issues of information acquisition and confidence jointly because of their related analyses.

Information Acquired and Achieved Confidence

Deciding how much information to acquire before stopping is a fundamental component of a sequential choice task. Recall H₁, namely that in making their choices Experts will acquire more information than Novices. We tested this by examining the overall amount of information acquired by each group, Experts and Novices. Of the 25 available attributes across the 14 trials of each participant, the mean number acquired by Experts was 13.33. This value was significantly higher than the number acquired by Novices ($M_{Novice} = 11.05$, $t[846] = 4.46$, $p < .001$). Thus support was found for H₁, suggesting Experts search for and assimilate more information. Does this extra information, as predicted (H_{3a}), make Experts more

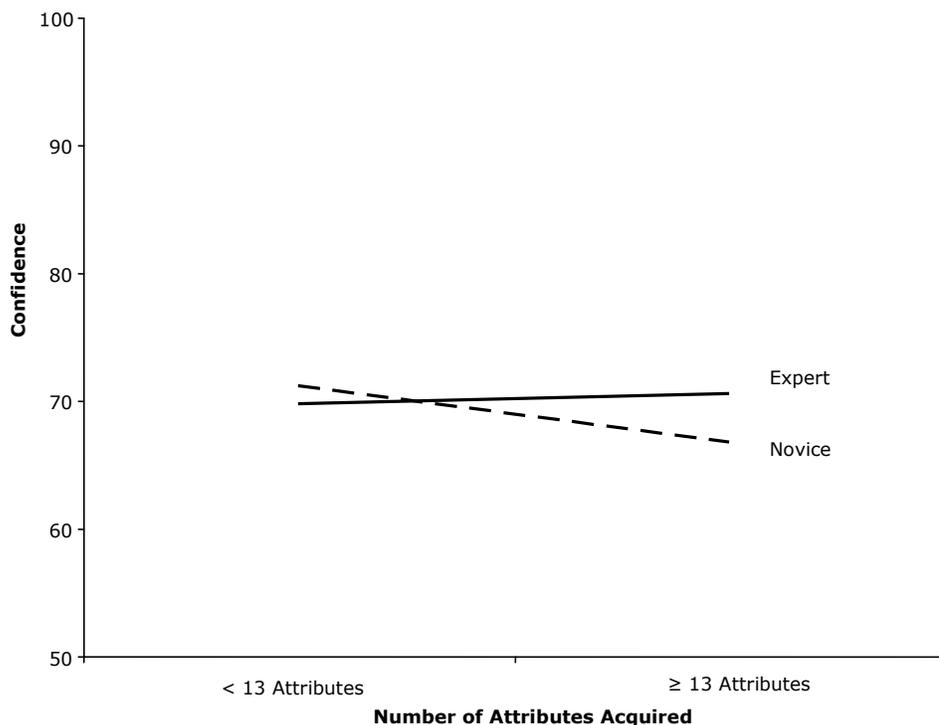
confident in their decisions? The answer is no. The overall confidence of Experts ($M_{Expert} = 69.46$ percent) was actually slightly less than that of Novices ($M_{Novice} = 70.88$ percent), but not reliably so ($t[797] = -1.54, p > .10$). However, H_{3b} , which predicted that Experts would have greater confidence than Novices in their decisions when many attributes were acquired, was supported. To test H_{3b} , we regressed confidence for each trial on the number of attributes acquired. Trials in which the full 25 attributes were acquired were not included in this analysis because the resultant confidence might reflect not so much a conscious decision to stop acquiring more information as merely the paucity of additional information. In the regression model, an interaction term for the two conditions, high and low knowledge was significant ($t[686] = 2.44, p < .02$), indicating that Experts were more confident than Novices when they acquired additional information (see Figure 1).

This differential, however, did not arise as expected from an increase in the confidence of Experts (slope of effect of additional information on their confidence = -0.03 , which is not significantly different from a slope of zero), but instead from a significant decline in the confidence of Novices in their decision when more attributes were acquired (slope = $-0.52, t[354] = -3.43, p < .001$). The conclusion is that Experts maintained a relatively uniform degree of confidence in their decisions regardless of the number of attributes acquired, whereas Novices decreased as they acquired more attributes.

Stopping Strategies

Core attributes heuristic strategy. Because of their more directed search strategies, we predicted (H_{2a}) Experts would acquire a relatively stable set of attributes. This hypothesis was tested by examining the extent

FIGURE 1
Confidence levels as a function of information search for expert and novice consumers



to which Experts and Novices invoked the CA heuristic. Use of the CA heuristic implies the acquiring of a set number of specific attributes to be examined when evaluating any alternative. One measure of how much the heuristic is used is the CA-score, where a value of 100 represents exclusive use of the core attributes heuristic (i.e., always gets exactly the same set of information), and 0 represents the completely random acquisition of attribute information (for a more detailed explanation of the measure, see Saad and Russo, 1996). The CA-score for Experts ($M_{Expert} = 80.95$) was significantly higher than the CA-score for Novices ($M_{Novice} = 70.60$, $t[58] = 2.31$, $p = .04$). This supports the notion that the stopping strategies of Experts are more heavily oriented toward use of the CA heuristic.

Additional support was found as well when H_{2b} was tested by determining the percentage of decision makers in each of the Expert and Novice groups who were "heavy" CA-heuristic users (i.e., those having CA-scores ≥ 75). In the Expert condition, 83.9 percent fell into the heavy user category, significantly more than the 58.6 percent of Novices (chi-square = 7.04, $df = 1$, $p < .01$). Both sets of results suggest that Experts, as compared to Novices, were more reliable in acquiring the same attributes. These findings are consistent with those of previous decision research in areas other than sequential choice situations, namely that experts are more directed or focused in their search for relevant information (e.g., Ettenson et al. 1987).

Choosing versus rejecting alternatives. Recall that the decision-tracking software was programmed to randomly present small, medium, and large differences between the options, such that at times participants faced choices in which two options were quite similar, sometimes attractively so and sometimes not. The presentation of those equivalent alternatives was designed to determine whether Experts were more discriminating in such situations (H_{4a}). In the Expert group, neither of the brands was chosen as an option over three times more often as in the Novice group (in 7.6 percent of the trials vs.

2.2 percent, chi-square = 15.0, $df = 1$, $p < .001$). As predicted (H_{4b}), a significantly greater percentage of Experts decided to reject at least one pair of cameras (57.5 percent vs. 37.5 percent, chi-square = 4.4, $df = 1$, $p = .04$). Apparently, if the cumulative discrimination between the two brands is seen as not sufficiently large after acquiring considerable attribute information, both cameras are abandoned as unsuitable rather than an attempt being made to advance one as superior to the other (when both are inferior in an absolute sense). This is consistent with the lower confidence levels participants achieved when rejecting both cameras ($M_{Reject} = 57.08$) as compared to choosing one of the cameras ($M_{Choose} = 70.78$, $t[48] = 9.68$, $p < .001$). There was no significant difference in confidence between Experts and Novices when rejecting ($p > .10$).

DISCUSSION AND IMPLICATIONS

Our goal was to determine if consumer expertise affects stopping behavior during binary choice. The evidence from the present work suggests that this is the case. Two specific research findings point to this. First, expertise moderated information acquisition, which affected stopping points. High knowledge consumers were found to be more directed in their information search behavior. They more often made use of the core attributes heuristic, in which they identified a subset of important attributes and then consistently acquired them when choosing between alternatives. Second, expertise moderated the stopping strategies used. The greater knowledge of experts allowed them to discriminate more carefully between relatively superior and absolutely superior alternatives. Knowledgeable consumers rejected unsuitable pairs of alternatives far more often than those with less knowledge, and thus were more discriminating. They were more discriminating in that when they did reject both alternatives, their confidence levels were lower than when they chose an alternative. Those with low knowledge displayed a similar pattern. Evidently, when a promising level of

discrimination between the two alternatives failed to develop after a reasonable search process, they chose neither brand rather than continue along a perhaps fruitless path. Those with high knowledge, however, rejected both available alternatives more than three times as often as those with low knowledge, lending support to the notion that expert consumers are more discriminating. That higher level of discrimination did not, however, lead knowledgeable consumers to achieve higher levels of confidence in their decisions than those achieved by less-knowledgeable consumers.

Because expert and novice consumers evidently search not only for different information, but in different orders and in different quantities, there are important implications for practice. One is that producers and retailers should be prepared to provide tailored information to different segments of consumers. For illustration, consider two different approaches now utilized: (a) The first is to provide all relevant information in an alternative-by-attribute matrix information-board format (e.g., Payne 1976), whereby consumers evaluate the presented information in a holistic fashion, perhaps with some information manipulation (e.g., sorting by brands or price). (b) A second approach is to provide an “expert” recommendation (in the sense that it is provided by an expert), with little if any attribute information presented. The first approach is the one adopted by many independent Internet resellers who wish to appear objective and to avoid apparent endorsement of any particular brand they offer. Unfortunately, for many buyers such a presentation is a case of information overload. Contrast this approach with a second approach, namely one adopted by *Consumer Reports*, which is published by Consumer Union. *Consumer Reports* provides information that is objective because it subjects all brands to a consistent evaluation procedure. The process typically leads to a ranked-order list of the best-to-worst products, albeit at the expense of detailed information about many of each brand’s attributes. For many consumers, this approach is sufficient. But for some expert

consumers, whose preferences may subtly differ from *Consumer Reports’* evaluation procedure, it can be a case of one-size-fits-all. For these more-expert consumers, an information-rich format absent a recommendation may actually be preferred.

Expert buyers can usefully deal with more information than novice consumers, and their search strategies reflect this. Less-expert buyers may well be satisfied with their brand selections if the information they view is of a more restricted nature (that is, restricted in terms of attribute detail information, not the available number of alternatives). The challenge is to develop the appropriate options, and to identify those buyers who will benefit from each. Software programs often offer the choice of “basic” or “extended” drop-down menus—with the default being the basic menu. A parallel approach may be appropriate for web sites providing product information, such as a default mode being the basic page for the novice, perhaps with an “expert” recommendation provided as well. How would more-expert consumers proceed to a more extended or advanced information acquisition webpage? One obvious way is simply to provide an “expert” or “advanced” link. A second way is to evaluate the information initially sought by the visitor, with a particular pattern of requests leading to a simplified novice page and another pattern leading to a more detailed information page for expert consumers.

Two additional ways are suggested to permit experts more options to tailor the information they acquire: (a) Passive/Active version: In the “passive” mode, the website arrives at an “expert” recommendation based on the revealed search pattern of site visitors; in the “active” mode, more-expert consumers are afforded the opportunity to directly tweak the “expert” recommendations made by the website by actively changing the parameters of the preferred product attributes. (b) Scorekeeper version, which requires considerably more engagement on the part of the decision maker. A “scorekeeper” is created whereby the leading

alternative rises in value relative to the other alternative. Admittedly, this could be a somewhat unwieldy approach if there are more than two alternatives. But it could be conceivably simplified by using the analogy of, say a horse race, where decision makers move on-screen sliders to portray “which of the horses [that is, the two brands under consideration] is further ahead in the race at this point.” To the extent that buyers seek suitable discrimination between two competing brands before making a purchase decision, this approach clearly depicts the leading alternative. In summary, the conclusion is that given the potential for different levels of consumer expertise, complex preferential decisions will benefit from information presentation and delivery designed to take these differences into account.

LIMITATIONS AND FUTURE RESEARCH

Although this study furthers our understanding of the stopping strategies employed by expert and novice consumers, there are still questions unanswered. First of all, in this study knowledge levels of decision makers were experimentally manipulated. This is a strength of the design, but clearly there are limits to how knowledgeable consumers can truly become in a very limited period of time. On the other hand, that significant observable differences in behavior were found given a modest difference in knowledge levels portends well for the insights to be gained from studies involving decision makers with vastly greater knowledge. A worthwhile place to start would be with a decision domain in which there are naturally occurring experts (e.g., livestock judges, medical clinicians—or specifically in the consumer domain, serious hobbyists, e.g., photographers, cyclists). It may also be desirable to add an element of time pressure, which would tend to magnify the outcomes obtained. Second, there is the issue of purchase-experience satisfaction. This is partly, but not entirely, captured by the measure of decision confidence. Novices were less confident when they acquired more attribute

information. One implication is that non-expert buyers will feel less satisfaction after they acquire information beyond a certain point. Additionally, to fully understand the thinking processes of decision makers may require that concurrent verbal protocols be collected. Now that baseline information exists on the number of attributes acquired, the cumulative confidence levels achieved, and so on, in the absence of obtrusive measures, it would be worthwhile to trace the decision processes at a much more detailed level as well. Finally, the current findings point to the shortfall in our knowledge of how experts and novices deal with information when the cost of acquiring it is not nominal (i.e., acquiring useful information usually involves a “penalty,” perhaps of time or money or effort, for the decision maker). Certainly one would expect experts to manage the implied cost-benefit trade-off more effectively than less-experienced decision makers, especially in situations that involve actual product purchase. An understanding of how these trade-offs are managed would be another important step toward a model fully accounting for how decision makers “decide how to decide.”

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DIMENSIONS OF TRUST AND TRUSTWORTHINESS IN RETAIL BANKING: EVIDENCE FROM INDIA

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The purpose of this paper is to identify dimensions of trust and trustworthiness and their impact on the overall level of trustworthiness and customers' trust in Indian retail banking. Using data from retail bank customers in India, the study identified integrity/honesty, communication/similarity, shared values, expertise, and ability/consistency as significant predictors of overall trustworthiness in retail banking. Likewise, customers' disposition to trust, affective trust and overall trustworthiness were identified as significant predictors of the consumers' trust in retail banks.

The results of the study can help retail bankers to project a trustworthy image in the minds of customers and focus their resources on enhancing trust, which is key to maintaining long-term relationships with customers. Indian retail bankers should also consider the dimensions of trust in building customers' overall trust in the service provider.

INTRODUCTION

Unquestionably, consumers have increasingly gained free access to a wealth of information on an unprecedented scale. The phenomenon of *consumer empowerment* has significantly shifted the balance of power between buyers and sellers leading to intensified competition across a wide range of industries, including retail banking. As a result, retail banks more than ever feel the need to gain an in depth understanding of their customers' needs and preferences and look for ways successfully meet them. Fostering customer satisfaction and loyalty are increasingly seen as the keys to sustained profitability and growth (Heffernan, O'Neill, Travglione and Droulers 2008)

Consumers, on the other hand, have increasingly lost their trust in marketing actions. The more companies have invested in transforming themselves into customer-focused businesses, the more cynical and mistrustful consumers have become (Sheth and Sisodia 2006). Therefore, the concept of trust has

gained considerable importance in developing successful customer relationship marketing programs (Kantsperger and Kuntz 2010; Moorman, Deshpande and Zaltman 1993; Morgan and Hunt 1994). This is particularly true in financial services industry where consumers have to evaluate intangible, and often complex, services, and hence, look for trust as a vehicle to mitigate the perceived risk in dealing with financial services providers (Ennew and Sekhon 2007). It is not surprising that more than half of the bank customers in the United States place more importance on trust in their relationship with financial institutions than getting the best value for their investment (Ferguson 2003). In short, it is imperative for the financial services industry to gain a better understanding of the concept of trust and the factors that lead to developing a trusting relationship with their customers (Kharouf and Sekhon 2009). It is equally important to understand what makes a business trustworthy from the consumer point of view.

The purpose of this paper is to identify the underlying dimensions of trust and trustworthiness and examine their impact on overall levels of trust and trustworthiness. We

will also examine the impact of trustworthiness on customers' trust.

LITERATURE REVIEW

The concepts of trust and trustworthiness have been extensively studied. In the review provided below we document the extant research evidence on the constructs of trust and trustworthiness, their underlying dimensions, and their impact on consumer's trust.

Trust and Its Underlying Dimensions

Trust is a trans-disciplinary construct that has been used in psychology, sociology, economics, political science, and marketing to study different types of relationships (Ben-Rechav 2000; Mayer et al. 1995). In marketing, it has been an important component in a significant research stream focusing on buyer-seller relationships (Ganesan and Hess 1997) as well as in services area where a customer does not have an opportunity to evaluate the service prior to its use (Moorman, Deshpande and Zaltman 1993; Morgan and Hunt 1994; Dovaliene, Gadeikiene and Piligrimiene 2007).

There is no agreed-upon definition of trust in the literature. There are probably as many definitions as there are authors on the subject. A quick review of the literature found over ten definitions of trust (e.g., Schurr and Ozanne 1985; Morgan and Hunt 1994; Moorman et al. 1993; Anderson and Narus 1990; Lewicki and Bunker 1995; Mayer et al. 1995; Wang and Huff 2007). In spite of this diversity, however, a common thread cuts across all definitions. Trust refers to a mutual confidence that no party to an exchange will exploit another's vulnerabilities (Sabel 1993; Huff 2005). As such, it alleviates the uncertainty inherent in an exchange relationship. At its core, trust reflects reliability and confidence in the exchange party to fulfill its obligation in a way that leads to positive outcomes. In the services sector, the intangibility and high risk involved in service transactions means that the concept of trust is even more crucial in developing and maintaining business relationships.

Trust is a multidimensional phenomenon. In a study of the relationship between bank staff and its customers, Heffernan et al. (2008) identified three dimensions of trust: credibility, integrity and benevolence. They found a positive and significant relationship between the dimensions of trust, relationship manager's level of trust, emotional intelligence and bank's financial performance. In a study of partnering, Wong, Cheung and Ho (2005) identified four underlying factors in successful partnering between developers and consultant groups: performance, permeability, system-based trust and relational bonding.

Dovalieno, Gadeikieno and Piligrimieno (2007) analyzed the role of trust as an antecedent of long term customer relationship. They conducted an empirical study on odontology services to identify the determinants of customers' trust and the relationship between the various determinants and the overall level of trust. They found that trust plays a key role in determining the behavioral intentions of customers to pursue a long-term relationship (intentions to visit the same deontologist again and intentions to recommend) with the service provider. In subsequent analysis they found strong correlations between trust and satisfaction, outcome quality and customization. A strong positive correlation was also found between trust and its determinants and behavioral intentions. Finally a multiple linear regression was carried out to determine the presence of linear relationship between trust and its determinants. Here, only satisfaction emerged as a significant variable in explaining the variance in trust whereas the quality dimensions and communications were not significant.

Ndubisi and Wah (2005) conducted an empirical study to examine the relationship between perceived quality of bank-customer relationship and customer satisfaction in the Malaysian banking industry. The key underpinnings of the relationship identified in this study were trust, commitment, competence, communication and conflict handling. Trust

emerged as the most significant underpinning of relationship marketing.

In a study of customer loyalty and cross-selling in the banking industry, Liu and Wu (2007) examined the mediating role of satisfaction and trust in the relationship between services attributes, customer retention and cross-selling. The results revealed that the firm's expertise and reputation had a significant impact on trust and that trust, in turn, had a significant effect on both customer retention and cross-selling. However, the effect of service attributes (location convenience, one-stop shopping, firm reputation and firm expertise) diminished once satisfaction and trust were introduced as mediating variables. This implies that customers who are either satisfied and/or have trust in their banks place less importance on service attributes.

The above review leaves no doubt that trust is a multidimensional construct. However, there is no consensus on what its underlying dimensions are. It is reasonable to argue that perhaps there are certain core dimensions that underlie trust across all types of relationships and contexts, but there may also be some industry/context-specific dimensions that define trust. Similarly, there are no generally-accepted conclusions regarding the impact of trust on customer loyalty, customer retention and re-purchase intentions.

Trustworthiness and Its Underlying Dimensions

While trust is an attribute of the relationship between exchange partners, trustworthiness is an attribute of the individuals involved in the exchange. An exchange partner is trustworthy if he/she does not exploit the vulnerabilities of the other exchange partner (Barney and Hansen 1994; Huff 2005). The way the construct of trustworthiness has been conceptualized in the literature is not very clear cut. "Much of the literature on trust hardly mentions trustworthiness, even though implicitly much of it is primarily about trustworthiness, not about trust" (Hardin 2002). Where the construct has

been explicitly conceptualized, its conceptualization has primarily revolved around perceived qualities or attributes of an exchange partner that leads the partner to act in the interest of the other partner (Mayer et al. 1995; McKnight, Cummings and Norman 1998; Hodson 2004). As such, trustworthiness is belief-based and accumulates over time as a result of repeated experiences (Buttner and Goritz 2008; Caldwell and Clapham 2003; Caldwell and Jeffries 2001). Given the subjective nature of trustworthiness it is not surprising to note that two individuals may have very different views about who they can trust.

From the consumer point of view, trustworthiness is based on consumer's belief that a company will continue to offer goods/services as promised. In order to remain trustworthy, a business should sustain delivery of goods and services over time (Chong, Yang and Wong 2003). Therefore, proper conceptualization of trustworthiness should take into account accumulation of experiences which leads customers to trust a service provider.

A number of studies have attempted to identify the underlying dimensions of trustworthiness. In a study of the effect of individual service representatives or salespersons characteristics on the establishment of trust in B2B context, Coulter and Coulter (2002) identified competence, ability to customize solutions, promptness, reliability, empathy, politeness and perceived similarity between service representatives and customers as essential characteristics of trustworthiness. They also examined the effect of "person-related" and "offer-related" characteristics of sales representatives on trust with length of relationship acting as a moderating variable. The result revealed that the effect of "person-related" characteristics on trust was greater in the early stages of a relationship between a customer and service provider, whereas, "offer-related" characteristics had greater impact as the length of relationship increased.

Lee and Turban (2001) identified integrity, competency, ability and benevolence as the underlying dimensions of trustworthiness. These dimensions were later confirmed by Chong et al. (2003) in a study of e-commerce organizations. In a study by Caldwell and Clapham (2003) ability and skills, competencies and expertise emerged as the key elements of trustworthiness. Similarly, Bews and Rossouw (2002) found openness, integrity, benevolence, and competency as the dimensions of trustworthiness in insurance service provider.

Finally, based on the work done by Financial Services Research Forum, Ennew and Sekhon (2007) developed a framework to measure consumer trust and organizational trustworthiness in the context of financial services. They found expertise, competence, integrity and consistency in behaviour, effective communication, shared values and concern and benevolence as determinants of organizational trustworthiness.

It is clear from the above review that there is no consensus on the dimensionality of trust and trustworthiness, particularly in the services sector. Therefore, the present research is an attempt to gain a better understanding of the underlying dimensions of consumers' trust in a service provider and its trustworthiness. While a number of studies have examined the multidimensional nature of trust in the services context, less attention has been paid to identifying the underlying dimensions of trustworthiness. Therefore, the objectives of this research are: (1) to identify the underlying dimensions of trust and trustworthiness of a service provider; (2) to examine the relative importance of the trustworthiness dimensions on the overall trustworthiness of the service provider; (3) to examine the relative importance of trust dimensions on the overall consumer trust in the service provider; and (4) to examine the impact of trustworthiness on the overall consumer trust in the service provider.

RESEARCH METHODOLOGY

The empirical phase of this study proceeded along three steps. In step one, underlying dimensions of trust and trustworthiness of service provider were identified. The next step focused on exploring the relative importance of these dimensions on overall trust and trustworthiness of the service provider. The last step examined the impact of overall trustworthiness on overall trust.

The Survey Instrument

The survey instrument included trust and trustworthiness scales from the existing literature (Ennew and Sekhon 2007) as well as an overall measure of trust and trustworthiness. As shown in Tables 1 and 2, trust and trustworthiness scales consist of 11 and 23 items, respectively. The instrument also elicited respondents' perception of their banks as well as demographic characteristics. The questionnaire was pre-tested among the employees of an academic institution in Hyderabad.

Sampling and Data Collection

Data was collected through a self-administered questionnaire from current bank customers in three Indian cities: Hyderabad, Kolkata and Delhi. The Indian banking industry provides an excellent context to study trust and trustworthiness because after a long period of near monopoly status, the Reserve Bank of India introduced new guidelines allowing privatization of banks in 1993, reducing entry barriers for the private players in the market (Angur, Natrajan and Jahera Jr. 1999). The transition to a deregulated environment led to intensified competition among Indian banks while, at the same time, became more demanding and began to look for innovative banking products and better quality services. As a result, a number of new products and services such as credit cards, ATMs, consumer finance, mutual funds, etc. have become the norm in banks' competitive product line up (Chaitanya 2005).

TABLE 1
The Trust Scale

1	I trust my bank to do what it says it will do
2	I trust my bank to have my best interest at heart
3	My bank is reliable
4	My bank is honest with me
5	My bank is concerned about my best interest
6	My bank makes every effort to address my needs
7	My bank has a reputation for being reliable
8	My bank has a reputation for being honest
9	My bank has a reputation for being dependable
10	My bank has a reputation for looking after its customers
11	My bank has a reputation for having its customers' interest at heart

TABLE 2:
The Trustworthiness Scale

1	My bank does whatever it takes to make me happy
2	Keeps its words
3	Acts in the best interest of its customers
4	Shows high integrity
5	Is honest
6	Conducts transactions fairly
7	Has the information it needs to conduct its business
8	Is consistent in what it does
9	Can be relied upon to give honest advice
10	Shows respect for the customers
11	Treats its customers fairly
12	Has the same concerns as me
13	Is receptive to my needs
14	Competently handles all my requests
15	Is efficient
16	Communicates clearly
17	Is responsive when contacted
18	Informs me immediately of any problems
19	Has the same values as mine
20	Informs me immediately of new developments
21	Act as I would
22	Is knowledgeable
23	Communicates regularly

The increased competitive intensity coupled with increasingly demanding consumers, has prompted Indian banks to recognize that the key to sustained profitability and growth is to build long-term relationship with customers and gain customers’ trust which leads to enhanced customer satisfaction, positive word-of-mouth and reduced risk of switching to competing banks. (Heffernan, O’Neill, Travglione and Droulers 2008).

Sampling frame for the study included individuals who were more than 18 years of age and had at least one bank account. A convenience sampling method was used. In all 750 questionnaires were mailed, yielding 410 completed questionnaires, of which 380 were usable, representing a response rate of 50.7 percent. Respondents were asked to state their level of agreement or disagreement with trust and trustworthiness items on a 5-point Likert-

type items from “strongly disagree” to “strongly agree.”

Sample Profile

The sample profile is shown in Table 3 below. As can be seen, vast majority of respondents were young, highly educated, full-time employed and heavy users of ATM. Moreover, the sample was highly skewed towards the ICICI bank customers. Clearly, the sample cannot be regarded as representative of the Indian population as a whole. Therefore, one must use caution in generalizing the findings of this study to the general population.

Data Analysis and Results

To identify the underlying dimensions of trust and trustworthiness, two factor analyses were carried out using principal component with

TABLE 3
Sample Profile

Characteristic	Percent
Male	61.4
Female	38.6
20-30 years of age	87.4
Graduate/post graduate degree	88.9
Students/self-employed	28.7
Full-time public/private sector employee	71.3
More than one bank account	60
ICICI Bank customers	61.4
SBI Bank customers	23.8
HDFC Bank customers	7.9
Axis Bank customers	6.9
ATM transactions	73.5
Branch visits	15.9
Received e-mail communication from the bank	29.1
Received regular mail communication from the bank	36.5

varimax orthogonal rotation. An orthogonal rotation was used for its simplicity (Nunnally and Bernstein 1994). Factor extraction was based on two criteria. First, the Eigen value had to be greater than one. Secondly and more importantly, the factor structure had to be meaningful, useful and conceptually sound (Pett, Lackey and Sullivan 2003). Results of the factor analysis on trustworthiness items are shown in Table 4.

As can be seen from Table 4, six factors (underlying dimensions of trustworthiness) were extracted accounting for 69 percent of the total variance. Factor loadings of 0.5 or above were retained for further analysis. The factors were labeled as customer orientation, integrity, communication, shared values, expertise, and ability and consistency. Reliability of the factors as measured by Cronbach's alpha are greater than the minimum 0.7 considered acceptable for the factor reliability (Hair, Black, Babin, Anderson, and Tatham 2006).

The factor analysis on trust items produced three factors accounting for 68.76 percent of the total variance (see Table 5).

As seen in Table 5, the extracted factors (dimensions of trust) were labeled as disposition to trust, cognitive trust and affective trust. As before, factor loadings of 0.5 or above were retained for further analysis. Cronbach's alpha values of all the factors were greater than 0.7.

In the second stage of the analysis, two multiple regression analyses were performed to examine the relative impact of (a) dimensions of trustworthiness on overall trustworthiness; and (b) dimensions of customers' trust on the overall level of consumer trust in retail banking.

In the first regression, factor scores of the trustworthiness dimensions as independent variables were regressed on overall trustworthiness as dependent variable. Table 5 shows that 35 percent of variance in overall trustworthiness is explained by the six trustworthiness dimensions of which five

dimensions (integrity, shared values, expertise, ability and consistency and customer orientation) emerged as significant explanatory variables.

In the second regression analysis, factor scores of trust dimensions and overall trustworthiness were used as independent variables with overall trust as the dependent variable. As shown in Table 7, the set of independent variables explained 34 percent of variance in the dependent variable. Disposition to trust, affective trust and overall level of trustworthiness emerged as having a significant impact on trust.

DISCUSSION AND MANAGERIAL IMPLICATIONS

The purpose of this study was to identify the underlying dimensions of trustworthiness and customers' trust and to understand the impact of these dimensions on the overall level of trustworthiness and customers' trust in Indian retail banking industry. Integrity, shared values, expertise, ability and consistency and customer orientation emerged as significant predictors of overall level of trustworthiness. One obvious implication of these findings is that retail banks in India can leverage the underlying dimensions of trustworthiness to develop and maintain a trustworthiness image in the minds of their existing as well as potential customers.

The study also found that customers' disposition to trust, affective trust and cognitive trust underlie the dimensions of customers' trust in retail banks in India.

The fact that we found a significant and positive impact of the overall level of trustworthiness on the overall level of customers' trust further highlights the importance of building a trustworthy image of the service provider in the minds of the existing as well as the potential customers. Unlike some of the previous studies (Gefen 2002; Casielles et al. 2005; Liu and Wu 2007; Dimitriadis and Kyrezis 2008) of trustworthiness and trust in marketing, this study found support for the

TABLE 4:
Factor Analysis of Trustworthiness Items

Factors	Trustworthiness Items	Factor Loading	Cronbach's Alpha	Percent Variance Explained
Factor 1: Customer Orientation	Is responsive when contacted	0.739	.92	44.1
	Shows respect for the customers	0.730		
	Treats its customers fairly	0.641		
	Competently handles all my requests	0.621		
	Communicates clearly	0.598		
Factor 2: Integrity	Is honest	0.800	.88	7.6
	Shows high integrity	0.695		
	Conducts transactions fairly	0.636		
	Acts in the best interest of its customers	0.592		
	Keeps its word	0.512		
Factor 3: Communication	Informs me immediately of new developments	0.827	.81	5.3
	Communicates regularly	0.704		
	Act as I would	0.673		
	Informs me immediately of any problems	0.559		
Factor 4: Shared Values	My bank does whatever it takes to make me happy	0.811	.83	5.0
	Has the same concerns as me	0.798		
	Is receptive to my needs	0.714		
Factor 5: Expertise	Is knowledgeable	0.739	.76	3.7
	Can be relied upon to give honest advice	0.629		
	Is efficient	0.539		
Factor 6: Ability and Consistency	Has the information it needs to conduct its business	0.794	0.731	3.44
	Is consistent in what it does	0.778		

TABLE 5:
Factor Analysis of Trust Items

Factors	Items	Factor Loading	Cronbach's Alpha	Percent Variance Explained
Factor 1: Disposition to Trust	I trust my bank to have my best interest at heart	0.83	.84	46.8
	I trust my bank to do what it says it will do	0.77		
	My bank is honest with me	0.71		
	My bank is reliable	0.69		
Factor 2: Cognitive Trust	My bank has a reputation for being dependable	0.81	.84	12.7
	My bank has a reputation for being honest	0.81		
	My bank has a reputation for being reliable	0.73		
Factor 3: Affective Trust	My bank has a reputation for looking after its customers	0.76	.78	9.3
	My bank has a reputation for having its customers' interest at heart	0.75		
	My bank makes every effort to address my needs	0.70		
	My bank is concerned about my best interest	0.58		

TABLE 6:
The Impact of Trustworthiness Dimension on Overall Trustworthiness

Independent Variables	Standardized Beta	t-values	p-values
Customer Orientation	0.11	1.78	0.08**
Integrity	0.47	7.94	0.00*
Communication	-0.04	-0.68	0.50
Shared Values	0.22	3.65	0.00*
Expertise	0.21	3.53	0.00*
Ability and Consistency	0.17	2.89	0.00*

Dependent variable: Overall trustworthiness
R-square = .34; F-value = 16.795; Sig. F = 0.000
**p<0.05; **p<0.001*

TABLE 7:
The Impact of Trust Dimensions on Overall Trust

Independent Variables	Standardized Beta	t-values	p-values
Disposition to Trust	0.26	3.81	0.00*
Cognitive Trust	0.09	1.43	0.15
Affective Trust	0.13	1.96	0.05*
Overall Level of Trustworthiness	0.36	4.85	0.00*

Dependent variable: Overall level of trust in a service provider
*R-square = .34; F-value = 23.29; Sig. F = 0.000 *p<0.05*

multidimensional nature of both these constructs. This might be fruitful for exploring the managerial implications of trustworthiness and trust. This is so because these dimensions will provide a bird's eye view to the managers to focus on certain aspects of their service which builds the overall trustworthiness as well as the overall customers' trust. However, the degree of emphasis placed on the dimensions of trustworthiness and trust will depend on the objective of the service providers.

These findings are consistent with the past research results. For example, Buttner and Goritz (2008) identified integrity and ability as the important dimensions of the perceived trustworthiness of online retail shops. Similarly, customer orientation, honesty, competence, communication and common interests (Liu and Wu 2007; Chong et al. 2003; and Ennew and Sekhon 2007) were identified as the underlying dimensions of trustworthiness of a service provider. Again the dimensions of customers' trust in a financial service provider as identified in this study are quite similar to those of Ennew and Sekhon (2007) and Johnson and Grayson (2005). These findings suggest that building trustworthiness of an organization can act as a proxy for building their corporate image. The corporate image literature highlights that the higher the perceived corporate image and corporate reputation of a service provider, the higher is the customer satisfaction and hence the degree of customer loyalty (Andreassen and Lindstead 1998; Nguyen and LeBlanc 2001; Martenson 2007). Again corporate image has a significant and positive impact on consumers' trust (Flavián, Guinaliu and Gurrea 2005; Doney and Canon 1997). Hence, it is recommended that Indian retail bankers concentrate on the factors which aid them in projecting a trustworthy image in consumers' perceptual space.

It is also recommended that Indian retail bankers consider the dimensions of trust identified in this study in building the overall customers' trust in the service provider. This is particularly important during the current economic slowdown because trust acts as a

determinant of the relationship processes (Moorman et al. 1993) and it influences the relationship commitment (Morgan and Hunt 1994) and hence it helps in developing customer loyalty towards the service provider (Ball et al. 2004). Previous research has found that customer loyalty has a significant and positive correlation with sales growth rate and profitability of companies (Reichheld 2003 and 2006). Therefore, it becomes all the more important for financial service managers to focus on the dimensions of trust obtained in this study.

Surprisingly, we did not find a significant relationship between the cognitive trust and customers' overall trust. But that does not undermine the importance of cognitive trust which is based on the notions of reliability and dependability. This is so because Johnson and Grayson (2005) found significant and positive impact of cognitive trust on affective trust (which is based on the notions of being concerned about the best interests of the customer). It appears that affective trust might be acting as a mediating variable between cognitive trust and customers' overall trust.

Our finding that affective trust is significantly and positively correlated with overall trust has a very important practical implication. Research has shown that trust facilitates the relationship process and affective trust directly influences customers' propensity to respond positively to persuasive communication from the service provider, leading to more effective selling efforts (Ramsey and Sohi 1997; Johnson and Grayson 2005). We also found that customers' disposition to trust has a significant and positive impact on the overall customers' trust in retail banks. This is in line with the findings of Jarvenpaa et al. (1998), Gefen (2000) and McKnight et al. (1998) who have shown that customers' disposition to trust has a positive and significant impact on trusting intentions and trusting beliefs in an organization. This finding aids the retail banker to understand the general propensity of customers to trust the banks which stems from their personality and cultural factors.

Our results also indicated that overall trustworthiness has a significant positive impact on customers' overall trust in retail banking in India. This is an important finding because it clarifies the inconsistency that exists in the literature regarding the measurement of trustworthiness and trust and their relationship. What is purported as trust in the literature is actually trustworthiness (Hardin 2002; Caldwell and Clapham 2003). Therefore, our finding clearly demonstrates that trustworthiness and trust are two different constructs and the former is an antecedent to the later. This finding has practical implication for the retail bankers because it would help them to build long lasting relationships with their customers because customers are the lifeblood of organizations and without customers a firm has no revenues, no profits and therefore no market value.

In conclusion we want to caution the readers not to generalize the findings of this study because they are based on convenience sampling. Additional research with a more representative sample of retail bank customers in India must be undertaken before the findings can be generalized across the population of retail bank customers. Future research can extend this study by investigating the consequences of trust, i.e., word-of-mouth behavior and service loyalty. Since customers may either develop loyalty toward frontline employees or the firm (Palmatier, et al. 2007), it maybe be worthwhile to study whether it is the bank or its employees in which the customers show their trust. Another area which can also be examined is the bank's perspective on their trustworthiness and trust and then to identify the gap between the two perspectives. That would give a bird's eye view of trustworthiness and trust to the bankers. It is worth mentioning that our study is a step towards understanding the relationships between the service providers' trustworthiness and customers' trust in them and the relationships between the dimensions of trustworthiness and trust. Further research is needed in order to explore moderators of the link between trustworthiness and trust. This research has identified the linear relationship

between the overall trustworthiness of a service provider and customers' overall trust in the service provider. It would be interesting to examine whether there exist a non-linear relationship between the two constructs.

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DIMENSIONS OF TRUST AND TRUSTWORTHINESS IN RETAIL BANKING: EVIDENCE FROM INDIA

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The purpose of this paper is to identify dimensions of trust and trustworthiness and their impact on the overall level of trustworthiness and customers' trust in Indian retail banking. Using data from retail bank customers in India, the study identified integrity/honesty, communication/similarity, shared values, expertise, and ability/consistency as significant predictors of overall trustworthiness in retail banking. Likewise, customers' disposition to trust, affective trust and overall trustworthiness were identified as significant predictors of the consumers' trust in retail banks.

The results of the study can help retail bankers to project a trustworthy image in the minds of customers and focus their resources on enhancing trust, which is key to maintaining long-term relationships with customers. Indian retail bankers should also consider the dimensions of trust in building customers' overall trust in the service provider.

INTRODUCTION

Unquestionably, consumers have increasingly gained free access to a wealth of information on an unprecedented scale. The phenomenon of *consumer empowerment* has significantly shifted the balance of power between buyers and sellers leading to intensified competition across a wide range of industries, including retail banking. As a result, retail banks more than ever feel the need to gain an in depth understanding of their customers' needs and preferences and look for ways successfully meet them. Fostering customer satisfaction and loyalty are increasingly seen as the keys to sustained profitability and growth (Heffernan, O'Neill, Travglione and Droulers 2008)

Consumers, on the other hand, have increasingly lost their trust in marketing actions. The more companies have invested in transforming themselves into customer-focused businesses, the more cynical and mistrustful consumers have become (Sheth and Sisodia 2006). Therefore, the concept of trust has

gained considerable importance in developing successful customer relationship marketing programs (Kantsperger and Kuntz 2010; Moorman, Deshpande and Zaltman 1993; Morgan and Hunt 1994). This is particularly true in financial services industry where consumers have to evaluate intangible, and often complex, services, and hence, look for trust as a vehicle to mitigate the perceived risk in dealing with financial services providers (Ennew and Sekhon 2007). It is not surprising that more than half of the bank customers in the United States place more importance on trust in their relationship with financial institutions than getting the best value for their investment (Ferguson 2003). In short, it is imperative for the financial services industry to gain a better understanding of the concept of trust and the factors that lead to developing a trusting relationship with their customers (Kharouf and Sekhon 2009). It is equally important to understand what makes a business trustworthy from the consumer point of view.

The purpose of this paper is to identify the underlying dimensions of trust and trustworthiness and examine their impact on overall levels of trust and trustworthiness. We

will also examine the impact of trustworthiness on customers' trust.

LITERATURE REVIEW

The concepts of trust and trustworthiness have been extensively studied. In the review provided below we document the extant research evidence on the constructs of trust and trustworthiness, their underlying dimensions, and their impact on consumer's trust.

Trust and Its Underlying Dimensions

Trust is a trans-disciplinary construct that has been used in psychology, sociology, economics, political science, and marketing to study different types of relationships (Ben-Rechav 2000; Mayer et al. 1995). In marketing, it has been an important component in a significant research stream focusing on buyer-seller relationships (Ganesan and Hess 1997) as well as in services area where a customer does not have an opportunity to evaluate the service prior to its use (Moorman, Deshpande and Zaltman 1993; Morgan and Hunt 1994; Dovaliene, Gadeikiene and Piligrimiene 2007).

There is no agreed-upon definition of trust in the literature. There are probably as many definitions as there are authors on the subject. A quick review of the literature found over ten definitions of trust (e.g., Schurr and Ozanne 1985; Morgan and Hunt 1994; Moorman et al. 1993; Anderson and Narus 1990; Lewicki and Bunker 1995; Mayer et al. 1995; Wang and Huff 2007). In spite of this diversity, however, a common thread cuts across all definitions. Trust refers to a mutual confidence that no party to an exchange will exploit another's vulnerabilities (Sabel 1993; Huff 2005). As such, it alleviates the uncertainty inherent in an exchange relationship. At its core, trust reflects reliability and confidence in the exchange party to fulfill its obligation in a way that leads to positive outcomes. In the services sector, the intangibility and high risk involved in service transactions means that the concept of trust is even more crucial in developing and maintaining business relationships.

Trust is a multidimensional phenomenon. In a study of the relationship between bank staff and its customers, Heffernan et al. (2008) identified three dimensions of trust: credibility, integrity and benevolence. They found a positive and significant relationship between the dimensions of trust, relationship manager's level of trust, emotional intelligence and bank's financial performance. In a study of partnering, Wong, Cheung and Ho (2005) identified four underlying factors in successful partnering between developers and consultant groups: performance, permeability, system-based trust and relational bonding.

Dovalieno, Gadeikieno and Piligrimiene (2007) analyzed the role of trust as an antecedent of long term customer relationship. They conducted an empirical study on odontology services to identify the determinants of customers' trust and the relationship between the various determinants and the overall level of trust. They found that trust plays a key role in determining the behavioral intentions of customers to pursue a long-term relationship (intentions to visit the same deontologist again and intentions to recommend) with the service provider. In subsequent analysis they found strong correlations between trust and satisfaction, outcome quality and customization. A strong positive correlation was also found between trust and its determinants and behavioral intentions. Finally a multiple linear regression was carried out to determine the presence of linear relationship between trust and its determinants. Here, only satisfaction emerged as a significant variable in explaining the variance in trust whereas the quality dimensions and communications were not significant.

Ndubisi and Wah (2005) conducted an empirical study to examine the relationship between perceived quality of bank-customer relationship and customer satisfaction in the Malaysian banking industry. The key underpinnings of the relationship identified in this study were trust, commitment, competence, communication and conflict handling. Trust

emerged as the most significant underpinning of relationship marketing.

In a study of customer loyalty and cross-selling in the banking industry, Liu and Wu (2007) examined the mediating role of satisfaction and trust in the relationship between services attributes, customer retention and cross-selling. The results revealed that the firm's expertise and reputation had a significant impact on trust and that trust, in turn, had a significant effect on both customer retention and cross-selling. However, the effect of service attributes (location convenience, one-stop shopping, firm reputation and firm expertise) diminished once satisfaction and trust were introduced as mediating variables. This implies that customers who are either satisfied and/or have trust in their banks place less importance on service attributes.

The above review leaves no doubt that trust is a multidimensional construct. However, there is no consensus on what its underlying dimensions are. It is reasonable to argue that perhaps there are certain core dimensions that underlie trust across all types of relationships and contexts, but there may also be some industry/context-specific dimensions that define trust. Similarly, there are no generally-accepted conclusions regarding the impact of trust on customer loyalty, customer retention and re-purchase intentions.

Trustworthiness and Its Underlying Dimensions

While trust is an attribute of the relationship between exchange partners, trustworthiness is an attribute of the individuals involved in the exchange. An exchange partner is trustworthy if he/she does not exploit the vulnerabilities of the other exchange partner (Barney and Hansen 1994; Huff 2005). The way the construct of trustworthiness has been conceptualized in the literature is not very clear cut. "Much of the literature on trust hardly mentions trustworthiness, even though implicitly much of it is primarily about trustworthiness, not about trust" (Hardin 2002). Where the construct has

been explicitly conceptualized, its conceptualization has primarily revolved around perceived qualities or attributes of an exchange partner that leads the partner to act in the interest of the other partner (Mayer et al. 1995; McKnight, Cummings and Norman 1998; Hodson 2004). As such, trustworthiness is belief-based and accumulates over time as a result of repeated experiences (Buttner and Goritz 2008; Caldwell and Clapham 2003; Caldwell and Jeffries 2001). Given the subjective nature of trustworthiness it is not surprising to note that two individuals may have very different views about who they can trust.

From the consumer point of view, trustworthiness is based on consumer's belief that a company will continue to offer goods/services as promised. In order to remain trustworthy, a business should sustain delivery of goods and services over time (Chong, Yang and Wong 2003). Therefore, proper conceptualization of trustworthiness should take into account accumulation of experiences which leads customers to trust a service provider.

A number of studies have attempted to identify the underlying dimensions of trustworthiness. In a study of the effect of individual service representatives or salespersons characteristics on the establishment of trust in B2B context, Coulter and Coulter (2002) identified competence, ability to customize solutions, promptness, reliability, empathy, politeness and perceived similarity between service representatives and customers as essential characteristics of trustworthiness. They also examined the effect of "person-related" and "offer-related" characteristics of sales representatives on trust with length of relationship acting as a moderating variable. The result revealed that the effect of "person-related" characteristics on trust was greater in the early stages of a relationship between a customer and service provider, whereas, "offer-related" characteristics had greater impact as the length of relationship increased.

Lee and Turban (2001) identified integrity, competency, ability and benevolence as the underlying dimensions of trustworthiness. These dimensions were later confirmed by Chong et al. (2003) in a study of e-commerce organizations. In a study by Caldwell and Clapham (2003) ability and skills, competencies and expertise emerged as the key elements of trustworthiness. Similarly, Bews and Rossouw (2002) found openness, integrity, benevolence, and competency as the dimensions of trustworthiness in insurance service provider.

Finally, based on the work done by Financial Services Research Forum, Ennew and Sekhon (2007) developed a framework to measure consumer trust and organizational trustworthiness in the context of financial services. They found expertise, competence, integrity and consistency in behaviour, effective communication, shared values and concern and benevolence as determinants of organizational trustworthiness.

It is clear from the above review that there is no consensus on the dimensionality of trust and trustworthiness, particularly in the services sector. Therefore, the present research is an attempt to gain a better understanding of the underlying dimensions of consumers' trust in a service provider and its trustworthiness. While a number of studies have examined the multidimensional nature of trust in the services context, less attention has been paid to identifying the underlying dimensions of trustworthiness. Therefore, the objectives of this research are: (1) to identify the underlying dimensions of trust and trustworthiness of a service provider; (2) to examine the relative importance of the trustworthiness dimensions on the overall trustworthiness of the service provider; (3) to examine the relative importance of trust dimensions on the overall consumer trust in the service provider; and (4) to examine the impact of trustworthiness on the overall consumer trust in the service provider.

RESEARCH METHODOLOGY

The empirical phase of this study proceeded along three steps. In step one, underlying dimensions of trust and trustworthiness of service provider were identified. The next step focused on exploring the relative importance of these dimensions on overall trust and trustworthiness of the service provider. The last step examined the impact of overall trustworthiness on overall trust.

The Survey Instrument

The survey instrument included trust and trustworthiness scales from the existing literature (Ennew and Sekhon 2007) as well as an overall measure of trust and trustworthiness. As shown in Tables 1 and 2, trust and trustworthiness scales consist of 11 and 23 items, respectively. The instrument also elicited respondents' perception of their banks as well as demographic characteristics. The questionnaire was pre-tested among the employees of an academic institution in Hyderabad.

Sampling and Data Collection

Data was collected through a self-administered questionnaire from current bank customers in three Indian cities: Hyderabad, Kolkata and Delhi. The Indian banking industry provides an excellent context to study trust and trustworthiness because after a long period of near monopoly status, the Reserve Bank of India introduced new guidelines allowing privatization of banks in 1993, reducing entry barriers for the private players in the market (Angur, Natrajan and Jahera Jr. 1999). The transition to a deregulated environment led to intensified competition among Indian banks while, at the same time, became more demanding and began to look for innovative banking products and better quality services. As a result, a number of new products and services such as credit cards, ATMs, consumer finance, mutual funds, etc. have become the norm in banks' competitive product line up (Chaitanya 2005).

TABLE 1
The Trust Scale

1	I trust my bank to do what it says it will do
2	I trust my bank to have my best interest at heart
3	My bank is reliable
4	My bank is honest with me
5	My bank is concerned about my best interest
6	My bank makes every effort to address my needs
7	My bank has a reputation for being reliable
8	My bank has a reputation for being honest
9	My bank has a reputation for being dependable
10	My bank has a reputation for looking after its customers
11	My bank has a reputation for having its customers' interest at heart

TABLE 2:
The Trustworthiness Scale

1	My bank does whatever it takes to make me happy
2	Keeps its words
3	Acts in the best interest of its customers
4	Shows high integrity
5	Is honest
6	Conducts transactions fairly
7	Has the information it needs to conduct its business
8	Is consistent in what it does
9	Can be relied upon to give honest advice
10	Shows respect for the customers
11	Treats its customers fairly
12	Has the same concerns as me
13	Is receptive to my needs
14	Competently handles all my requests
15	Is efficient
16	Communicates clearly
17	Is responsive when contacted
18	Informs me immediately of any problems
19	Has the same values as mine
20	Informs me immediately of new developments
21	Act as I would
22	Is knowledgeable
23	Communicates regularly

The increased competitive intensity coupled with increasingly demanding consumers, has prompted Indian banks to recognize that the key to sustained profitability and growth is to build long-term relationship with customers and gain customers’ trust which leads to enhanced customer satisfaction, positive word-of-mouth and reduced risk of switching to competing banks. (Heffernan, O’Neill, Travaglione and Droulers 2008).

Sampling frame for the study included individuals who were more than 18 years of age and had at least one bank account. A convenience sampling method was used. In all 750 questionnaires were mailed, yielding 410 completed questionnaires, of which 380 were usable, representing a response rate of 50.7 percent. Respondents were asked to state their level of agreement or disagreement with trust and trustworthiness items on a 5-point Likert-

type items from “strongly disagree” to “strongly agree.”

Sample Profile

The sample profile is shown in Table 3 below. As can be seen, vast majority of respondents were young, highly educated, full-time employed and heavy users of ATM. Moreover, the sample was highly skewed towards the ICICI bank customers. Clearly, the sample cannot be regarded as representative of the Indian population as a whole. Therefore, one must use caution in generalizing the findings of this study to the general population.

Data Analysis and Results

To identify the underlying dimensions of trust and trustworthiness, two factor analyses were carried out using principal component with

TABLE 3
Sample Profile

Characteristic	Percent
Male	61.4
Female	38.6
20-30 years of age	87.4
Graduate/post graduate degree	88.9
Students/self-employed	28.7
Full-time public/private sector employee	71.3
More than one bank account	60
ICICI Bank customers	61.4
SBI Bank customers	23.8
HDFC Bank customers	7.9
Axis Bank customers	6.9
ATM transactions	73.5
Branch visits	15.9
Received e-mail communication from the bank	29.1
Received regular mail communication from the bank	36.5

varimax orthogonal rotation. An orthogonal rotation was used for its simplicity (Nunnally and Bernstein 1994). Factor extraction was based on two criteria. First, the Eigen value had to be greater than one. Secondly and more importantly, the factor structure had to be meaningful, useful and conceptually sound (Pett, Lackey and Sullivan 2003). Results of the factor analysis on trustworthiness items are shown in Table 4.

As can be seen from Table 4, six factors (underlying dimensions of trustworthiness) were extracted accounting for 69 percent of the total variance. Factor loadings of 0.5 or above were retained for further analysis. The factors were labeled as customer orientation, integrity, communication, shared values, expertise, and ability and consistency. Reliability of the factors as measured by Cronbach's alpha are greater than the minimum 0.7 considered acceptable for the factor reliability (Hair, Black, Babin, Anderson, and Tatham 2006).

The factor analysis on trust items produced three factors accounting for 68.76 percent of the total variance (see Table 5).

As seen in Table 5, the extracted factors (dimensions of trust) were labeled as disposition to trust, cognitive trust and affective trust. As before, factor loadings of 0.5 or above were retained for further analysis. Cronbach's alpha values of all the factors were greater than 0.7.

In the second stage of the analysis, two multiple regression analyses were performed to examine the relative impact of (a) dimensions of trustworthiness on overall trustworthiness; and (b) dimensions of customers' trust on the overall level of consumer trust in retail banking.

In the first regression, factor scores of the trustworthiness dimensions as independent variables were regressed on overall trustworthiness as dependent variable. Table 5 shows that 35 percent of variance in overall trustworthiness is explained by the six trustworthiness dimensions of which five

dimensions (integrity, shared values, expertise, ability and consistency and customer orientation) emerged as significant explanatory variables.

In the second regression analysis, factor scores of trust dimensions and overall trustworthiness were used as independent variables with overall trust as the dependent variable. As shown in Table 7, the set of independent variables explained 34 percent of variance in the dependent variable. Disposition to trust, affective trust and overall level of trustworthiness emerged as having a significant impact on trust.

DISCUSSION AND MANAGERIAL IMPLICATIONS

The purpose of this study was to identify the underlying dimensions of trustworthiness and customers' trust and to understand the impact of these dimensions on the overall level of trustworthiness and customers' trust in Indian retail banking industry. Integrity, shared values, expertise, ability and consistency and customer orientation emerged as significant predictors of overall level of trustworthiness. One obvious implication of these findings is that retail banks in India can leverage the underlying dimensions of trustworthiness to develop and maintain a trustworthiness image in the minds of their existing as well as potential customers.

The study also found that customers' disposition to trust, affective trust and cognitive trust underlie the dimensions of customers' trust in retail banks in India.

The fact that we found a significant and positive impact of the overall level of trustworthiness on the overall level of customers' trust further highlights the importance of building a trustworthy image of the service provider in the minds of the existing as well as the potential customers. Unlike some of the previous studies (Gefen 2002; Casielles et al. 2005; Liu and Wu 2007; Dimitriadis and Kyrezis 2008) of trustworthiness and trust in marketing, this study found support for the

TABLE 4:
Factor Analysis of Trustworthiness Items

Factors	Trustworthiness Items	Factor Loading	Cronbach's Alpha	Percent Variance Explained
Factor 1: Customer Orientation	Is responsive when contacted	0.739	.92	44.1
	Shows respect for the customers	0.730		
	Treats its customers fairly	0.641		
	Competently handles all my requests	0.621		
	Communicates clearly	0.598		
Factor 2: Integrity	Is honest	0.800	.88	7.6
	Shows high integrity	0.695		
	Conducts transactions fairly	0.636		
	Acts in the best interest of its customers	0.592		
	Keeps its word	0.512		
Factor 3: Communication	Informs me immediately of new developments	0.827	.81	5.3
	Communicates regularly	0.704		
	Act as I would	0.673		
	Informs me immediately of any problems	0.559		
Factor 4: Shared Values	My bank does whatever it takes to make me happy	0.811	.83	5.0
	Has the same concerns as me	0.798		
	Is receptive to my needs	0.714		
Factor 5: Expertise	Is knowledgeable	0.739	.76	3.7
	Can be relied upon to give honest advice	0.629		
	Is efficient	0.539		
Factor 6: Ability and Consistency	Has the information it needs to conduct its business	0.794	0.731	3.44
	Is consistent in what it does	0.778		

TABLE 5:
Factor Analysis of Trust Items

Factors	Items	Factor Loading	Cronbach's Alpha	Percent Variance Explained
Factor 1: Disposition to Trust	I trust my bank to have my best interest at heart	0.83	.84	46.8
	I trust my bank to do what it says it will do	0.77		
	My bank is honest with me	0.71		
	My bank is reliable	0.69		
Factor 2: Cognitive Trust	My bank has a reputation for being dependable	0.81	.84	12.7
	My bank has a reputation for being honest	0.81		
	My bank has a reputation for being reliable	0.73		
Factor 3: Affective Trust	My bank has a reputation for looking after its customers	0.76	.78	9.3
	My bank has a reputation for having its customers' interest at heart	0.75		
	My bank makes every effort to address my needs	0.70		
	My bank is concerned about my best interest	0.58		

TABLE 6:
The Impact of Trustworthiness Dimension on Overall Trustworthiness

Independent Variables	Standardized Beta	t-values	p-values
Customer Orientation	0.11	1.78	0.08**
Integrity	0.47	7.94	0.00*
Communication	-0.04	-0.68	0.50
Shared Values	0.22	3.65	0.00*
Expertise	0.21	3.53	0.00*
Ability and Consistency	0.17	2.89	0.00*

Dependent variable: Overall trustworthiness
R-square = .34; F-value = 16.795; Sig. F = 0.000
**p<0.05; **p<0.001*

TABLE 7:
The Impact of Trust Dimensions on Overall Trust

Independent Variables	Standardized Beta	t-values	p-values
Disposition to Trust	0.26	3.81	0.00*
Cognitive Trust	0.09	1.43	0.15
Affective Trust	0.13	1.96	0.05*
Overall Level of Trustworthiness	0.36	4.85	0.00*

Dependent variable: Overall level of trust in a service provider
*R-square = .34; F-value = 23.29; Sig. F = 0.000 *p<0.05*

multidimensional nature of both these constructs. This might be fruitful for exploring the managerial implications of trustworthiness and trust. This is so because these dimensions will provide a bird's eye view to the managers to focus on certain aspects of their service which builds the overall trustworthiness as well as the overall customers' trust. However, the degree of emphasis placed on the dimensions of trustworthiness and trust will depend on the objective of the service providers.

These findings are consistent with the past research results. For example, Buttner and Goritz (2008) identified integrity and ability as the important dimensions of the perceived trustworthiness of online retail shops. Similarly, customer orientation, honesty, competence, communication and common interests (Liu and Wu 2007; Chong et al. 2003; and Ennew and Sekhon 2007) were identified as the underlying dimensions of trustworthiness of a service provider. Again the dimensions of customers' trust in a financial service provider as identified in this study are quite similar to those of Ennew and Sekhon (2007) and Johnson and Grayson (2005). These findings suggest that building trustworthiness of an organization can act as a proxy for building their corporate image. The corporate image literature highlights that the higher the perceived corporate image and corporate reputation of a service provider, the higher is the customer satisfaction and hence the degree of customer loyalty (Andreassen and Lindstead 1998; Nguyen and LeBlanc 2001; Martenson 2007). Again corporate image has a significant and positive impact on consumers' trust (Flavián, Guinaliu and Gurrea 2005; Doney and Canon 1997). Hence, it is recommended that Indian retail bankers concentrate on the factors which aid them in projecting a trustworthy image in consumers' perceptual space.

It is also recommended that Indian retail bankers consider the dimensions of trust identified in this study in building the overall customers' trust in the service provider. This is particularly important during the current economic slowdown because trust acts as a

determinant of the relationship processes (Moorman et al. 1993) and it influences the relationship commitment (Morgan and Hunt 1994) and hence it helps in developing customer loyalty towards the service provider (Ball et al. 2004). Previous research has found that customer loyalty has a significant and positive correlation with sales growth rate and profitability of companies (Reichheld 2003 and 2006). Therefore, it becomes all the more important for financial service managers to focus on the dimensions of trust obtained in this study.

Surprisingly, we did not find a significant relationship between the cognitive trust and customers' overall trust. But that does not undermine the importance of cognitive trust which is based on the notions of reliability and dependability. This is so because Johnson and Grayson (2005) found significant and positive impact of cognitive trust on affective trust (which is based on the notions of being concerned about the best interests of the customer). It appears that affective trust might be acting as a mediating variable between cognitive trust and customers' overall trust.

Our finding that affective trust is significantly and positively correlated with overall trust has a very important practical implication. Research has shown that trust facilitates the relationship process and affective trust directly influences customers' propensity to respond positively to persuasive communication from the service provider, leading to more effective selling efforts (Ramsey and Sohi 1997; Johnson and Grayson 2005). We also found that customers' disposition to trust has a significant and positive impact on the overall customers' trust in retail banks. This is in line with the findings of Jarvenpaa et al. (1998), Gefen (2000) and McKnight et al. (1998) who have shown that customers' disposition to trust has a positive and significant impact on trusting intentions and trusting beliefs in an organization. This finding aids the retail banker to understand the general propensity of customers to trust the banks which stems from their personality and cultural factors.

Our results also indicated that overall trustworthiness has a significant positive impact on customers' overall trust in retail banking in India. This is an important finding because it clarifies the inconsistency that exists in the literature regarding the measurement of trustworthiness and trust and their relationship. What is purported as trust in the literature is actually trustworthiness (Hardin 2002; Caldwell and Clapham 2003). Therefore, our finding clearly demonstrates that trustworthiness and trust are two different constructs and the former is an antecedent to the later. This finding has practical implication for the retail bankers because it would help them to build long lasting relationships with their customers because customers are the lifeblood of organizations and without customers a firm has no revenues, no profits and therefore no market value.

In conclusion we want to caution the readers not to generalize the findings of this study because they are based on convenience sampling. Additional research with a more representative sample of retail bank customers in India must be undertaken before the findings can be generalized across the population of retail bank customers. Future research can extend this study by investigating the consequences of trust, i.e., word-of-mouth behavior and service loyalty. Since customers may either develop loyalty toward frontline employees or the firm (Palmatier, et al. 2007), it maybe be worthwhile to study whether it is the bank or its employees in which the customers show their trust. Another area which can also be examined is the bank's perspective on their trustworthiness and trust and then to identify the gap between the two perspectives. That would give a bird's eye view of trustworthiness and trust to the bankers. It is worth mentioning that our study is a step towards understanding the relationships between the service providers' trustworthiness and customers' trust in them and the relationships between the dimensions of trustworthiness and trust. Further research is needed in order to explore moderators of the link between trustworthiness and trust. This research has identified the linear relationship

between the overall trustworthiness of a service provider and customers' overall trust in the service provider. It would be interesting to examine whether there exist a non-linear relationship between the two constructs.

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A FRAMEWORK FOR IDENTIFYING FACTORS THAT INFLUENCE FINE ART VALUATIONS FROM ARTIST TO CONSUMERS

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While the fine arts are a multi-billion dollar business, marketing academicians have largely neglected the visual fine arts market. This is unfortunate because the expressive nature of fine art works provides an opportunity to extend marketing exchange theory further into the realm of symbolic and social values. This paper draws on marketing concepts, anecdotal evidence from art history, insights from art economics and aesthetics, and sociological perspectives related to social construction of reality, to develop a framework from which to view market valuations of fine art. Consideration is given to the artist, to visual fine art works as products, to the industry and its intermediaries and facilitators including galleries, dealers, collectors, curators, and critics, to purchasers of art as consumers with diverse purchasing motivations, and to aspects of fine arts pricing. A model is presented to summarize key potential influences on visual fine art market valuations and suggestions are made for directions of future formal research in this area.

INTRODUCTION

Although the fine arts are a multi-billion dollar international business (Velthuis 2007; Clarke and Flaherty 2002; The New England Council 2000), business academicians have largely ignored the fine arts as an area of concentration. However, the expressive nature of fine art works provides opportunities for marketing theory to delve further into the realm of symbolic, social and subjective values (Aaker 2009; Schroeder 2006; Solomon 1988; Hirshman 1983; Bagozzi 1975; Levy 1959), as well as into pricing differences based on characteristics of marketing intermediaries (Velthuis 2007) and to reassess the marketing concept so as to embrace a role for marketers in leading, educating, and so creating markets (Fillis 2002; Voss and Voss 2000). Whereas symbolic and social values can stand alone in exchange situations, in fine arts marketing, symbolic, personal, and social values are intrinsic aesthetic aspects of the product from

both producer and consumer perspectives. Moreover, fine art works may involve two types of valuations in a single purpose, a subjective valuation of personal meaning to the consumer, and investment potential in a broader market (Gutner 2005). From a marketing perspective, fine arts are not unique in these regards, but, the fine arts do provide a fairly focused subject matter from which to explore these realms. Sadly, while extensive work has been done in the realms of aesthetics and art from philosophical and psychological perspectives (see for example Adorno 1997; Barilli 1993; Venkatesh and Meamber 2006), a broad but basic framework to guide marketing inquiry has been lacking (Fillis 2002).

For present purposes, "fine arts" will refer to a painting in all media including watercolor, oil acrylic and "mixed media," as well as sculpture and ceramic works including carvings, castings, and hand-constructed objects. While we recognize that, in social terms, there are multiple art worlds and multiple art markets, we are broadly defining fine arts and fine arts markets here as we search for general principles of art valuation. The term is not here limited to

works of well-known artist's, historical figures, or particular genres. The fundamental premise of this paper is that the recognition an artist receives, monetary or otherwise, is a social definition and valuation of the artist's works and is driven by marketing related social processes. The objective of this paper is to develop a conceptual framework from which to pursue research into fine arts marketing. In developing this framework, we draw on sociological (Burger and Luckmann 1966; Durkheim 1954), aesthetic (Adorno 1997), and marketing theory (Aaker 2009; Kotler 2000) and illustrate resulting "principles" with anecdotal evidence. We conclude by presenting in graphic form a basic "model" of factors that may influence valuations.

Consideration is given to the artist as a producer in the sense that the artist is the originator of the core work, with recognition that many "top end" contemporary artists (and even historic "great masters") do not produce the final work from their studios solely themselves. Consideration is also given to fine art as a product with objective, cultural, and subjective components, to the art gallery and related marketing intermediaries and facilitators, and to the art buyer as a customer. All are viewed as representing potential sets of influences on monetary valuations (Aaker 2009; Velthuis 2007). Thus the model incorporates Artist Factors (The Artist), Product (Fine Art as a Product), Intermediary Influences (The Role of the Art Industry) and the Role of the Buyer (Purchaser Receptivity Factors). The model then describes the elements of each factor and their respective impact on price.

THE ARTIST

The marketing process of a work of fine art naturally begins with the artist. As the producer of art works, the resulting artwork and its valuation is intrinsically tied to the artist, his or her reputation in the art marketplace, brand strength, technical skills and base price expectations. The artist's reputation will derive from the artist's credentials which may include such topics as formal education (although this

is not a determining factor as "outsider" and "primitive art" are often highly valued), awards from and membership in artist societies, and museums and private collections which include the artist's work. In addition, the artist's reputation will also include records of past sales and prices of the artist's work.

The artist's "brand strength" may, theoretically, be closely related to the artist's reputation, but brand strength, at least as used here, is a different concept. As used here the concept of "brand strength" relates to the celebrity status of the artist and the "brand associations" which are attached to this status. Celebrity status refers to awareness of the artist as a person of note outside of the immediate community of artists. An example would be the broad social awareness of such artists as Andy Warhol, Picasso, or Grandma Moses. Such awareness broadens the general market interest in and receptivity to the artist's works, and so may increase demand outside of the artistic community more narrowly defined. In addition to brand awareness, celebrity status also incorporates "brand associations," the images or value symbols the artist represents. As in other marketing realms, brand associations can be positive or negative depending on the market segment to which the artist's work is directed. Andres Serrano, for example, came to be associated with outrage and controversy over religious sacrilege due to his depiction of a crucifix in a tank of urine, and Mapplethorpe elicited hostile controversy for photographs of homosexual and "deviant" forms of sexuality. These controversies, which still linger today, provided great notoriety but alienated both artists from many art venues. The negative associations that resulted increased calls for art censorship in the United States and stimulated calls for cuts in government spending on arts in the United States. Controversy of a different sort developed around the carefully cultivated brand of Thomas Kincade and created negative associations within parts of the art community due to both production and marketing techniques that called into question the uniqueness of each piece (despite the historical patterns of art production noted earlier).

However, positive associations that attached to his celebrity status as the “painter of light” and peaceful woodland villages endeared him to many retail art buyers outside of the artist community.

The artist’s conceptual and technical skills are necessarily intrinsic to the products that will be produced. Conceptual insight or technical prowess may attract collectors, galleries, critics and other marketing intermediaries and facilitators. Layout design, style of brush strokes, color choices, color value, choice of subject, interpretation of subject, and so forth, might gain an unknown artist attention from intermediaries and facilitators that might otherwise not respond to an artist who has not yet achieved celebrity status, and these intermediaries and facilitators can then contribute to the development of celebrity status and market value and aid in the creation of positive brand associations.

Finally, the artist’s base price expectations may influence a gallery’s willingness to consider carrying the artist as well as consumer receptivity. A high price, relative to the market segment to which the work is to be offered and the gallery appeals, might exclude potential buyers if it is not commensurate with the artist’s reputation. A low price relative to the same market segment might convey that the work of the artist is not to be taken seriously.

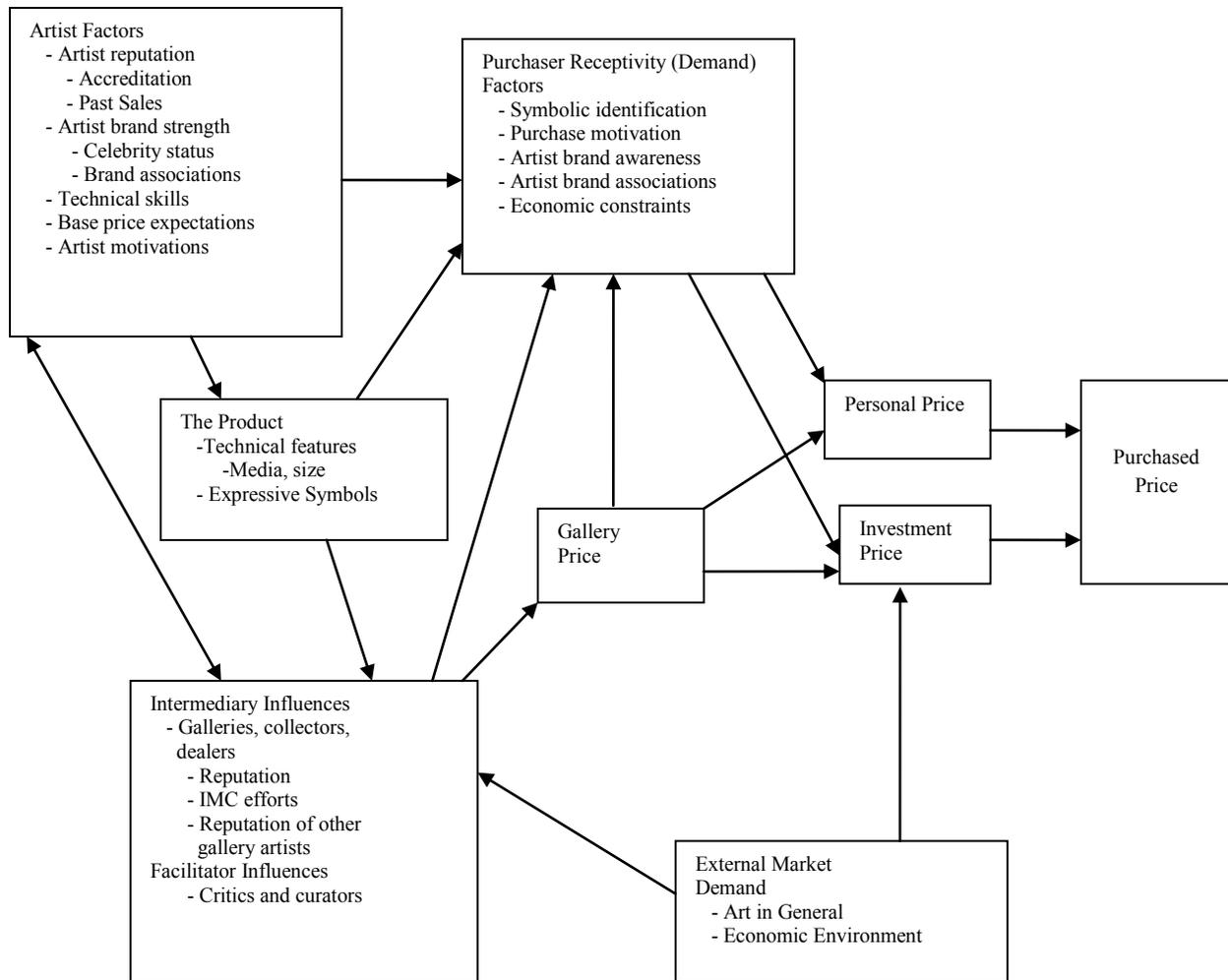
As depicted in Figure 1, these various “Artist Factors” directly influence the product that the artist produces, potential intermediary influences, and the purchaser’s receptivity. In these ways the artist indirectly influences the price the gallery asks, and the personal and investment prices the purchaser is willing to pay.

The last “artist factor” included in Figure 1 is the artist’s motivation for producing works. This topic has been recognized by others (Hirschman 1983; Fillis 2002) and reflects the classic artist conflict between creating for self expression and creating for market acceptance. In Fillis’ view this conflict becomes a challenge

and opportunity for the art marketer (the gallery or dealer intermediary) who may take on the role of the market educator and the creator of new art markets. We will see examples of this role later and discuss the implications of the artist conflict. For now we recognize that artists may carry out their work purely for their own fulfillment (what Hirschman referred to as marketing to one’s self), or may consciously create works that will be well received and sell quickly on the market. As we will see later, artists often take a compromise position and may create their own marketing distribution and communication channels in order to maintain artistic freedom while pursuing market success. Even so, the artist’s motivations can be expected to influence the nature of the art work as a product, the receptivity of intermediaries, and the fit between the artist as a brand and the purchaser who may seek symbolic identification with the artist and his or her work.

However, the artist’s conflict mentioned earlier must be explored if one is to understand the relationship of the artist to the marketplace. Fine art artists differ from many producers of products in several ways. First, the fine art artist is involved, initially, in the creation of a single unit of production in which each initial product is unique, although if successful its market potential may be extended greatly via various forms of reproduction. Even before the artwork has received widespread exposure plans may be in place to provide reproductions of various types, and such reproductions may even be in production. However, while the artist as artist may go through artistic stages during which many similar original works are produced, the artist’s intention is not to replicate products but to experiment with several - even many - variations in theme, style and technique. Violation of this principle with representations that works are “original” has involved artists in much controversy. The recent controversies surrounding Kincaid are an example (Schroeder 2005, 2006). Second, the underlying motivation of the fine art artist is to produce works of art that are satisfying to the artist herself or himself (Hirschman 1983).

Figure 1
The Flow of Influences on Fine Art Buyers' Valuation of Art



While monetary rewards and recognition by colleagues might be desired, the purity of the creation process expressed by the phrase “art for art’s sake” is often offered as a paramount concern and the artist may even hold and express disdain for the commercial aspects of the art industry. Even the notion of art as an industry is believed to be repulsive to the dedicated fine arts artist. However, this may be a relatively recent ideal, and even today is frequently violated, blurring the distinction between “pure art” and “commercial art.” There is substantial evidence that many

historical figures in art, such as Rembrandt, actively pursued both market acceptance and production workshops with apprentice staffs to increase output (Alpers 1988). Today a body of work is developing which assists the artists in marketing themselves (Smith 2011).

Regardless of social definition in the marketplace, the fine art artist highly values skills in design and technique, and the free experience of art (Alpers 1988). The artist exists in a constant position of tension between what Durkheim (1954) referred to as the worlds

of the sacred and the profane. Without at least some level of reward from the profane world of the marketplace, the artist cannot survive as a full time, dedicated professional able to be devoted to the experience of his or her art. But, exposure to the art marketplace and market success may be feared because the artist believes the marketplace may constrain future artistic development and because it may lead to suspicion by other artists on whom the artist depends for self-definition and social belonging. This is what Hirshman (1983) has referred to as “peer-oriented creativity.” In effect, the artist resists what Marx (1962) referred to as the “alienation of man from his labor” while still seeking economic and social sustenance from the marketplace. As noted by Bradshaw, McDonagh and Marshall (2006) in their study of musicians, “artistic alienation remains relevant as part of a complex balancing act between art and commerce...” This may be as true for the fine arts artist who achieves some degree of celebrity status or endorsement and support from dealers, collectors, independent curators, and galleries.

This situation was underscored by a personal encounter between an artist and one of the authors in a gallery in a popular tourist town that also has a vibrant art community. The owner of the gallery was unusual in that he was an artist whose works included paintings in various media and photography. He devoted his gallery largely to offering his own works to the public although other artists were represented. In an informal interview, he offered this advice to other artists “Paint what your customers will recognize and identify with.” On several occasions the author has shared this advice with fine art artists and has frequently had the advice rebuffed with such words and phrases as “crass,” “exploitative,” “commercial,” “prostitution,” and “That’s OK if he wants to do it, but I am not going to give up my art for money.”

This tension places the fine art artist in the unusual position of being a producer attempting to create without concern for the market while depending on the market for the ability to

create. As a result, the artist is at a disadvantage in establishing a base for carrying out market transactions and becomes largely dependent upon marketing intermediaries such as galleries that represent the artist’s work and insulate the artist from the marketplace. This is not to say that the artist is completely adverse from participating in the marketing effort. Artists often attend their own gallery showings, especially opening nights, and even look forward to these events as opportunities to hear and observe reactions to their work by art consumers and other artists. As with most people, artists appreciate social praise and acceptance although they may struggle not to let their “art” be influenced by such motivations.

To the extent that the artist desires to be insulated from the marketplace, whether to preserve his or her time for creative activities or to avoid the appearance or fact of market influence, the artist surrenders to marketing intermediaries and facilitators the creation of the social definitions of his or her work that will influence the potential buyers’ experiences. To this extent, at least, the artists surrender control of the representation of the work to market intermediaries and facilitators. These intermediaries and facilitators include gallery operators (broadly defined to include both store and internet sellers [Clark and Flaherty 2002], dealers, substantial collectors who also sell works, and other forms of selling intermediaries) and art “critics” and other forms of facilitators who in one form or another offer “expert” opinions as to the value of the work or the “importance” of the artist as a current or future influence. These intermediaries and facilitators are, in effect, market makers whose activities greatly influence, if not establish, the monetary value of an artist’s works and the cultural prominence and celebrity status of the artist in the “cultural constellation” of fine arts markets (Aaker 2009; Velthuis 2007; Joy and Sherry 2003; Joy 1998; Becker 1982).

To the degree that the artist takes a purist “hands off” position regarding the representation of his or her work, the galleries

which are motivated by monetary success are in a position to exploit artists with high commission rates despite low levels of marketing services and expenses. The extent to which this is done is an empirical question, but gallery commissions of forty to sixty percent of sales revenues are common, and many galleries may require that the artist use the gallery for matting and framing services and pay market rates for these services out of their remaining sales revenues (Cox 2001; Goodman 1978a,b). Moreover, galleries, by maintaining the primary relationship with the buyer, distance the art buyer from the artist, often with the artist being complicit in this distancing. The result is that the artist may not be able to identify his or her own best “customers” and thus loses to some extent the ability to capitalize on their psychic relationship with the buyer who has purchased the work for the subjective experience.

FINE ART AS A PRODUCT

As depicted in Figure 1, the product has two important dimensions, the technical features such as media, size, and indications of the artist’s technical skill, on one hand, and the expressive symbolism (from which it may derive symbolic value in the eye of the beholder) of the artwork on the other. Much of the following discussion will address the area of expressive symbolism. As a physical object, the typical work of art carries little market value. The costs of raw materials such as canvas, paper, paint, and clay are usually small and the materials have no salvage value. From a functional perspective, most artworks also provide no utilitarian value as a means of manipulating the physical world. Instead, a work of art as a product carries meaning only within the realm of socially and personally defined symbolic values. However, decisions to purchase fine art may then be grounded in other considerations. One is the external market value of the work of art (depicted in Figure 1 as “Investment Price”) (Gutner 2005). In this context, the external market refers to potential buyers other than the current owner and the immediate potential buyer. This may be thought of as the potential resale price

should the purchaser choose to sell the work at some future point. In this sense, the artwork is objectified as a potential investment or, at least, a safe haven for money. The second consideration on which a decision to purchase a work of art might be based is the value to the consumer of the consumer’s subjective experience of the artwork (Depicted in Figure 1 as the “Personal Price”). Only the consumer can establish the monetary value of the experience.

The relative importance of these two dimensions may vary from consumer to consumer and this variation and its underlying influences is a worthy topic of research. To uncover these influences we must consider the socially and individually defined nature of fine art products. An artwork as a market product is here conceived as having three dimensions. These include: 1) the social definition of the physical product by the art industry; 2) the artist’s experience in producing the work which the artist intends to share with the art consumer; and 3) the buyer’s subjective experience in consuming the work of art. The buyer’s subjective experience might or might not be capable of being shared with others and might or might not correspond to the experience intended by the artist (Hirshman 1983).

Of the three dimensions of the artwork as a product, the first may most heavily influence the external, monetary market value of a work of art. Art works are intrinsically risky from an investment standpoint. Market valuations are fraught with uncertainty. Standards for valuation are ambiguous and little consensus exists outside of the works of recognized masters. Operators of commercial galleries and auction houses, as marketing intermediaries (Dolan 2001; Goodman 1978b; Wilson 1970), facilitate trust, reduce risk and enhance market value by providing social definitions that legitimize artworks (Burnham 1975a, b). However, even then the notoriety of the artist is a product of the art industry’s definition of the artist and his or her work. The marketing of Modernism at the beginning of the 20th Century (Jensen 1994; Naumann 1996a,b;

Watson 1992) and the case of the legitimation of Picasso by Kahnweiler and Rosenberg (Fitzgerald 1995) is a case in point. Essentially, the market value of the artist and art products becomes a function of social definitions of reality that are learned and applied by individuals to create the individual's perception of reality (Berger and Luckmann 1966) as a consumer. These social definitions become the basis for "symbolic exchange" within the context of the cultural meaning of consumption (McCracken 1988, 1986).

Bagozzi (1975) used the concept of "symbolic exchange" to refer to the "mutual transfer of psychological, social or other intangible entities between two or more parties." Bagozzi goes on to cite Levy (1959) in regard to symbolic exchange and emphasized Levy's words "... People buy things not only for what they can do, but also for what they mean." In regard to art, the socially defined symbolic meaning of the work of art by the industry becomes a key source of monetary value, and may be a basis for the subjective experience of the consumer (Dewey 1934). A second set of meanings addresses the existential experience of the buyer or consumer of the artist's work (Dewey 1934), and this experience may be influenced by the social definitions provided by the industry. However, it must also be remembered that the artwork originated in the symbolic representation of an experience of the artist by the artist and, often, primarily for the artist (Hirshman 1983) which the artist then chose to share with the potential consumer in the market by offering the work for display and, usually but not always, for sale. Thus, the consumer's subjective experience is influenced by the artist through the artwork, but also by the industry definitions of the artwork, and such industry definitions may distort the intention of the artist and undermine the symbolic exchange between the artist and the viewer of his or her art. It is in this sense that the artist may suffer "alienation" from his or her labor in the sense of the term as used by Marx (1961, 1966) and thus from himself when offering artworks to the market.

THE ROLE OF THE ART INDUSTRY – INTERMEDIARIES AND FACILITATORS

As depicted in Figure 1, intermediary and facilitator influences are classified into influences of galleries and dealers, art critics and commentators. Galleries and dealers (as broadly defined previously) serve as sales venues and as critics and commentators. Here we will refer to both dealers and galleries by the term "galleries" in the interest of parsimony as both are sales agents. As used here, the terms critic and commentator refer to persons who are perceived to be independent of a formal association with a gallery. Representatives of the art "industry" – art critics, galleries and artist's representatives and artists themselves – often classify works of art to develop a framework for market order. This framework has the function of providing means of classifying, ordering and valuing art works in monetary terms to exert social control of art markets. Such classifications become industry definitions of a work of art as a product and serve as a basis for assigning monetary value. The art community distinguishes products not only on the basis of media and form, such as paintings or sculpture as noted above, but also on the basis of the producer of the work, the "finished" nature of the work, and the original intended purpose of the artist's work.

To illustrate, one distinction based on the producer of the work is "insider" versus "outsider" art. In this distinction, insider refers to persons who are educated within the conventional art community and institutions and known within that community. "Outsider" art is produced by persons who are not recognized as formally educated or previously participating in the traditional art community. To illustrate, Picasso, Van Gogh and Dali would be recognized as insider art, whereas the early work of Grandma Moses was seen as outsider art. One category within the outsider classification is "folk art" which refers to "outsider" artists who are not professional artists but who develop primitive (i.e., rough and somewhat unfinished) works that are embraced by influential insiders. As "insiders,"

established critics and galleries in particular, embrace “outsider” artworks, the works and the artist are legitimated, although perhaps within a narrow sphere. A key role of galleries is the discovery, legitimation and presentation to the insider community of folk artists as outsiders. In this process, the gallery increases the monetary value of the outsider art.

An example of a distinction made here on the basis of the intended purpose of the work is “commercial” art, which would include “advertiser,” and “banner” art, which was produced for the original purpose of promoting a product or service. However, the commercial art versus fine art distinction is not rigid and may be considered subjective. An important example is the “banner” art of contemporary artist Johnny Meah whose banner art was originally developed to promote circus performances but has transitioned in the view of many to be considered in the fine art category. Meah’s work has now been shown in numerous galleries in such cities as New York and Chicago and has, with the support of that community been socially recognized as fine art and has been assigned fine art prices. For Meah, the transition from being socially defined as a “commercial” artist to a “fine art artist” included gallery definitions of Meah’s work as “folk” art and “outsider art,” although these labels are not appropriate given his formal background and training (based on conversation with Johnny Meah, 1999). Galleries, for the convenience of sales may have assigned such labels as a means of introducing Meah’s banner art to the fine art community. Such labels can enhance the acceptance of the new artist by easing the traditional art consumer’s “social definition” of an unusual art form as valid art. Over time, greater exposure of such an artist to the fine art community can lead to recognition as a full member of the fine art set.

Such definitions of the art work do not affect gallery price or buyer perceptions in isolation from the gallery that offers the work. Therefore Figure 1 includes under the influences of galleries the reputation of the art gallery and other artists that the gallery represents, and

integrated marketing communications (IMC) efforts that the gallery carries out to represent the artist. These will affect (although not determine) the success of the gallery in representing the artist and will influence the offered market price the gallery places on the work of art. Such activities from a reputable gallery may enhance the receptivity of purchasers.

From a strategic assessment standpoint, the art gallery as a marketing intermediary is in a particularly strong position. Drawing on Porter’s (1980) conceptual framework for assessing the strategic attractiveness of an industry, gallery owners are in strong positions in that their suppliers, the artists, have little power and are essentially disorganized, and their customers, art buyers, are also disorganized and have relatively little knowledge from which to make valuation decisions. In addition, there are few barriers to entry or exit, although some degree of demonstrable knowledge of art might be expected to provide an advantage. Therefore participants at both ends of art market transactions are highly dependent on the galleries; the artists to gain market exposure without sacrificing idealism and dignity, and the buyers to establish appropriate financial valuations for their investment.

To the extent that uncertainty increases risk and risk reduces monetary value, the art gallery as a marketing intermediary may substantially add value to a work of art by providing “social definitions of reality” through which the work of art is “framed” in the buyer’s symbolic universe. By facilitating and reinforcing social definitions of works of art, the art gallery operator can enhance the potential buyers’ confidence in the monetary value of specific works of fine art. The degree to which a gallery effectively serves this market function will depend upon its ability to define its image as authoritative in regard to the monetary and symbolic valuations of art in the buyer’s social context. Galleries use several techniques to reduce uncertainty such as classification of an artist’s works into popularly recognizable

categories, providing educational information to make consumers aware of specific features of good design, providing artists' credentials, efforts to provide the artist with "celebrity" status, and efforts to associate the buyer's decision with similar decisions by reputable collectors and investors. Such risk reduction activities may be especially important during "boom" periods in which one or another type of art or artist is rapidly increasing in value, as occurred, for example, in the early 2000s in regard to Chinese art (Peterson 2004). Or in the field of art authentication, arbitrary and often clandestine, a top authenticators signature is the difference between a valuation of a piece of art as worth millions or worthy only of the trash bin. When top authenticators disagree, a piece of artwork can be consigned to purgatory forever (Grann 2011). While marketing intermediaries typically perform similar functions in many personal selling situations, such value enhancing roles may be especially important in fine arts marketing due to the high dependence of the product on subjective experiences and social definitions.

PURCHASER RECEPTIVITY FACTORS

Figure 1 depicts the factors that influence purchaser receptivity as consisting of five elements: symbolic identification of the buyer with artwork or the artist, purchase motivations (collector, investor or decorator, for example), the purchaser's awareness of the artist as a brand, the purchaser's awareness of the artist's brand associations, and the purchasers own economic constraints. Of these, it is the issue of symbolic identification that needs further elucidation here.

While industry definitions become market definitions of an artwork as a product and so may underlie its market value and motivate a buyer for investment purposes, the second set of symbolic meanings that address the existential experience of the observer of the artist's work may motivate the observer to become a buyer for symbolic purposes. These existential experiences involve the social sharing of symbols between the artist and the

observer. The resulting experience in the observer depends on the observer's recognition and definition of symbols provided by the artist. Such reactions depend upon the observer's prior experiences with the physical and social world and with industry definitions.

Where prior experiences with the physical, social and industry realms on the part of the artist and observer lead to corresponding symbolic definitions, the artist may succeed in an intended communication with the observer and the work of art produces the intended experience in the consciousness of the observer. Where such prior experiences of the artist and observer do not lead to corresponding symbolic definitions, communication between the artist and the observer fails and the observer has an experience different from that intended by the artist. In either case, the observer's experience becomes part of the art product and influences motivation to purchase the work of art. When the observer believes that there is a shared experience, the buyer might identify with the artist and be further motivated to buy his or her work, and might even develop a sense of relationship with the artist and follow the artist's career. In such a case an ongoing marketing relationship may develop between the artist and buyer, and the buyer might become a collector of the artist's products.

Art buyers may be roughly classified into three general categories. First is the buyer whose personal, subjective experience motivates the desire to have a particular work to perpetuate the experience evoked in him or her by the work of art. Second is the collector who seeks to accumulate an array of representative works of a certain artist or of a certain style or theme. The Ogden Museum of Southern Art (<http://www.ogdenmuseum.org/>) is an example of an extensive collection of art from the Southern region of the United States, developed primarily by a single collector. The third buyer category is the investor who buys in anticipation of rising market value as the artist becomes more widely recognized. Such investors may be pure speculators, although well informed regarding art markets, or they

may be collectors and market “manipulators” who, as well known collectors, purchase a significant portion of an emerging artist’s portfolio and then use their reputations as collectors to promote the artist and so enhance the market value of their purchases. Aaker (2009) provides examples of such activities.

Elements of all three motivations may be active in all three types of buyers, but the labels indicate the primary motivation. Given the costs of fine art works, even the personal experience buyer must be concerned about the proper market valuation of a work of art. Buyers, particularly personal experience buyers, must make purchase decisions under conditions of great uncertainty regarding market monetary value. Except in the case of long established artists, little is known about either the true current value of art works or their future value. While industry certified appraisers reference prices paid for works by a certain artist, or for works from a certain genre or school or period, values are often very uncertain (De Marchi 1999). Even collectors and investors operate in very uncertain territory when considering new and emerging artists and there do not appear to be firm rules by which art may be evaluated before an artist has developed a documented reputation or sales record (Peterson 2004). Rules of traditional artistic design may contribute to higher valuations if works can be said to represent good or bad technique, but while such guidelines may prevent a purchaser from losing money on “bad” art, they do not guarantee that examples of “good” art will hold value or grow in value. Conditions of uncertainty increase risk and therefore reduce prices (Houston and Gassenheimer 1987; De Marchi 1999).

At a more objective level prices may be influenced by the size of the artwork, the media, the subject matter, or the genre. Among artists who have not become widely recognized these factors may be very influential on price. Other factors that might influence price would include the reputation and location of the gallery itself. A gallery located in a historically recognized arts district may command higher

prices for unknown artists as it benefits from a halo effect by location, whereas a gallery located in a suburban shopping mall might not be able to command such prices for the same artist.

The art buyer, then, operating in a very uncertain realm of market valuation, and wishing to avoid being exploited, may seek external validation of the market value of an artwork. Even when the primary motivation is the subjective experience of the consumer, the buyer may feel uncertain as to how to value the artwork. An empirical question is the degree that buyers depend on their own valuation of the subjective experience when determining a purchase price, versus the degree of dependence on external validation based on objective factors such as size or media, or external factors such as representations by the gallery and its reputation, or prior sales by the same or similar artists. Further empirical questions of interest are the degree to which the importance of such factors may change with the economic or knowledge circumstances of the buyer, and the degree to which buyers depend on galleries as their source of market or aesthetic information.

PRICES

Such identification as discussed above may be influenced by brand awareness and brand associations and will in turn influence what is labeled in Figure 1 as “Personal Price.” This price may be thought of as the price that the buyer is willing to pay for the pure personal fulfillment that he or she gains from possessing the work of art and assuring that he or she will have continuing access to the experience it engenders. This price will vary depending on the consumer’s economic situation and buying motivations. At some point the buyer must consider the external investment value of the work. The amount the buyer is willing to pay over the value represented by the personal price is treated in Figure 1 as the “Investment Price.” In some cases the purchase price may be purely investment. Recently investor art funds have been established to purchase and hold art works

for future returns (Gutner 2005). In any case the investor price may be thought of as purely speculative. Although galleries carefully avoid any clear promises of future price increases for a specific art work, the potential for price increases is frequently alluded to. Where a certain artist's work has increased in price over time as his or her reputation developed, the pattern of price changes over time may be provided to the potential buyer.

CONCLUSIONS

This paper has considered the special situation of the artist as a producer, fine art works as products, the structural features of the art industry and the roles of critics and commentators as facilitators and of galleries as intermediaries, buyers as consumers of and investors in art facing exchanges that involve subjectivity, uncertainty and risk, and two components of prices of art works from a purchaser standpoint. This discussion provides a conceptual framework from which to begin to develop researchable propositions regarding influences on art transactions.

The previous discussion does not exhaust all issues in the promising field of fine arts marketing. No single paper could do this, or attempt this. However, this paper does suggest several promising areas of research inquiry. Some have already been raised. Were a formal research agenda regarding the art industry to be proposed, a first important step would be to document the size and structure of the industry in terms of numbers and types of participants and, where appropriate, sales levels (Goodman 1978a). The next step might then be to document the distribution of artists on the continuum from pure art to an absolute embrace of the commercial market. This effort might be quite revealing and might modify the artistic stereotype of the artist as primarily self or peer oriented (Hirshman 1983). This effort might also explore the types of marketing activities that artists do tend to carry out, and their expectations of marketing intermediaries (Cox 2001), as well as their orientation to art critics and art institutions that serve to "legitimate"

their work. A next step might be to study the buyers of art themselves to determine helpful segmentation schemes based on their motivations for art purchases and other forms of art consumption, and the meaning of art experiences to the consumer of art (Dewey 1934). In this regard it is worth noting, as Huntington (2007) has for the performing arts, that often exclusivity assumptions are made regarding the arts market segments that unjustly narrow arts markets, and, as Petkus (2004) has suggested, the potential value of experiential marketing techniques in the arts. Segmentations research might be followed by studies of art galleries, collectors, and related institutions as intermediaries to formally document the roles that these play in socially defining artists and their work, ascribing value to artworks, and "educating the public" regarding the aesthetic, social and market value of art. This area of inquiry would have to be broad and incorporate the inter-relationships of galleries, collectors, appraisers, museums, art critics, schools and artistic associations that sponsor juried shows or otherwise establish the credibility of artists. Such studies would provide a foundation for the development of a broad theory of fine arts marketing that would itself generate further inquiry into the area of symbolic exchange.

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GLOBAL PRODUCT STRATEGY: A LONGITUDINAL MULTI-COUNTRY PRODUCT ATTRIBUTE STUDY

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For many companies a fundamental marketing challenge is to create a global strategy which will allow for maximum use of existing product offerings and marketing activities through standardization while simultaneously “acting local” in order to effectively adjust to unique aspects of any given market. The purpose of this study is to investigate global product strategy and the issue of identifying relevant areas where standardization may be possible, and where the need to “act local” may be necessary, in the context of product offering attributes using a longitudinal approach. This study will investigate potential differences along 16 “sought for” product attributes over approximately a ten year period across three distinct international markets, explore how those identified relevant attributes change across three different product categories, The results show that in developing a long-term global product strategy it is important to begin product positioning, differentiation, and promotional activities with the fundamental product attributes of quality, price, appearance, and availability.

INTRODUCTION

At the end of the twentieth century the growth imperative and the prevalence of mature domestic markets resulted in many firms worldwide to look beyond their local market boundaries. This movement into international markets presented a new set of challenges for these organizations unfamiliar with the various nuances of a marketplace characterized by cultural, economic, political, and competitive differences (Fellman 1998). For many of these companies, the fundamental marketing objective was to create a global strategy which would allow for maximum use of existing product offerings and market activities through standardized operations while simultaneously “acting local” (Wills, Samli, and Jacobs 1991) in an effort to adjust to unique aspects of any given market.

The advantages of such a global strategy, with the emphasis on standardizing marketing efforts

wherever and whenever possible were then, and continue to be, many. These include: 1) increased cost savings through standardized research and development, packaging, product design, etc., 2) economies of scale, 3) consistency of product offering which facilitates quality control, and 4) similar segmentation strategies which allow for similar promotional efforts. Ten years into the 21st century this fundamental goal for international market operations has not changed. However, what has changed over the preceding decade is the nature and characteristics of the global marketplace. No longer characterized by unprecedented growth, global markets now are experiencing almost equally unprecedented economic pressures which have been accompanied by cultural, political, and competitive pressures. The growth imperative has not diminished, but the need to improve effectiveness and efficiencies in non-domestic markets has become more and more acute.

Clearly this changed market environment means a static global approach to marketing strategy is not without potential problems. It is

frequently difficult, and time consuming, to ascertain where and when standardization is appropriate over time. The purpose of this study is to investigate global product strategy and the issue of identifying relevant areas where standardization may be possible, and where the need to “act local” may be necessary, in the context of product offering attributes using a longitudinal approach. This study will investigate potential differences along 16 “sought for” product attributes over approximately a ten year period across three distinct international markets, explore how those identified relevant attributes change across three different product categories, and consider the consistency of these relevant product attributes within each market across the three product categories by replicating and comparing the results of Keillor, Hausknecht, and Parker’s (2001) study. The importance of “acting local”, particularly in relation to a given firm’s product offering, is of fundamental importance to successful overseas operations but little research exists which deals with product attributes in an international or global marketing context (Kalyanaram and Krishnan 1997) particularly when potential market changes over time are taken into account.

LITERATURE REVIEW

Relevant to this study is a substantial body of work which addresses general product strategy issues such as product definition, product categorization, the demarcation of product attributes, the relationship between product offering and brand strategy, and the relationship between product attributes and price. Unfortunately, although such studies are growing in number, there is a lack of product attribute/product strategy research using an international or global perspective. In order to fully understand product strategy, consideration of dimensions beyond the formal product or tangible good is necessary. Both the study of product strategy, and the practice of product planning, require attention be given to all of the features from which consumers might derive value. Although clearly not comprehensive, the review here highlights important studies

specifically relevant to this research of the product literature going back several decades which identified sixteen different attributes which consistently feature in consumers’ product choice decisions (Table 1).

In the international/global product strategy literature the earliest studies begin by building on the most fundamental difference in product type; that is, industrial versus consumer products. In their 1981 article, McGuinness and Little (1981) provided the foundation for developing successful product strategies in a non-domestic market. These authors identify the characteristics of successful export firms - size, level of technology, local vs. foreign ownership - as well as characteristics of successful export products - relative advantage, compatibility, risk, complexity, availability - in the industrial realm. They then (McGuinness and Little 1981) began to explore industrial product characteristics which may make a product more amenable to standardization in the context of several non-domestic markets. Their conclusion was that, for industrial products, technological innovations were universally sought out in global markets and that this “new-ness” can be used as a product attribute which will successfully build greater international sales. The results of this research (McGuinness and Little 1981) as it pertains to this study is support for the notion that specific product attributes can span different markets around the world and that the overall market environment can be a key influence on the likely success of a non-domestic product offering in any given market.

Moving from the marketing of industrial products in a non-domestic market to the marketing of consumer products in similar non-domestic environments, Jain (1989) argues total standardization of a product offering, as reflected by its attributes, is unrealistic. While the type of product and its composite attributes are basic determinants of the degree to which any offering must be adapted, or, alternatively, can be standardized, the environmental influence of cultural preferences, varied product experience and knowledge, and varied

TABLE 1
Identified Product Attributes

Attribute	Supporting Literature
Product Quality	Valette-Florence and Rapacchi (1991); Aaker and Keller (1990) Zeithaml (1998); Phillips, Chang and Buzzell (1983) Aliman and Othman (2007); Wang and Chen (2004)
Hygiene/Clean Appearance	Valette-Florence and Rapacchi (1991) Aaker and Keller (1990)
Chemical Free/Organic Components	Chandler and Drucker (1993) Valette-Florence and Rapacchi (1991)
Service Availability/Return Policy	Aaker and Keller (1990) Delgado-Ballester and Munuera-Aleman (2001)
Attractive Packaging/Attractive Appearance	Smith (1992) Valette-Florence and Rapacchi (1991) Aaker and Keller (1990)
Product Availability	Smith (1992)
Warranty/Guarantee	Biel (1992) Valette-Florence and Rapacchi (1991) Aaker and Keller (1990) Bloch and Richins (1983); Yi and Jeon (2003)
Value/Price	Yeo and Donthu (2002); Smith (1992) Bloch and Richins (1983) Jacoby, Olson and Haddock (1971)
Number of Features/Product Flexibility	Valette-Florence and Rapacchi (1991) Aaker and Keller (1990)
Recyclability/Environmentally Friendly	Chandler and Drucker (1993) Yi (1990) Valette-Florence and Rapacchi (1991)
Usable Packaging/Functional Features	Valette-Florence and Rapacchi (1991) Aaker and Keller (1990)
Safety/Personal Risk	Bloch and Richins (1983)
Brand Image	Aliman and Othman (2007); Yeo and Donthu (2002) Aaker, Martinez and Garsiera (2001) Smith (1992); Biel (1992) Valette-Florence and Rapacchi (1991); Yi (1990)
Store Image/Retailer Image	Collins-Dodd and Lindley (2003) Semiga, Riel and Ambrosini (2003) Biel (1992); Meyer-Waarden (2006); Rittippant, et al. (2009)
Financing/Credit	Smith (1992) Bloch and Richins (1983)
Locally Produced/Product Origin	Aliman and Othman (2007) Wang and Chen (2004) Klein, Ettenson and Morris (1998)

economic ability can all contribute to the need to make adjustments to product strategy as a firm moves from one market around the world to another. Like McGuiness and Little (1981), Jain (1989) supports the proposition that industrial products are more suitable for standardization than consumer products. However, Jain (1989) also presents a series of future research propositions built around the supposition that as markets become more culturally and economically diverse, and consumer behavior and characteristics change, the potential for a given organization to standardize its product offering in these markets and still achieve substantial levels of success is greatly reduced. Further, Samiee and Roth (1992) argue that consumer products are more likely to require higher levels of customization with firms emphasizing specialty products being better able to introduce elements of standardization in their products than those dealing in convenience products (e.g., food) where tastes and preferences may be determined by culture.

Emphasis on different product attributes across markets may also be the result of different levels of product familiarity and levels of consumer involvement (Wills, Samli, and Jacobs 1991). This approach points out the importance of matching product features and attributes with consumer demands and market characteristics. Thus, the knowledge of relevant product attributes in any given non-domestic market is crucial for the successful diffusion of product offerings new to a market as these attributes have a direct impact on the speed of that diffusion of process (Takada and Jain 1991). Relative advantage of the product, compatibility with the needs of the potential adopters, complexity, trialability, and observability (Rogers 1983) all have the potential to substantially impact the ability of a product offering to be more rapidly accepted in a non-domestic market environment.

An example of the need to match product, and product differentiation, strategies to the needs and characteristics of individual markets can be seen in the differences in advertising content

across markets. The fundamental purpose of an ad is to communicate relevant ideas and information to the target audience (Spreng, MacKenzie, and Olshavsky 1996). The notion that generalizable differences may exist across markets provides support for the case for attribute-based product strategy research in international/global marketing. In the case of advertising such research would focus on determining relevant product attributes across different markets as a mechanism for improving global advertising effectiveness. Lin (1993) provides evidence for this proposition in a comparative study of Japanese and American advertisements. In the study the author (Lin 1993) concluded Japanese advertisements tended to emphasize product attributes not directly related to the core product offering such as product packaging and availability. American advertisements, on the other hand, focused on product attributes more directly associated with the core product offering (e.g., price, product quality, and performance). Aaker and Maheswaran (1997) also provide a strong theoretical position that differences in product attribute emphasis and communication processing may be attributable to societal/cultural influences and orientation (e.g., China/collective versus U.S./individualistic). This is further supported by Han and Shavitt (1994) who concluded successful attribute appeals differ across cultures.

The theme that is established throughout the product strategy literature is the importance of matching product differentiation strategy, especially as it relates to product attributes, with the needs of different markets. From the perspective of a changing environment, which has been a marked characteristic of the global marketplace, Feenstra and Levinsohn (1995) note that, as markets and products change, so does the need to adjust and reconcile product differentiation strategies and the attributes which constitute a product offering. Assuming an organization has a functionally sound product offering prior to entering a non-domestic market, the next step, as discussed above, is to identify specific relevant product attributes (MacMillan and McGrath 1996).

Thus, the stage is set for the need to investigate the generally accepted product attributes (see Table 1) and their importance across several diverse marketplaces (Klein, Ettenson, and Morris 1998) over time. By doing so, this study begins to lay the groundwork for dealing with the problem of how to effectively develop a successful global product strategy and how that strategy needs to be flexible as market conditions change. Such an approach provides a means to reconcile the advantages of a global strategy while implementing a market orientation outside of the familiar domestic market taking into account the fact that the market environment, domestic or non-domestic, is not static. Posten (1996) argues that a key to building a successful international/global product strategy is investigating the relevance of more, rather than fewer, product attributes. While previous research (e.g., McGuiness and Little 1981) has dealt with this issue in the realm of industrial products, little published research exists which deals with this problem in the area of consumer products on a large scale (i.e., beyond a limited number of product attributes) particularly in the context of a longitudinal study. By better understanding the product attributes which have the potential to remain stable across diverse markets over time, and those which may change, firms will be in a better position to match their product differentiation strategy to meet both the needs of the external market and the requirements of the firm's internal resource base thereby achieving long-term global success.

METHODOLOGY

Any investigation of the relevance of product attributes across different markets and product classifications represents substantial methodological challenges. These include: selection of the markets from which respondents will be drawn, the sampling procedure by which the individual respondents are selected, measurement issues such as specification of the product attributes, and the evaluation of the reliability/validity of the measurement instruments as reflected in the collected data.

Market Selection

The first obstacle to overcome in the original study was to identify markets from which reasonably high quality respondent data could be obtained. The markets chosen were required to represent viable areas of opportunity for marketers and still be distinct in their economic, cultural, and consumer behavior characteristics. The countries determined to fulfill these criteria were the United States, France, and Malaysia. At the time of the original study, the United States was an obvious choice given its role as a major player in the global economy with exports well in excess of 1 trillion dollars. While the intervening economic downturn, and subsequent movement toward recovery, has affected the U.S. market it remains a global market leader. The selection of two other markets was more problematic. While it was necessary to identify markets from which data could be gathered, at the same time the markets selected would need to be reasonably representative as resource constraints prevented the gathering of data from a large number of countries. Given the exploratory nature of the research it was determined a nation from the major global market region of the European Union (France) and an emerging market (Malaysia) would be appropriate. When paired with the United States these two additional nations not only serve as a basis for a study which can be argued to be global in nature, they also can be shown to be reasonably distinct across economic, cultural, and consumer behavior lines.

Sampling Procedure

The data in the original study and this subsequent follow-up study was collected through personal intercept interviews over approximately a three month period of time (Spring 2000 and Fall 2009), using a quota sampling method. The personal interview method of data collection has several strengths which make it particularly well suited for conducting research in multiple countries. Personal interviews allow the individual gathering the data to clarify and explain

ambiguous or potentially confusing questions (Nowell and Stanley 1991; Bush and Hair 1985), which is particularly important when collecting data in markets where language barriers may exist (Kishii 1994). The ability to explain the selected terminology used to describe the various product attributes is an important concern and a key reason for employing personal intercept interviews. Beyond clarification and comprehension difficulties, multicultural/multinational data collection frequently encounters a number of bias-related problems, particularly social desirability and halo biases. Methodologically, personal interviews have been shown to be less susceptible to social desirability and halo biases than other popular forms of data collection (Han, Lee, and Ro 1994; Bush and Hair 1985).

The use of a quota sampling technique also has advantages that help to overcome problems associated with international data collection. In collecting international data, random sampling techniques used in a researcher's home market are often either impossible to implement or inappropriate to apply causing some researchers to fall back on convenience samples. In contrast to random or convenience sampling approaches, quota sampling allows the researcher to obtain a data base which is representative of the population as a whole along predetermined criteria (e.g., age, gender, etc.).

In comparing quota sampling to random sampling, Marsh and Scarbrough (1990) found no significant differences between respondents which would represent substantial data biases. Further, these authors (Marsh and Scarbrough 1990) also found no significant non-response biases existed when quota samples were compared to random samples. Sudman (1980) suggests using quota sampling based on age and gender to reduce potential biases in intercept-based data collection. The quota sample constructed for the original and follow-up studies were gathered so that each was representative of the American, French, and Malay population based on age and gender distribution (Sudman 1980). To further ensure

a sufficiently high level of data reliability and validity, the survey instrument was translated into French and Malay by native speakers. It was then back-translated (Douglas and Craig 1983) as means of identifying potential terminology problems. The same survey instrument used in the initial study was used in the follow-up study.

Measurement

One of the challenges in conducting this research was selecting the product attributes relevant to individual consumers. The list needed to be reasonably comprehensive yet concise enough to facilitate respondent cooperation and data analysis. The identified attributes also needed to be relevant over time. Using the existing literature as an initial starting point, sixteen relevant product attributes (see Table 1) were specified which were deemed to be well grounded in existing literature, concise, comprehensive, and sufficiently generalizable across product classification categories over time. In the collection of both samples, respondents were asked to indicate the extent to which each of the attributes was important in their purchase of a convenience product (grocery products), a shopping product (clothing), and a specialty product (an automobile) based on a 6-point Likert scale ranging from 1=not important to 6=very important.

While it may be argued that attempting to identify relevant and generalizable product attributes through the use of a list-based approach is problematic, Srinivasan and Park (1997) support the efficacy of such a self-explicated approach for identifying customer preferences for product attributes. Further, Braivik and Supphellen (2003) demonstrate that product attribute data can be reliably and validly collected using intercept interviews and they provide empirical support for the use of product attribute evaluation as a predictor of product purchase intention at all levels of product category involvement.

Factor analysis was employed to assess the reliability and validity of the measurement instrument of both samples. It was important for comparative purposes that there be a high level of consistency between product classifications and the underlying factors with which each product attribute was associated. Therefore, 48 items (16 specified product attributes across the three identified product classifications) were entered into each factor analysis. A Varimax rotation was utilized and factors established based on a minimum scale item loading of .40 (Rummel 1967). No items produced factor loadings below the .40 cut-off. A reliability analysis was also conducted utilizing coefficient alpha (Cronbach 1951).

In the case of the initial study data an overall computation of coefficient alpha, using the 48 items produced a coefficient alpha of .93 while computed coefficient alphas for the 16 items based on each product classification produced scores of .85, .85, and .79 for the respective convenience (grocery products), shopping (clothing), and specialty (automobiles) classifications. Similar results were obtained from the follow-up data with the overall coefficient alpha for the 48 items being .90 and the 16 items for each product category being .83 (convenience/grocery products), .81 (shopping/clothing), and .78 (specialty/automobiles) respectively. All of the coefficient alpha scores obtained from both samples exceeded the recommended .70 criterion suggested by Nunnally (1978).

DATA ANALYSIS

In the initial study a total of 372 completed and usable questionnaires were obtained (131 from Malaysia, 129 from the United States, and 112 from France). The follow-up study had a comparable sample size of 412 (141 from Malaysia, 148 from the United States, and 123 from France). Prior to subjecting the data to statistical analysis, frequency distributions were tabulated for each item to ascertain possible response biases or other data anomalies. None were detected and the sample was determined

to be of sufficient quality to be subjected to statistical analysis.

Economic Comparisons

The data in the study was analyzed by using paired significance tests of the mean responses for each group (i.e., Malaysia, France, and the United States) across the 16 specified product attributes within three basic product categories (i.e., convenience products represented by grocery products, shopping products by clothing, and specialty products by automobiles) using data from both the original and follow-up study. Table 2 shows the results of the comparisons.

It has been suggested that the importance placed on product attributes should be significantly different across economically dissimilar markets. That is, the more important product attributes directly tied to a consumer's economic situation should be related to the individual consumer's ability to engage in consumption (e.g., price vs. income) in markets characterized as being less developed or economically less stable. Malaysia was the market identified as being at the lower end of the economic spectrum, the United States on the opposite end, with France somewhere in the middle range. It is important to note that it is not suggested here that the French economy is less developed than that of the U.S., in fact the two could be considered very similar in many respects. However, the market economy of the United States was shown to be substantially more stable in the years prior to the initial study. In the intervening years, while the U.S. has suffered substantial economic setbacks this has been a worldwide phenomena and the U.S. appears to have emerged from this recession faster and stronger than most of the rest of the world. From a consumer's perspective, the implications of residing in a more developed economy (e.g., lower unemployment, lower inflation, higher levels of disposable income, etc.) would potentially mean less emphasis would be placed on "rational" consumption attributes. It should also be noted that, in order to obtain reliable and valid data, it was

TABLE 2
Product Attribute Mean Score Comparisons
(2000 vs. 2010)

Product Attribute	Malaysia		France		United States	
	2000	2010	1999	2010	1999	2010
Product Quality	5.42* (G)	5.39 (G)	5.41* (G)	5.43 (G)	5.00 (G)	5.35 (G)
	5.06 (CL)	5.61 (CL)	5.28 (CL)	5.38 (CL)	5.55 (CL)	5.65 (CL)
	5.58 (AU)	5.55 (AU)	5.64 (AU)	5.69 (AU)	5.85* (AU)	5.85 (AU)
Hygiene/Clean Appearance	5.61* (G)	5.67 (G)	5.57* (G)	5.59 (G)	5.10 (G)	5.46 (G)
	4.94 (CL)	3.69 (CL)	4.64 (CL)	3.61 (CL)	4.61 (CL)	3.56 (CL)
	4.55* (AU)	3.71 (AU)	3.69 (AU)	3.73 (AU)	3.39 (AU)	3.47 (AU)
Chemical Free/Organic Components	5.16* (G)	4.27 (G)	4.32* (G)	5.23* (G)	3.23 (G)	2.88 (G)
	4.64* (CL)	4.85* (CL)	3.20* (CL)	3.11 (CL)	2.59 (CL)	2.66 (CL)
	4.33* (AU)	2.85 (AU)	2.42 (AU)	2.55 (AU)	2.03 (AU)	2.42 (AU)
Service Availability/Return Policy	4.43* (G)	3.70 (G)	3.72 (G)	4.36* (G)	4.11 (G)	3.80 (G)
	4.23* (CL)	4.23 (CL)	3.52 (CL)	4.17 (CL)	3.96 (CL)	4.38 (CL)
	5.19 (AU)	5.17 (AU)	4.78 (AU)	4.95 (AU)	5.31* (AU)	5.24 (AU)
Attractive Packaging/ Attractive Appearance	3.74* (G)	4.35 (G)	3.05 (G)	4.00 (G)	3.36 (G)	4.18 (G)
	3.80* (CL)	3.77* (CL)	2.50 (CL)	2.60 (CL)	3.37* (CL)	3.57* (CL)
	4.14* (AU)	4.10* (AU)	2.66 (AU)	3.01 (AU)	4.06* (AU)	4.11* (AU)
Product Availability	4.66* (G)	5.00 (G)	4.26 (G)	4.78 (G)	4.94* (G)	5.09 (G)
	4.29 (CL)	4.52 (CL)	4.00 (CL)	4.48 (CL)	4.62* (CL)	4.72 (CL)
	4.93* (AU)	4.90 (AU)	4.45 (AU)	4.81 (AU)	4.60 (AU)	4.76 (AU)
Warranty/Guarantee	4.74* (G)	4.66* (G)	4.39* (G)	4.41* (G)	3.32 (G)	3.13 (G)
	4.42* (CL)	3.24 (CL)	4.32* (CL)	3.01 (CL)	3.75 (CL)	3.11 (CL)
	5.57 (AU)	5.54 (AU)	5.67 (AU)	5.61 (AU)	5.77 (AU)	5.69 (AU)
Value/Price	5.03* (G)	5.15 (G)	3.95 (G)	4.96 (G)	5.25* (G)	5.30 (G)
	4.91* (CL)	4.96 (CL)	3.88 (CL)	4.61 (CL)	5.27* (CL)	5.15 (CL)
	5.34* (AU)	5.82 (AU)	4.68 (AU)	5.76 (AU)	5.73* (AU)	5.55 (AU)
Number of Features/ Product Flexibility	3.38* (G)	3.40* (G)	3.63* (G)	3.57* (G)	2.67 (G)	2.77 (G)
	3.78* (CL)	3.20 (CL)	3.22 (CL)	3.19 (CL)	3.49 (CL)	3.15 (CL)
	4.67 (AU)	5.31 (AU)	4.84 (AU)	5.44 (AU)	5.62* (AU)	5.65 (AU)
Recyclability/ Environmentally Friendly	3.38* (G)	3.21 (G)	3.64* (G)	4.11* (G)	2.87 (G)	2.81 (G)
	3.37* (CL)	3.35 (CL)	2.79* (CL)	3.19 (CL)	2.08 (CL)	3.21 (CL)
	3.63* (AU)	3.50* (AU)	2.91* (AU)	3.27* (AU)	2.31 (AU)	2.26 (AU)
Usable Packaging/ Functional Features	3.66* (G)	4.00 (G)	3.87* (G)	3.91 (G)	3.04 (G)	3.86 (G)
	3.48* (CL)	3.03 (CL)	2.35 (CL)	2.79 (CL)	2.14 (CL)	2.81 (CL)
	3.64* (AU)	3.78* (AU)	1.73 (AU)	1.99 (AU)	2.34* (AU)	3.35* (AU)
Safety/Personal Risk	5.26* (G)	5.21* (G)	4.50 (G)	4.28 (G)	4.31 (G)	4.30 (G)
	4.70* (CL)	4.67* (CL)	3.55* (CL)	4.57* (CL)	2.97 (CL)	2.83 (CL)
	5.62 (AU)	5.58 (AU)	5.53 (AU)	5.55 (AU)	5.38 (AU)	5.47 (AU)
Brand Image	3.79 (G)	3.99* (G)	3.33 (G)	3.31 (G)	3.89* (G)	4.09* (G)
	4.07 (CL)	5.03 (CL)	3.66 (CL)	4.98 (CL)	4.84* (CL)	5.11 (CL)
	4.60 (AU)	5.01 (AU)	4.23 (AU)	4.95 (AU)	5.06* (AU)	5.12 (AU)
Store Image/Retailer Image	3.71 (G)	3.72 (G)	3.34 (G)	3.51 (G)	3.44 (G)	3.46 (G)
	3.78 (CL)	4.61 (CL)	3.56 (CL)	4.73 (CL)	4.44* (CL)	4.71 (CL)
	4.23* (AU)	4.89 (AU)	4.09* (AU)	4.81 (AU)	3.45 (AU)	4.93 (AU)
Financing/Credit	3.65* (G)	2.86 (G)	2.93 (G)	2.95 (G)	2.55 (G)	3.57* (G)
	3.54* (CL)	3.81 (CL)	2.71 (CL)	3.83 (CL)	2.79 (CL)	4.04 (CL)
	5.04 (AU)	5.10 (AU)	4.67 (AU)	4.96 (AU)	5.12 (AU)	5.20 (AU)
Locally Produced/Product Origin	3.96* (G)	2.37 (G)	3.98* (G)	3.83* (G)	2.10 (G)	1.79 (G)
	3.58* (CL)	2.41 (CL)	2.95* (CL)	2.35 (CL)	1.64 (CL)	1.90 (CL)
	3.75* (AU)	2.31 (AU)	3.23* (AU)	2.65 (AU)	2.11 (AU)	2.22 (AU)

G = Grocery Products CL = Clothing AU = Automobile * = Sig. < .01

NOTE: Based on a scale ranging from 1 = Not Important to 6 = Very Important

necessary to identify a lesser-developed, or emerging, market which also populated by consumers who are reasonably sophisticated in product evaluation and consumption. This led to the choice of Malaysia as the third market (Aliman and Othman 2007).

In the first study a review of the identified product attributes showed that the Malaysian respondents reported placing relatively high levels of importance on product attributes which were tied directly to their economic condition and the financial/economic risks associated with obtaining and consuming a given product. This was demonstrated by the lower end of the product classification, convenience goods (grocery products). With these products the Malaysian consumers placed high levels of importance on such attributes as product quality, warranty/guarantee, return policy, and even financing/credit. At the same time, these same respondents reported relatively low levels of importance being placed on attributes related to affective aspects of consumption (e.g., brand image). While the Malaysian respondents had some of the same emphasized product attributes in common with the French respondents, a comparison in the context of all three market economies showed a more complex pattern. Taking into account the data obtained from the Malaysian market, through the French market, to the United States revealed a tendency toward more emphasis on image and psychic-related attributes in the more developed/stable markets. For example, both the Malaysian and French respondents placed a high level of importance on product quality for grocery products when compared with the U.S. respondents. At the same time, French respondents did not place a high level of importance on financing and credit for grocery products. The U.S. consumers reported brand image to be significantly more important for grocery products than either the Malaysian or French consumers.

In the second study, several notable differences from the initial study were revealed in the data analysis. Malaysian consumers continue to place high levels of importance on product

quality and warranty/guarantee for convenience goods, in contrast to the initial study they did not place significantly high levels of importance on financing and credits but do emphasize brand image as an important product attribute. The notion that these consumers seek out chemical free or organic grocery products and place high importance on service availability and the recyclability of convenience products is also no longer supported. Overall, the results of the second study show a general movement toward image and psychic-related attributes in all three markets.

An alternative means of considering the data in light of the first research question is to note the levels, based on the 6-point scale used in the measurement instrument, reported for each attribute across the three samples. In the initial study the Malaysian respondents tended to report relatively high levels of importance being attached to "practical" product attributes such as product quality, cleanliness, service availability/return policy, product availability, warranty/guarantee, value/price, and safety across all three product classification categories. These same respondents reported relatively low levels of importance for more affective product attributes such as brand image, store/retailer image, features, and recyclability. As one then compares the results of the original study obtained from the other markets (France and the United States), there appears to be a movement away from similar high levels of importance being placed on practical product attributes and increased levels of importance being placed on the image/psychic attributes (e.g., brand image). The results from the first study do tend to provide some support for the notion that as markets become more developed economically, consumers in those markets began to evaluate products more on image-related attributes while consumers in lesser developed markets focused on objective/practical product attributes. However, as noted above, the more recent data does not support this distinction when considering the three markets.

Cultural/Consumer Behavior Comparisons

As was the case with the economic comparisons, an analysis of differences between the three samples across the 16 specified product attributes (see Table 2) does reveal certain characteristics that make each culture unique in terms of the product attributes emphasized over the ten year time span. The data obtained in the first study indicated that for convenience goods (i.e., grocery products), Malaysian respondents were unique in that they placed higher levels of importance than did French or American consumers on service availability/return policy, attractive packaging/attractive appearance, safety, and financing credit. However, in the second study Malaysian consumers placed significantly higher levels of importance on a single convenience good attribute – safety/personal risk – than did their French and American counterparts.

Malaysian consumers also differed from their French and American counterparts in the shopping product category (i.e., clothing) in their emphasis on chemical free/organic components, service availability/return policy, number of features/product flexibility, recyclability, functional features, store image, and country-of-origin. As was the case for convenience products, Malaysian consumers rated only one shopping product attribute – chemical free/organic components – significantly higher than in the French and American respondents.

In the specialty product category, Malaysian consumers were distinct from French and U.S. consumers in the importance placed on clean appearance, the organic nature of components, the product availability, recyclability, functional features, retailer image, and country-of-origin when buying an automobile. These original results are in sharp contrast to the second study where Malaysian consumers did not specifically identify any specialty product attribute to be more significantly important than the responding French and American consumers.

Based on the original study data, French consumers were characterized by placing a relatively lower level of importance on value/price for any of the goods - convenience, shopping, or specialty. Additionally, French consumers appeared to be unique in the low level of importance placed on product availability for grocery or clothing products. This may have been a function of the wide availability of these products in the French market. Another explanation might be that the emphasis, at least at that point in time, on these types of products in the French culture elevated the social significance of these products such that price/value comparisons were not considered important. These results from the original study were confirmed in the follow-up study. At the same time, for convenience products, the second data set showed that French consumers placed significantly higher levels of importance on chemical free/organic components, service availability, recyclability/environmentally friendly, and locally produced/country-of-origin product attributes.

American consumers were also unique in the emphasis they placed on certain product attributes within particular product categories. Originally, brand image and value/price were both significantly more important to American consumers, when compared to Malaysian and French consumers, across all three product classification categories. Further, when clothing was considered, American consumers were unique in the importance they placed on store/retailer image. Product attributes related to automobiles were another area where American consumers were distinct from Malaysian and French consumers. The U.S. respondents in the first study placed significantly higher levels of importance on product quality, service availability/return policy, value/price, number of features, and brand image in considering the purchase of an automobile perhaps reflecting the traditional importance placed on the automobile in American culture (Halberstam 1986). In the second study, U.S. consumers did not indicate any product attributes to be significantly more

important across all three product categories than did the Malaysian or French consumers.

MANAGERIAL IMPLICATIONS

The findings of this longitudinal study helps provide some basis for understanding and applying the notion of a global (i.e., “think global, act local”) marketing strategy as a firm moves beyond its domestic market boundaries and the ways the market environment, and by extension a firm’s strategy, evolves over time. Clearly, the findings here show that the importance placed on certain product attributes do cut across economic and cultural differences as reflected in the relatively high levels of importance placed on those attributes across the three nations sampled over the ten year time period. At the same time, the need to “act local” is revealed in the differences which were identified between the three samples. By breaking out these similarities and differences along product classification categories, it is possible to gain some practical insight into how to apply the principle of global marketing over

time for firms whose product offering falls into a particular product category by showing which emphasized product attributes are more likely to be longitudinally stable. Table 3 begins this discussion by considering similarities and differences within the convenience product category over a ten year time frame.

The information presented in Table 3 suggests that certain product attributes lend themselves better to a global strategy which positions and promotes a convenience product in a similar fashion across a variety of markets around the world. Alternatively, it could be suggested that those product attributes which do not fall into the “global” category in Table 3 may not be consistently emphasized in a variety of markets. This is evidenced by the data obtained in both studies which indicated some variation in the importance of attributes, either significant or relative, across the three nations sampled. What is particularly important for this study is that the number of product attributes which fall into the “global” category increased for all three product types over the ten year time

<p align="center">TABLE 3 Attributes for Convenience Products 2000 vs. 2010</p>			
Global Attributes		Multi-Domestic Attributes	
2000	2010	2000	2010
* Product Quality	* Product Quality	* Chemical Free/ Organic Components (Malaysia; France)	* Chemical Free/ Organic Components (France)
* Hygiene/Clean Appearance	*Hygiene/Clean Appearance	* Service Availability (Malaysia)	* Service Availability (France)
* Product Availability	* Product Availability	* Attractive Packaging/ Appearance (Malaysia)	* Warranty/Guarantee (Malaysia; France)
* Value/Price	* Value/Price	* Warranty/Guarantee (Malaysia; France)	* Number of Features/ Product Flexibility (Malaysia; France)
	* Attractive Packaging/ Appearance	* Number of Features/ Product Flexibility (Malaysia; France)	* Recyclability/ Environmentally Friendly (France)
	* Usable Packaging/ Functional Features	* Recyclability/ Environmentally Friendly (Malaysia; France)	* Safety/Personal Risk (Malaysia)
		* Safety/Personal Risk (Malaysia)	* Brand Image (United States; Malaysia)
		* Brand Image (United States)	* Financing/Credit (United States)
		* Financing/Credit (Malaysia)	* Locally Produced/ Country-of-Origin (France)
		* Locally Produced/ Country-of-Origin (Malaysia; France)	

period separating the two data sets. Those product attributes which appear were emphasized consistently (i.e., are associated with a relatively high importance score based on the 6-point scale used) in the convenience category include: product quality, hygiene/clean appearance, product availability, and value/price. In the second data set attractive packaging/appearance and usable packaging/functional features were also added. For a firm with a grocery/convenience product offering that is attempting to formulate, or improve, its global product strategy these findings support the notion that consumers are becoming increasingly “global” in the attributes they seek out even in low involvement, convenience products. At the same time, the results show that a wide-range of other product attributes may be important for maximizing success when a firm adopts a multi-domestic, or individual market strategy, but may not be the best choice for building a global product strategy.

The information in Table 4 provides further support for the notion that not all product attributes carry over from one economy to another in the global marketplace but the numbers are increasing over time. Interestingly, in the first study the same four product attributes (i.e., product quality, hygiene/clean appearance, product availability, and value/price) were consistently rated to be of relatively higher importance for shopping goods than other types of goods in each nation sampled. But another aspect of shopping goods can also be seen. Product attributes which are frequently emphasized by American firms in product positioning and promotional activities for shopping goods, such as brand image, were not universally valued. However, the second data set shows many of the attributes originally classified as multi-domestic moved into the global category. The emerging picture is significant in terms of its implications for firms moving into the global marketplace. This study

TABLE 4
Attributes for Shopping Attributes
2000 vs. 2010

Global Attributes		Multi-Domestic Attributes	
2000	2010	2000	2010
* Product Quality	* Product Quality	* Chemical Free/ Organic Components (Malaysia)	* Chemical Free/ Organic Components (Malaysia)
* Hygiene/Clean Appearance	* Product Availability	* Service Availability/ Return Policy (Malaysia)	* Attractive Packaging/ Attractive Appearance (Malaysia; United States)
* Product Availability	* Value/Price	* Attractive Packaging/ Attractive Appearance (Malaysia; United States)	* Safety/Personal Risk (Malaysia; France)
* Value/Price	* Brand Image	* Product Availability (United States)	
	* Store Image/ Retailer Image	* Warranty/Guarantee (Malaysia; France)	
	* Finance/Credit	* Number of Features/ Product Flexibility (Malaysia)	
	* Service Availability/ Return Policy	* Recyclability/ Environmentally Friendly (Malaysia)	
	* Product Availability	* Usable Packaging/ Functional Features (Malaysia)	
		* Safety/Personal Risk (Malaysia; France)	
		* Brand Image (United States)	
		* Store Image/ Retailer Image (United States)	
		* Financing/Credit (Malaysia)	
		* Locally Produced/ Product Origin (Malaysia; France)	

provides empirical evidence that understanding the nuances of a single market may not be necessary for creating a successful marketing strategy in another market. For convenience and shopping goods providers, the message seems to be clear - a global strategy should be founded on the basics (e.g., quality, value, availability, etc.) which represent the “think global” component of a global strategy. At the same time, other attributes play an important role for global consumers depending on the product type. Further, these results appear to carry over, with some modifications, to specialty goods as well (see Table 5).

As was the case with convenience and shopping products, the two universally important product attributes identified over time with specialty products are product quality and value/price. This would seem to be consistent with the nature of specialty products, particularly their infrequent purchase and the financial commitment/risk associated with consuming these products. The other universally accepted

attributes for this category also seem to support this perspective of consumers seeking to minimize the risk and commitment associated with consuming a specialty product, whatever their cultural or economic situation. These include: service availability/return policy, warranty/guarantee, safety/personal risk, and financing/credit. However, as was the case with the previous product classification categories, attributes such as appearance, brand and store/retailer image, and features which are commonly used to differentiate specialty products but were not universally emphasized as one moves from market to market around the world in the first data set were globally emphasized in the second study.

CONCLUSIONS AND LIMITATIONS

This study has attempted to address some of the issues related to constructing an effective product strategy in the global marketplace taking into account the possible impact of market and consumer changes over time. The

<p align="center">TABLE 5 Attributes for Specialty Products 2000 vs. 2010</p>			
Global Attributes		Multi-Domestic Attributes	
2000	2010	2000	2010
* Product Quality	* Product Quality	* Hygiene/ Clean Appearance (Malaysia)	* Attractive Packaging/ Attractive Appearance (Malaysia; United States)
* Service Availability/ Return Policy	* Service Availability/ Return Policy	* Chemical Free/ Organic Components Friendly (Malaysia)	* Recyclability/ Environmentally (Malaysia; France)
* Warranty/Guarantee	* Warranty/Guarantee	* Attractive Packaging/ Attractive Appearance (Malaysia; United States)	* Usable Packaging/ Functional Features (Malaysia; United States)
* Value/Price	* Value/Price	* Product Availability (Malaysia)	
* Safety/Personal Risk	* Safety/Personal Risk	* Number of Features/ Product Flexibility (United States)	
* Financing/Credit	* Financing/Credit	* Recyclability/ Environmentally Friendly (Malaysia; France)	
	* Brand Image	* Usable Packaging/ Functional Features (Malaysia; United States)	
	* Number of Features/ Product Flexibility	* Brand Image (United States)	
	* Store Image/ Retailer Image	* Store Image/ Retailer Image (Malaysia; France)	
	* Product Available	* Locally Produced/ Product Origin (Malaysia; France)	

results show that, in order to “think global”, it may be important to begin any product positioning, differentiation, and promotional activities with the fundamentals of quality, value, price, appearance, and availability. Based on the results obtained in this longitudinal study, there appear to be an increasing number of product attributes which are universally emphasized across markets. That would seem to indicate that in order to optimize penetration in any given market around the world, the key success factor may be the “thinking global” rather than the “act local” component of the global marketing approach. Effective positioning and differentiation appear to be increasingly more feasible using universal product attributes, particularly in the face of substantial competition for customers in the global marketplace (White and Griffith 1997). Further, the data indicate that the frequently applied positioning and differentiation techniques used by U.S. firms may hold little sway with consumers in some markets outside the United States. Thus, this study provides some empirical support for the “think global, act local” approach to global marketing strategy as well as giving some direction in terms of what both “thinking global” and “acting local” might involve, especially in economically diverse markets.

In closing, it is important to note some of the key limitations of this study. In doing so, the limitations of this present study suggest future research opportunities in the area of global product strategy. While substantial effort was expended to obtain data from three economically and culturally diverse markets over a reasonably long period of time, it could be argued that additional national samples might be necessary before any definitive conclusions can be drawn regarding globally universal product attributes. Similarly, although the sixteen specified product attributes were anchored in a comprehensive synthesis of existing published literature, it may be argued that a more comprehensive listing of product attributes would provide better insights. Along the same lines, explication of each of the attributes (e.g., aspects of product quality) in a

global context would represent an area of future research suggested by, but not addressed, in this study. Finally, another potentially fruitful area of future research implicit in this study would be to examine the stability of the identified product attributes in each product category given specific changes in the market environment faced by individual consumers in different markets.

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DISSIMILAR NEW PRODUCT PACE: PRODUCT CONTINGENCY EFFECTS

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The objective of this article is to conceptually examine the appropriate pace of new product development (NPD) and its influences on company financial success while considering the contingency effects of product typology. A conceptual model is set forth to analyze the antecedences of fast NPD, the consequences of fast NPD, and the moderator effects of product type. This paper theorizes that a dissimilar NPD pace is appropriate for high vs. low-tech new products in the dimension of incremental vs. radical new products for the purpose of new product success. It also provides practical insights and strategies into managing a proper level of NPD speed to maximize the financial success of different types of new products.

INTRODUCTION

Is fast-paced new product development invariably desirable? Currently, time-based strategies are in fashion for numerous companies worldwide. In turn, academics and practitioners have carried out numerous studies of fast-paced NPD. In this regard, researchers have analyzed such relationships as NPD performance and time to market (Calantone et al. 1997; Chen et al. 2005); how to speed up NPD (Kessler and Chakrabarti 1999; Langerak and Hultink 2005); the antecedents and outcomes of fast-paced NPD (Kessler and Charrabarti 1996; Menon et al. 2002); and NPD in different countries (Atuahene-Gima and Li 2000; Yu 2010). Further, researchers have evaluated NPD approaches in the high-technology sector (Arnold and Floyd 1997) and marketing strategies for high-tech products (Gardner et al. 2000; Lee et al. 2010).

Although these inquiries have provided insights on rapid NPD, they have typically limited their coverage to approaches for accelerating NPD and the consequences of this course of action. Rarely have researchers analyzed the relative

appropriateness of fast-paced NPD for diverse classes of products. When is fast NPD appropriate for specific managers? Does its effectiveness differ from one product class to another? The purpose of this article is to address these and related issues in the context of (1) high and low tech and (2) incremental and radical innovations.

ADVANTAGES OF FAST-PACED NPD

Numerous marketing practitioners and researchers have offered support for rapid NPD. They proclaim that “speed means profits” (Vesey 1992), or assert that NPD is “better than late” (Blackburn 1991). Many German managers prefer to exceed budgeted levels instead of risking a delay when they make trade-offs favoring NPD (Gupta et al. 1990). Some specific advantages for quick NPD are discussed below.

First, rapid NPD helps firms increase market share or establish the ground work for a new market. Early completion of the concept development process can lead to prompt product attribute convergence between the company and its customers regarding new products. In turn, customers tend to make initial orders from the first to market (Datar et al. 1997) because they desire immediate

possession of these novel offerings (Dumaine 1989). As Menon et al. (2002) have demonstrated, competitors that enter the market by swiftly developing new products can preempt new markets that evolve from emerging customer needs and new technologies.

Second, speedy NPD can improve organizational learning and associated capabilities. Studies (Versey 1992; Blackburn 1991; Menon et al. 2004) have demonstrated that rapid NPD is an important driver of organizational learning. Quick project turnaround times offer organizations multiple opportunities for learning through frequent and early feedback. This assists managers in learning more and faster than its slower competitors. Consequently, the improved learning process can build on itself and improve the next NPD project. The result is a faster and positive “learning loop” with a growing intensive learning process (Kim 2010). Steven and Tracy (2004) assert that organizations learn from customers and competitors, leading to enhanced organizational capabilities, including marketing skills. Also, R&D capability and other operational resources are often improved.

Third, quick NPD can advance profits derived from new products. Researchers have provided empirical evidence that accelerated NPD can improve new product profitability, either by enhanced customer loyalty resulting from switching costs (Dröge et al. 2000; Langerak and Hultink 2005; Reid 2010), or by extended product life cycles and premium prices (Smith and Reinersten 1998). Other experimental studies further demonstrate that time gained by speedy NPD can be converted directly to profit (Blackburn 1991; Lynn, Skov and Abel 1999).

Finally, there are numerous other cited advantages for rapid NPD. It is reported that rapid NPD can improve employee satisfaction and increase management flexibility and responsibility (Hout 1996). Further fast-paced NPD may decrease work redundancy, reduce errors, and foster efficient team communications in an accelerated environment

(Kessler and Bierly 2002). At the same time, not only can fast NPD minimize risks (Langerak and Hultink 2005; Peterson 1994), it can increase the likelihood of completing a full product introduction before imitations from competitors are sufficiently established in the market to impose serious threats (Menon et al. 2002). Finally it has also been shown to increase customer loyalty (Langerak and Hultink 2005).

The list of advantages of NPD reported above is by no means exhaustive. In spite of these cited strengths, fast-paced NPD is not without controversy. Researchers have identified some shortcomings accompanying rapid speed. Crawford (1992) suggests that uncritical application of fast NPD can lead to misuse. The following section sets forth opinions on the disadvantages as discussed by various sources.

DISADVANTAGES OF FAST-PACED NPD

First fast-paced NPD may lead management to neglect customer needs, sacrifice product quality and, as a result, lead to decreases in new product profits. Kessler and Chakrabarti (1996) argue that customer needs may be relegated when speed becomes a major end, rather than a means to success. Further, product quality can be impaired by intentionally skipping product development steps in order to conserve time (Smith 1999). Of course meeting customer needs is a critical feature for product success and profit (Cooper 1980), and this may be neglected if the pace of NPD is unduly accelerated.

Second, fast-paced NPD may overburden and stress NPD team members. Barczak and Wilemon (2003) argue that personnel experience pressure when they focus on speed to market and, in turn, this can be a major source of work stress. Menon (2004) notes that accelerated NPD could lead to stressful workplaces and threaten the organization’s social fabric. For instance, NPD teams might feel overburdened as they are expected to explore speed-conducive development procedures in addition to their existing work-

place demands. Under such circumstances, some employees may suffer undesired consequences. In the same vein, Lukas et al. (2002) assert that NPD speed is positively related to unexpected sources of stress. For example, the lack of market data in the context of reduced NPD time can induce and even force managers to seek new product strategies, which, in turn, may enlarge stress levels.

Last but not least, fast-paced NPD can inadvertently increase expenses and lead to hidden costs. Smith (1999) declares that time reductions can be achieved in two ways: (1) ongoing tradeoffs against other objectives such as project development and product manufacturing costs; and (2) initiating and sustaining organizational changes required to adopt a new approach. Either of these two approaches may increase expenses, some of which are hidden. Several researchers confirm that these hidden costs include: (1) constrained new product innovation arising from fast incremental innovation; (2) increased mistakes resulting from omitting NPD steps; (3) indirect costs originating from the necessary involvement of fringe personnel; (4) inefficiencies resulting from warped product innovation under time pressure; (5) and exhausted resources (Langerak and Hultink 2005; Crawford 1992).

PROPOSITIONS

As has been discussed, fast-paced NPD is associated with various pros and cons. Hence, different researchers and managers hold divergent views on the desirability of NPD velocity. Griffin (2002) claims there are little empirical evidence for the positive relationship between fast-paced NPD and new product success. Ittner and Larcker (1997) report that directly observed evidence for accelerated NPD success was nearly non-existent. On the other hand, some analysts such as Menon et al. (2002) propose that rapid-paced NPD is appropriate in all industry contexts.

In light of the advantages and disadvantages outlined above, the authors suggest that the

requirements for and the consequences of fast-paced NPD are dissimilar depending on product types. Kessler and Chakrabarti (1996) have postulated that the level of NPD speed may be influenced by product characteristics and regulatory environments. This section discusses the relationship between fast-paced NPD antecedences, and the consequences by product types categorized through technology involvement and innovation types. The authors undertake a comparison based on two categorizing dimensions: (1) high vs. low tech products and (2) incremental vs. radical products.

In previous NPD studies, a variety of potential influences have been included as antecedents. In spite of the contribution of these studies, those variables which are appropriate as fast-paced NPD antecedences need to be separated into those which are related to (a) high vs. low tech products and (b) incremental vs. radical products. Some researchers view market uncertainty, competitive volatility, technological uncertainty (Mohr et al. 2005) and shorter product life cycle (Kleingartner and Anderson 1987) as the most notable features that all high-tech industries share. On the other hand, low-tech industries share the following attributes: (1) competition on design, functionality and quality; (2) geographically limited competition; and (3) product attributes that are close to consumer desires (Hansen and Serin 1997). At the same time, innovation involvement differentiates the incremental and radical products (Vermeulen, DeJong and O'Shaughnessy 2005). As such, the most prominent factors that differentiate high vs. low tech products and incremental vs. radical products are: (1) the marketing environment, (2) product features, (3) and the R&D investment. The influences of these factors on fast-paced NPD are discussed in the following section.

As is illustrated by the model set forth in Figure 1, this study indicates how fast-paced NPD involving different product types (high vs. low tech and incremental vs. radical) may affect

new product success in terms of the NPD creativity, customer response and profit.

ANTECEDENCES AND NPD PACE

R&D Contribution and NPD Pace

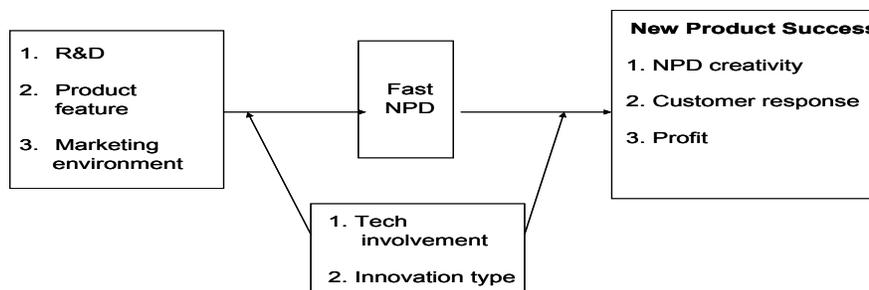
High- tech industry is R&D focused. Jacobson (2004) reports that the high-tech industry is knowledge-intensive and science-based where high-tech innovation emphasizes R&D and codifies knowledge derived from the formal study and training of its people. Further, Hansen and Serin (1997) find that most high-tech products have high R&D expenditures. Significantly, the R&D magnitude reflects the innovative and competitive capability of a company, even when the products are not complex.

R&D contributions dominate the speed magnitude of the high- tech NPD process. Generally, R&D is the prime mover underlying company marketing efforts. Only after innovations are developed are specific commercial applications and targets considered (Shanklin and Ryans 1984). In the main, innovations are derived either through generalization or by adoption from other organizations (Ziggers 2005). Further, high-tech firms generally do not outsource their core technical works in order to deter imitation, although they sometimes outsource manufacturing and associated functions. Thus company R&D personnel are the key actors who carry on high-tech continuous innovation. Further, an important characteristic of R&D in

high- tech markets is the learning-by-doing effect competitors find difficult to imitate merely by purchasing know- how (Dutta et al. 1999). Therefore, high-tech product rivalry is essentially R&D-based or technology-based. The performance of R&D personnel such as scientists, engineers, designers and technicians essentially determines high tech NPD speed, even though communication between R&D and Marketing and Product Planning Departments is necessary in the process.

Conversely, competition in low tech products is not usually focused on R&D levels. Rather, R&D is only one aspect of an innovative system (Jacobson 2004). Schmierl et al. (2004) relate that most low tech companies depend moderately on scientific inputs. Rather, low tech innovation is associated with tacit knowledge derived from experience that is fostered through interpersonal interactions. Sometimes low tech innovations use codified knowledge, employ engineers and undertake R&D. Yet, the use of scientifically educated and highly skilled people with advanced knowledge and design skills is relegated because such skills are not generally needed (Jacobson 2004). Hansen and Serin (1997) suggest that R&D is not a standard requisite for low-tech innovation. They see market exchanges creating an “embodied knowledge” in the form of products, machines or raw materials which plays a central role in low-tech innovation. Therefore, low tech product innovation significantly depends on personnel experience, logistics, marketing and material resources, rather than R&D contributions.

FIGURE 1
Fast-Paced Conceptual Model



From this, the authors propose the following:

Proposition 1: Internal R&D contribution is the determinant factor of fast-paced NPD for high-tech incremental and radical products but not for low-tech incremental and radical products.

Product Feature, Marketing Environment and NPD Pace

The product characteristics and market environments for high-tech products such as computers and pharmaceuticals differ from low-tech products such as hand soap and breakfast cereals. First, the high tech product itself is at least somewhat unique. Some studies (Murmah 1994; Schoonhoven et al. 1990) suggest that projects requiring a substantial degree of change experience slow development, whereas projects with moderate degrees of change experience rapid development. Hence, high-tech new products are associated with relatively slow development speed because of their radical change characteristics.

High tech markets have more technical and market uncertainty and competitive volatility than low tech markets. Researchers find that high tech markets are complex and information intensive (Heide and Weiss 1995). Of course, information patterns are difficult to obtain from the unpredictable high tech market with its short product life cycles. Meaningful data series are often incomplete or do not exist in these fast changing markets (Lynn, Schnaars and Skob 1999). Also, rapid technological change renders collected information time sensitive (Bourgeois and Eisenhardt, 1988). Generally, time sensitive information forces consumers to rely on existing vendors at the initial choice stage (Heide and Weiss 1995). Further, numerous buyer uncertainties exist in this sector. Theories of uncertainty resolution predict that buyers are stimulated to collect information about new vendors at the consideration stage of purchase in fast technology change environments (Heide and Weiss 1995). Thus, market environments dictate where fast-paced NPD is critical and why it leads to more success for high tech than

for low tech companies. Brown and Eisenhardt (1995) find that speed is much more important to organizational success in high velocity than in slow-moving markets. The conflict of slow product development and volatile market conditions for high-tech products implies that fast-paced NPD is urgent to high-tech firms. Thus, the authors propose:

Proposition 2: Product features and market environments force fast NPD to an appropriate level for high-tech radical and incremental products to maximize product success.

It is apparent that low-tech products have low mimic barriers. These products are often marketed with strategies that are not difficult for competitors to emulate. Specifically, rivals can often duplicate their raw materials, human resources, marketing efforts and low technology conditions. In this regard, a hasty-imitation strategy may substantially narrow a competitor's pioneering advantages (Kessler and Chakrabarti 1996). Consequently, fast-paced NPD may not significantly favor the success of low-tech new products.

The result is that low-tech product markets are relatively stable and rivalry involving NPD speed is less intensive than in high tech markets. In such a market, new product quality and customer need fulfillment are more critical than fast-paced NPD for success. Nijssen and his colleagues (1995) show that companies cannot gain significant advantages solely by briskly bringing new products to market, if the new products do not match customer needs. Further, in the case of low-tech and inexpensive offerings such as breakfast cereals and hand soap, customer preference is unlikely to change frequently. Consequently, managers cannot rely upon a trivial alteration in new product attributes or performance to significantly alter consumer purchase behavior or substantially impact the sales volume of existing products. Therefore, sales for low-tech innovations are likely to be satisfactory if management is more concerned about product quality and customer need fulfillment than about fast-paced NPD. Based on this review, the authors expect:

Proposition 3: Product features designed to meet customer needs rather than fast-paced NPD is a more appropriate strategy for low-tech radical and incremental offerings.

CONSEQUENCES OF FAST-PACED NPD

NPD Creativity

Increased marketing capability resulting from fast-paced NPD can enhance NPD creativity. In this regard, rapid NPD can improve the firm's marketing capability through enhanced learning opportunities (Steven and Tracy 2004). In turn, improved marketing capability assists management in understanding consumers and competitors (Sandmeire et al. 2010). Research by Im and Workman (2004) show that adopting a customer orientation relates to improved monitoring of customer needs and improving new product meaningfulness for consumers. It also leads to a better understanding of competitors and assists in positioning new products that differ from the offerings of rivals. The results are improved new product meaningfulness that is unique and novel to consumers. According to Amabile (1993), an important feature of this process is improved creativity for the firm that paves the way for the production of more useful and novel ideas for further new products. Thus, a byproduct of fast-paced NPD is improved firm creativity.

Pressure for fast-paced NPD can also advance creativity. As was mentioned in the previous sections, rapid NPD can engender stress among essential personnel. However, stress is not always a negative ingredient. Stress can be a motivator in some instances (Kahn et al. 1964). The "Theory in use" indicates that competitiveness motivates personnel to exert high levels of effort. Some researchers see a positive relationship between time stress and creativity. Amabile (1988) points out that a certain degree of pressure is positively associated with creative thinking when the tasks are perceived as urgent and intellectually challenging. Other studies (Andrews and Farris 1972; Amabile 1993; Sun and Zhao 2010) demonstrate that necessary concomitant time

pressure is positively related to intrinsic motivation and creativity in R&D scientists. Even under extreme time pressure, creative thinking is more likely as personnel understand the objectives and why completing the job on time is crucial (Amabile et al. 2002). From this perspective, the authors propose that fast-paced NPD time pressure can engender creative thinking.

Proposition 4: Fast-paced NPD motivates new product success for all high and low tech radical and incremental products, as reflected in NPD team members' creativity.

Fast-Paced NPD and Customer Response

Fast-paced NPD would not necessarily enhance customer response as significantly for high and low tech incremental products as it would for high and low tech radical products. First, most high and low-tech incremental new products are extensions of earlier successful radical new products. As such, customer response for products which are incrementally improved is cumulative because the consumer base for incremental new products is already established.

Second, the major role of incremental products is to sustain or improve market share by better satisfying consumers, rather than an attempt to penetrate a new market through fast-paced NPD. Yadav et al. (2006) demonstrated that incremental new products are critical to maintain or enhance mainstream market share. Andrews and Smith (1996) support this and have argued that incremental new products are the main sources of most firms' revenues. Therefore, accessing consumer needs and sustaining the initial successful customer response by enhancing what was previously a radical new product tends to be more essential than rapid NPD for incremental new products.

As discussed above, the role of radical new products differs from that of incremental new products. Managers are confronted with considerable uncertainty when introducing radical new products (Montaguti et al. 2002). They are investing in sweeping innovation for

future technology and production (Tushman and Anderson 1986). These companies pursue new opportunities rather than immediate success by introducing differential radical innovations in an attempt to offer something that resonates with consumers. In this process, getting products to market as soon as possible that satisfy consumers and preempt competition are the primary goals. Of course managers expect a number of failures, but the intent is to achieve an adequate volume of successful new products. Some companies may partner with others to accelerate the NPD process for offering new products faster to assist in seizing market share and setting entry barriers for potential competitors.

Finally, both customer adoption and purchase of successful incremental new products are rather quick, no matter the pace of NPD. In this regard, customer familiarity and past use of these products are the key factors in influencing the adoption process (Moreau 2001). Customers can identify advantages or disadvantages of incremental products more easily than they can for radical new products because of their prior knowledge of existing offerings. Further, less time is needed to uncover information and to learn how to use the product because incremental innovation is less novel than radical innovation. Hence, the time period between awareness of an incremental new product and the decision to adopt the offering may be short. As Wiorkowski and Gylys (2006) have noted, the introduction period tends to be abbreviated or almost non-existent when a product has a clear advantage in features over a company pioneer product.

However, the key factors influencing customer evaluations of radical new products differ from those of incremental new products. Radical new products are pioneers lacking direct alternatives for comparison and are often beyond the experience range of most potential customers. Lack of product familiarity, its use, uncertainty, and perceived risk are important factors that impact the radical new product adoption processes (Veryzer Jr. 1998). In this context, customers seek new information and require

additional knowledge before reaching a purchasing decision.

Of course, radical new product information search time is often limited. The economics of information theory supports the idea that consumers ordinarily take steps to be informed, because information search is a costly and demanding undertaking (Stigler 1996). Also, household production theory suggests that consumers often make initial investments in learning and expect an efficiency payoff in repeated decision-related activities (Michael and Becker 1973). During subsequent periods they are less motivated to conduct ongoing information search (Urbany et al. 1996). Consequently, customers may be inclined to purchase well-established products or products that others seem to be adopting rapidly. Hence, consumers may quickly respond to the first radical new offering. In this case, accelerating NPD can significantly improve and meet customer response for radical new products. From the above analysis, the authors propose that:

Proposition 5A: Fast-paced NPD is a determinant factor of new product success for high and low tech radical new products, as reflected in favorable consumer response.

Proposition 5B: Fast-paced NPD is not a determinant factor of new product success for both high and low tech incremental new products, as reflected in favorable consumer response.

Fast-Paced NPD and NPD Profit

Improved creativity accompanied by increased meaningfulness to consumers and novelty originating from fast NPD can increase customer response. This seems to be the case since customer response is primarily determined by the degree to which a product provides meaningful benefits, as compared to competing alternatives (Cooper 1986). One study (Srivastava et al. 1998) reports that rapid consumer response produces greater cash flows and results in increased profit for the company.

Since high tech products are more radical (Lynn et al. 1999A), these new products should generate more profit from fast-paced NPD than low tech new products.

Since fast-paced NPD probably contributes less profits for low-tech than for high-tech products, it is expected that moderate NPD speed results in superior profits for low tech radical and incremental products. This is also expected for high tech incremental products at the beginning, but there can be a threshold where profits will stabilize and then decrease. For high tech radical products, the faster the NPD, the more successful the high tech new product is likely to be. The authors propose the following propositions:

Proposition 6A: Increased NPD creativity can increase (1) customer response, and (2) new product profitability for all products.

Proposition 6B: Fast-paced NPD generates (1) the largest profit flows for high tech radical products, and (2) the least profit flows for low tech incremental products among the four types of products.

Proposition 6C: The relationship between fast-paced NPD and profit for high tech radical products is depicted by a concave u profile from above. The functional structure is steep.

Proposition 6D: The relationship between fast NPD and profits for low tech incremental products assumes a concave u profile from above. In turn, the functional structure is somewhat flat.

DISCUSSION

The speed of new product development has become an important field of interest to both academics and practitioners (Reid 2010; Lee, Kang, Yang, and Lin 2010; Grönlind, Sjödin and Frishammar, 2010). Much of the previous research on this topic has been limited to the importance and benefits of fast-paced NPD. This paper's contribution is to suggest that product-dependent considerations should be

introduced when studying NPD speed. The focus is to conceptualize the role of NPD speed for various types of products across diverse marketing environments. By assessing R&D contributions, product features market environments, NPD team creativity, and customer responses for high and low tech radical and incremental offerings, it appears that a different new product development pace is appropriate for high-tech versus low-tech products. Fast-paced NPD probably contributes the largest profit for high tech radical products among the four types of offerings. Further, NPD speed and profit levels are likely to assume a concave from above u configuration for this type of products. However, moderate NPD speed can be expected to bring about superior profits to all low tech products and high tech incremental products. The functional structure for the profit of these three types of products is predicted to be flatter than that for high tech radical products in the context of fast-paced NPD speed.

The authors' perspective can be of benefit to marketing practitioners. First, the propositions set forth in this paper may be helpful in understanding the consequences of various NPD paces on different types of products. Second, they can guide marketing managers when they desire to avail themselves of fast-paced NPD. Managers of both high and low tech products should recognize that new product profits from a fast-paced NPD may have a threshold beyond which an accelerated pace will not yield a corresponding increase in profits. As a practical matter, the concave profile of NPD speed and profits for both high-tech and low-tech products imply that management is well advised to gain an understanding of the conventional NPD pace in the industry before arriving at the desired rate. However, this sort of knowledge and insight is time and product sensitive. As a general rule, managers may benefit through comprehensive analyses of rival strategies and the market before developing new product strategy and tactics. Finally, the inputs from the study may help practitioners develop understandings that will assist in generating appropriate NPD

strategies for high vs. low tech and for incremental vs. radical new products. For instance, managers in high-tech industries might emphasize R&D contribution and continuous improvement in R&D skills to improve NPD speed and profitability. Conversely, managers in low-tech industries should emphasize the inter-functional communication between the R&D and the marketing departments, in addition to NPD speed, in order to incorporate customer needs on new product timing to maximize profitability.

FUTURE RESEARCH AND LIMITATIONS

The views presented here regarding NPD speed for different types of products are the first step in exploring several selected dimensions of NPD strategies and profitability. Certainly, fast-paced NPD is not an obvious managerial choice. Further research efforts may be of value in examining means of balancing marketing strategies with the consideration of fast-paced NPD for maximizing profits of high tech vs. low tech and incremental vs. radical new products. Future research may also be useful in exploring avenues for quantifying each germane factor, such as new product speed and customer response, which influences the profitability of high tech and low tech new products. It may be useful to quantify each factor such as R&D investment and product features that impact the different NPD paces for different kinds of new products. For example, when considering how to leverage product attributes for profitability, what is the appropriate NPD speed needed to achieve the thresholds that maximize profits for all types of products?

Other questions relate to: How to properly balance divergent influences to maximize profits? What are the appropriate R&D investments and how should managers determine their contributions to both high tech and low tech products? How does NPD pace relate to customer responses for a radical high-tech product? Other opportunities for future

research are to determine the importance of NPD speed for other types of new products. For instance, is fast-paced NPD equally important for consumer products and for industrial products?

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COGNITIVE LOAD AND SYNTACTIC COMPLEXITY OF PRINTED ADVERTISEMENTS: EFFECTS ON CONSUMERS' ATTITUDES

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While the extant advertising research has shown mixed findings on the impact of print advertisement complexity on marketing outcomes, one factor that consistently influences consumers as they judge the content of advertisement messages is the text's syntactic complexity. The current research attempts to explain consumers' underlying cognitive processes that occur when they read advertisements written using complex versus simple syntax. The study finds that research participants report better attitude toward advertisements written with simple syntax versus complex syntax, but when cognitive load is added, this effect disappears.

INTRODUCTION

In 2009, U.S. domestic advertisement spending reached \$125.3 billion (Adweek 2010). In spite of vast advertisement spending, we may question whether consumers actually pay attention to product information appearing in ubiquitous advertisements. Advertisement industry copywriters consider it conventional wisdom for advertisers to keep messages "short and simple" (Macklin, Bruvold and Shea 1985). This advice stems from the supposition that if text is too difficult to read, consumers will have difficulty engaging in sufficient cognitive elaboration to appropriately judge advertisement content (Petty, Cacioppo and Kasmer 1988).

Researchers have provided evidence, however, that this conventional wisdom may not always be true. Conclusions have been mixed as to whether message complexity results in positive marketing outcomes. Some research has suggested that complex messages are better. Chamblee et al. (1993) found that when advertisements display messages that have more difficult words, viewers recall more of the advertisement because reading it demands that they expend higher cognitive processing.

Anand and Sternthal (1990) found that when complex advertisements are repeated, the advertising messages will enhance the effectiveness of support argumentation.

Other researchers have suggested that complex messages are not always better. Anderson and Jolson (1980) reported that using technical wording invited more negative attitudes toward the product and purchase intentions among study participants without college educations. Lowrey (1998) showed in her first experiment that syntactically complex messages failed to produce more positive attitudes toward television advertisements. Chebat et al. (2003) also demonstrated that when text was difficult to read, study participants were unable to form more positive attitudes toward strong argument claims. Another study by Bradley and Meeds (2002) found that when the message was too syntactically complex, study participants reported decreased positive attitudes and lower recall.

Thus, extant advertising research has shown that advertising effectiveness depends on major linguistic factors such as typology, technical words, syntactic complexity, language proficiency, and semantic features of words (Wyer 2002). Linguistic factors are important to note because they affect the comprehension of messages and cognitive elaboration of messages and, in turn, may impact memory and attitude toward advertisements and brand.

In spite of mixed findings in the extant literature, advertising research on syntax complexity has consistently suggested that consumers are better able to judge the strength of arguments in advertisements that are free of complex syntax because when they encounter syntactically complex advertisements they deplete more working memory (Bradley and Meeds 2002; Lowrey 1998).

Previous research on advertisement complexity has failed to investigate syntactic complexity on marketing outcomes from the cognitive-load perspective. To fill this void, the current research attempts to explain consumers' underlying cognitive processes when they read advertisements that have complex or simple syntax. Specifically, this study examines the working memory of readers from the cognitive-load perspective (Pass 1992). The current study tests the cognitive load that syntactic structure imposes on text processing resources. By imposing cognitive load as a moderator, the study investigates the impact of syntactic complexity on consumers' attitudes toward printed advertisements.

CONCEPTUAL BACKGROUND AND HYPOTHESES

Syntax Complexity, Cognitive Load, and Working Memory

Syntactic analysis is "concerned with grammatical relations between words; parsing skills enable readers to determine the actors and actions being conveyed in a sentence. Parsing relies on several cues including word order, word class (e.g., nouns, verbs, etc.), word function (e.g., determiners, quantifiers), and word meaning" (Lowrey 1998, p. 188). King and Just (1991) claimed, "syntactic process transforms a linear sequence of words into a nonlinear (hierarchical) syntactic structure, and this transformation requires temporary storage of word representations during the left-to-right processing of a sentence" (p. 580). Thus, when syntactic structure gets more complicated, it impacts text comprehension. Limited working memory capacity may cause this effect.

According to a capacity theory of comprehension (Just and Carpenter 1992), working memory capacity is reduced when the syntactic complexity of sentence structure increases. Processing complex syntactic structure is likely to demand heavier resources than processing sentences with simple syntactic structure (Vos et al. 2001). As syntactic structure becomes more difficult, readers will have less working memory capacity because their cognitive load increases (Britton et al. 1985). Cognitive load is a combination of mental load that is imposed by text material and mental effort that is allocated to the demands of text material (Pass 1992). When syntactic complexity increases, readers experience increased cognitive load, which leaves them less working memory capacity for reading comprehension (Britton et al. 1982).

Syntactic Complexity and Advertisements

Marketing studies have demonstrated mixed results on the role of complex syntax. Bradley and Meeds (2002) found that syntactic complexity does not affect the comprehension of advertising slogans, but using simple syntax (active voice) in messages leads to higher levels of recognition. Study participants reading advertising slogans written with moderate syntactic complexity showed the most significant effect on recall and attitude toward the ad, while participants reading more syntactically complex sentences showed significantly lower free recall and attitudes toward the ad. Thus, that study showed that syntactic complexity resulted in differences in recall and attitude formation.

Lowrey (1998) examined syntactic complexity in relation to participants' motivation to process written advertisements and found that high-involvement participants reported more positive attitudes for strong claims than for weak claims, regardless of complexity levels. But low-involvement participants reported more positive attitudes for strong claims than for weak claims in simple advertisements only. Thus, syntactic complexity caused no differences in attitude formation when the level of involvement was

high, but complexity altered attitude formation when the level of involvement was low.

Chebat and colleagues (2003) jointly manipulated syntactic complexity and semantics in advertising text. Thus, their study showed that it is difficult to pinpoint the impact of syntactic complexity alone. In the author's opinion, their manipulation was closer to lexical complexity because of the method they used to derive high versus low readability; that is, they derived readability using vocabulary and length of sentences. The manipulation did not clearly indicate grammatical changes in advertisements. Though their manipulations may not have been strictly syntax-oriented, the study suggested that complex advertisements inhibit information processing and positive attitude formation. Jae (forthcoming) also recently demonstrated that study participants comprehended an advertisement better when they read a complex advertisement first and a simple advertisement second as compared with their comprehension when they read a simple advertisement first and a complex advertisement second. Readers comprehended overall advertisements much better when they read complex advertisements first because their available verbal working memory capacity was taxed initially. However, if the complexly written message was presented after the simple message, the comprehension level was reduced because readers had to devote their remaining working memory capacity to comprehending the complex message. Thus, the evidence has suggested that advertisements with complex syntax consistently affect consumers' information processing when they read printed advertisements.

Cognitive Load and Marketing Outcomes

The existing literature has shown that cognitive load tends to draw individuals' attention and thus may prevent them from achieving personal goals (Carver and Scheier 1982; Ward and Mann 2000). For example, under cognitive-load versus low-load condition, chronic dieters could eat significantly more calories than they intend to consume because their attention is distracted

from monitoring their intake (Ward and Mann 2000). Drolet and Luce (2004) showed that cognitive load disrupted appreciation of self-goals and resulted in trade-offs among attributes that are relevant to self-goals. Consumers' choice strategies were altered because the cognitive load disrupted their motivational processes. Based on the research on cognitive load and marketing outcomes, marketing researchers have suggested that attention-demanding advertisements could interfere with consumers' ability to evaluate ads correctly because of increased cognitive load.

In summary, although the research on linguistic complexity and marketing outcomes has provided mixed results on the effects of message complexity, advertisements with syntactic complexity have been fairly consistent in delivering negative marketing outcomes.

The author predicts that research participants will tax more working memory when they encounter an advertisement with more complex syntax, and thus the ad will negatively impact their attitude formation. Additionally, the author predicts that when cognitive load is imposed, participants will have significantly lower positive attitude toward advertisements versus when no load is imposed because their working memory capacity will be reduced. Reduced working memory will also cause imposed cognitive load to eliminate the benefit of an advertisement with simple syntax. Thus, the current study proposes the following hypotheses.

- H₁** Participants will display more positive attitude toward advertisements with simple syntax versus complex syntax.
- H₂** Participants will display more positive attitude toward advertisements under no-cognitive load versus cognitive-load conditions.
- H₃** Participants will display greater decrease in positive attitude toward advertisements as syntax becomes more complex under no-cognitive load versus cognitive-load conditions.

METHOD

The design of Study 2 is a 2 (syntax complexity: simple and complex) X 2 (cognitive load: load and no-load). Syntax complexity and cognitive load are within-subject factors. The study participants viewed advertisements that featured pictures and claims for four different product types. The product types for this study were adapted from Bradley and Meeds (2002). The author selected the convenience sample from introductory business classes in the large state university in the Southeast ($n = 96$). Each participant received an extra course credit for participating.

Procedure

The study was conducted on individual levels, under an investigator's direction. Participants viewed four advertisement claims (two for cognitive-load conditions and two for no-load conditions). The order of cognitive load and syntax complexity were counterbalanced. Under the cognitive-load condition, participants were asked to memorize ten words for two minutes before they viewed each advertisement. After they viewed the first advertisement, they were asked to recall the memorized words. Next they answered the questions on attitude toward the advertisement and the manipulation check for cognitive load. Then they memorized another set of words, viewed the second advertisement, and were then asked to recall the second set of words. Next they answered questions on attitude toward advertisement and manipulation check for cognitive load. Under the no-cognitive-load condition, participants did not perform the memorization task. After viewing each ad, they were asked to answer questions that measured attitudes toward advertisements, to complete a manipulation check for cognitive load, and to answer demographic questions.

Stimuli

The products in the advertisement claims were adapted from the study by Bradley and Meeds (2002) who used four products (camcorder,

water filter, inkjet printer, and mountain bike) with fictional brand names to avoid triggering brand loyalty. Using Lowrey's (1998) syntax-manipulation method (left-branching, passives, and negation) to create advertisement claims, the product attributes (hedonic and utilitarian) were investigated before advertisements for each product were created. The readability of the claims ranged from grade levels 5.3 to 7.8 (bicycle: simple for 6.8, complex for 7.2; water filter: simple for 7.2, complex for 7.8; inkjet printer: simple for 5.3, complex for 5.6; camcorder: simple for 7.8, complex for 7.5) based on the readability index of Microsoft Word's Flesch-Kincaide Grade Level Index. Participants were asked to answer, "How would you rate this claim?" The order of the advertisements and the order of cognitive load in the booklet were counterbalanced, following the Latin Square design.

Claims were written with the support of a technical copy editor who has extensive editing experience. Syntactic complexity was added by following Lowrey's (1998) syntax manipulation procedure (left-branching, passives, and negation). A pretest ($n = 29$) was conducted to investigate whether the syntax complexity manipulation was successful. The one-item 7-point semantic differential scale (*easy to read/difficult to read*) used by Lowrey (1998) was used in the present study.

Study participants rated the four advertisement claims with complex syntax as being more difficult to read than the four advertisement claims with simple syntax ($M_{\text{complex}} = 3.55$ versus $M_{\text{simple}} = 2.44$, $t = 6.052$, $p < .01$). Additionally, participants rated syntactically complex advertisements for all four products at each product level to be more difficult to read than syntactically simple advertisements (bicycle: $M_{\text{complex}} = 3.54$ versus $M_{\text{simple}} = 2.14$, $t = 5.730$, $p < .01$; water filter: $M_{\text{complex}} = 3.39$ versus $M_{\text{simple}} = 2.25$, $t = 4.147$, $p < .01$; inkjet printer: $M_{\text{complex}} = 3.68$ versus $M_{\text{simple}} = 2.64$, $t = 3.913$, $p < .01$; camcorder: $M_{\text{complex}} = 3.61$ versus $M_{\text{simple}} = 2.75$, $t = 4.076$, $p < .01$). Thus, based on the pretest, the syntax manipulation was successful.

Measures

Syntactic Complexity- Syntactic complexity was manipulated to be simple and complex. Complex advertisements included sentences that were left-branching, negative, and passive. Simple advertisements included sentences that were right-branching, affirmative, and active (Lowrey 1998). For example, “Beginners will love Dynaflex because it is so safe and stable” was written with right-branching and affirmative sentence structure. “Because it is not so unsafe and unstable, beginners will love Dynaflex” was written with left-branching and negative sentence structure. “*Bicycle Magazine* chose Dynaflex as the best buy for the price” was written to serve as an active sentence. “Dynaflex is chosen as the best buy for the price by *Bicycle Magazine*” was created to be a passive sentence.

Cognitive Load –Cognitive load was operationalized to influence working memory capacity as participants memorized and recalled the list of words (Drolet and Luce 2004). This particular operationalization was chosen because when participants memorized the list of words, that exercise directly competed for their working memory capacity and interfered with their reading processes. Cognitive load was manipulated by adding a secondary task to increase the cognitive load participants experienced while they were reading advertisements. Other studies have extensively used secondary tasks to affect the cognitive load of primary tasks (Britton et al. 1982; Chandler and Sweller 1996).

Participants were asked to memorize the ten words for two minutes and then, after they viewed the advertisement, to recall the memorized words. The two lists of ten words were taken from Level 1 testing of group reading in Assessment and Diagnostic Evaluation (2001).

Dependent Measures

Attitude Toward Advertisement- Hypotheses 1–3 concern the impact of syntactic complexity

and cognitive load on attitude toward advertisements. Participants completed a 9-point semantic differential scale on their attitude toward each ad they viewed (*very negative/very positive*) used by Lowrey (1998). The present study supplemented this scale with three 9-point semantic differential scales (*liked/disliked*, *unpleasant/pleasant*, *enjoyed/did not enjoy*) used by McQuarrie and Mick (1999)

Manipulation Check for Cognitive Load- A manipulation check for cognitive load was conducted by using a 7-point semantic differential scale on task difficulty (*extremely easy/extremely difficult*) used by Kalyuga, Chandler, and Sweller (1999).

RESULTS

Cognitive Load Manipulation Check

Participants completed a single 7-point semantic differential scale assessing task difficulty (*extremely easy/extremely difficult*) used by Kalyuga, Chandler, and Sweller (1999) to check whether the cognitive load manipulation was successful. A *T*-test shows that the cognitive-load condition was perceived as more difficult than the no-cognitive-load condition ($M_{cl} = 3.60$ versus $M_{ncl} = 1.84$, $t = 12.85$, $p < .001$). Thus, the cognitive-load manipulation was successful.

Reliabilities of Scales

After participants viewed each advertisement, they were asked to rate their attitude toward the advertisements. The attitude scales were four 9-point semantic differential scales on their attitude toward each advertisement (*negative/positive*, *liked/disliked*, *unpleasant/pleasant*, *enjoyed/did not enjoy*). The reliability ratings (alpha) in all four within-subject cells were highly reliable, reaching more than .90 (cognitive load simple syntax-.94, cognitive load complex syntax-.95, cognitive no-load simple syntax-.90, cognitive no-load complex syntax-.95).

Hypotheses Testing

Hypothesis 1 predicted that viewers will display higher liking toward ads that have simple syntax versus complex syntax. Consistent with hypothesis 1, syntax complexity showed a main effect ($F(1, 95) = 8.95, p < .01$). Participants displayed much higher attitude ratings toward simple syntax versus complex syntax ($M_{simple} = 6.77$ versus $M_{complex} = 6.16, t = 6.77, p < .001$). The main effect of cognitive load was also found ($F(1, 95) = 45.82, p < .001$). Participants displayed significantly higher attitude rating toward advertisement under no cognitive condition versus cognitive condition ($M_{cognitive\ load} = 6.35$ versus $M_{no\ cognitive\ load} = 6.58, t = 2.92, p < .01$). Hypothesis 2 was supported. Significant interaction was found between cognitive load and syntax complexity ($F(1, 96) = 32.79, p < .001$). As figure 1 depicts, participants displayed more positive attitude toward ads with simple versus complex syntax under no-cognitive load ($M_{simple} = 7.17$ versus $M_{complex} = 5.99, t = 7.41, p < .001$), yet this effect disappeared when cognitive load was imposed ($M_{simple} = 6.38$ versus $M_{complex} = 6.32, p > .5$). Hypothesis 3 was supported. Figure 1 depicts

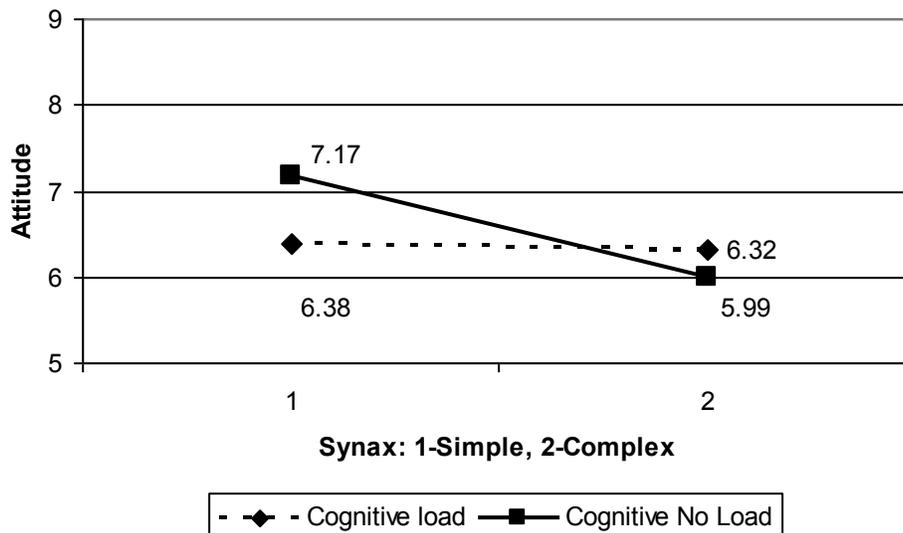
the interaction between syntax complexity and cognitive load on attitude toward advertisements.

IMPLICATIONS

The study results imply that consumers are able to engage in cognitive elaboration much more effectively when they encounter advertisements that have no complex syntax and no added cognitive load. The results suggest that complex syntax advertisements may tax consumers' working memory capacity more greatly than simple syntax advertisements do; thus respondents may be deterred from being able to judge the strength of attitude claims.

Imposing the cognitive load condition resulted in an interesting and significant interaction effect between syntactic complexity and cognitive load. When we did not impose cognitive load, research participants favored the simple advertisements over the complex advertisements. When we imposed cognitive load, however, this effect disappeared. This suggests that imposed cognitive load taxed research participants' working memory capacity and thus prevented them from

FIGURE 1
Syntax Complexity and Cognitive Load on Attitude toward Advertisements



fostering the proper attitude formation toward even simple-syntax advertisements.

The current study suggests interesting theoretical and managerial implications. While extant advertising complexity research has tended to focus on persuasion and its marketing outcomes, researchers have not studied the underlying cognitive processes in depth. By investigating the role of syntactic complexity and cognitive load, the current research adds insights into consumers' cognitive processes when they read advertisement messages that have varying syntactic complexity and cognitive-load conditions. This insight suggests that (1) complex syntax taxes more of consumers' working memory capacity because of the heavier cognitive-load demand, and (2) an artificially imposed cognitive-load condition prevents individuals from adequately evaluating even simple-syntax advertisements.

Various factors that overload consumers will thus decrease their ability to process the information presented in a printed advertisement. Advertisers should avoid using complex syntax so that consumers will be willing to read and will be capable of cognitive elaboration. Additionally, too much unrelated information could distract readers and increase their cognitive load. The results of the study demonstrate that even simply written advertisements are less effective when participants are distracted by other tasks that demand their cognitive capacity.

The current study has some limitations, so the results should be interpreted cautiously. Although the study results were attributed to the effects of working memory capacity, working memory capacity was not measured directly. Rather, the present study indirectly tested implications of working memory capacity from a cognitive-load perspective. For syntax complexity manipulation, the author proposed two levels of manipulation (simple and complex). The results show distinct difference between the two levels in terms of persuasion, but not the implications of moderate complexity. Including moderate

complexity may potentially alter results. Future study could investigate the cognitive structure of syntactic complexity of varying difficulty, including moderate complexity.

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TRAIN YOUR SALESPEOPLE TO BE SKILLED ACTORS: A MANTRA FOR SUCCESS

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The purpose of this study is to explore some of the basic principles of acting which can be used both by novice as well as “experienced” actors in the business field. The first section of the study deals with taking an inventory of salespersons’ personal resources or instruments. The main objective of this section is to show how to identify, and if possible, to eliminate the defects in those resources. The second section is concerned with preparations necessary before going to the stage of selling. The third section deals with acting on the stage of selling. The last section discusses self-evaluation of the selling acts and recommendations for the programs dealing with salesforce training. In order to narrow the scope of discussion and provide concrete examples of a specific act and actor, the focus is on the acting role of salespeople.

INTRODUCTION

The oldest profession in the world, contrary to the old belief, is not prostitution, it is acting. This comparison is not meant to be derogatory in anyway. All of us use acting techniques during our lifetime to achieve whatever ends we seek. No one has elucidated this better than William Shakespeare in *As You Like It*: “All the world’s a stage, And all the men and women merely players...” In all “seven ages” of life, whether it is “Mewling Infant..., Sighing Lover ..., Lean and Slipper’d Pantaloon...,” we play these roles-- if not in the same way Shakespeare described them; but we never really leave an “age” behind (Barton 2009, pp. 2-3).

Marketing literature is replete with references to various facets of a customer such as the customer role specialization: user, payer, buyer, information gatherer, influencer, and decision maker (Sheth and Mittal 2004, pp.13-14 and Assael 2004, p. 443); customer as having multiple selves (i.e., understanding that a single consumer is likely to act quite differently with different people and in different situations) (Schiffman and Kanuk 2007, p. 138); customers as actors on the market stage (i.e., as in a play each consumer has lines,

props, and costumes necessary to put on a good performance (Solomon 2002, p. 7); and categorization of people by the social roles in which they are seen, for example, categorization of salespeople based on their role as a salesperson rather than their hidden role as a neighbor (Robertson and Kassarian 1991, pp. 289-290). Although the repertoire of role both from theoretical (Ostlund 1973) and practical perspectives occupies a dominant position in the marketing literature, there is a lack of studies which can be used as guidelines for the actors on the business stage. Two reasons may be attributed to this shortcoming in the literature. First, if all the world is acting, then why study it? Second, the belief that acting cannot be taught. These lines of reasoning are false for the following reasons: acting does not necessarily mean acting well. Second, there are literally thousands of colleges, conservatories, workshops, and professional studios teaching acting in the United States alone. Therefore, acting can be taught.

The purpose of this study is to explore some of the basic principles of acting which can be used both by novice as well as “experienced” actors in the business field. These guidelines are based on insights from famous acting teachers such as Constantine Stanislavski, Uta Hagen, Sanford Meisner, Lee Strasberg, Michael Chekhov, and Stella Adler, with a touch of Carl Jung’s theories for tapping the unconscious. In this paper acting is viewed as a

process. This process entails a series of steps to be taken by the salespeople in order to perform their roles effectively. These steps are: self-exploration, preparation before entering the stage of selling, on-stage performance, and self-evaluation.

Although the guidelines discussed in this study can be used by all actors on the business stage, in order to narrow the scope of discussion and provide concrete examples of a specific act and actor, we have selected the acting role of salespeople.

THE PRESENT APPROACHES TO PREPARE AN ACTOR SALESPERSON

Sometimes the novice enters the stage of selling by carrying a “spear” and, in this way, slowly learns his or her craft in the “school of hard knocks.”¹ A somewhat improved approach to training may be setting up classes on the company premises to familiarize the trainees with the company and its products, customer and competitors’ characteristics, and field procedures and responsibilities. The only training activity remotely resembling acting is the makeshift demonstration of sales presentations to the fellow students or instructors. Overall, the job training of novices outside academia is not very impressive. The median training period is twelve weeks in service companies and four in consumer-product companies (Kotler 2003 p. 644-645). In academic circles, the bulk of students’ time is spent in classrooms listening to the lectures on effective selling. Occasionally, students are provided an opportunity to perform the role of salespeople by selling items such as T-shirts to fellow students or advertising space in the local newspaper to the local businesses. If a business college is fortunate enough to have a sales lab, students’ sales presentations to the make-believe customers (very often to their faculty members, fellow students or, a graduate assistant) are taped and evaluated by their instructors. Because of the labor and capital intensive nature of running sales labs, students’ sales presentations are taped once or twice only in the capstone courses. Based on our study of

several sales programs in the United States, we did not find a single college which includes principles of acting in its course syllabi for training students as salespeople.

While there is no agreed upon approach to actor training, nevertheless most programs follow a sequence of principles. In the following sections we will outline these sequences of ideas and practices. The first section deals with taking an inventory of sales persons’ personal resources or instruments. The main objective of this section is to show how to identify, and if possible, to eliminate the defects in those resources. The second section is concerned with preparations necessary before going to the stage of selling. The third section deals with acting on the stage of selling. The last section discusses self-evaluation of the selling acts and recommendations for the programs dealing with sales force training.

SELF-EXPLORATION: TAKING INVENTORY OF PERSONAL RESOURCES

Those who choose selling as a career may express a genuine desire for the profession and have a strong conviction that they can “sell” and will become good, if not, excellent salespersons. Desire for the profession usually masks the crippling problems that make the realization of the intended goal difficult, if not impossible. Therefore, the first step in becoming a skilled performer of salesperson’s role is to take an inventory of personal resources. As inventory management is essential for a successful operation of the business, it is also vital for salespersons to be aware of and able to control the personal resources or instruments they possess, i.e., their body, voice, and mind.

The Body

Body as a resource includes two over-lapping categories of habits and cultural binding.

Habits refer to the ways of behaving so ingrained in an individual that they are done

without a conscious thought. Habits can be active in a sense that individuals display the behavior almost on a daily bases, such as biting the nails, cracking the knuckles, and moving parts of the body (e.g., foot tapping). Active habits also include the way an individual's body speaks the "silent language" of space. Each individual has a "bubble of space" in which he or she feels comfortable. The domain of this bubble varies from person to person and from culture to culture. Some react with horror if their personal space is invaded.

Habits can also be still in a sense that an individual displays the behavior on certain occasions, such as eye twitching in a stressful situation, or having "chicken neck" when certain words are spoken.

Cultural inclinations or bindings refer to the impact of culture on an individual's daily life.² Cultural inclinations will become a problem if salespeople bring them to the act of selling when they are either irrelevant to the act (talking about local customs and traditions) or detrimental to the act (the unconscious reference to ones' own cultural values in comparison to other culture; Self-Reference Criterion).

Admittedly, changing habits and cultural bindings are difficult but this does not mean that they cannot be adjusted. Salespeople have to recognize their own bindings and adjust them without losing their cultural heritage. Habits can also be changed or adjusted. Studying self and asking other people who have been around the individual for a while are the starting points. Identifying personal habits and cultural bindings can be viewed as a research project. This research project does not need a library; an individual is the library.

The Voice

For the majority of people voice is an unknown object and they have no idea how they sound. The unknown nature of voice is primarily because we see and feel our body, but not our voice. "The world is full of women who spend

many daily hours working to look breathtaking but they sound like Bambi ... and men who pump enough iron to look like warrior chiefs, but talk like Thumper" (Barton 2009, p. 91.) Adjusting voice habits is difficult but not impossible. Work on voice habits should include the quality (tone and texture), tempo, articulation, pronunciation, pitch, volume, and word choice. Another area usually overlooked is the non-verbals such as sigh or tiny laugh). "Non-verbals add color and interest to vocal life" (ibid p. 93).

The Mind

If the voice is less tangible than the body, the mind is even more elusive than the voice. It is not uncommon to see salespeople who act like robots in presenting their sales presentation and forgetting to tap from their vast reservoir of memories, ideas, and imagination. Salespeople, who forget themselves on the selling stage, forget the audience and lose themselves in the part. Skilled salespeople on the selling stage forget their anxieties, inhibitions, and any other mental limitations they may have by concentrating on the role of selling. The main task of the salespeople is to create a character who behaves logically and truthfully in a given sales circumstance. This truthful behavior emanates from within and is externalized through external resources of voice and body. The study of this psychophysical process should be regarded as the most important groundwork for building a successful selling act.

Personal Resources

A record of personal resources should not be confused with a daily diary or a record to be presented to a psychiatrist. It should list the shortcomings of each resource and progress toward improving each shortcoming. A point to keep in mind is that this record will not be shared with others. Therefore, salespeople should be honest in preparing the record and avoid the temptation of minimizing their limitations and exaggerating their progress.

PREPARATION BEFORE ENTERING THE STAGE OF SELLING

Circumstances

Circumstance is a well-known term in the lexicon of acting. In real life we know the place we are in (the bus, the library or the office). Salespeople usually feel abandoned when they meet their clients for the first time in a place foreign to them (different country, city, or office). Unfamiliarity of the circumstances creates tension, and as a result, the first thing salespeople do is go to the words, i.e., a memorized sales presentations. Words alone are not sufficient; a complete absorption of the salesperson in the given circumstances of their stage is a must. Salespeople must build larger circumstances by asking questions such as:

Where does the action take place?

- What country? The United States
- What city/town? Indianapolis, Indiana
- What location? Restaurant/bar, client's office

When does the action take place?

- What Season? Spring
- What time of the day? 9:30 A.M.

What are the sequences of action?

What persons are in the circumstance?

- Client or clients, sales team members, etc.

For each circumstance there is also a related mood (mood of business talks in a bar versus in an office). Salespeople must understand these moods and adjust their act accordingly. A careful study of given sales circumstances will provide raw material for adjusting a salesperson's personal resources mentioned previously in the paper to a given circumstance.

Establishing Objectives

A good definition of a circumstance will usually answer the questions of "where," "when," "what," and "who." All actions on the sales stage must have a purpose (in acting literature also called intention, goal, desire, motivation, or intended victory³). Therefore, another question should be added to the above

four questions, i.e., why the action is taking place? Answering the question of "why" will give the salespeople reasons for carrying out their physical actions. Any action performed by salespersons without a compelling reason will not hold the interest of their audience. Knowing the purpose behind the actions provides a principal means for communicating the story to the target audience.

In order to move the audience toward the intended objective, it is necessary to offer them some justification. For example, if the intended objective is to sell a dishwasher, a justification can be its quietness or high quality. Sometimes salespeople are tempted to expand on the justification by saying, "I'm recommending this dishwasher because it is quiet and many of my family members use it." The expansion of the justification, i.e., quietness, by introducing family members is unnecessary. Family members have been brought into the scene where they do not belong (fake plotting).

Overcoming the Obstacles

Anything that stands in the way of salesperson's accomplishment of their objective should be viewed as an obstacle. The obstacle may be internal or external. Internal obstacles develop from salespeople's own personality traits (e.g., self-consciousness, inhibition, and shyness), habits, obsessions, physical impediments or disabilities and mental or emotional disabilities. External obstacles are things that salespeople cannot control and come from a variety of sources such as competition, economic condition, or even from natural phenomenal such as the weather and the time of a day. Obstacles, whether they are physical or psychological, should stimulate salespersons' selected actions. Salespeople should make a personal commitment to overcome the obstacle (s) and accomplish their objectives. They must feel the challenge physically as well as intellectually. As in a sport event, an athlete does not win a race by wishing or feeling victorious. Objectives are accomplished through conquering obstacles.

Strategies

Strategy is defined as the art and science of adapting and coordinating resources (individual or organization) for the attainment of an objective. Strategy is about the choice which affects the outcomes. After the salespeople understand what they are doing and why they are doing it, they must answer the essential sixth question, i.e., how they are going to do it. Objectives may be related to handling grievances of customers, resolving conflict between dealers, settling disagreement, ending relationships with customers, and so on. For each objective a clear strategy should be envisioned. Not only do different objectives demand different strategies, the same objective for different circumstances may require different strategies. Salespeople should handle (play) each strategy as if it were occurring for the first time. Salespeople cannot be clairvoyant. Therefore, strategies must be adapted to new circumstances.

Tactics

Tactics are active ingredients of dynamic interactions. They deal with detailed maneuvers to achieve objectives set by strategy. Tactics may be planned or ad hoc activities dealing with the demand of the circumstances. Our everyday life tactics are usually simple, benign, and spontaneous. For example, we smile to encourage agreement and tolerance or raise the level of our voice to encourage compliance. Salespeople should learn how to apply tactics on demand in the course of communication with the target audience. Consider the following scenarios:

Salesperson dealing with complete rejection, acceptance, stalling, ambiguous response, or a logical response from customers. For each scenario salespeople should be able to apply tactics of body language, tone of voice, gesture, facial expression, and so on. A successful salesperson usually mixes tactics, i.e., alternating them quickly.

Relaxation

Salespeople must be focused on the selling stage. It is true that, in the performance of our life, focus comes suddenly and perhaps accidentally. A skilled salesperson is able to achieve this state deliberately. The best way to achieve focus intentionally is to learn how to warm up the body and mind. In warming up for the stage of selling, a balance should be maintained between indifference (too much relaxation) and anxiety (too much readiness). Since salespeople are not automatically blessed with the cat's perfect energy state (loose yet alert), they should attempt to attain the "relaxed readiness" state by practice.

Mental Relaxation

Mental relaxation is a matter of putting out of mind the day-to-day affairs of life and concentrating on the problem of the selling circumstances. Relaxation techniques such as deep breathing, visualization, meditation, and yoga can help salespeople to activate relaxation response, i.e., the body's natural and powerful antidote to stress.⁴ When practiced regularly, these activities lead to a reduction in everyday stress levels. The best way to start and maintain a relaxation practice is by incorporating it into the daily routine. A set time either once or twice a day for the practice, should be scheduled. Usually it is easier to stick with the practice of relaxation if it is done first thing in the morning before other tasks and responsibilities get in the way.

Physical Relaxation

A common avoidable mistake, is to perform a given role when the body as well as the mind are completely fatigued. Evidence of this mental fatigue is such things as puffy eyes or the non-stop yawning during the presentation by the salespeople who have been on the road the night before; mistakes made during their sales demonstration; or constantly losing lines of communication with their customers. It is a common problem among both novice sales people as well as the "old-hands."

Developing the Character

Character may be viewed as attributes or features that make up and distinguish a person in terms their looks, feelings, and actions. In our daily life we play characters in such a unique way that a deviation from our usual character may surprise others and prompt them to say “you’re not yourself today.” Salespeople must develop the physical and psychological traits of the character of their profession. In acting jargon they must become the character. The character has distinctive internal thoughts, images, desires, impulses and point of view. Information about the character can be derived from salespeople’s imagination and personal history including everything they have experienced, felt, read, or observed in life or fiction. Therefore, an important part of the salespeople’s training should be to show them how to develop the skill of observation, i.e., zooming at both the ordinary and unusual events in their everyday life.

Salespeople must learn to observe familiar things as if they had never seen them before, and must retain what they observe. Observations will produce inner images, which will reside in salespeople subconscious. These images, a polite or rude encounter with a bank teller, a boring or an interesting sales presentation heard from other colleagues, will help the salespeople to refine the attributes or features of their character. Collected information about the character may be much more than needed in a given scenario. The salespersons’ job then becomes one of artistic selectivity, i.e., selecting important aspects of the character and effectively communicating them to the audience.

PERFORMING ON THE SELLING STAGE

In life, a salesperson can be boring. On stage he cannot afford to be boring, even for one instant. Boring sales presentations work as a soothing lullaby. A salesperson may have to present a new product to many different groups of customers. Typically, this requires 50 to 70

presentations over a period of two to three weeks, often four to six presentations in any given day. Under these circumstances, it is difficult to keep the presentation fresh and vital. Repetition makes it difficult to have the same sense of enthusiasm, spontaneity, and excitement as the first time. Regardless of how many times a salesperson has told the story of his product, he has to create “the Illusion of the First Time.”⁵ This common phrase in the acting jargon refers to the ability of an actor to create the illusion that what he says, and the gestures and facial expression he uses or movements he makes are as though he or she is doing them for the first time. Outstanding salespeople create this response, no matter how many times they repeat what they have done previously.

Another important point to keep in mind is that there is a difference between real time and stage time. Salespeople should act like a skilled teacher who not only delivers an exciting lecture, but also knows how to finish it just before the class time is over. What is done on the sales stage needs a certain economy. Actors call it “smartening up the action,” i.e., the technique of making real time fit into stage time. For example, if the salesperson wants to show something on his laptop computer, the computer should already be on the standby mode. Preplanning is a prerequisite for “smartening up the action.”

Props

Usually salespeople use samples (sales aids) or actual products (“props” in acting jargon) in their presentation. As actors, they must understand every detail of the props and the actions involved in using them. If there are minimal or no props available (for example, it is impossible to carry real firearms), this handicap can be overcome by a combination of the salesperson’s knowledge of the history of the product, how it is used, and his or her imagination. Once Luther Adler, famous theatre actor, had to pick up a gun and shoot a man without having access to gun. His knowledge of the gun and how it is used convinced the audience that the gun had been fired and the

man was dead (Adler 1998, p. 58). In addition to knowledge of the product and imagination, practice is also a key requirement. We show our students actions involved in sewing a button to a shirt (cutting the thread by teeth, picking up the needle, wetting the thread and several attempt to thread the line, etc.). We also plan an accident such as a finger being poked by the needle and how the pain is expressed by words and facial expression.⁶ We require students to play the act without any props. Students with minors in home economics, due to their experience with sewing, perform this act almost to perfection. Performance of marketing majors, with some exceptions, is hilarious to say the least.

A simple prop can also be used to explain abstract concepts. For example, in order to explain the concepts of “selective perception,” “categorization,” “perception and physical reality,” We wear a white robe in our consumer behavior class and ask students to tell us what the robe is for. Among the frequently mentioned answers are: lab uniform, religious gown, KKK robe, and hospital uniform. The robe (a gift from a friend from Middle East) not only engages students in the topic of perception, but also makes it easy for me to explain the abstract concepts related to perception.

Costume

To the keen eyes of the customers, what a salesperson wears speaks in a silent language a great deal about his or her education, income and personality. According to Stella Adler (1988, p. 64), there is a class difference between a shawl and muff; the shawl identifying the working-class woman who does not care about herself or her appearance, and the muff signifying the elegance of the upper-class lady. Salespeople must maintain their appearances. This does not mean that they always have to dress either like funeral directors (black or dark blue) or present themselves as a Rush Limbaugh-style conservative. Salespersons should be comfortable in their “costum.” The custom

should fit them rather than attempting to fit the salespersons to the custom. It is not uncommon to see saleswomen carrying their high heel shoes in the convention halls, young salesmen struggling to tie their neckties in the washrooms, or “old hands” wearing wrinkled suits with unmatched colors. Practice, careful selection, and seeking advice from a fashion expert will correct the above mentioned problems.

Reflection on the following questions may also help in the selection of the right “costume” for the occasion:

- Does it look like the salesperson gave some thought and preparation to how he looks today?
- Does his look suit the person? Does it seem to fit who he is?
- Is it the human being we are looking at or are we seeing clothes and hair style?
- Is the attire in any way fighting with the salesperson for attention?
- Is there a balance between stiffly dressed up and so casual that the salesperson does not seem to respect the occasion?
- Does any part of the outfit indicate a lack of self-awareness?

Play the Character not the Stereotypes

Stereotypes and generalizations are oversimplifications. Examples include calling all Italians great lovers, or asserting that the white men can’t jump and black men can jump and have good rhythm. Prejudices are based on stereotyping and lead to categorizing people as a whole rather than individually. Salespeople tend to stereotype their customers when they are dealing with, say, police officers, physicians or members of ethnic groups. Although stereotyping simplifies the massive amount of information salespeople are faced with in their profession, they also inhibit salespeople to see the customers as unique individuals. When a customer is seen as an unchangeable block of characteristic, the stereotype will dictate the performance and performance will be mediocre.

Therefore, salespeople should play the character not the stereotypes.

**Communicating with the Audience:
Learning the Vocabulary of the Action**

What a salesperson is called upon to do on the selling stage is diverse. Hence, the range of actions he should have at his command must be diverse as well. A salesperson must be trained to handle the vocabulary of actions such as: 1) to advise, 2) to teach, 3) to explain, 4) to take care of, 5) to argue, and 6) to discuss. These are among the more important and frequently encountered actions by salespeople but there are, of course, many more. The above actions will change depending on a given circumstance, but the general approach will remain the same. The nature of information related to the use of a laptop computer is different from the air conditioner, but the teaching method may not change very much. No matter what action salespersons are called upon to handle, they must be able to communicate their ideas to the target audience. At a minimum, salespeople should be able to recognize the basic building blocks of a sentence, their relationship to each other, and their relative importance.

SELF-EVALUATION

Are we aware of our strengths and faults?; do we exaggerate our virtues and dismiss our shortcomings?, and whether we are better off by knowing what we really are or by embellishing ourselves; were among the questions examined by Taylor and Brown in 1988. One of the conclusions reached by the authors was that most people do not hold accurate views of themselves; instead they inflate their virtues and exaggerate their abilities. Salespeople, especially the young ones, should avoid entering the magic circle of self-deception. Once in the circle, it is difficult to escape the mendacity. Self-assessment is a learned skill. Beginning with the first training class, salespeople must make an honest appraisal of their own work and welcome brutal words of teachers or colleagues concerning the shortcomings of their performance. In the

commercial world, managers expect salespeople to “deliver a product.” Companies are not hiring salespeople for their potential; rather they contract their skill. Therefore, it is necessary for salespeople, to look objectively at their skill and continually work on improving their weaknesses.

CONCLUSION

Why isn't acting one of the most important classes taught at any school and one required of all students? Despite its importance the administrators and curriculum committees have been slow to recognize its importance particularly in business schools. Of course taking an acting class is not going to solve students' life problems, but it would challenge them to come up with any other course that offers them as much help for their future choices.

There are relatively inexpensive and easy alternatives available for business schools to provide opportunities for their students to learn the fundamentals of acting. Among these alternatives are:

- 1) Universities with theatre departments may offer a course or a minor in acting designed for students majoring in sales.
- 2) Business schools may provide special or sabbatical leave opportunities for business faculty for the purpose of training in principles of acting.
- 3) There is a vast reservoir of knowledge related to the principle of acting. A special package can be put together and incorporated in the targeted courses in business curriculum.
- 4) Business organizations can provide opportunities for their salespeople to take courses in acting either in the community colleges or on the internet.
- 5) Business organization may also invite guest speakers from the theatre departments of their community colleges or universities to lecture on the principles of acting.

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- ¹The term was first coined by American columnist George Ade in 1912.
- ²For a detailed discussion of cultural binding, see Barton 2009, pp. 76-79.
- ³Stanislavski called the objective zadacha, which translates as problem, while Uta Hagen stated it as a question "What are you fighting for?" Adler uses the term justification for doing an action on the stage (Adler 1988, Chapter 6).
- ⁴Methods of mental relaxation are not discussed in this paper because there are numerous books and articles available to the interested readers on the methods of mental relaxation such as yoga, meditation and the others.
- ⁵This phrase is attributed to William Gillette, actor, playwright and director, 1853-1937.
- ⁶Accidents must be planned or arranged beforehand and practiced several times to be sure that every time they will come about in the same way.

THE CONSEQUENCES OF OPEN VERSUS CLOSED INFLUENCE STRATEGIES OF SALESPEOPLE IN A DEVELOPING ECONOMY

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The sales representatives of a pharmaceutical manufacturer in India were surveyed to explore the effects of influence strategies on customer oriented selling, adaptive selling, and sales performance, and to examine the relationships among sales performance, job satisfaction, and propensity to leave. Of the 253 salespeople surveyed, complete responses were received from 146 respondents, providing a response rate of 57.7 percent. Results indicated that salespeople using open influence strategies were more customer oriented, more adaptive, and performed better. Further, for closed influencers, job satisfaction fully mediated the effect of sales performance on propensity to leave. Based on these findings, managerial implications for US firms who have entered or are planning to enter India were discussed.

INTRODUCTION

In order to achieve the goals of the selling firm, salespeople are given the responsibility of nurturing the most valuable asset of the firm, its customers. The manner in which salespeople interact with customers is likely to have a profound effect on sales revenues, profitability, and the long-term success of the selling firm. Consequently, the selling behaviors of salespeople, such as, customer orientation (Saxe and Weitz 1982), adaptive selling (Spiro and Weitz 1990), and influence strategies (Spiro and Perreault, Jr. 1979) have drawn significant research attention in the personal selling and sales management literature (e.g., Plouffe, Hulland and Wachner 2009; Franke and Park 2006). However, scholars have not addressed two major research questions regarding these selling behaviors. First, what are the inter-relationships among these behaviors? Specifically, does the choice of an influence strategy affect the degree to which salespeople are customer oriented or adaptive?

How do influence strategies affect sales performance and what are the consequences of these performance differences?

The second research question involves the context of these studies. Research on selling behaviors has been conducted entirely in the Western markets, such as, US and Europe. In a global economy, many US firms are entering Asian markets, such as, India. US continues to be one of India's major trading partners with bilateral trade in merchandise and commodities totaling US\$ 50 billion in 2010. With India's middle class exceeding 200 million, US companies represent the largest share of foreign firms operating in India. US Fortune 500 firms in India include Microsoft, American Express, IBM, McDonald's, Procter and Gamble, Pfizer, General Electric, Ford etc. With the slowing growth of the US economy, many US firms are looking to Asian markets, such as India, for additional sales and profits. Consequently, academicians and practitioners are likely to be interested in knowing whether the theories of selling, which have been developed primarily in US can explain sales performance in Asian markets, such as India. The current study addresses whether influence strategies affect

customer oriented selling, adaptive selling, and sales performance in developing economies, such as India, among a sample of pharmaceutical salespeople.

The business environment in India is an appropriate context to examine the consequences of influence strategies. Professionals in India interpret ethical norms much less strictly than their US counterparts (Paul, Roy and Mukhopadhyay 2006). Even business students in India perceived ethical problems less seriously than students from the US and New Zealand (Marta et al., 2000). Patwardhan, Noble and Nishihara (2009) found evidence of strategic deception by call center employees in India, and Sadri (2009, p. 85) found that “unethical practices are plentifully involved in marketing of life insurance in India.” The pharmaceutical industry in India also faces “challenges with respect to ethical marketing and promotional practices” (Bhangale 2008, p. 208), and the German pharmaceutical company Bayer has recently filed a patent infringement lawsuit in India where the Office of the Drug Controller General of India has been accused of giving marketing approval to a generic drug that violates Bayer’s patent (Ollier 2009). Consequently, pharmaceutical marketing in India is a suitable context for studying the implications of salespersons’ use of influence strategies.

CONCEPTUAL FRAMEWORK AND HYPOTHESES

Influence Strategies

An influence strategy can be defined as the manner in which salespeople use their bases of social power in customer-salesperson interactions. Spiro and Perreault, Jr. (1979, p. 437) identified five different influence strategies, namely, Legitimate, Expert, Referent, Ingratiation, and Impression Management. Legitimate influence uses the “feelings of shared values” (Spiro and Perreault, Jr. 1979, p. 437) between salespeople and customers. Expert influence uses

salespersons’ “knowledge, information, and skills” in satisfying customer needs (Busch and Wilson 1976, p. 3), whereas referent influence uses salespersons’ personal affiliation to their customers.

These three influence strategies share a common theme. The salesperson using these influence strategies does not hide his/her motives from the customers. Customers expect salespeople to use legitimate influence, such as, the salesperson’s experience, his/her firm’s reputation, and the quality of his/her products to persuade them since that is a norm of customer-salesperson interactions. Similarly salespeople need to use their expertise on products/services to explain to customers how these products/services will satisfy customer needs. Consequently, when salespeople discuss the technical characteristics of their products/services with customers, the customers know exactly what they are trying to accomplish. Further, when salespeople are friends with their customers, customers expect them to use this friendship to their advantage. Thus, the purpose of using referent influence is also clear to the customers. Since the use legitimate, expert, and referent influences do not involve any hidden agenda, “there is no explicit deception intended in the use of such strategies” (Spiro 1977, p. 64). Therefore, these three strategies can be construed as “open” or above board (Spiro and Perreault, Jr. 1979, p. 438) and salespeople who use these strategies can be called open influencers.

On the contrary, the motives for using ingratiation and impression management are hidden. Salespeople using ingratiation attempt to “develop an obligation and compliance on the part of customers by providing personal favors” (Spiro and Perreault, Jr. 1979, p. 437). Similarly, salespeople using impression management strategies try to manipulate customers by creating false or deceptive impressions “in order to achieve a favorable response” from them. (Spiro and Perreault, Jr. 1979, p. 438) Consequently, the purposes of using ingratiation and impression management strategies are to manipulate and deceive

customers, and these are closed influence strategies (Brown 1990). Thus, salespeople using these strategies can be called closed influencers.

Customer Oriented Selling

According to Saxe (1979), “high customer orientation can be viewed as an extension of the marketing concept from the level of the firm to the level of the individual salesperson and customer” (pp.15-16). Highly customer oriented salespeople attempt to increase long-term customer satisfaction and avoid behaviors and actions that sacrifice customer interest (Saxe and Weitz, 1982). By improving salespersons’ customer need knowledge, customer oriented selling is expected to enable salespeople to satisfy customers in the long run (Homburg, Wieseke and Bornemann 2009).

Since highly customer oriented salespeople “engage in behaviors aimed at increasing long-term customer satisfaction” (Saxe and Weitz 1982, p. 344), open and closed influencers are expected to differ in their levels of customer orientation. Specifically, since closed influencers attempt to manipulate and deceive customers to create a favorable impression, they are expected to engage in lower levels of customer orientation than open influencers. Manipulating and deceiving customers to achieve hidden objectives is contrary to the values espoused by customer orientation. Thus, it is hypothesized:

Hypothesis 1: Open influencers will be more customer oriented than closed influencers.

Adaptive Selling

Weitz, Sujan, and Sujan (1986) defined adaptive selling as “the altering of sales behaviors during a customer interaction or across customer interactions based on perceived information about the nature of the selling situation” (p. 175). Salespeople engaged in adaptive selling use different sales presentations for different customers. They customize their sales strategy to fit the needs of the customer and the sales situation. When

salespeople adapt to selling situations, they are expected to act in the best interests of their customers. Adaptive selling “forces the salesperson to practice the marketing concept” by emphasizing “the importance of satisfying customer needs” (Weitz, Castleberry and Tanner 2009, p. 151). Recent studies have concluded that adaptive selling enables salespeople to become more customer oriented (Franke and Park 2006).

Open influencers rely on their expertise to present product-specific information to customers and demonstrate how these products can satisfy customer needs. Since customer needs vary, open influencers may need to adapt more in order to successfully use their “business-oriented influence strategies” (Spiro and Perreault, Jr. 1979, p. 437). In contrast, closed influencers ingratiate and impress customers to manipulate them. Since they are really adapting to achieve their own hidden agenda, they may need to adapt less than open influencers. Doing special favors for customers and offering them gifts to obligate them (closed influence strategy) does not require adaptive selling skills to the same degree compared to using open influence strategies, where altering sales presentations based on the perceived nature of the selling situation and tailoring the sales strategy to match the uniqueness of each sales call is an absolute necessity. Formally stated:

Hypothesis 2: Open influencers will be more adaptive than closed influencers.

Sales Performance

Achieving high sales performance and attaining the goals of the selling organization are the key measures of success of salespeople. Based on Behrman and Perreault, Jr.’s (1982) conceptualization, sales performance can be defined as the degree to which salespeople achieve their overall sales objectives, possess technical knowledge, provide information to the selling organization, control expenses, and make effective sales presentations to customers. Closed influencers are expected to perform more poorly than open influencers for several

reasons. For example, customers may perceive that the ingratiating salesperson (closed influencer) has a hidden agenda and are “most likely to attribute influence tactics to ulterior motives precisely when the salesperson has the most to gain through such tactics” (Brown 1990, p. 21).

By relying on manipulation and deceit, closed influencers, who use ingratiation and impression management, will fail to thoroughly research each customer and implement a sales presentation that is maximally effective for that customer. Salespeople who use high levels of referent power bases (open influence strategies) have been perceived by customers as “more trustworthy”, have been “more effective in producing an intended attitude change,” and have been “more effective in producing the intended behavioral changes in a customer” (Busch and Wilson 1976, pp. 7-8).

Closed influencers will also fail to control expenses since rendering personal favors and providing promotional items to gain customer compliance costs money. In addition, since closed influencers do not rely on product knowledge to persuade customers, they may not keep up with the latest developments in technical knowledge compared to open influencers. Consequently, open influencers are expected to outperform closed influencers. Therefore, the following is hypothesized:

Hypothesis 3: Open influencers will achieve higher sales performance than closed influencers.

Job Satisfaction and Propensity to Leave

The poor performance of closed influencers is likely to have some unintended consequences. For example, closed influencers may become dissatisfied with their jobs and leave the selling organization. On the contrary, open influencers may become satisfied with their jobs and have a lower propensity to leave. The relationships among sales performance, job satisfaction, and propensity to leave have been extensively studied in the US context (e.g., Brown and Peterson 1993; Futrell and Parasuraman 1984).

Although scholars agree that job satisfaction causally precedes propensity to leave, the role of sales performance is less obvious. Empirical evidence exists for sales performance as an antecedent to job satisfaction (Jones et al., 2007; MacKenzie, Podsakoff and Ahearne 1998; Bagozzi 1978), as a consequence of job satisfaction (Podsakoff and Williams 1986), unrelated to job satisfaction (Brown and Peterson 1993; Dubinsky and Hartley 1986), and a moderator of the relationship between job satisfaction and propensity to leave (Futrell and Parasuraman 1984). The current study investigates whether influence strategies have a bearing on this issue, especially in developing economies.

Following Bagozzi (1978), sales performance was posited to be an antecedent to job satisfaction. Sales performance should also have a direct effect on propensity to leave as low performers are expected to have a high turnover (McEvoy and Cascio 1987). Since job satisfaction negatively affects propensity to leave, sales performance will also have an indirect effect on propensity to leave by affecting job satisfaction. Consequently, job satisfaction will mediate the effects of sales performance on propensity to leave. Since closed influencers are expected to perform poorly, the mediating effect of job satisfaction on the relationship between sales performance and propensity to leave should be significant among closed influencers. Therefore, Hypothesis 4: For closed influencers, job satisfaction will mediate the effects of sales performance on propensity to leave.

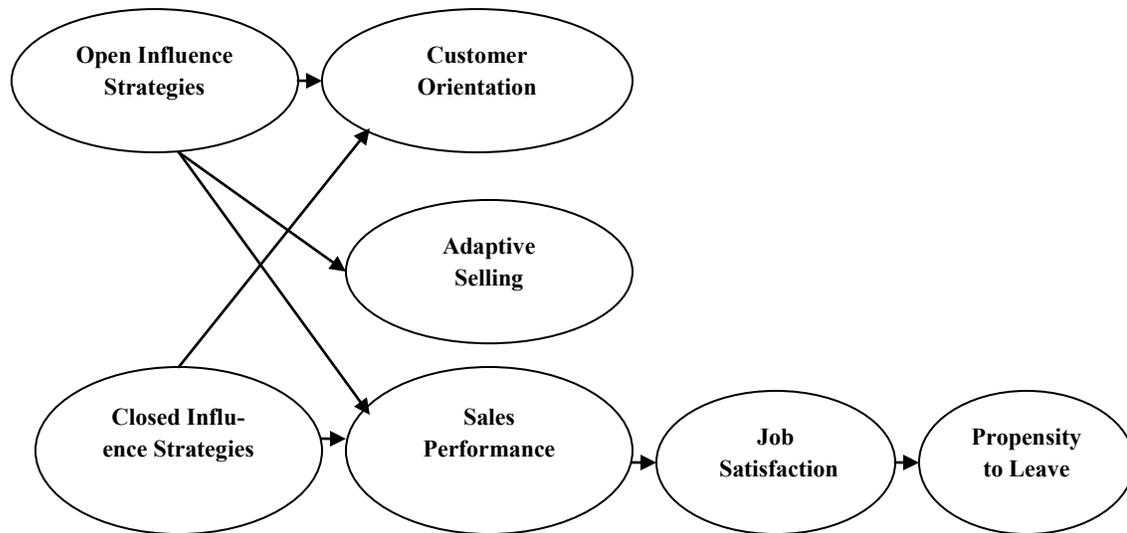
Figure 1 summarizes the research hypotheses.

METHOD

Sample

The sample consisted of 253 missionary salespeople employed for a pharmaceutical manufacturer in India who represented the selling firm to physicians, retail pharmacies, distributors, and wholesalers across the entire nation. The study variables were measured by a

FIGURE 1
Hypothesized Model



self-report mail questionnaire and the respondents were promised anonymity and confidentiality. Completed questionnaires were received from 146 respondents, thereby providing a response rate of 57.7 percent. Non-response bias was unlikely to affect the study results since early and late respondents did not differ significantly on the study variables (Armstrong and Overton 1977). Regarding subject characteristics, 92 percent of the respondents were male, 78 percent were college graduates and 12 percent had post-graduate degrees. On average, they were 28.5 years old and had six years of selling experience. Consequently, the respondents were predominantly male, highly educated, young and relatively less experienced.

Measures

Pre-existing measurement scales for which validity and reliability was already established was used to measure the study variables. Influence strategies were measured by the 20-item scale developed by Spiro (1977). Customer oriented selling was measured as a surface trait (Brown, Mowen, Donovan and Licata 2002) with six items adapted from Saxe

and Weitz's (1982) SOCO scale. The scale anchors were 1 (true for none of your customers) to 9 (true for all of your customers). Adaptive selling was measured by the 5-item ADAPTS-SV scale developed by Robinson et al. (2002). Job satisfaction was measured by a 7-item scale (Bagozzi 1978) where each item represented a facet of job satisfaction, such as, pay, co-workers, promotion, etc. Propensity to leave was measured using a 3-item scale developed from Bluedorn (1982). The endpoints of these scales were 1 (very strongly disagree) to 9 (very strongly agree). Finally, sales performance was measured by the 31-item scale developed by Behrman and Perreault, Jr. (1982) where the scale anchors were 1 (your performance is very low compared to an average salesperson) and 9 (your performance is very high compared to an average salesperson). The descriptive statistics of these measurement scales are displayed in Table 1.

ANALYSIS AND RESULTS

Measure Validation

First, psychometric properties of the measures were assessed by computing reliabilities and

TABLE 1
Descriptive Statistics

Variable	1	2	3	4	5	6
1. Influence Strategies	1.00					
2. Customer Oriented Selling	0.19	1.00				
3. Adaptive Selling	0.20*	0.47**	1.00			
4. Sales Performance	0.07	0.14	0.17	1.00		
5. Job Satisfaction	0.15	0.36**	0.34**	0.44**	1.00	
6. Propensity to Leave	-0.18	-0.25**	-0.28**	-0.21*	-0.49**	1.00
Mean	5.58	6.94	6.80	6.71	7.15	3.16
SD	0.71	1.31	1.32	1.29	1.31	1.89
Cronbach's alpha	0.45	0.68	0.69	0.95	0.83	0.76

** Correlation is significant at the 0.01 level. * Correlation is significant at the 0.05 level.

assessing convergent and discriminant validity. Since the sample size of 146 may be insufficient to assess the measurement models simultaneously, a confirmatory factor analysis with partial disaggregation (Bagozzi and Heatherton 1994) was used to confirm the measurement properties of the 31-item sales performance scale. Following Bagozzi and Heatherton (1994), two or three composite indicators were formed for each dimension of the 31-item scale (sales objectives, providing information, etc.) by randomly aggregating two to three items that relate to a specific dimension. Thus, the 31-items were reduced to 14 item parcels measuring the five dimensions of sales performance. A confirmatory factor analysis of the covariance matrix of the 14 item parcels yielded a satisfactory measurement model of sales performance ($\chi^2 = 70.81$, $df = 77$, $p > 0.10$, $GFI = 0.90$, $RMSEA = 0.00$).

The covariance matrix of the five latent constructs was input in LISREL 8.72 to assess validity, where each item was specified to load on its respective factor. Although one item measuring job satisfaction needed to be deleted, the measurement model fit the data well ($\chi^2 = 237.94$, $df = 517$, $p > 0.10$, $GFI = 0.86$, $RMSEA = 0.00$). Convergent validity was

established since the path estimate of each item to its respective latent construct was significant (Anderson and Gerbing 1988). Discriminant validity was also established since the $\Delta\chi^2$ values for the unconstrained and constrained (the correlation between each pair of constructs constrained to unity) models were significant for each construct (Bagozzi and Phillips 1982).

To identify open and closed influencers, salespeople were clustered based on their responses to the 20-item influence strategy scale. An agglomerative hierarchical clustering using Ward's method yielded a two cluster solution which was confirmed with a K-means clustering and a discriminant analysis where the 20 variables measuring influence strategies classified the respondents into the two clusters with 100 percent accuracy. There were 45 cases in cluster 1 (open influencers) and 63 cases in cluster 2 (closed influencers). Table 2 presents the final cluster centers.

Hypotheses Testing

Hypotheses 1, 2, and 3 were tested by an ANOVA, where the effects of the clusters on customer oriented selling, adaptive selling, and sales performance showed that open influencers

TABLE 2
Final Cluster Centers

	Cluster 1	Cluster 2
I try to influence my customer by drawing on my expertise concerning the product. ¹	8.22	5.73
I stress the general quality of my products and services relative to that of other suppliers. ²	7.73	6.30
Even when talking about important business topics, I am very friendly and personal with my customer. ³	7.07	6.46
I exaggerate the extent to which I would have to bend company policy to help my customer. ⁴	2.96	5.59
I go out of my way to do personal favors for my customer so that he/she would be indebted to me. ⁵	2.51	4.95
Some of my comments appear to be made casually, but are actually “planted” with the intent of gaining favorable impressions. ⁴	5.24	4.92
I do not use congenial relationship with my customer for my advantage. ^{3r}	5.82	4.84
I try to demonstrate my knowledge of how my product would be used in customer’s company. ¹	7.93	6.03
I imply to my customer that I do special favors for him/her that I generally do not do for other customers. ⁵	5.20	4.86
I do not stress my reputation, or how my experience would help my customer. ^{2r}	5.71	5.13
I do not use my friendship with my customer to get him/her to place orders with me. ^{3r}	6.62	4.43
I rarely make any effort to ingratiate my customer. ^{5r}	6.96	4.54
I do not compare the technical characteristics of my product with those of my competitors. ^{1r}	7.53	4.79
My customer is aware that I expect special consideration because of our friendship. ³	3.89	5.24
I stress my company’s reputation to my customer. ²	8.27	6.78
I discuss quite a bit of technical information. ¹	7.02	5.27
I use more general than detailed facts in trying to sell my customer. ¹	5.22	5.16
I make efforts to entertain my customer or provide him/her with promotional items so that he/she feels an obligation to me. ⁵	4.31	5.44
My customer thinks that my activities on his/her behalf require more effort than they really did. ⁴	3.71	5.44
In sales calls it is useful to give my customer the impression that I did not have the authority to act on one of his/her requests. ⁴	5.00	5.78

Expertise, ² Legitimate, ³ Referent, ⁴ Impression Management, ⁵ Ingratiation, ^r Reverse worded. Highest scores in bold, Cluster 1 = Open Influencers, Cluster 2 = Closed Influencers.

were more customer oriented and more adaptive than closed influencers, and outperformed them. Therefore, these three hypotheses were supported. Table 3 displays the ANOVA results.

Hypothesis 4 was tested with a series of OLS regressions where the summated scores of propensity to leave (criterion), sales performance (predictor), and job satisfaction (mediator) were used. For closed influencers, propensity to leave was regressed on sales performance and job satisfaction, followed by a regression of propensity to leave on sales performance after controlling for job satisfaction (Baron and Kenny 1986). The results are shown in Table 4.

As Table 4 indicates, the direct effect of sales performance on propensity to leave was non-significant ($b = -0.27, t = -1.52$). However, the direct effect of sales performance on job satisfaction was significantly positive ($a = 0.35, t = 3.04$), and after controlling for sales performance, the direct effect of job satisfaction

on propensity to leave was significantly negative ($c = -0.84, t = -5.09$). Since there is a significant relationship between sales performance and job satisfaction, and between job satisfaction and propensity to leave, and sales performance does not explain any additional variance beyond job satisfaction ($b' = 0.13, t = 0.08$), job satisfaction fully mediated the effect of sales performance on propensity to leave (Schneider et al. 2005). The model explained 31 percent of the variance in propensity to leave and the mediating effect was significant ($z = -2.57$) (Sobel 1982). Consequently, hypothesis 4 was supported.

DISCUSSION

The results of this study have major implications for US firms planning to enter or those who have already entered India. Firms should encourage their salespeople to use open influence strategies to improve sales performance, since higher sales performance will lower their propensity to leave by increasing their job satisfaction. Sales training

TABLE 3
Analysis of Variance

Criterion	Mean _{Open Influencers}	Mean _{Closed Influencers}	F Statistic	Sig.
Customer Oriented Selling	7.26	6.37	$F_{1,104} = 12.74$	$p < 0.01$
Adaptive Selling	7.29	6.26	$F_{1,105} = 19.91$	$p < 0.01$
Sales Performance	7.14	6.33	$F_{1,104} = 9.77$	$p < 0.01$

TABLE 4
Results of Mediation Analysis

Predictor (X)	Mediator (M)	Criterion (Y)	$M = aX + e$	$Y = bX + e$	$Y = b'X + cM + e$
Sales Performance	Job Satisfaction	Propensity to Leave	$a = 0.35, t = 3.04^{**}$	$b = -0.27, t = -1.52$	$b' = 0.13, t = 0.08$ $c = -0.84, t = -5.09^{**}$

** $p < 0.01$

and supervisory coaching should help salespeople develop the expertise needed to pursue open influence strategies, despite the temptations of the business environment. Open influencers were more customer oriented and more adaptive than closed influencers.

Sales managers can use the measures of selling behaviors (customer oriented selling, adaptive selling, etc.) and sales performance that have been developed in US markets to monitor and control salespeople in India. College graduates in India are proficient in English and the measures of latent constructs in selling and sales management seem to be readily transportable to the Indian market. The mediating effect of job satisfaction on the relationship between sales performance and propensity to leave is intriguing since in the US, the performance of pharmaceutical salespeople moderated the effect of job satisfaction on propensity to leave (Futrell and Parasuraman 1984). The exclusion of influence strategies may have resulted in the differences in causal relationships among sales performance, job satisfaction, and propensity to leave in past studies.

Salespeople should also be encouraged to be customer oriented and adapt their selling behaviors based on the selling situation, since these selling behaviors were significantly positively related to job satisfaction (see Table 1). Since job satisfaction reduces the propensity to leave, training and coaching salespeople to be customer oriented and adaptive will reduce salesperson turnover.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Limitations of the study include the low reliability of the influence strategy measure and the potential lack of generalizability since salespeople of a single firm was studied. Although maximally homogeneous respondents should be used for theory falsification procedures (Calder, Phillips and Tybout 1981), the results of this study should be interpreted with caution.

Since the entire data were collected from salespersons' perspective, there was a potential for common method bias. As recommended by Podsakoff and Organ (1986), the data was subjected to Harmon's one factor test, where all the manifest variables were specified to load on a single method factor in a confirmatory factor model. The fit of this one factor model worsened with $\Delta\chi^2 = 106.44$ for $df = 10$ and $GFI = 0.81$, indicating that the risk of common method variance bias was minimal. However, due to the cross-sectional nature of the data, caution should be exercised in inferring causality.

Future research should replicate this study across a range of industries in India and other developing economies such as China. The results will strengthen the generalizability of the effects (Calder, Phillips and Tybout 1981) and shed light on whether the relationships among sales performance, job satisfaction and propensity to leave are culture specific.

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SOCIOLOGICAL FACTORS INFLUENCING HIGH-RISK PHYSICAL ACTIVITIES AMONG ADULTS: A CONCEPTUAL ANALYSIS

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Although risk-taking has been investigated widely in psychology and marketing-oriented literature, the vast majority of those risks pertain to lifestyle choices, such as sexual promiscuity, smoking, and illicit drug use. Conversely, relatively little work has explored why adults engage in high-risk physical activities, such as mountaineering and skydiving. To help explain this phenomenon, we create a model based on the theory that the human body is hot-wired to thrive on certain types of stress not provided in modern society. That is, high-risk behaviors provide the stress (and accompanying stress release) that some individuals crave. We propose that, aside from innate personality characteristics, sociological factors influencing one's likelihood of engaging in high-risk activities include a sense of alienation at work, postponement of gratification, the feeling of work as an imposition, a perceived lack of control in one's life, and questioning the meaning of life. We believe that this paper helps explain risk-taking behaviors of a relatively large group of people in modern society, and can provide a springboard for further empirical research; managerial implications for marketers of high-risk activities are discussed.

INTRODUCTION

Shortly before the opening ceremonies of the 2010 Winter Olympic competition in Whistler, British Columbia, Georgian athlete Nodar Kumaritashvili, 21, died after flying off the track and into a metal column while going 90 miles per hour on a luge run. The young athlete had expressed fear about the course to his father, among others (Bondy and Vinton 2010). In August 2010, a 31 year old Navy Seal fell to his death while illegally jumping off a cell phone tower in Suffolk, Virginia (Quinlan 2010). The next month, a 41 year old Australian woman attempting to jump off the Alor Setar Tower in Malaysia met a similar fate when her parachute failed to open (Robinson 2010). Considering that both of these structures were both less than 600 feet high and a free fall can last only a few seconds before a parachute needs to open, the risks involved in this endeavor are obvious. Further, considering that even participants admit that BASE (building,

antenna, span, earth) jumping is a frightening experience (Reuters 2002), the question arises as to why more and more individuals feel compelled to risk their lives and limbs to partake in such risky activities.

Over the past century, much research has tried to answer this question by focusing on two related concepts—stress and risk taking. Many have considered both to be negative experiences that should be avoided whenever possible (Kaplan and Garrick 1981; Slovic 1987), whereas others consider stress and risk taking as necessary (Klausner 1968).

The vast majority of risk-taking behaviors studied in the academic literature pertain to so-called risky lifestyle behavior, such as unsafe sexual promiscuity, smoking, and illicit drug use (e.g., Cohn, McCrady, Epstein and Cook 2010; Maman, Yamanis, Kouyoumdjian, Watt and Mbwanbo 2010). Further, teenage risk taking may often be viewed as emanating from distinct issues such as peer pressure, hyperactive hormones, and feelings of invincibility and immortality (Abbott-Chapman, Denholm and Wyld 2008; Goudriaan, Lapauw, Ruige,

Feyen, Kaufman, Brand and Vingerhoets 2010; Hanson, Kjaer, Munk, Tryggvadottir, Hagerup, Liaw and Nygard 2010). In this article, we focus instead on high-risk physical activities among adults. The purpose of this paper is to introduce a model of high-risk physical activity that distinguishes between positive and negative stressors, and considers risk taking to be of key importance in modern society. As such, we propose that risk taking can be positive and even needed (e.g., by adult consumers). To that end, we begin by discussing the concepts of risk and high-risk consumption. In addition, we discuss the role of stress and stress response. Next, we distinguish between dys-stress and eustress (Bernard 1968), and discuss the link between stress and risk taking. Finally, we discuss outlets for coping with stress and commercialization of high-risk consumption. These discussions provide the basis for the development of our model of factors influencing consumption of high-risk physical activities.

RISK AND HIGH-RISK CONSUMPTION

The manner in which individuals perceive risk depends on factors such as how (un)familiar the individual is with the consequences, the degree to which the exposure to risk is perceived as (in)voluntary, and how (un)controllable the potential damage appears (Pitz 1992). Some researchers argue that, because of its very nature, humans should reject or avoid risk (Kaplan and Garrick 1981; Slovic 1987). In contrast, other researchers argue that risk is an inherently subjective state that is germane to an individual's perception of loss, the significance of loss, and the uncertainty associated with loss (Yates and Stone 1992). In addition, individuals consider both the potential gains and losses when contemplating risks. That is, individuals are generally not attracted by the loss potential of high-risk activities such as racing and mountain climbing, but "by the prospect of the exhilaration which accompanies escaping from the potential loss" (Yates and Stone 1992, p. 22). Lyng (1990), however, who focuses on voluntary risk taking, criticizes the tendency for psychological models of risk taking to consider

anticipated rewards as a principal motivating factor. He argues that some individuals tend to "place a higher value on the experience of risk taking than they do on achieving the final ends of the risky undertaking" and maintains that this "fact" is one of the principal features of voluntary risk taking (p. 852).

Bromiley and Curley (1992), who agree that individuals differ in their perceptions of and attitudes toward risk, claim that personality traits interact with situational factors to guide behavior. That is, individuals might avoid risks in certain situations yet seek it in others. For instance, a consumer may gamble his hard-earned money at a Las Vegas casino but never consider skydiving as an attractive activity.

This illustration leads to the topic of high-and-extreme-risk consumption. These two terms have been used interchangeably in much of the literature. In essence, high-risk consumption is described as a form of voluntary risk taking, and individuals who partake in such activities are portrayed as actively seeking "experiences that implicate a high potential for personal injury or death" (Lyng 1990, p. 852). Examples of high-risk activities include the so-called extreme sports, such as parachuting, hang gliding, skydiving, auto racing, snowmobiling, scuba diving, and mountaineering (see Slanger and Rudestam 1997, for a comprehensive literature review), but also activities such as engaging in unprotected sex, consuming drugs and alcohol, and smoking (Zuckerman 1979). However, as noted, our conceptual model will deal with motivations to participate only in the former physical activities rather than the latter lifestyle consumption activities.

High-risk takers are often associated with participating in extreme sports. Although the definition of extreme sports is somewhat ambiguous (Puchan 2004), an extreme sport is one perceived to possess a high level of inherent danger, often emanating from speed, height, and/or high level of physical exertion. Even though the number of injuries sustained while participating in extreme sports is lower than those suffered while playing football (32.3

injuries per 100 participants as compared to mountain climbing with .74 injuries per 100 participants), injuries sustained while participating in extreme sports are often severe, and the fatality rate can be high (Celsi, Rose and Leigh 1993; Greenfield 1999; Palmer 2002; Shoham, Rose and Kahle 2000). Civilian skydiving accidents in the U.S. alone claim the lives of nearly 40 persons per year (Hart and Griffith 2004). Motorized outdoor activities such as the use of all-terrain vehicles (e.g., three- and four-wheelers) have been responsible for over 7,000 fatalities since 1982 (Vierria 2007), an average of 280 deaths annually.

Extreme sports are relatively expensive to the healthcare system (Olivier 2006). For example, it has been estimated that in-line skating leads to over 100,000 injuries per year that require emergency care, and that about ten percent of mountain bikers end up in the hospital for a variety of injuries (Young 2002). In addition, due to the relative newness of many of these extreme-risk activities (e.g., snowboarding events that have evolved into ‘big air’ events which include a launch off a large ramp, or those that have progressed into ‘slopestyle’ where tricks have to be performed over fixed obstacles), few physicians have been specifically trained in the detection of injuries unique to a specific sport. Considering the constant quest for new activities that are ever more challenging and dangerous this predicament might become more severe in the future (Young 2002).

Even though participation in extreme sports has been increasing (Puchan 2004), participants generally have little or even no medical coverage (Young 2002). Individuals might not even know that their health insurance will probably not cover any injuries incurred during these high-risk activities (Vierria 2007). Some insurance providers, however, have decided to target this growing market of high-risk takers. Blue Cross, for example, offers three health insurance options under the brand name “Tonik” (Tonik: Simple, Affordable Health, 2010). The three options (i.e., Thrill Seeker, Part-time Daredevil, and Calculated Risk

Taker), are offered in six states so far, and the cost of coverage differs by location. The first plan, Thrill Seeker, is targeted at individuals who “live life on the edge, and happily go over it.” The second and third plans are targeted at successively less risk-prone consumers. Blue Cross believes that these three plans should mostly appeal to young adults between 19 and 34 years of age. This segment is of interest to the insurer because it targets a rapidly increasing number of individuals without health insurance (Vierria 2007).

STRESS AND STRESS RESPONSE

Considering the serious physical danger that extreme sports pose, it appears that participants must be experiencing fairly high levels of fear and stress at some point in time. Indeed, as Lyng (1990), Klausner (1968), Fenz and Epstein (1967) report, individuals—including veterans—participating in extreme sports admit to being very tense, fearful, and stressed during the initial, anticipatory phases of the activity. Lyng (1990, p. 860) considers “the popular stereotype of risk takers as fearless individuals” a myth that needs to be dispelled. Stress has been viewed as a means to satisfy a need for arousal (Klausner 1968) or stimulation (Farberow 1980; Steenkamp and Baumgartner 1992). Klausner (1968) further views stress as a means to develop skills that are aimed at successfully controlling environmental objects. Stress has also been defined as behavior targeted at the reduction of tension that is, due to the buildup of intoxicating stress hormones, highly addictive (Delk 1980). Finally, stress has been defined as “indirect self-destructive behavior” that operates as a type of defense mechanism against depression and despair (Achte 1980; Litman 1980).

To understand stress, it is helpful to examine the different types of stressors and the resulting stress responses. As a case in point, Sapolsky (1998) distinguishes between three types of stressors. The first type, acute physical stressors, consists of extremely stressful events that require “immediate physiological adaptations” (p. 5) if the individual is to

survive. For instance, a bushman is ambushed by a lion and runs for his life. Throughout evolution, the human body has adapted to handle this type of emergency. This type of stress response has previously been termed the “fight or flight” syndrome, and it usually culminates in stress release. The second type of stressor, namely the chronic physical stressor, consists of infrequent, but sustained and central events. For example, a drought or famine forces humans to roam far in search of food. Again, humans have adapted to deal with these stressors. The third type of stressor, the social and psychological stressor, is unique to human kind and, from the standpoint of evolution, a fairly recent development. For instance, due to their cognitive abilities, humans have the potential to create psychologically stressful events that are “purely in our heads” (Sapolsky 1998, p. 5). Humans may then become preoccupied with these events. For instance, a woman may worry about whether the Social Security system will really provide a solid foundation for her retirement.

A potential problem is that our bodies’ stress response system has adapted to deal with acute and even chronic, (if infrequent), physical stressors but not necessarily with psychological ones. That is, our bodies’ physiological response mechanisms are tailored to deal with short-term physical emergencies, but not with ongoing psychological ones. To complicate the issue, psychological stressors lead to the same physiological responses as physical stressors. For example, a common physiological stress response is the rapid mobilization of stored energy and the inhibition of further storage which leads to an increase in heart rate, blood pressure and breathing rate to transport oxygen and nutrients at an increased rate. Such response is appropriate if the organism is running for its life. But, such mobilization “wrecks havoc with your metabolism, raises your blood pressure, bursts your white blood cells, makes you flatulent, ruins your sex life, and – possibly damages your brain” (Sapolsky 1998, p. 309) when provoked persistently in the face of ongoing psychological stressors.

Although most modern consumers do not have to deal with physical stressors on a daily basis, they are subject to psychological stressors. Our bodies’ stress response system has not caught up with these changes in human lifestyles. As a result, there is a tremendous increase in stress-related diseases (Cannon 1936; Sapolsky 1998). Cardiac arrest, the number one killer in the United States, is linked to stress (Engel 1971; Leor, Poole and Kloner 1996; Meerson 1994), as are ulcers and cancer (Keyes 1985).

DYS-STRESS VERSUS EUSTRESS

To some extent, the above discussion implies that all stress is negative and eventually leads to health problems. However, it is important to recognize a distinction between positive and negative stressors. We propose that individuals create acute physical stressors (often unconsciously) to help alleviate the impact of the ongoing psychological stressors.

Bernard (1968) proposes that stress is not a pathogenic factor that needs to be minimized or even avoided. Bernard further suggests different terms for different types of stress. “The unpleasant, even painful, kind of stress studied by Selye and his followers may be referred to as *dys-stress*; the pleasant kind . . . as *eustress*” (1968, p. 8). Bernard associates eustress with fun, excitement, and adventure. Central aspects of eustress are its fairly limited duration and its association with a proximate climax and resolution. Bernard derives the term eustress from Max Weber who spoke of eudaemonism, which has been defined as “an unending struggle, an expression of primal strength, a ‘lust for life’ that cannot be long restrained” (Bernard 1968, p. 10). Eustress, therefore, seems to be closely linked to Celsi, Rose and Leigh’s (1993) definition of voluntary high-risk activities, which the authors describe as being dramatic in form. Accordingly, voluntary high-risk activities are “structured with distinct beginnings, middles, and ends,” and “fundamentally related to our inherent dramatic enculturation” (p. 2).

Stress-Seeking as a Tool for Social Advancement

Bernard (1968) and colleagues (Falk 1968; Houston 1968; McNeil 1968; Marshall 1968) consider (eu)stress-seeking to be of paramount importance in any society and regard attempts to eliminate stress as detrimental. "A good population of risk takers, particularly as economic entrepreneurs, enhances the probability of economic development of society" (Klausner 1968, p. vii). Accepting risks, however, is inseparable from accepting stress. Klausner (1968) and McNeil (1968) argue that stress-seeking increases the intensity of emotions and that it results in feelings of pleasure and excitement.

The Evolution of Human Stressors

A closer look at the evolution of human stressors provides a more complete understanding of high-risk consumption. The concepts of fear, stress, and risk are intertwined. Our distant forefathers—"hunter-gatherers"—struggled to obtain sustenance in a hostile environment for approximately one million years. This hunter-gatherer lifestyle exposed individuals to both acute and less frequent chronic physical stressors from a variety of predators and struggles.

A combination of natural selection and the process of evolution equipped man to deal with the stressors and risks in his life (Keyes 1985). Evolution aided those "chosen ones" through an adaptation of man's nervous system, who "not only learned to endure fear but developed a taste for it" (Keyes 1985, p. 32). That is, even though the hunt, and to a more limited extent the foraging of food, was undeniably very stressful, one of the corresponding stress responses is very pleasurable if triggered by acute physical stressors. According to Guillemin, Vargo, Rossier, Minick, Ling, Rivier, Vale and Bloom (1977), stress triggers the release of opioids which function as natural analgesics or painkillers that have an effect that is similar to opiate drugs such as morphine and heroin. The compound discovered by Guillemin

et al. (1977) is called beta-endorphin (i.e., a type of endorphin) and is released by the pituitary gland. At the same time, exposure to stress triggers the release of other opioids, especially enkephalins, within the brain and spine. These opioids build up to a level where they function as natural painkillers and, in addition, lead to feelings of "glowing, irrational euphoria as you edge closer to collapse" (Sapolsky 1998, p. 169). That is, even though fear and, therefore, acute physical stressors begin as negative feelings, once they have been tolerated they can turn into exhilaration and arousal (Keyes 1985). As such, these acute physical stressors might also be labeled as "eustress," the positive kind of stressor identified and named by Bernard (1968).

As centuries passed, human life eventually became safer as individuals succeeded in taming their environment. The hunter-gatherer made a transition to farming life where it was easier to plan for the availability of food sources in more meager times. Even though famines were less of a problem than in hunter-gatherer times, under-nutrition was still widespread, leading to a constant anxiety about providing enough food for one's family. As pointed out by Keyes (1985, p. 40-41), "this seems to be the inevitable trend of progress and civilization: the exchange of immediate fear soon resolved for ongoing, unresolved, and unresolvable anxiety." Even though humans still faced fears and stressors, their nature changed dramatically over the centuries. Thus, the type of stressors medieval man was exposed to on a daily basis, especially the psychological stressors, changed from eustress to the aforementioned dys-stress experiences.

The next stage in the development of human stressors was stimulated by the industrial revolution and its accompanying division of labor. The work process was separated into several tasks, with each task completed by a separate person. As a result, humans were alienated from work and experienced reduced opportunities for enjoyment (Weber 1948). Work thus lost its creative aspect and turned

into drudgery for millions (Celsi, Rose and Leigh 1993; Csikszentmihalyi 1975).

The impact of the industrial revolution cannot be analyzed without considering the impact of religion on work-place attitudes (Bernard 1968). The term "Protestant Ethic" describes a never-ending commitment to one's worldly calling (i.e., work) and ascetic abstinence from any enjoyment of the profits attained through one's labor. The outcome of such beliefs and practices was a rapid accumulation of capital. Being successful in this endeavor signified that one was in God's grace and that the rewards would be bestowed onto the individual in the afterlife. As a result, those who had not been lucky enough to be born to wealth struggled all of their lives to better their lot, to earn the grace of God. Consequently, Bernard (1968) blamed capitalism and the Protestant Ethic for the demise of eudaemonism. Likewise, Weber (1948, p. 119) stated that the spirit of capitalism led to "the destruction of spontaneous, impulsive enjoyment." Thus, the lifestyle of the worker during the industrial revolution did provide many psychological and chronic physical stressors (i.e., dys-stress experiences), but did not allow for acute physical stressors (i.e., eustress experiences) anymore, which, as might be recalled, usually culminate in stress release whereas dys-stress experiences do not.

In comparison, life in the 21st century (in a fully industrialized society) is much safer and comfortable than in past generations (Jackson and Csikszentmihalyi 1999). However, humankind has not been able to progress to a life free of fear and dys-stress experiences. Even though our society provides many opportunities to indulge in pleasurable activities and to obtain material comforts, "the statistics on crime, mental disease, alcoholism, venereal disease, gambling, dissatisfaction with work, drug abuse, and general discontent keep steadily worsening" (Csikszentmihalyi 1975, p. 199). The question arises as to what has led to this incongruence. Could it be that those who willingly partake in activities such as crime, alcoholism, unsafe sex, gambling, drug abuse, and extreme-risk sports such as parachuting,

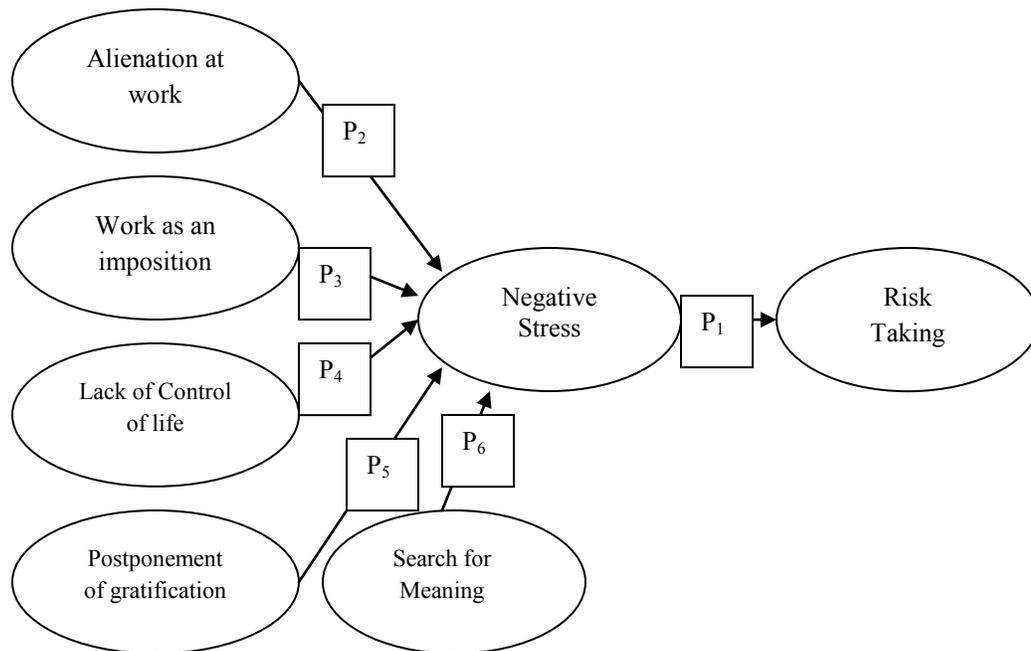
BASE jumping, scuba diving, and rock climbing are eustress-seekers?

Research seems to support that suggestion (Arnould and Price 1993; Celsi, Rose and Leigh 1993; Csikszentmihalyi 1975, 1990; Jackson and Csikszentmihalyi 1999; Keyes 1985; Sapolsky 1998; Zuckerman 1979, 1998). Lyng (1990), for example, suggests that it is very likely that the increase in individuals who report feeling alienated and oversocialised in their institutional roles is related to the increase of extreme-risk takers in our society (see Figure 1). He has found that a growing number of individuals are taking risks because they view it as their only means for achieving self-determination and authenticity. Ironically, at the same time, public institutions are increasing efforts to reduce the risks both in the work and home environments. Likewise, Celsi, Rose and Leigh (1993) suggest that the workplace often places tensions on individuals, who then turn to leisure activities to release these tensions, and to regain their "selves" and self-efficacy. Further, Shoham, Rose and Kahle (2000, p. 237) suggest, in more general terms, that "risky sports may provide a release from the tensions of the modern era."

THE HERE AND NOW: STRESS- AND RISK-SEEKING IN THE 21ST CENTURY

To understand why risk taking occurs in industrialized societies, we discuss the following issues as they have been variously described as negative sources of stress in today's society and impediments to the flow experience: a) alienation from work, b) perception of work as an imposition, c) lack of control over one's life, d) perpetual postponement of gratification, and e) the search for meaning. To structure this discussion, we focus on Csikszentmihalyi's theory of flow (1975) and adapt his theory to explain high-risk consumption in modern society. After explaining each issue, we summarize it in the form of a proposition.

**FIGURE 1:
Risk-Taking Model**



Optimal Experience or Flow

Optimal experiences describe “the best experiences of our life” (Csikszentmihalyi, 1990, p. 3). Even though they are not necessarily enjoyable at the time they occur, the resultant sense of mastery and of having been in control are so rewarding that many individuals repeatedly seek this type of experience. The theory of optimal experience is based on the concept of flow. Flow is the state in which an individual is so focused on an activity that nothing else seems to matter. Individuals experiencing flow feel in control of their actions, and a deep sense of exhilaration and enjoyment. Reaching this state of flow is not an easy task. There has to be a close match between an individual’s relevant skills and the chosen challenge. If his or her relevant skills are not sufficient to meet the challenge, then the result will be anxiety, and flow will not be achieved. Likewise, if an individual’s skills are more advanced than the challenge, the outcome is boredom and flow will not be accomplished either. Considering, however, that skills generally become more developed the more often a task is performed, the difficulty of the

challenge will have to be increased accordingly to re-establish the equilibrium necessary for the state of flow to be reached. This even match between levels of skill and challenge, however, does not guarantee the experience of flow. Other prerequisites include that the challenge has to provide clear goals and unambiguous feedback. In addition, the individual has to feel a sense of control and be capable of fully focusing on the challenge at hand; that is, his/her attention has to be completely absorbed by the chosen activity. Csikszentmihalyi (1990, p. 44) calls this “a struggle for establishing control over attention.” In our society, this is not an easy task since most of the activities we are involved in on a daily basis do not provide the prerequisites for flow and are further often perceived as sources of stress.

As previously discussed, dys-stress offers no stress release to those who experience it. For that reason dys-stress is an impediment to flow experiences. Risk taking is viewed as positive, and even needed, because it offers a stress release that has been practically eliminated from modern lifestyles due to the shift in the type of stressor to which individuals are

exposed. We propose that as a consequence, individuals turn to high-risk activities since such activities will allow the escape from the drudgery of daily routines and dys-stress and provide these individuals with the opportunities to experience flow. Accordingly, the first proposition states:

P₁: In an attempt to exchange daily routines and negative stressors (i.e., dys-stress) with flow experiences, individuals in industrialized countries may seek out high-risk activities.

In the next sections, we will explore more fully the reasons why individuals feel detached and stressed in their daily lives.

Alienation from Work

Few jobs appear to provide the match between skills and challenges necessary to achieve flow. Studies have shown that American workers, especially those in lower-level occupations, have complained about the lack of variety and challenge at their jobs. In contrast, those in higher-level occupations have a tendency to complain about the pressure, the stress, the lack of control often felt, and the long hours spend on the job (Csikszentmihalyi 1990). It appears that the American worker, regardless of the level of occupation, has been victim of a deep-seated alienation from work. This situation, of course, is not new, and workers across the industrialised world appear to report similar experiences (Keniston 1960; Ginzberg 1971; Terkel 1974).

We propose that the alienation from work provokes feelings of dys-stress in individuals, and that dys-stress prevents individuals from experiencing flow. Since dys-stress also does not lead to a stress release, we further propose that those who feel alienated at work—as opposed to those who do not harbor these feelings—are likely to look for stress release outside their normal range of activities and thus tend to seek out high-risk activities which are expected to provide flow experiences. Hence the next proposition states:

P₂: Individuals who feel alienated at work are more likely (a) to report negative sources of stress (i.e., dys-stress) than those who do not; and (b)—in the pursuit of flow experiences—are also more likely to seek out high-risk activities.

Perception of Work as an Imposition

Individuals, even though they complain about feeling bored, stressed, and frustrated on their jobs, also feel boredom and even guilt when they are at leisure. What highlights this contradiction is that work (even though many feel that time spent at work is basically wasted) provides more flow experiences than leisure activities do. Csikszentmihalyi (1990) followed a group of subjects through their lives for one week. The informants were equipped with a pager and were contacted at random intervals, at which time they reported their activities and how they felt. It was found that those involved in work-related activities experienced flow 54 percent of the time. In contrast, those engaged in leisure activities (e.g., reading, watching TV, socializing), reported flow experiences only 18 percent of the time. Only 16 percent of responses reported from work are categorised as apathy, whereas an astounding 52 percent of leisure activities are classified as such. Thus, for many individuals, leisure largely consists of passive activities that do not require any skills or provide opportunities for action. Thus, it is not surprising that only 19 percent of employed men claim that leisure is more satisfying than work, whereas 49 percent state that their work is more satisfying than leisure (Veroff, Douvan and Kulka 1981). Hence, we are faced with a paradox. On the one hand, many consider work to be drudgery, something they have to do in order to earn a living. On the other hand, work actually provides more challenges and satisfaction than leisure activities. To address this paradox, Csikszentmihalyi (1990, p. 160) concludes that “when it comes to work, people do not heed the evidence of their senses. They disregard the quality of immediate experience, and base their motivation instead on the strongly rooted cultural stereotype of what work is supposed to be like. They think of it as

an imposition, a constraint, an infringement of their freedom, and therefore something to be avoided as much as possible.” This cultural stereotype has been blamed to be a remnant of the Protestant Ethic (Ginzberg 1971) and is also a psychological stressor.

We propose that those who perceive work to be an imposition—as compared to those who do not—are more likely to experience dys-stress. These individuals are also expected to be more likely to seek out high-risk activities in an attempt to create stress-releasing flow experiences in their lives. Thus, the third proposition suggests:

P₃: Individuals who view work as an imposition in their lives are more likely (a) to report negative sources of stress (i.e., dys-stress) than those who view work a more positive manner; and (b)—in the pursuit of flow experiences—are also more likely to seek out high-risk activities.

Lack of Control over One’s Life

In everyday life, few individuals feel that they are entirely in control of their lives (Jackson and Csikszentmihalyi 1999). First, many individuals have negative feelings toward their jobs. Second, many consumers look forward to their leisure time which then is often spent in passivity. As a result, it is not surprising that life has been described to pass in a succession of “boring and anxious experiences over which a person has little control” (Csikszentmihalyi 1990, p. 69). Control (or the perception that one is in control of a situation) has been found to reduce stress response (Glass and Singer 1972) and is considered to be one of the characteristics of flow. Hence, we propose that those individuals who feel that are not in control of their lives—as opposed to those who perceive they are—are likely to feel dys-stress and are thus less likely to experience flow in their daily lives. We further propose that these individuals, in an attempt to find stress release through the experience of flow, are likely to seek out high-risk activities. Therefore, the next proposition maintains:

P₄: Individuals who feel a lack of control in their lives are more likely (a) to report feeling negative stress (i.e., dys-stress) than those who feel in control of their lives; and (b)—in the pursuit of flow experiences—are also more likely to seek out high-risk activities.

Perpetual Postponement of Gratification

The emphasis on postponement of gratification in our society can add to stress as well. Even though some bemoan that society has increasingly been embracing immediate gratification and consumption (Laney 1981), research in the social sciences appears to paint a different picture. Accordingly, postponement of gratification is a still powerful relic of the Protestant Ethic. In our society, business profits are reinvested to build enterprises and lay the foundation for future productivity (Laney 1981). Further, children are taught that voluntary delay leads to a much greater and preferred gratification in the future (Jacobsen, Huss, Fendrich, Kruese and Ziegenhain 1997). Adolescents are taught that delaying certain actions until future times is desirable. For instance, it is prescribed that the postponement of sexual gratification until marriage leads to a more enjoyable marriage (Salts, Seismore, Lindholm and Smith 1994) and postponement of material possessions in favor of getting an education will, eventually, lead to more income and thus relatively more material possessions at a later time.

As a result, Americans are caught in an environment of perpetual postponement. For the past 30 years, Western European societies have made decisions that are very different from those that have been made in the U.S. (De Graaf 2003). In many European countries, there is a movement to encourage a simpler, more balanced life style. Consequently, many people work fewer hours and are satisfied with lower pay (i.e., 16 percent lower, on average). However, Americans now work about 199 hours more per year than they did in 1973, even though worker productivity doubled during that period. The outcome of longer work hours and

higher worker productivity has been an increase in wages and consumption, accompanied by (1) a rise of stress-related diseases, such as heart disease and weakened immune systems; (2) increased consumption of fast foods and lack of exercise that have led to an increase in obesity and diabetes, and (3) parents who spend little time with their children and are too busy to become involved in their communities (De Graaf 2003). In light of this discussion, the question remains: “When will we actually get a chance to live and harvest the rewards of our sacrifices?”

Based on the above discussion we propose that postponement of gratification can lead to feelings of dys-stress. We further propose that those individuals who find postponement of gratification stressful—as opposed to those who do not—will have difficulty achieving flow and thus seek out high-risk activities that are likely to allow them to experience flow with its resulting stress release. Accordingly, the next proposition states:

P₅: Individuals who postpone gratification are more likely (a) to report feelings of negative stress (i.e., dys-stress) than those who do not delay gratification; and (b)—in the pursuit of flow experiences—are also more likely to seek out high-risk activities.

The Search for Meaning

In the past, religions provided answers to questions concerning the meaning of life. Nevertheless, religious worldviews are challenged by scientific rationality as an opposing force (Csikszentmihalyi 1990). In response, many consumers become active in creating meaningful, enjoyable lives for themselves (Belk and Costa 1998; Celsi, Rose and Leigh 1993; Schouten and McAlexander 1995). For some, this task seems to be easy. For example, Schouten and McAlexander (1995, p. 50) who immerse themselves in the world of the “new biker” (i.e., the non-criminal biker) find that the Harley-Davidson motorcycle has become “a religious icon around which an entire ideology of consumption is articulated.”

Both new bikers and outlaw bikers seem to be drawn by the “spirituality of the riding experience.” The cohesiveness and the core values of these groups, as well as a specific language and a feeling of liberation from confinement, appear to enhance the experience. Further, the followers of the mountain man myth, as described by Belk and Costa (1998, p. 230), have found “an opportunity to live a more meaningful life combining work and play in the mountain man fantasy.”

For others, this task can be exceedingly difficult and frustrating, and thus adds to the psychological stressors. Not surprisingly, it has been found that tackling questions dealing with core values and the meaning of life is likely to lead to emotional and professional burnout, to feelings of disillusionment and crisis (Gemza 2001). This burnout, in its mildest form, manifests itself as apathy. In its most severe form, it appears as depression (Gambone 2000).

Accordingly, we propose that individuals who are unsure about the meaning of life—as compared to those who are not—are more likely to experience dys-stress and are thus more likely to turn to high-risk activities in an attempt to relief their daily stressors through flow experiences. As a result, the next proposition suggests:

P₆: Individuals who question the meaning of life are more likely (a) to report feelings of negative stress (i.e., dys-stress) than those who feel in control of their lives; and (b)—in the pursuit of flow experiences—are also more likely to seek out high-risk activities.

DISCUSSION

A key premise of this model is that risk taking is of paramount importance in modern society. Risk taking, in this context, is viewed as positive and even needed, because it offers consumers a form of stress release that has practically been eliminated from 21st century lifestyles due to the shift in the type of stressors individuals are exposed to. Nowadays, the prevalent stressor, termed dys-stress, does not

offer a stress release and is an impediment to flow experiences. Hence, another key premise is that an increasing number of individuals create acute physical stressors (consciously and unconsciously) to help alleviate the impact of ongoing, unresolvable psychological stressors. As a case in point, individuals who feel alienated and over-socialised in their institutional roles are likely to participate in high-risk taking, because they regard this type of risk taking as their only means for achieving self-determination and authenticity (Lyng 1990). In addition, individuals who actively pursue flow experiences (Csikszentmihalyi 1990) and those who actively seek instant gratification in their leisure time to offset the perpetual postponement of gratification in other parts of their lives, are likely to participate in high-risk activities, because these types of activities have a high potential to promote flow and thus enable individuals to feel in control of their actions and a sense of exhilaration. Further, those individuals who seek and take high risks restrict themselves to those areas where they feel the ambition to master the skills necessary to succeed in a chosen challenge. This desire for achievement and mastery has been identified as the primary motive for participation in high-risk activities. In those chosen areas, perceived self-efficacy will be high, the level of anxiety low, and the need for achievement will boost the motivation to succeed (Slanger and Rudestam 1997). Additionally, individuals who have a tendency to repress possible negative outcomes and more easily remember successes are more likely to engage in high-risk behavior (Slanger and Rudestam 1997).

Participation in high-risk activities carries with it potentially negative consequences for numerous parties. Mistakes in strategy and/or execution may result in catastrophe for participants and grief for their families. Such mistakes may also place undue risk on the individuals who are called upon to rescue ill-fated thrill-seekers. Further, increasing participation in risky activities results in higher costs for the healthcare system and for society in general. The model presented attempts to

provide a better understanding of why individuals engage in risky behaviors so that such costs may be reduced.

Understanding this consumer segment might also aid commercial providers of risky endeavors to train their frontline employees accordingly, and to develop products that provide a better fit to their target audiences and thus have the potential to be safer while still challenging. For example, as Simon (2002) compares “summitteering” to mountaineering, it becomes clear that those participating in the former are solely driven by reaching the summit, whereas those involved in the latter are focusing on mastering climbing techniques or acquiring knowledge of natural life and emergency medicine. Making sure that recreational firms hire mountaineers instead of summitteers as guides, and training these guides in understanding high-risk takers, could save lives. Additionally, an understanding of risk-seeking personalities may aid employers in tailoring potential reward systems around their employees’ risk taking propensity, and potentially providing more stimulation to those risk-seekers who are subjected to mundane tasks.

MANAGERIAL IMPLICATIONS: HIGH-RISK CONSUMPTION AND COMMERCIALIZATION

A wide variety of marketers have embraced the public’s fascination with extreme sports. Times Mirror Magazine publishes *TransWorld’s Stance*, a periodical built around extreme sports to attract the teen-age male (TransWorld’s Stance, 2010) Sponsors of the 2010 Summer X Games included such major corporations as Sony (Spangler 2010) as well as Taco Bell, Mountain Dew, Nike, Coors, AT&T, and Chevrolet (Independent Studies 2010).

As a result of this commercial focus on extreme sports, critics sometimes claim that the media and advertisers endanger lives by not telling the whole story. For example, Larry van Slyke, chief ranger at Canyonlands National Park, Moab, Utah, which has experienced a dramatic

increase in mountain bikers, maintains that “the advertising gurus who make the commercials never allude to the potential for ending one’s life by partaking in some of these sports...Not everyone makes a safe landing after taking an airborne jump on a mountain bike, but you won’t see that on TV” (Wilkinson 1999). Further, Palmer (2002) warns of the increasing commercialization of extreme-risk taking because it has led many unskilled novices to embrace high-risk, high-adrenalin activities without being aware of the dangers. In regards to tourist-oriented versions of extreme sports, tour operators assure the public that high-thrill adventure vacations are safe since the guides are fearless “experts” who take care of everything. As a result, the commercial packaging of extreme sports is often void of references to danger. Further, tour operators do not ask their clients to prepare through training, diet, or personal restraint nor do they highlight the level of skills needed to navigate safely through extreme-risk situations.

This commercialization of extreme vacations has led to a number of accidents that have claimed the lives of quite a number of adventure tourists and their guides. For instance, a 17-year-old girl who was chaperon to a group of even younger Pathfinder Girls was killed in a whitewater rafting accident in British Columbia’s fast-moving Elaho River (Armstrong 2005). In Zambia, a professional tour guide fell 90 meters to his death while trying to save a tourist “playing with death” at Victoria Falls’ infamous Devil’s Pool (Muchemwa 2009). On a larger scale, a canyoning (wild river rafting without the raft) disaster in Interlaken Switzerland claimed the lives of 18 extreme tourists and three guides. Despite heavy rain, the tour guides decided to take their clients into a steep and narrow gorge. The guides and travelers were subsequently washed away by a flashflood (Palmer 2002). As illustrated by these examples, the commercialization of extreme sports can alter perceptions of danger and risk. This view is supported by Arnould and Price’s research (1993) which shows that although river rafting is an expensive and time consuming activity,

potential participants do not seem to spend much time and effort considering potential outcomes before going on a trip. Search behavior seems to be negligible, and many do not have specific expectations; most simply expect to enjoy the experience and “not get killed” (Arnould and Price 1993, p. 24).

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THE EFFECT OF SELF-CONSTRUALS ON THE EFFECTIVENESS OF COMPARATIVE ADVERTISING

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This research focuses on how an individual's self-construal (interdependent and independent) together with advertising format influences the evaluation of advertisements as well as the advertised brand. In the context of comparative versus noncomparative ad formats we examine the influence of self-construal in two distinct product categories: a high cognitively involving product and a low cognitively involving product. We suggest that ads that are presented in a format (comparative versus noncomparative) that are aligned to be congruent with the individual's self construals will generate more positive attitudes when promoting low cognitively involving product. Results of an experiment designed to assess the effects of congruity of formats provide reasonable support for the hypotheses. Implications for managers and academicians are discussed.

INTRODUCTION

"I'm a PC" vs. "I'm a Mac[®]", Dominos[®] sandwiches vs. Subway[®] sandwiches, and a Mitsubishi Gallant[®] racing a Honda Accord[®] in the "See what happens" campaign are all recent examples of firms utilizing comparative advertising to promote and differentiate their offering. Comparative advertising, an advertising format in which a product or service is compared with that of a competitor, is commonly employed and is believed to have some advantages over noncomparative advertising. For example, Donthu (1998) found that comparative ads elicited greater unaided and aided recall of advertisements than noncomparative ads. Additionally, Pechmann and Ratneshwar (1991) found that as consumers process comparative advertising, the sponsored brand may benefit from a HALO effect from just being associated with the comparison brand, thus increasing the sponsored brand's positioning. However, favorable persuasion effects of comparative advertising have not been found consistently throughout the extant research (Grewal, Kavanoor, Fern, Costley and Barnes 1997).

In an attempt to disentangle how and when comparative advertising will be most effective, prior research has heavily examined the message environment of comparative advertising and has focused on aspects such as attributes of the sponsored product (e.g., Putrevu and Lord 1994), content claims in the advertisement (Chow and Luk 2006; Etgar and Goodwin 1982; Jain and Posavac 2004), and consumers' information processing situation (Chow and Luk 2006; Priester, Godek, Nayankuppum and Park 2004). Though these investigations have helped understand comparative advertising effectiveness, the influence of consumer individual difference variables have also garnered attention and provided interesting results (e.g., Choi and Miracle 2004; Polyorat and Alden 2005; Putrevu and Lord 1994; Zhang 2009). Specifically, individual difference factors such as a consumer's culturally defined collectivism (Choi and Miracle 2004; Jeon and Beatty 2002; Zhang 2009) and their cognitive involvement with the product category (Polyorat and Alden 2005; Putrevu and Lord 1994) are suggested to be important elements in understanding the effectiveness of comparative advertisements.

In the present study we further explore the influence of individual level variables on the effectiveness of comparative ads. Our interest

lies in examining how differences in individual's self construal, their independent self-construal and interdependent self construal (hereafter INDSC and INTSC), influence the relationship between advertising formats and attitudes toward the ad and the sponsored brand in two specific advertising contexts; a high cognitive involving product category and a low cognitive involving product category. For managers, this research may assist in determining the potential effectiveness of planned comparative ads campaigns with different constituent groups. For researchers, our work contributes to the understanding of the drivers of comparative ad effectiveness.

The remainder of the paper is organized as follows. First we develop our boundary condition regarding the role of cognitive involvement and comparative ads on attitude toward the ad and attitude toward the brand. Next, we introduce INDSC and INTSC as individual variables and discuss how each impacts the relationship between cognitive involvement and advertising format. This is followed by a description of a study designed to assess our proposed relationships. Lastly we conclude with a discussion of our results.

Involvement and Comparative Ads Effectiveness

A consumer's involvement with a product can influence the information processing strategies employed. For example, higher priced, relatively infrequently purchased items (i.e., cars, computers, cameras) may evoke increased search on attributes and subsequent information processing. Conversely, a less involving product purchasing occasion may evoke less centrally based processing in which information claims are relatively less important. Delineating the manner in which information is processed is important because comparative advertising, by its nature, primarily applies to information comparing specific, measurable product attributes (Prasad 1976) through which the message arguments are thought to be processed centrally (Droge 1989).

In their investigation of the effect of product category involvement with the processing of comparative advertising, Putervu and Lord (1994) suggested that the degree of congruity between the advertising format (comparative versus noncomparative) and product category could influence brand attitudes. In their overall research examining affective and cognitive involvement they found that for a high cognitive involvement product, comparative ads generates more favorable attitudes towards the brand than do noncomparative ads. Specifically they suggested that in the context of four product categories (high-cognitive/high-affective involvement; high-cognitive/low-affective involvement; low-cognitive/high-affective involvement and low-cognitive/low-affective involvement) that the level of an individual's involvement is important in determining the effectiveness of comparative ads. In a similar vein, Yagci, Biswas and Dutta (2009), in their study of relevant attribute comparison ads, found that congruency with the comparative advertising format influenced the effectiveness. This discussion raises the important notion that advertising format, product category and an individual's level of involvement at the time of exposure can influence evaluations.

Self-Construals and Ad Evaluations

To further understand the processing used to interpret information conveyed in a comparative versus noncomparative ad as noted above, individual characteristics are likely to influence how one incorporates advertising information. One such characteristic is the cultural lens through which an individual interprets information (i.e., Aaker 2000; Han and Shavitt 1994).

In a study in which communication styles were observed, Gudykunst, Matsumoto, Ting-Toomey, Nishida, Kim and Heyman (1996) found that high collectivistic oriented cultures rely heavily on indirect, ambiguous, non-verbal, reserved and understated communication. In contrast, an individualistic culture's communication was identified as one that is

direct, precise, open, and based on feelings or true intentions. It has also been suggested that cultures high in collectivism discourage direct advertising comparisons to maintain consensus and harmony (Miracle, Chang and Taylor 1992) while individualistic cultures emphasizes direct competition (Cheng 1994). Comparative ads which tend to use explicit comparison and aggressive competition are suggested to be more congruent with individualistic cultures and found to be viewed more positively (Jeon and Beatty 2002).

In the examination of cultural dimensions from an individual versus a national level, self-construal is often used as a proxy for the manifestation of Hofstede's (1990) collectivism - individualism dimension of a culture (Gudykunst et al. 1996; Polyrat and Alden 2005). Self-construal is conceptualized as the thoughts, feelings, and actions concerning the relationship of the self to others, and, themselves distinct from others (Singelis and Sharkey 1995). The cultural orientation of the individual influences the formation of self construals (Singelis 1994) with those from an individualistic culture (versus collectivistic) tending to have a higher independent self-construal (INDSC) and those from a collectivistic culture (versus individualistic) tending to have higher interdependent self-construal (INTSC). Though INDSC and INTSC were originally conceptualized as the anchors of a one-dimension variable (Hofstede 1990), researchers have treated them as two distinct dimensions (Singelis 1994; Oyserman, Coon and Kemmelmeir 2002). Specifically, a person with high INTSC does not necessarily imply low INDSC.

Additionally, it has also been suggested that even within a culture there will be differences in individual self construal (e.g., Aaker 2000; Donthu 1998). For example, even though the United States is regarded as representative of an individualistic culture, there are variances in self-construals within the population (Aaker 2000; Choi and Miracle 2004; Polyrat and Alden 2005). The work of Aaker (2000) suggests that within the "melting pot" of

America, there are groups of individuals that mimic different cultural orientations.

Previous research has identified that the congruity between culture background and involvement level can affect the advertising effectiveness. For example, Han and Shavitt (1994) in their cross cultural analysis of print ads suggest that advertising themes which are congruent with the individual's culture background can be more persuasive when promoting low-involvement products, such as frequently purchased consumables. For example, Aaker, (2000) in her study of the diagnosticity versus accessibility processing of advertising information, replicated basic findings that high culturally congruent advertising information lead to more favorable attitudes under low-involvement conditions.

It has also been suggested that an individual's self construal can also have an important impact on advertisement evaluations (Polyrat and Alden 2005). Similar to the argument that congruency between culture and advertising themes moderates advertising persuasion effects when promoting low-involvement products (Han and Shavitt 1994; Aaker 2000), we propose that when promoting a low-involvement product, individual difference factors can influence comparative advertising effectiveness. According to Zhang (2009), consumers' attitudes toward a product promoted with individualism appeals become favorable when their independent self-construals are accessible. Comparative ad is an advertising appeal that promotes individualism, and it is also reasonable to assume that when the participants' INDSC level is high; their INDSC are more easily assessable when they are exposed to comparative ads (versus noncomparative ads). As a result, comparative ads should introduce more positive attitudes in those high INDSC consumers. Based on congruity theory, since high INDSC is more congruent with comparative ads (versus noncomparative ads), it is also reasonable to expect high INDSC participants to have more favorable attitudes towards comparative ads. We therefore propose:

H₁: When exposed to comparative ads for a low-cognitive involvement product category, individuals with high (low) INDSC will (will not) have more favorable (a) attitude towards the advertisement (A_{ad}) and (b) attitude towards the brand (A_b) than when exposed to non-comparative ads.

A different pattern of results is expected for high-cognitive involvement products. These products, by their nature, are more likely to trigger careful comparison and attribute-related thinking. Therefore, individuals (regardless of INDSC) are expected to be more involved with the content of advertising. In this situation, we do not expect the congruity between self construal and the advertising format to have an effect in the evaluation process. However, since comparative ads are more congruent with central information processing (Aaker 2000), individuals will have more favorable attitudes towards comparative advertising:

H₂: For a high-cognitive involvement product category, comparative ads will generate more favorable (a) attitude towards the advertisement (A_{ab}) and (b) attitude towards the brand (A_b) than non-comparative ads, regardless of INDSC level.

High INTSC consumers are like high collectivists, and they usually discourage or avoid direct advertising comparisons. As a result, when exposed to comparative ads (versus noncomparative ads) promoting low-involvement product, their attitudes are expected to be more negative (Choi and Miracle 2004) because the congruity between noncomparative ads and high INTSC is higher than that between comparative ads and high INTSC. We therefore propose:

H₃: When exposed to noncomparative ads for a low-cognitive involvement product category, individuals with high (low) INTSC will (will not) have more favorable (a) attitude towards the

advertisement (A_{ad}) and (b) attitude towards the brand (A_b) than when exposed to comparative ads.

Similarly, the effect of INTSC is likely to be paramount when promoting a low-involvement product. When promoting a high-involvement product, INTSC is not likely to be a significant factor.

H₄: For a high-cognitive involvement product category, comparative ads will generate more favorable (a) attitude towards the advertisement (A_{ad}) and (b) attitude towards the brand (A_b) than non-comparative ads, regardless of INTSC level.

METHOD

To develop the ad stimuli, three pilot tests were conducted. Those who participated in the pilot tests were excluded from the main study. In all cases, subjects were undergraduate students at a Midwestern U.S. college and received extra credit in a marketing class in exchange for their participation. For the first pilot test, the high and low cognitive involvement categories were developed. Forty-three subjects rated five product categories on the five-item, 7-point semantic differential cognitive involvement scale used by Putrevu and Lord (1994). The focal low and high-cognitive involvement products were toothpaste and desktop computers respectively.

The second pilot test was designed to elicit dominant salient product attributes as well as identify the direct comparative brand. Forty-six subjects listed the most important characteristics they would consider when buying toothpaste and a personal computer. Based on responses, taste/breath freshness, cleaning ability, whitening ability, and price were salient attributes for toothpaste while hard drive, RAM, CPU processor and price were important attributes for personal computers. Additionally, these subjects identified the leading brands of computers and toothpaste as Dell and Crest.

The final pilot test served as a manipulation check for the ads. Print ads were developed in a process similar to Polyorat and Alden (2005), featuring a general headline followed by four attribute descriptions and a concluding remark (see Appendix A). The comparative and noncomparative print ads for the same product contained the same information except that comparative ad also indicated that the advertised brand was better on each attribute than the comparative brand. Forty-five students participated with each exposed to one of two combinations (comparative ad for computer and noncomparative ad for toothpaste or comparative ad for toothpaste and noncomparative ad for computer). More than 90% of participants correctly identified the ad message structure as intended (i.e., comparative ad as comparative ad; noncomparative ad as noncomparative ad), therefore the manipulation of ad message structure was successful. In addition, subjects were asked if the information was credible and the target ads were viewed as

credible, that is, $\bar{X}_{NA} = 4.76$, $\bar{X}_{CA} = 4.65$

for computer and $\bar{X}_{NA} = 4.78$, $\bar{X}_{CA} = 4.72$ for toothpaste, significantly greater than four on a seven-point sum scale ($p < .05$). Both of the product categories selected represent categories in which the subjects would be or have been in the market for, as well as the theory testing objective of the study provide support for the use of a student sample.

Four booklet versions were then prepared which rotated the order of the target ads with filler ads maintaining their position. Booklets contained in order, a filler ad, a comparative [or noncomparative] ad for toothpaste or computer, another filler ad and then a noncomparative [or comparative] ad for the computer or toothpaste (e.g., Booklet 1: Filler ad, comparative toothpaste ad, Filler ad, noncomparative computer ad). Post-hoc analysis indicated no ordering effects on dependent variables.

Procedure

Because we are interested in the influence of individual variables on the process of evaluations, as opposed to group/nationality or culture, we examined subjects from a single country (e.g. Pechman and Esteban 1994). As such, one hundred and ninety six subjects participated in the study. Eight subjects were excluded due to their inability to correctly identify the advertising format. Forty two percent were female. Subjects were randomly provided one of the four experimental booklets.

After reading the instructions, participants opened their booklets and viewed the four ads, of which two were target ads. They then responded to a manipulation check (Chang 2007), rating the degree they agreed ($1 = Strongly Disagree$, $7 = Strongly Agree$) with the statements "The ad compares the target brand with a competitor's brand," and "the ad shows the superiority of the target brand to a competitor's brand." Agreement was significantly higher for comparative ads than noncomparative ads for both product categories for both questions (p 's $< .05$).

Next, attitude toward the ad (A_{ad}) was measured (Chang 2002) by participants providing the degree they agreed the ad was "interesting," "good," "likable," "not irritating," and "pleasant." These items were assessed on 7-point scales ($1 = Strongly Disagree$, $7 = Strongly Agree$) and had satisfactory internal reliability with $\alpha = 0.77$ (toothpaste) and $\alpha = 0.82$ (computer).

For attitude toward the brand (A_b) participants indicated the degree to which they agreed that the brand was "good," "likable," "pleasant," "positive," and "high quality." These items were adopted from Chang (2002) and had satisfactory internal reliability with $\alpha = 0.93$ (toothpaste) and $\alpha = 0.92$ (computer).

Cognitive involvement for the purchase of both product categories was assessed using Putrevu and Lord's (1994) five semantic differential items ($1 = \text{"Very Important decision and } 7 =$

“Unimportant decision”; 1=“Decision requires a lot of thought” and 7=“Decision requires little thought”; “A lot to lose if you choose the wrong brand” and 7=“Little to lose if you choose the wrong brand”; 1=“Decision is not mainly logical and objective” and 7=“Decision is mainly logical and objective”; 1=“Decision is based mainly on functional facts,” 7=“Decision is not based mainly on functional facts”). Overall these items exhibited satisfactory internal reliability with $\alpha = 0.72$.

Individual variables were collected next. The self-construal scale (1= *Strongly Disagree*, 7= *Strongly Agree*) used by Choi and Miracle (2004), exhibited satisfactory reliability for independent self construal (INDSC) $\alpha = 0.82$ and for interdependent self construal (INTSC) $\alpha = 0.83$. Following completion of the items, participants were debriefed and excused.

RESULTS

To verify the manipulation, product involvement was assessed and as expected, computers were rated by subjects as being a high cognitive, low affective involvement product (p 's < .05) and toothpaste was rated as a low cognitive, low affective involvement product (p 's < .05). As expected, a two-dimensional rather than a one-dimensional solution best represented the self-construal construct. INDSC and INTSC exhibited an orthogonal relation in the collected data ($r = -.02$, $p = 0.785$). Therefore, INDSC and INTSC were treated as two separate variables as suggested by the literature. The variables were then partitioned into three groups representing low, medium and high scores. In order to maximally test our hypotheses, subjects in the medium group were held out. Of the 188 original cases, 63 were considered as high INDSC (INTSC) and 63 were considered as low INDSC (INTSC). To test the influence of self construals on advertising effectiveness, MANOVA was employed (Jeong and Beatty 2002

Hypothesis 1. MANOVA (Multivariate analysis of variance) was first used to verify that there was a significant three-way interaction; among INDSC levels (high versus low), product categories (high versus low involvement) and advertising appeals (comparative versus noncomparative) ($F(2,243) = 4.51$, $p = 0.012$). This three-way interaction indicated that the effect of ad appeals and INDSC levels varied when promoting different product category.

MANOVA was then used to test the two-way interaction effect of low-involvement product. Overall, attitudes (towards toothpaste advertising and brand) were influenced by a significant two-way interaction between advertising format and INDSC level ($F(2,121) = 5.146$, $p = .007$). ANOVA (analysis of variance) was used to find detailed information about hypothesis 1. Supporting H1a, ANOVA shows that advertising format was not significant ($F(1,122) = .49$, $p = .48$) while there was a significant two-way effect between advertising format and INDSC level ($F(1,122) = 9.061$, $p = .003$) for A_{ad} . The comparative ad, as opposed to the non-comparative ad, was viewed more favorably by the customers with high INDSC ($A_{ad} = 3.19$ for noncomparative ad, $A_{ad} = 4.08$ for comparative ad, $p = .003$). Additionally as we suggested there was no difference in evaluations for those with low INDSC ($A_{ad} = 4.18$ for noncomparative ad, $A_{ad} = 3.71$ for comparative ad, $p = .18$). For attitude towards the brand, analysis indicated a significant interaction effect between the advertising format and the INDSC level ($F(1,122) = 8.80$, $p = .002$) and the mean values were consistent with the prediction for the role of INDSC as shown in Table 1. Thus, comparative ads promoting the low cognitive involving product, toothpaste, resulted in more favorable attitudes in high INDSC participants while not more favorable attitudes in low INDSC customers. ANOVA also showed that advertising format was not significant ($F(1,122) = .80$, $p = .37$). Overall, H₁ is supported.

Hypothesis 2. Overall, MANOVA showed that there was no significant two-way interaction

between advertising appeals and INDSC level on computer related attitudes ($F(2,121) = 0.958, p = .386$). ANOVA also showed that the interaction between advertising format and INDSC was not significant in affecting A_{ad} ($F(1,122) = 1.45, p = .23$). However, results did indicate a strong main effect for advertising format on A_{ad} ($F(1,122) = 6.842, p = .01$) with comparative advertising generally resulting more positive advertising attitudes. In terms of attitude towards the brand, ANOVA analysis indicated that the interaction between advertising format and INDSC was not significant ($F(1,122) = .42, p = .52$) and advertising format was not a significant main factor either ($F(1,122) = .42, p = .52$). Therefore, H_{2a} was completely supported while H_{2b} was not supported.

Hypothesis 3. MANOVA showed that there were significant three-way interactions among INTSC levels (high versus low), product categories (high versus low involvement) and advertising appeals (comparative ad versus noncomparative ad) ($F(2,243)=12.85, p=0.000$). This three-way interaction indicated that the effect of ad appeals and INTSC levels also varied when promoting different product category.

MANOVA showed that there was a significant two-way interaction between advertising appeals and INTSC level on toothpaste related attitudes ($F(2,121) = 13.38, p = .000$). ANOVA also showed there was a significant interaction effect between the ad format and INTSC level ($F(1,122) = 26.97, p = .000$) on advertising attitude towards toothpaste advertisement. Table 2 shows that when subjects viewed the comparative toothpaste ad, those with low INTSC had more favorable attitudes toward the ad than those exposed to non-comparative ads ($A_{ad} = 4.65$ for comparative ad and $A_{ad} = 3.45$ for noncomparative ad, $p = .000$); while noncomparative ad resulted in more positive advertising attitudes than comparative advertising did in high INTSC participants ($A_{ad} = 3.19$ for comparative ad and $A_{ad} = 4.11$ for noncomparative ad, $p = .001$). Therefore, H_{3a} is supported. In terms of attitudes towards the brand, H_{3b} , Table 2 illustrates that there was a significant interaction effect between the ad format and INTSC level ($F(1,122) = 9.62, p = .002$) on brand attitude and the means were in the predicted direction for those with low INTSC ($p = .09$) and high INTSC levels ($p = .01$). Therefore, H_{3b} is partly supported. ANOVA also showed that advertising format was not a significant factor in affecting either advertising attitudes ($F(1,122) = .11, p = .74$) or brand attitudes ($F(1,122) = .89, p = .35$).

TABLE 1:
Influence of Independent Self Construal on Dependent Measures

		Low_INDSC			High_INDSC			F	P
		Non-comparative	comparative	p	noncomparative	comparative	p		
Low-Cognitive involvement product	A_{ad}	4.18 (1.20)	3.71 (1.60)	0.18	3.19 (1.00)	4.08 (1.17)	0.003	9.061	0.003
	A_b	4.13 (1.18)	3.69 (1.58)	0.21	3.42 (1.07)	4.29 (1.05)	0.002	8.80	0.004
High-Cognitive involvement product	A_{ad}	3.78 (1.27)	4.65 (1.04)	0.004	4.39 (1.19)	4.74 (1.36)	0.28	1.45	0.23
	A_b	4.00 (1.41)	4.35 (1.29)	0.31	4.31 (1.56)	4.33 (1.36)	0.97	0.42	0.52

A_{ad} and A_b rated 1=strongly disagree, 7=strongly agree; Mean and (Standard Deviation)

Hypothesis 4. MANOVA showed that there was significant two-way interaction between advertising appeals and INTSC level on computer related attitudes ($F(2,121) = 2.267, p = .10$). For hypotheses 4a, in the case of the advertisement of the high cognitive involving product, the interaction between the advertising format and INTSC level was significant in affecting customers' attitude towards the computer advertising ($F(1,122) = 4.33, p = .04$). Table 2 shows the pattern of results. Comparative ad (versus noncomparative ad) resulted in more positive attitudes toward the ad for subjects with high INTSC ($A_{ad} = 4.99$ for comparative ad and $A_{ad} = 4.13$ for noncomparative ad, $p = .01$); however, for low INTSC subjects ($p > .88$), there was no significant difference. ANOVA also indicated a strong main effect for advertising format on A_{ad} ($F(1,122) = 3.85, p = .05$) with comparative advertising generally resulting more positive advertising attitudes. Therefore, H_{4a} was supported.

For H_{4b} regarding attitude towards the brand, there was a significant two-way interaction effect between advertising format and INTSC level ($F(1,122) = 4.02, p = .04$), but advertising format was not a significant factor ($F(1,122) = 0.46, p = .50$). Inspection of Table 2 shows that for low INTSC individuals there was no

difference in A_b ($p = .33$), but for high INTSC individuals, comparative ads resulted in more positive A_b than noncomparative ads ($A_b = 4.77$ for comparative ad and $A_b = 4.08$ for noncomparative ad, $p = .07$). Therefore H_{4b} was marginally supported.

DISCUSSION

This study investigated the influence of the individual self construals on the advertising effectiveness of comparative and non comparative ads in the context of a high cognitive involving product and a low cognitive involving product. Interesting results regarding the influence of the focal variables on attitude toward the ad and attitude toward the brand were found.

Overall, our study revealed that self-construals played important roles in the formation of attitudes; and this influence is different when associated with products of different cognitive involvement level. Specifically, when exposed to an advertisement for a low cognitive involvement product, the participants showed more favorable attitudes towards the advertising format that was congruent with their personal traits (i.e., high INTSC/ low INTSC would be consistent with comparative ads).

TABLE 2:
Influence of Interdependent Self Construal on Dependent Measures

		Low_INTSC			High_INTSC			F	P
		noncomparative	comparative	P	noncomparative	comparative	P		
Low-Cognitive involvement product	A_{ad}	3.45 (1.11)	4.65 (1.23)	0.000	4.11 (1.07)	3.19 (1.12)	0.001	26.97	0.000
	A_b	3.98 (1.40)	4.57 (1.10)	0.09	4.21 (1.42)	3.29 (1.33)	0.01	9.62	0.002
High-Cognitive involvement product	A_{ad}	4.66 (1.29)	4.62 (0.87)	0.88	4.13 (1.44)	4.99 (1.22)	0.01	4.33	0.04
	A_b	4.66 (1.73)	4.30 (1.20)	0.33	4.08 (1.57)	4.77 (1.38)	0.07	4.02	0.04

A_{ad} and A_b rated 1=strongly disagree, 7=strongly agree; Mean and (Standard Deviation)

Additionally, for an advertisement with a high cognitively involving product, it was predicted that an individual's INDSC and INTSC levels would be less likely to influence processing. We suggest that the advertising format would be paramount in this situation. The results of the experiment supported the hypotheses in most cases. For example, we found that comparative ads always generated more positive advertising attitudes than noncomparative ads did when promoting a high cognitive product (computer). However, in terms of brand attitudes, our data showed that ad format was not a consistent factor. The exception was observed in high INTSC participants where they showed more favorable attitudes towards comparative ads than noncomparative ads.

Most of our hypotheses regarding attitudes were reasonably supported. However, similar to past research, inconsistent findings were observed in some situations (see Choi and Miracle 2004; Putrevu and Lord 1994; Shao, Bao and Gray 2004). For example, in the case of the high cognitively involving product, though the participants generally exhibited a more positive A_{ad} for comparative ads versus noncomparative ads, there was no significant difference in forming A_b . Based on our result, participants' attitudes towards the ad format were not completely transferred into their attitudes towards the brand when promoting high-involvement product.

CONCLUSION

The importance of this study can be evaluated in several ways. First, to the best of our knowledge, this study is the first study to investigate the influence of comparative advertising for differing levels of cognitively involving products and the role that individual self construals have on evaluations. Most existing studies have found mixed results regarding comparative ad effectiveness when either focusing on individual traits or product characteristics. Given that the evaluation of advertising is a procedure involving viewers (participants) and target object presentation

(product and ad format), it is necessary to consider influences from both aspects. This research attempted to explain the influence of viewers and the objects by designing an experiment covering two different product categories and different self construals levels. Interestingly, we found that there is significant three-way interaction among self construal levels (both INTSC and IN DSC), product categories (high versus low involvement) and advertising formats (comparative versus noncomparative). The findings are consistent with our expectation that advertising format effectiveness depends on an individual's self construals and the product categories. These findings should help us better understand the impact of comparative ads as part of a system.

The findings from this study also provide important practical implications for advertising firms when planning advertising strategy. Our research found that for a low-cognitive involving product, the congruity between an individual's self construals and advertising format play an important role in advertising effectiveness. Therefore, when choosing advertising format for a low-involvement product, comparative ads may be better targeted to specific groups, especially in dynamic situations such as web advertising. Our study also found that for a high-involvement product, comparative ads generally resulted in more positive attitudes toward the ad (but not brand attitudes). Therefore, when promoting high-involvement product, care should be taken if comparative advertising is chosen as a format for increasing brand attitudes.

Care of course should be taken with the results found in this study. Though this study faces limitations in the use of scenario advertisements as well as student samples, the situations and characteristics of the study reasonably represent advertisements and product brochure information. Future research can provide greater external validity through the use of real, yet unfamiliar products as well as a more heterogeneous sample.

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APPENDIX A
Advertisement Claims for Comparative and Non Comparative Advertising Formats

Computer Ad (noncomparative)	Computer Ad (comparative)
<p><u>With GIGA, you get a high-end configuration at a low price along with good quality and U.S.-based tech support.</u></p> <p>Hard Drive All-In-One <i>GIGA</i> PC has 400G SATA Hard Drive with just \$999.</p> <p>RAM All-In-One <i>GIGA</i> PC has 4G PC2-5300 DDR2 memory with just \$999.</p> <p>Processor All-In-One <i>GIGA</i> PC uses Intel Core 2 Duo E6550 Dual Core Desktop Processor with just \$999.</p> <p>Others DVD±RW DL, Windows Vista Home Premium, 21" LCD, and Three-year warranty.</p> <p align="center">GIGA: Get a PC and get a good One!</p>	<p><u>With GIGA, you get a higher-end configuration at the lower price than Dell, along with better quality and U.S.-based tech support.</u></p> <p>Hard Drive All-In-One <i>GIGA</i> PC has 400G SATA Hard Drive with just \$999, compared to <i>Dell</i> XPS One All-in-One \$1,299 with 320G.</p> <p>RAM All-In-One <i>GIGA</i> PC has 4G PC2-5300 DDR2 memory with just \$999, compared to <i>Dell</i> XPS One \$1,299 with 2G.</p> <p>Processor All-In-One <i>GIGA</i> PC uses Intel Core 2 Duo E6550 Dual Core Desktop Processor with just \$999, compared to <i>Dell</i> XPS One \$1,299 with the same processors.</p> <p>Others DVD±RW DL, Windows Vista Home Premium, 21" LCD, better than <i>Dell</i> XPS One. Three-year warranty.</p> <p align="center">GIGA: Get a PC and get a better One!</p>
Toothpaste Ad (noncomparative)	Toothpaste Ad (comparative)
<p align="center">Why should you choose CoolFresh the next time you shop for toothpaste?</p> <p>Taste Recent tests conducted by a marketing research firm found that 9 out of 10 consumers like the refreshing taste of <i>CoolFresh</i>. You can be confident about your fresh breath after using <i>CoolFresh</i>.</p> <p>Cleaning Ability Independent clinical tests document <i>CoolFresh's</i> cleaning ability— <i>CoolFresh</i> removes plaque!</p> <p>Powerful Whiteners Another clinical test demonstrates that <i>CoolFresh</i> is effective in removing stains from your teeth.</p> <p>Value <i>CoolFresh</i> is reasonable in price.</p> <p align="center">CoolFresh!</p>	<p align="center">Why should you choose CoolFresh instead of Crest the next time you shop for toothpaste?</p> <p>Taste Recent tests conducted by a marketing research firm have shown that 9 out of 10 consumers prefer the refreshing taste of <i>CoolFresh</i> over the taste of <i>Crest</i>. You can be more confident about your fresh breath with <i>CoolFresh</i> than with <i>Crest</i>.</p> <p>Cleaning Ability Independent clinical tests document <i>CoolFresh's</i> cleaning ability — <i>CoolFresh</i> removes more plaque than <i>Crest</i>!</p> <p>Powerful Whitener Another clinical test demonstrates that <i>CoolFresh</i> is 20% more effective than <i>Crest</i> whitening products in removing stains from your teeth.</p> <p>Value <i>CoolFresh</i> is cheaper than <i>Crest</i>.</p> <p align="center">CoolFresh!</p>

BEYOND SATISFACTION: ENGAGING STUDENTS AND FACULTY IN A ROMANIAN BUSINESS SCHOOL

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This paper aims at explaining the faculty-student encounter from a new paradigm on service quality management that combines the traditional views of relationship marketing and human resources management with new research findings. Due to the rising importance of educational services with its impact on both the development of society as well as on the development of individual careers, ensuring a high-quality education can be achieved by adopting a perspective that views students as customers of a service organization that is in the business of transferring, developing knowledge as well as innovation. When managing knowledge-service encounter, one must take into account the fact that a major factor for something to go wrong is human nature, which dominates the encounter. One of the approaches for managing the engagement of the faculty-student encounter is the HumanSigma model which uses the irrationality and volatility of human nature in order to strategically align management of customers and employees. The paper proceeds in the following manner: first, the impact of quality in educational services is explained; second, the patterns of engagement are presented; third, a case study, based on an applied research on a Romanian School of Management is offered.

INTRODUCTION

The importance of education is determined by its impact on two levels: the overall development of society and the development of individual needs and career opportunities. First, at the macro-level in society, though education has been seen as of paramount importance in the last decades (Anon. 2002), the current context of recession increased even further the importance of an efficient educational system. The performance of education in a country is one of the indicators of that society's overall perspectives on its development, especially regarding its capacity to innovate, overcome difficulties, seize opportunities and become competitive in the global landscape. One of the main products of higher education is innovation (Sawyer 2006), due to the research component of every higher education institution. As higher education organizations become increasingly efficient and effective, their research results

become an important foundation for the advancement of knowledge that enables the society to enhance its development. Such knowledge, that empowers skilled professionals, has become one of the key elements for overcoming the national and global crisis that fosters complex threats to the society (Datar, Garvin, and Cullen 2010). Overcoming the problems determined by a recession relies on innovative solutions that can be researched and tested within higher education institutions. Higher education enables the understanding, seeking and identifying of opportunities in a global environment marked by vast adversities providing the necessary prerequisites for global competitiveness. Second, at the micro-level, higher education also impacts the development of individuals with regard to their personal needs and career opportunities. As highlighted by Maslow's pyramid, individual needs encompass self-esteem and self-actualization which are partly achieved through degree-based accomplishments and career development of individuals (Mruk 2006).

The impact of quality in educational services must be assessed in the context of its particular characteristics that differentiate educational services from other professional services. There are four distinctive elements that must be taken into consideration. First, because it involves knowledge and innovation, the educational service process is radically different from other services. The service encounter in higher education institutions is different from that of other organizations due to the fact that, as Peter Drucker affirmed, knowledge is not impersonal like money, it does not reside only in a book that contains information. Because knowledge is always embodied in a person, offering a service of knowledge in higher education organizations must focus on how the soft, relational experience of the students, as customers, can be improved, whereas the shift to the knowledge society places the person in the center (Drucker 2008), raising new challenges, new issues, new and quite unprecedented questions about the educated person and the way educational services must be managed. Second, the educational services market faces a high degree of governmental regulation that must be strictly obeyed in order to maintain accreditation. Because governmental regulation is, at least in some countries, partially obsolete, and not adapted to current global landscape, and highly restrictive, many innovations in managing the faculty-student encounter cannot be implemented appropriately (McLendon, Hearn, and Deaton 2006). Third, many higher education institutions are non-profits and operate in a trust market, without the drive to become efficient for the sake of higher profits, thus facing the lack of urgency for performance improvement (Fife 2003). Fourth, the current trend in higher education emphasizes a shift from a socio-political mission of propagating national culture towards corporate mission serving global customers rather than national subjects (Scott 2006).

When understanding the importance and distinctive characteristics of educational services, the impact of quality on the level of overall societal advancement, individual

success and wellbeing (Rath and Harter 2010) as well as global competitiveness can be observed. The accomplishments in today's universities have a long term and lasting impact on the future of a society and on the lives of the customers (students). If a nation's future health can be forecasted based on the current performance of medical schools, it can therefore be assessed that what happens in higher education institutions regarding the quality of the educational process, will have a determinative effect upon the performance of individuals and society as well.

Because higher education is of paramount importance, ensuring its quality and managing (McNay 2005) the student experience more efficiently has become a major concern for today's higher education administrative staff. The implications of a high-quality educational service is not limited to its customers, but the beneficiaries of research, innovation and knowledge can be found globally, as the means of communication have become more complex. Many higher education institutions have tried to implement management, marketing and quality assuring programs that were studied and elaborated in the manufacturing context (Bandyopadhyay and Lichtman 2007), but which were systems that failed to provide actual benefits for higher education institutions or for any kind of service organizations (Fleming and Asplund 2007). Scholars and researchers from various organizations have tried to assess a new, integrated perspective on managing the service sector with regard to its relationship marketing, human resource management and quality assuring functions. From this research concern, emerged the engagement concept, which does not only produce stakeholder satisfaction or loyalty but ensures a quality that determines passionate advocacy. One perspective on engagement is the HumanSigma model built by the Gallup Organization, according to which, the irrationality and volatility of human nature is used in order to strategically align the management of customers and employees. Implementing such a model, aims at determining a shift (Pompper 2006) from an

institution-centered or student-centered approach to a perspective that is centered on efficient relationships (Gummesson 2008) with all the stakeholders involved in the life of a higher education organization.

ENGAGING FACULTY AND STUDENTS IN THE SERVICE ENCOUNTER

The concept of engagement, as defined by the Enterprise Engagement Alliance is fostered by a new field of study that focuses on achieving long term financial results through a strategic alignment of the management of customers, distribution partners, employees, salespeople and all the human capital of the organization (EEA 2009a). Among the companies that have adopted such a perspective on managing their business are Astra Zeneca, McDonald's, and Southwest Airlines. The tactics of enterprise engagement focus on developing the company's leadership, its communication capabilities, buy-in, support, emotional attachment, and measurement and feedback (EEA 2009a). The idea of engagement manifests a high regard towards building trust-based relationships, having in mind that only service standardization and process fairness can foster a trust-based relationship (Fleming and Asplund 2007). Engagement researchers have assessed that trust depends on three key elements related to employees: operational competence, benevolence and the problem-solving orientation (Sirdeshmukh, Singh, and Sabol 2002). Having set trust relationships, the higher education institution must find creative ways to expand its reach into the lives of its customers and fulfill supplementary needs (Seybold 2001) in order to fulfill undiscovered student needs and wants. One of the desired outcomes of enterprise engagement is determining satisfaction which can be the right foundation for loyalty and engagement. Satisfaction is used as a predisposition to compare alternatives and guides final choice and loyalty, while the intervention of the marketer aims at improving the quality performance (Olsen 2002). A satisfied customer becomes loyal to the organization that services him, increasing that organization's long term

gain. Beyond satisfaction and loyalty, scholars discuss the concept of engagement (Fleming and Asplund 2007), as a passionate advocacy of both employees and customers. The concept of engagement is based on the observation that short term emotional feelings lead to long term effect on customer retention (Lemmink and Mattsson 2002). The Enterprise Engagement Alliance states that the concept of engagement aims at inspiring people over the long term, and not just changing their behavior month to month (EEA 2009b).

There are four dimensions to employee engagement (Fleming and Asplund 2007) that can be expressed as four questions that arise in every employee's mind, be it consciously or subconsciously.

1. What do I get? The employee perceives the level by which the company supports him regarding the technical needs he has in order to efficiently fulfill the job. Any employee that does not perceive real support from the organization will be frustrated and less productive.
2. What do I give? The employee perceives the measure of his value to the company as well as the importance of the job he or she does. An employee who doesn't perceive that he is carrying out an important task, meaningful for the company and for himself, will be less productive than another that feels that he is making an important contribution to the company.
3. How much do I belong? The employee perceives the level of his integration in the company's workforce environment, i.e., senses he belongs to the team and feels accepted by his peers, will not be inhibited, but rather would act normal, thus being more productive.
4. How do we develop? The employee perceives the number of personal development opportunities understanding if the job he is doing is part of a greater process that aims first at his own professional development – he must feel that the company contributes to a value

that is independent of employment at that company.

There are four dimensions to customer emotional attachment (Fleming and Asplund 2007) that frame the employee-customer engagement.

1. Trust. This dimension portrays how the client perceives the company in terms of keeping its promises every time, by offering a standardized and predictable service. For the customer the company becomes a name you can always trust. The customer knows exactly what to expect from the organization's employees and is completely fearless of unpleasant surprises. This perception is the foundation for all other emotional dimensions of the employee-customer encounter. Any variation of service from one encounter to another determines the deterioration of this foundation.
2. Integrity. This dimension shows the level by which the customer perceives the organization's standards. The management team must aim at the implementation of a system that will determine distributive, procedural and interactive fairness. If he is engaged at this level, the customer believes that if any problem arises, service provider will find a fair solution.
3. Pride. This dimension reveals the measure of respect perceived by the customer. Respected customers will be proud about the organization. Such pride will transform the customer into a promoter, thus reducing the costs of customer acquisition.
4. Passion. This facet is the supreme manifestation of feelings that a customer can have towards a company. The customer becomes the most important means for advertising the organization's services. For such a customer there could not be a world without his company and believes that the organization is perfect for people like him.

CASE STUDY: ROMANIAN SCHOOL OF MANAGEMENT

We focused our attention on an organization to which we applied a HumanSigma analysis. We will further refer to this organization under the name of "Romanian School of Management" (RSM) because it is a recently founded college that reached its tenth generation of graduates. The institution is located in North-Western Romania and it is accredited by the Romanian government as a private higher education institution. Due to its short history, the college has only 30 students in the graduate program and 85 students in the undergraduate program tailored according to the standards set by the European Union Bologna process.

RSM faculty observed that though enrollment in the undergraduate program grew by 55 percent in 2007 and by 34 percent in 2008, there were problems with student retention in the Masters program and enrollment in the Masters program dropped by 67 percent in 2009. The RSM managing staff decided to investigate the sources of low customer retention and service repurchase. Because there were no symptoms of dysfunction in the organizational culture, the faculty built traditional instruments to assess periodically student satisfaction towards the learning experience. Such traditional instruments did not reveal concluding information regarding the causes of low student retention.

The next stage in exploring the factors determining low customer loyalty was an analysis based on the HumanSigma model, elaborated by Gallup researchers. Gallup instruments such as CE11 and Q12 were applied to 71 undergraduate students and 17 faculty members. The analysis that allowed the researchers assess the level of RSM enterprise engagement showed that the apparent positive organizational culture in the context of low customer retention was the top of an ice-berg of symptoms below the (Buckingham and Coffman 2005). The research was made on the entire population of employees and clients, with

the remark that there were three types of clients: clients I – first year (freshmen), clients II – second year, and clients III – third year (senior). The results showing employee engagement is represented in the following table:

TABLE 1

Q. nr.	Engagement Dimension	Score
1	What do I get?	4.25
2	What do I get?	4.125
3	What do I Give?	4.3125
4	What do I Give?	3.625
5	What do I Give?	4.5625
6	What do I Give?	4.8125
7	Belong	4.125
8	Belong	4.6875
9	Belong	4.5625
10	Belong	4.4375
11	Develop	3.9375
12	Develop	4.25
	Average	4.307

The results showing employee engagement is represented in the following table:

The research reveals the fact that the most disengaged customers were the third year students, while the most engaged students were the first year. The highest most variation among the engagement level of students was among first year clients, and the least variation was among employees. The percentage of clients who had a mean level of engagement of more than 4.5 from the students who spent three years within RSM is almost half of the first year students, and considering the lower standard deviation we can conclude that the third year students are overall less engaged with the School than the first year students.

We calculated the HumanSigma metric using the formula (Fleming, Coffman, and Harter 2005):

The HumanSigma score we obtained from the above formula was 0.60388 (in other words, the overall engagement is at the 60.388th percentile). This result shows that the variation of engagement between the employees and the clients is quite high, and the unit is not optimized from this point of view. The study

TABLE 2

Q. nr.		Clients I	Clients II	Clients III
1	Global satisfaction	4.45	4.08	4.12
2	Repurchase	3.09	1.96	2.24
3	Referral	4.36	4.21	4.36
4	Confidence	4.45	4.17	4.28
5	Confidence	4.32	3.79	3.88
6	Integrity	4.14	4.17	4.12
7	Integrity	4.00	4.13	4.32
8	Pride	4.27	4.25	4.64
9	Pride	4.45	4.21	4.52
10	Passion	3.95	3.79	4.44
11	Passion	2.64	2.92	3.44
	Average	4.01	3.79	4.033

TABLE 3

	Had an engagement score of over 4.5	Standard deviation of mean engagement level
Employees	31.25 %	0.441
Clients I	31.81 %	0.871
Clients II	16.66 %	0.614
Clients III	16.00 %	0.499

reveals the fact that, for both students and faculty, engagement is superficial and lacks the appropriate foundation.

CONCLUSIONS

The educational experience must be managed as a service encounter, engaging the human capital of the higher education organization, not fighting the human nature, but using it to strategically align the management of customers and employees. Customer wellbeing, career development and impact in the society, depends partly on the quality provided within the educational service encounter between faculty and students.

The analysis of RSM engagement provides the faculty important information that can be used in order to further develop student loyalty and retention. This approach to understanding and managing student and faculty experience within the educational service encounter will provide the faculty an insight on the key issues that must be developed in order that student loyalty will be enhanced.

Customers that benefited from three years of RSM educational services are less engaged than those who are in the first year of service. This information reveals the fact that during the three years of service, students have been disengaged due to service errors that affected the four dimensions of customer engagement within the educational encounter (faculty-students).

We recommend further research to be done at RSM in order to assess the specific factors that

lead to the current customer disengagement. Such a detailed research is the necessary foundation for elaborating the appropriate intervention measures that would improve customer engagement as well as the HumanSigma score.

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CULTURAL DIVERSITY AS AN ELEMENT OF THE UNIVERSITY CAMPUS ENVIRONMENT: DOES IT MATTER TO TODAY'S STUDENTS?

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The authors empirically investigated 1) student ratings of the importance of cultural diversity as an element of the campus environment as part of their educational experience at the university level, using a sample of students enrolled in a culturally diverse university, and 2) differences in student ratings of the importance of cultural diversity by ethnicity and other demographic characteristics. ANOVA procedures showed significant cultural differences in student rankings. Also, administrative and/or managerial implications are presented.

INTRODUCTION

Consider the following numbers:

239,746,000	244,995,000	302,626,000
38,343,000	40,454,000	61,361,000
13,160,000	14,241,000	33,430,000
44,321,000	47,756,000	102,560,000

In and of themselves, these numbers have little meaning. But if we reflect on the source of the numbers, the U.S. Census Bureau, we can begin to sense that they represent something of importance to this country and to the world. And if indeed those numbers are related to the population of the United States, it would seem that we – as marketers and marketing educators – would be well advised to pay attention to and understand them. This manuscript presents an empirical study designed to help marketing educators and university administrators deepen their understanding of the importance of these numbers.

As shown in Table 1, the numbers cited above represent U.S. government projections of the population of the United States in the years

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2006, 2010 and 2050. Those projections show that the overall population of this country, as well as the ethnic diversity of the U.S., is expected to grow dramatically during the next forty years. For example, by the year 2050, it is projected that over 100 million people claiming Hispanic origin and more than 60 million Blacks will reside in this country. In addition, experts predict that, by that same time, nearly 35 million people with Asian origins will live in the United States. In short, the current U.S. population includes significant ethnic diversity and that diversity is predicted to grow rapidly in the coming years.

The population projections and the diversity estimates within that population are also representative of the make-up of the student body on college and university campuses across the United States. NCES statistics indicate that college enrollments in the U.S. reached a record 17.6 million students in 2006 and that enrollment is expected to increase by another 13 percent between 2006 and 2015 (National Center for Education Statistics 2006). The proportion of American college students who are minorities has also been increasing. Between 1976 and 2004, the percentage of total undergraduate students claiming minority status increased from 17 percent to 32 percent. During

TABLE 1
Projected Population of the United States by Race and Hispanic Origin

Race	Population Projections by Year		
	2006	2010	2050
White	239,746,000	244,995,000	302,626,000
Black	38,343,000	40,454,000	61,361,000
Asian	13,160,000	14,241,000	33,430,000
Hispanic	44,321,000	47,756,000	102,560,000

Source: U.S. Census Bureau, 2004, "U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin."

that time span, the proportion of Asian or Pacific Islander students rose from 1 percent to 6 percent, the proportion of Hispanic students rose from 4 percent to 10 percent, and the proportion of Black students rose from 9 percent to 13 percent (National Center for Education Statistics 2006). Also, by 1980, the percentage of females enrolled as undergraduates surpassed the percentage of males enrolled as undergraduates (National Center for Education Statistics 2007).

The population statistics reported by the U.S. Census Bureau and the minority college enrollment numbers reported by the National Center for Education Statistics provided the impetus for this study. Specifically, the work reported here was designed to answer two broad research questions: 1) Do university students feel that cultural diversity on campus is an important component of their educational experience, and 2) Does ethnicity (as well as other demographic characteristics) influence university students' ratings of the importance of cultural diversity on campus?

Ancis, et al. (2000) found that student perceptions of the cultural climate on their campus varied by race/ethnicity. The goal of this research is to extend our understanding of campus cultural diversity to include whether and to what extent such diversity matters to students, and how that varies by race and/or ethnicity. The remainder of this manuscript presents the methodology used in the study, the

findings of the research, and administrative implications.

THE STUDY

This study employed the survey research method. Participants were asked to complete a paper-and-pencil questionnaire that included a series of six statements designed to assess student perceptions of the importance of cultural diversity as part of the university environment. The items were written into seven point Likert scales with endpoints of (1) strongly disagree and (7) strongly agree.

The six item "Importance of Cultural Diversity in the Education Environment Scale" or, simply, the ICDEE, was originally developed and evaluated by Amyx and Bristow (2006). The ICDEE was developed following the guidelines for scale development as proposed by Churchill (1979), with the overall construct of cultural diversity defined as *the representation, in one social system, of people with distinctly different group affiliations of cultural significance* (Cox 1994). The psychometric properties of the ICDEE were generally very good, yielding a one-factor scale and coefficient alpha of .885 for the six item scale. However, the sample of 339 students used in that study was overwhelmingly Caucasian, thus limiting the authors' ability to examine ethnic differences in student perceptions of the importance of cultural diversity on their campus.

In the present study, the ICDEE and several other demographic questions were included as part of a questionnaire that was distributed during regularly scheduled class sessions at a large, culturally diverse, west coast university in the United States. Student participation in the study was voluntary. All participants were asked to sign a consent form and were provided with completion instructions for completing the questionnaire.

A total of 480 students participated in the study, with 436 of those students providing complete and useable questionnaires. The student participants were enrolled in a variety of sophomore through senior business courses at the AACSB accredited institution. As seen in Table 2, the sample was quite ethnically diverse, with nearly 75 percent of participants indicating minority status (47.2 percent Asian/Pacific Islander, 19.8 percent Hispanic, 6.8 percent Other, 0.6 percent Black, and 0.4 percent American Indian). In addition, 17.9 percent of participants identified themselves as Caucasian. Unfortunately, so few students identified themselves as either Black or American Indian that it was not feasible to include those groups in the analysis. Consequently, four ethnic/racial groups were studied: Asian/Pacific Islander, Hispanic, Caucasian and Other.

In addition, 91.5 percent of the participants were between 18 and 27 years of age, and 70.9 percent were traditional aged college students between 18 and 23. The sample was split approximately evenly by gender. Finally, 54.3 percent of participants held part-time jobs and 12.8 percent held full-time jobs while attending school.

RESULTS

The research was designed to provide information pertaining to two broad questions: 1) How important, if at all, is campus cultural diversity to college/university students?, and 2) How much difference, if any, is there in the importance of cultural diversity by student ethnic subgroups and/or other demographic

variables?. Student responses to the following items comprising the ICDEE were analyzed in order to investigate student ratings of the importance of cultural diversity as part of their educational environment:

The following statements relate to your feelings about the importance of cultural diversity as a part of your learning environment at this university. If you strongly disagree with a statement, circle the number "1" on the scale below. If you strongly agree with a statement, circle the number "7." Use the intervening numbers to indicate intermediate levels of disagreement or agreement.

For me to learn effectively, I must have cultural diversity among students on campus.

For me to learn effectively, I must have cultural activities and programs available to me.

For me to learn effectively, I must have faculty and staff who are culturally sensitive to me.

For me to learn effectively, I must have harmony with students from different cultures.

For me to learn effectively, I must have other students who are culturally sensitive to me.

For me to learn effectively, I must have a cultural environment that allows me to express myself as an individual.

The authors created a Cultural Diversity Importance (CDI) index by summing each student's responses to the six items in the ICDEE and then dividing that summed score by six. CDI index scores could range from a possible low of "1" to a possible high of "7".

TABLE 2
Demographic Profile of Participants*

Demographic Variable	N	%	
Gender	Female	220	46.8%
	Male	244	51.9%
Ethnicity	American Indian	2	.4%
	Aisan/Pacific Islander	222	47.2%
	Black	3	.6%
	Caucasian	84	17.9%
	Hispanic	93	19.8%
	Other	32	6.8%
Job Status	no job	149	31.7%
	part-time job	255	54.3%
	full-time job	60	12.8%
Voting	Eligible and Did Vote	207	44.0%
	Eligible and Did Not Vote	155	33.0%
	Not eligible to vote	100	21.3%
Age	18-22	333	70.9%
	23-27	97	20.6%
	28-32	21	4.5%
	33-37	6	1.3%
	Over 38	6	1.3%

*Note: Due to non-response on some items, totals and category responses may differ.

Scale Properties

As it had in its initial assessment, the ICDEE yielded excellent psychometric properties in this application, as shown in Table 3. Overall, Cronbach's alpha for this study was an exceptional .895, with all six items contributing to that result (see "Alpha if Scale Item Deleted" in Table 3). In addition, a common factors analysis yielded a single factor solution explaining and 65.6 percent of total variance, with eigenvalue of 3.938.

Ethnic/Racial Comparison

ANOVA procedures showed significant differences in the way in which the four included ethnic groups rated the importance of cultural diversity on their university campus. As presented in Table 4, Caucasian students

tended to rate cultural diversity on campus as being significantly less important than did any of the minority ethnic group students. Specifically, the Mean Cultural Diversity Importance (hereafter, M-CDI) score among Caucasian students was 3.99, compared to 4.86 for Asian/Pacific Islander students ($p < .01$), 4.90 for Hispanic students ($p < .01$), and 4.67 for Other students ($p = .02$). There were not significant differences in M-CDI scores among the three students groups with ethnic minority status.

Gender Comparison

The authors were also interested in possible gender differences in terms of the importance of campus cultural diversity to students. The analyses revealed that female participants considered cultural diversity to be more

TABLE 3
Psychometric Assessment of the ICDEE

Scale Item	Factor Loading	Scale Item Mean	Scale Item Std. Dev.	Scale Item-to-Total Correlation	Alpha if Scale Item Deleted
1	.789	4.36	1.77	.696	.880
2	.785	4.02	1.65	.695	.879
3	.837	4.65	1.66	.748	.871
4	.778	5.21	1.55	.673	.882
5	.860	4.55	1.60	.779	.866
6	.808	5.16	1.60	.713	.876

TABLE 4
Student Rankings of the Importance of Cultural Diversity on Campus ANOVA Results: The Effect of Ethnicity

CDI Index Mean				Source	SS	df	MS	F*	p
Asian/ Pacific Islander	Caucasian	Hispanic	Other						
4.86 *(p < .01)	3.99*	4.90 *(p < .01)	4.67 *(p = .02)	Between	51.21	3	17.07	10.47	< .01
				Within	685.21	420	1.63		
				Total	736.42	423			

important (M-CDI = 4.69) than did their male counterparts (M-CDI = 4.32). The observed difference was statistically significant, but only at the p = .06 level.

Work Status Comparison

Participants in the study were also asked to indicate whether, in addition to going to school, they were employed on a part-time or full-time basis or if they did not work in addition to attending school. ANOVA procedures revealed that students who were not employed while attending college considered cultural diversity as part of the learning environment to be significantly (p = .03) more important (M-

CDI = 4.84) than did students who held full-time (40 or more hours per week) jobs while attending school (M-CDI = 4.40).

Civic Participation Comparison

Finally, the authors were interested in what relationship, if any, might exist between student ratings of the importance of cultural diversity and their level of civic participation, as measured by their voting status in the most recent US Presidential election. In order to empirically test this relationship, students were asked the following question:

Did you vote in the “most recent” United States Presidential election?

- I am eligible to vote and yes, I did vote*
- I am eligible to vote, but no, I did not vote*
- I am not eligible to vote*

ANOVA procedures showed that student participants who were not eligible to vote in this election rated cultural diversity to be a significantly ($p = .01$) more important component of their educational environment (M-CDI = 4.98) than did students who were eligible to vote and did indeed vote (M-CDI = 4.58) and students who were eligible to vote but did not vote (M-CDI = 4.58).

ADMINISTRATIVE IMPLICATIONS

Several interesting conclusions and attendant implications for college and university officials can be gleaned from the findings of this study, which examined student perceptions regarding the importance of diversity on campus. Overall, students in the study regard campus diversity as at least moderately important. Even Caucasian students yielded a mean CDI score of 3.99, virtually at the midpoint of the scale which ranged from 1 = strongly disagree and 7 = strongly agree with six statements assessing student opinions about the importance of diversity on their campus. Even these students, with backgrounds largely in the dominant Caucasian culture, did not disagree strongly that cultural activities should be available to them personally, that there must be harmony on campus between students from different cultures, and so on.

Perhaps not totally unexpected, the findings also showed that ethnic/racial minority students were significantly more of the opinion that campus diversity is important. This was so for Hispanics (M-CDI = 4.90), Asian/Pacific Islanders (M-CDI = 4.86), and Others (M-CDI = 4.67), each mean between one-half and one full scale point higher than that among Caucasian students. On average, all three groups' responses lay to the "agree" side on such issues as having faculty, staff and other students who are culturally sensitive to them personally, having a campus environment that

allows the student to express himself or herself as an individual, and so on.

At many colleges and universities, officials have actively recruited among ethnic and racial minority groups for some time now. And, statistics cited earlier strongly point to the fact that minorities continue to account for an increasing percentage of the college student population nationwide. That change has resulted in at least two key advances. First, of course, increasing numbers of minority students have had access to the personal growth and professional preparation afforded by a college or university education. Second, the resulting diversity among a school's student body has provided for the possibility of a richer, more stimulating environment for the entire campus community, a fact that has been recognized and validated by the students in this study.

However, just recruiting minority students to campus is insufficient. For example, Love (2009) suggests that minority students in general, and African-American students in particular, wish to be on a campus that offers and inclusive academic body and one that works to promote diversity and student success. In other words, the next real challenge for administrators who succeed in creating a diverse student body is to provide an environment where cross-cultural interaction can flourish, lest the campus community is left with nothing more than a shifting demographic profile. This second task, after recruitment has succeeded, can be just as difficult, if not more so. Anecdotally, any stroll through a campus student union tends to verify that, if left to their own volition, students tend to seek the company of those most similar, a variation on the old adage "birds of a feather ...". So, it becomes again the task of those in charge to nudge, nurture and, if needed, shove, students in the direction of cross-cultural interaction.

Creative minds in university offices across the country have designed a myriad of methods to accomplish this task. Much can be done through student life, using judicious roommate selection processes and, when it comes time,

careful re-configuration of public areas in dormitories during renovations. Meal plans, menu plans and floor plans in dining areas both in the dormitories and student unions can either encourage or discourage student interaction; the former will accomplish more than the latter. Student organizations can help enormously, through cross-cultural recruiting efforts as well as through programmatic efforts. At one authors' school, for example, numerous international student groups host special nights showcasing their countries' cultures, traditions and cuisines.

Faculty, both collectively and individually, can also provide learning environments that encourage students to engage one another in the school's academic setting in ways that stimulate cross-cultural learning. Ethnic and/or racial minorities can be used in an official or unofficial capacity in furthering the school's diversity education. Formal programs, housed within general education, offered as a certificate program, or comprising majors and minors can and have been devised. Individual faculty can employ methods to encourage (even, to assure) cultural cross-learning during class discussions, planned or impromptu break-out sessions, or when constructing groups and teams for project work. Even tasks as simple as ice-breaking exercises at the beginning of the term that go beyond the typical "tell us who you are and what your major is" can help begin to bring a diverse student body together. In addition, Colbert (2010) cautions that faculty need be mindful of their own cultural background and that their cultural biases might influence how they interact with students.

So, in order to truly succeed, university plans and programs to increase campus diversity must be more than a sheer numbers game; students in this study certainly opine that cultural diversity must be inculcated throughout the fabric of the campus, from the President's Office to the Maintenance Department, from the Faculty Senate to the Student Union, from the classroom to the lunchroom.

It is also interesting that male students are generally less concerned about the importance of campus cultural diversity than are female students, that students who work full-time are less concerned than those who do not work, and that those eligible to vote are less concerned than those not eligible. As to gender, women students, part and parcel of another protected class with a long and inglorious history enduring bias and discrimination, likely might better emphasize with the need for diversity of all sorts on their college and university campuses, including cultural diversity. And, we tend to forget how recent it has been that female students have been welcomed into certain areas of academia. One of the author's can recall in the mid-70s it being very easy to memorize women students' names in his business classes – there were never more than one or two such names in a class of forty; now it's always within a rounding error of a fifty/fifty split.

The results with respect to voting behavior, in the end, have been difficult to sort out. There are several reasons for voting ineligibility, including residency, age and citizenship. Not knowing why a student was ineligible to vote makes it difficult to sort out why ineligible voters feel more strongly about the importance of cultural diversity than eligible voters, but it remains that they do. (This might be one fruitful area for further investigation.) What is more intriguing is the lack of a difference in perception between eligible voters who did versus did not vote. Evidently, civic participation, as measured by this single and somewhat weak indicator, is not closely tied with student feelings about the importance of campus diversity.

Finally, Amyx and Bristow (2006) show how the ICDEE can be adapted, with minor wording changes, to assess student satisfaction with (as opposed to their attitudes about the importance of) cultural diversity on their own campus. Hart, et. al (2009) found that Hispanics, Non-Hispanic Caucasians and African-American students exhibited significantly different overall levels of satisfaction with their university, so

similar differences might be expected with respect to satisfaction with the level of cultural diversity on campus.

Using the ICDEE as an assessment tool for student satisfaction, college and university administrators charged with enhancing the school's cultural diversity and/or interactions and mutual, shared learning across diverse groups of students, can make these changes and utilize the scale first to establish a benchmark of student satisfaction and, later, as a periodic institutional progress check. We agree with Amyx and Bristow's (2006, p. 56) conclusion that the ICDEE is a "versatile, easily adapted instrument with which university administrators can readily assess student perceptions of the institution and compare perceptions across segments of the college/university student population."

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MANAGING ACADEMIC ADVISING SERVICES QUALITY: UNDERSTANDING AND MEETING NEEDS AND EXPECTATIONS OF DIFFERENT STUDENT SEGMENTS

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As universities are under increasing pressure to raise student retention and six-year graduation rates, improving quality of academic advising services has become increasingly important to universities as quality academic advising services can increase student retention rates and six-year graduation rates. While the gaps model of service quality suggests that it is critical to understand the students' needs for and expectations of academic advising services in order for higher education institutions to provide quality academic advising services, the changing demographics of contemporary college students also bring changing needs for and expectations of academic advising services of students. This article examines the needs for and expectations of academic advising services by diverse groups of contemporary college students in a comprehensive, urban, commuter university setting. The two focus group interviews and a survey study reported in this article found several significant differences in both needs and expectations between traditional college students and non-traditional students, particularly for first-generation students. Implications of the findings for design and delivery of academic advising services are discussed from a service quality management perspective.

INTRODUCTION

Along with direct mail, viewbooks, website, financial aid package, and campus visits, effective academic advising is a critical tool in the higher education institutions' marketing mix. Especially, effective academic advising serves to build long-term, satisfactory relationships with an institution's key customers – their students. Effective academic advising services can alleviate students' stress associated with course selection and registration processes and significantly contribute to a student's academic success and the institution's success. Studies show that quality of academic advising services is a key determinant of students' GPA, satisfaction as a student, perceived value of a college education for future employment, intent to leave the university, and the public's perception of the institution (Abernathy and Engelland 2001; Bahr 2008; Metzner 1989). Hence, higher

education institutions have long recognized the strategic importance of academic advising services (Metzner 1989; Wilder 1982).

Moreover, the strategic importance of academic advising services to institutions has been growing, as the government, parents and accrediting bodies have increasingly demanded that individual schools be held accountable for student outcomes. Government and other stakeholders of higher education institutions are pressuring institutions to become more accountable, more efficient, and more productive in the use of publicly generated resources (Alexander 2000). For example, the Bill and Melinda Gates Foundation and the Lumina Foundation for Education announced that they were funding a project to create a national voluntary accountability system for community colleges designed to develop a common set of metrics and data points to evaluate colleges' effectiveness in achieving their specific missions, both internally and against one another (Holtz 2009).

One way that accountability of an institution has been measured was by the percentage of students who graduate with a bachelor's degree in six years or less. These numbers are traditionally reasonably high for full-time students at residential four-year colleges and universities. However, regional commuter colleges and universities that serve a high proportion of first-generation, working, and commuting students, have typically not fared well under such metrics, and they need to implement changes to improve student retention and graduation rates. Effective academic advising ensures that students take appropriate coursework at the appropriate time and helps students graduate in a timely manner. The resulting higher graduation rate can then be used as a marketing and recruiting tool for future generations of students. It can also be used to reassure parents who fear their child becoming a life-long student. To this end, many regional commuter colleges and universities are seeking to establish a highly responsive and consistent advising system to improve student success. For instance, the university where this study was conducted is implementing a software package that allows students to self-monitor their progress toward a degree in a secure online environment, standardizing advisors' job descriptions and evaluation methods, and creating a university-wide drop-in advising center.

CHANGING NEEDS FOR AND EXPECTATIONS OF ACADEMIC ADVISING SERVICES

Establishing a responsive and consistent advising system should begin with understanding students' needs for and expectations of academic advising services. The gaps model of service quality stipulates that providing high quality services requires understanding clients' needs for and expectations of the services, designing effective service processes and infrastructure to meet those needs, measuring the quality of delivered services against the expectations, and implementing actions to continuously close any identified gaps (Parasuraman, Zeithaml and

Berry 1985; Zeithaml, Berry and Parasuraman 1988). The gaps model of service quality has been widely adopted in the assessment of higher education institutions (Abernathy and Engelland 2001; Koch and Fisher 1998). Hence, the SERVQUAL scale, which measures service quality by measuring the gap between customer expectations and the perceived quality of delivered services, has also been widely used by higher education institutions to measure quality of education and advising services (Abernathy and Engelland 2001; Engelland, Workman and Singh 2000; Quinn, Lemay, Larsen and Johnson 2009).

In that sense, understanding students' needs for and expectations of academic advising services is the most imperative step in improving quality of academic advising services. Particularly, the changing demographics of today's college students make it even more critical for higher education institutions to reassess the diverse and changing students' needs for and expectations of academic advising services regularly. Motivated by financial needs, many students transfer from one university to another, work part-time during the school year, live in their original family home, and travel long distances to study (McClaren 2004), making it important to help them keep their workloads and class schedules manageable in order for them to achieve academic success (Hollis 2009).

In addition, the increase in the number of first-generation and adult students on campuses makes it imperative for higher education institutions to better serve these students' needs which often include remediation and developmental support (Giancola, Munz and Trares 2008; Hollis 2009). Moreover, fast growth in the international student population has brought concomitant adjustment issues for international students such as loneliness, homesickness, language difficulty, discrimination, financial problems, and confusion stemming from the dissimilarities in the educational systems in their home countries and in the United States, and the roles of

professional advisors (Charles and Stewart 1991).

FOCUS GROUP INTERVIEWS

To understand contemporary college students' needs for and expectations of academic advising services better, two focus group interviews were conducted with the students enrolled at a comprehensive, urban, commuter university located in the Midwest region. As a comprehensive, urban, commuter school, the university where the study was conducted has a student population that is representative of the "new" college student demographics. Many of the students at the university are transfer students, are first-generation college students, work thirty or more hours per week, and have families or other obligations.

Sample and Procedure

Twenty-two undergraduate students majoring in business at an urban commuter university located in the Midwest region participated in two semi-structured focus group interviews. One focus group session was conducted in the evening of a weekday to field opinions of the non-traditional, working student population and the other session was conducted in the morning of a weekday to field opinions of the traditional full-time student population. A half of the participants identified themselves as transfer students, three students identified themselves as international students, and three students identified themselves as adult students.

In each focus group session, the participants discussed their overall satisfaction with the quality of advising services provided by the school, critical incidents or encounters with academic advisors that were particularly satisfying or dissatisfying, reasons to seek academic advising services, and the expectations they have when they meet with their advisors. The moderator of the focus group study introduced each topic in order, and allowed the participants to discuss each topic for ten to 15 minutes. The participants' verbal comments and non-verbal responses were

recorded on video tapes. The moderator also took notes of some key non-verbal responses during the sessions and transcribed participants' verbal comments later. Each session lasted approximately 80 minutes. Content analysis of the transcribed participants' comments revealed the following themes with regard to students' needs for and expectations of academic advising services.

Overall Satisfaction and Critical Incidents

The participants expressed a wide range of satisfaction levels with the current academic advising services regardless of with which specific advisor they were interacting. This indicates that the variations in students' satisfaction with the academic advising services may be due to the different needs and expectations each student may have with regard to academic advising services rather than the variations in the quality of advising services provided by individual advisors. The participants indicated that the flexibility and availability for appointments is one of the main reasons for their satisfaction. The participants mentioned that their advisors' timely responses to their appointment requests and being ready at the times of the appointments were also important. The participants seem to be particularly happy with spontaneous email reminders to set up appointments sent by some advisors before registration periods. In addition, the participants also liked the print outs of "bingo sheets," forms, or other information the advisors handed to them.

On the other hand, the participants indicated high level of frustration with the academic advisors' lack of knowledge of upper level courses and the curriculum structures. For instance, a few transfer students complained that their advisors did not know the equivalency of the courses and had been told to register for a course only to find out that the course contents are exactly same as what they have already taken at their previous schools. Other participants also indicated that the advisors do not seem to have enough knowledge of upper level courses and were unable to help students

choose business elective courses that fit their majors or career goals. Some also indicated that advisors gave them wrong advice because the advisors were not aware of the changes to course prerequisites or degree requirements. Further discussion revealed that the participants' dissatisfaction is exacerbated by the students' expectations that the advisors would have expert knowledge of the courses and the curriculum because the advisors are specialized in advising management students only.

The academic advisors' unwillingness to help students emerged as another common theme. Several participants indicated that their advisors are simply unwilling to share some information with the students unless students specifically inquire about them. Many participants also indicated that their academic advisors were not willing to do extra research when they do not have immediate answers to students' questions. In such cases, students expect the advisors to research the issue or ask another person to find the answers while students are there. However, the participants indicated that they were often told to research the issue on their own or go see another person instead. Lack of walk-in counseling was also mentioned with regard to advisors' unwillingness to help. Several participants indicated frustration with being told to make an appointment and come back for simple issues (e.g., verifying prerequisites, overriding registration priority, and checking course equivalency) that they expect to take less than a minute to address, particularly when the advisors were not counseling another student. Working adult students whose work schedules and family constraints make it difficult for them to come to campus on an additional day found this problem especially troublesome. Finally, a couple of participants reported the incidents where the student's personal paperwork was misplaced or the student's registration record was completely deleted from the computer system and indicated that such inaccurate maintenance of students' records lead to highly emotional and extremely unsatisfactory experiences.

Needs for and Expectations of Academic Advising Services

The participants identified class scheduling, early registration, course credit transfers, and consultation for scholarship or internship opportunities as the main reasons why they seek academic advising services. However, the participants generally agreed that, beyond their first year, they did not feel strong needs to meet with academic advisors regularly or frequently. Many participants believe that, once they were given their plans of study or the "bingo sheet," it is their own responsibility to make sure they take all the required courses and find appropriate elective courses to complete their graduation requirements.

The majority of the participants acknowledged their own responsibilities in the academic advising process and indicated that they do not expect the advisors to do everything for them. However, for a few areas where they expect their academic advisors to help them, the participants indicated that their expectations are quite high because of the university's brand name, relatively small size of the student body academic advisors serve, and the advisors' specialization in the management curriculum. For example, the participants indicated that they expect the academic advisors to know about the courses beyond the course descriptions in the catalog such as required assignments, overall work load, and the relevance of the course to particular degree programs offered by the School of Management.

In addition, the participants also expect the academic advisors to be able to provide comprehensive advices on students' plans of study by integrating scholarships, study abroad opportunities, and career and internship opportunities, in addition to course information. In addition, the participants expect advisors' undivided attention to their problems at least during their 15 minute appointments, and do not expect to be left unattended because the advisors were counseling another students over the phone. Lastly, the participants expect the

advisors to put more effort in finding solutions for students' problems before they send students to do their own research or to talk to someone else. A few participants indicated that, as independent adults, students seek help from academic advisors only when they could not find the necessary information or figure out solutions after their own research, and thus, they expect truly meaningful help from the advisors when they see their advisors. Finally, while a majority of the participants disagreed, some participants expect the advisors to be able to advise students on personality or strictness of the faculty members who teach courses.

another seven-point scale anchored by "worse than expected (-3)" and "better than expected (3)." The mid-point (0) of this scale was labeled "exactly as expected." Student's perception of overall quality of academic advising services they currently receive was also measured on a seven-point scale anchored by "very low (1)" and "very high (7)." The questionnaire also collected participants' demographic information. In a five-day data collection period, 471 students provided usable responses to the survey. Table 1 summarizes the demographics of the 471 participants.

SURVEY STUDY

Sample and Procedure

To investigate the issues identified in the two focus group interviews further, a survey study was conducted. A team of trained field workers intercepted undergraduate students at various campus locations of a comprehensive, urban, commuter university, and asked students to fill out a two-page long questionnaire. In the questionnaire, participants rated the importance of 38 attributes of academic advising services that were developed based on original SERVQUAL attributes and the findings of the two focus group interviews described earlier. The importance of each attribute was measured on a seven-point scale anchored by "very unimportant (1)" and "very important (7)." The participants also evaluated the quality of academic advising services provided by the university with regard to each attribute on

Stated Importance of Academic Advising Service Attributes

The participants rated all 38 attributes to be quite important, the importance ratings ranging from 5.12 to 6.41. The mean importance rating of the 38 attributes was 6.02 and the median importance rating was 6.13. However, a repeated measures ANOVA revealed that the 38 attributes were not equally important to students (*Wilks' Lambda* = .53; *F* = 10.08, *p* = .000). Consistent with the findings from the focus groups interviews that the main reasons for students to see academic advisors are to class schedules and early class registration, advisors' knowledge of degree requirements (*M* = 6.41, *S.D.* = 1.16), course prerequisites (*M* = 6.33, *S.D.* = 1.20), and curriculum changes (*M* = 6.33, *S.D.* = 1.19) were among the more important attributes. Protecting confidentiality (*M* = 6.31, *S.D.* = 1.24) and privacy (*M* = 6.29, *S.D.* = 1.22), as well as maintaining error-free students records (*M* = 6.27, *S.D.* = 1.27), were

TABLE 1
Sample Demographics

Full-time	87.4%	Freshmen	10.2%	Education	6.8%	Male	46.8%
Part-time	12.6%	Sophomore	16.4%	Technology	6.8%	Female	53.2%
First-generation	12.1%	Junior	27.9%	Management	48.1%		
Transfer	6.2%	Senior	45.5%	Liberal Arts and	23.0%	Commuter	96.2%
International	3.8%			Social Sciences		Resident	3.8%
		Working	80.0%	Nursing	3.8%		
		Work 30+hrs	43.4%	Engineering	11.5%		

also among the ten most important attributes, supporting the notion that violation of these expectations would lead to dissatisfaction. Advisor’s willingness to help ($M = 6.36, S.D. = 1.18$), understanding students’ needs ($M = 6.29, S.D. = 1.18$), having students’ best interest at heart ($M = 6.28, S.D. = 1.17$), and providing services as promised ($M = 6.28, S.D. = 1.22$) were also among the more important attributes.

On the other hand, some attributes that led to particularly satisfactory or dissatisfactory experiences in the two focus group interviews turned out to be relatively less important in the survey. Proactive and spontaneous actions by advisors such as sending reminders of upcoming events and deadlines ($M = 6.00, S.D. = 1.36$), contacting other parties on behalf of students ($M = 5.66, S.D. = 1.51$), keeping notes of conversations with students ($M = 5.41, S.D. = 1.22$), or providing walk-in counseling services ($M = 5.71, S.D. = 1.44$) were among those attributes. This finding indicates that

these actions may not be a part of students’ scripts of a typical academic advising encounter, but rather are unexpected spontaneous actions that evoke intense responses by students. Advisors’ knowledge of non-course issues such as scholarships ($M = 5.99, S.D. = 1.44$), internships or career ($M = 5.87, S.D. = 1.50$), and study abroad opportunities ($M = 5.12, S.D. = 1.83$) were also rated relatively less important by the survey participants. This could be because non-registration issues are handled by separate staff at the university where the survey was conducted. Tangibles related to academic advising services such as easy to navigate ($M = 5.68, S.D. = 1.49$) or informative advising websites ($M = 5.67, S.D. = 1.44$), reliable registration system ($M = 5.91, S.D. = 1.48$), visually appealing materials, and neat and professional appearance of advisors ($M = 5.49, S.D. = 1.68$) were among the less important attributes.

TABLE 2
Ten Most Important Academic Advising Service Attributes by Student Segments

Traditional Students (<i>n</i> = 374)	Mean (S.D.)	Transfer Students (<i>n</i> = 29)	Mean (S.D.)	1 st -Gen. Students (<i>n</i> = 57)	Mean (S.D.)	International Students (<i>n</i> = 18)	Mean (S.D.)
knowledge of re-quirements	6.40 (1.19)	knowledge of re-quirements	6.79 (.62)	confidentiality of records	6.68 (.63)	neat professional ap-pearance	6.06 (1.39)
willingness to help	6.32 (1.22)	knowledge of cur-riculum changes	6.79 (.56)	providing service as promised	6.65 (.61)	ease of making ap-pointment	6.00 (.91)
knowledge of pre-requisites	6.32 (1.23)	willingness to help	6.72 (.53)	willingness to help	6.63 (.88)	creating long-term plan of study	6.00 (1.03)
knowledge of cur-riculum changes	6.30 (1.22)	knowledge of pre-requisites	6.72 (.53)	protecting privacy	6.58 (.78)	knowledge of scholar-ships	5.94 (1.55)
understand needs	6.28 (1.20)	easy to follow bingo sheet	6.72 (.59)	knowledge of re-quirements	6.58 (.71)	visually appealing materials	5.89 (1.23)
protecting privacy	6.28 (1.23)	maintaining error free records	6.72 (.65)	giving individual attention	6.58 (.82)	knowledge of upper level courses	5.89 (1.53)
confidentiality of records	6.26 (1.27)	providing service as promised	6.69 (.71)	having students’ best interest at heart	6.53 (.83)	readiness to respond to students’ requests	5.89 (1.60)
maintaining error free records	6.25 (1.29)	having students’ best interest at heart	6.66 (.55)	knowledge of cur-riculum changes	6.51 (.87)	willingness to help	5.89 (1.53)
providing service as promised	6.25 (1.25)	providing services at promised time	6.66 (.55)	providing services right the first time	6.49 (.91)	providing walk-in counseling	5.83 (1.72)
having students’ best interest at heart	6.24 (1.24)	creating long-term plan of study	6.66 (.90)	knowledge of prereq-uisites	6.47 (.95)	knowledge of curricu-lum changes	5.83 (1.76)

Differences in Attribute Importance across Student Segments

The literature and the results of the two focus group interviews suggest that non-traditional students such as transfer students, first-generation students, and international students may have different needs for academic advising services compared to traditional domestic students. A series of independent samples t-tests revealed that the relative importance of the academic advising service attributes indeed vary across different groups of students.

For example, as shown in Table 2, “easy to follow bingo sheet” and “crating long-term plan of study” were among the ten most important attributes to transfer students while confidentiality or privacy of students’ records were not among them. Likewise, “giving individual attention” was a uniquely important attribute to first-generation students. In addition, international students seem to have very distinctive priorities for academic advising services attributes from the other groups of students, although the number of international students who responded to the survey was small ($n = 18$) and the difference needs to be examined further. From Table 2, it also appears that transfer students and first-generation students rated importance of academic advising service attributes higher than traditional students did while international students’ ratings are lower than overall ratings.

To examine the possible differences in importance of academic advising service attributes across different groups of students further, a series of independent-samples t-tests were conducted. First, a series of independent samples t-tests on attribute importance ratings between transfer students and non-transfer students revealed that transfer students rated 16 out of 38 attributes significantly more important than non-transfer students did at 95 percent confidence level. Table 3 lists the means and t-test statistics for the 16 attributes. This finding indicates that transfer students have stronger need for academic advising services in general compared to non-transfer students.

Next, a series of independent samples t-tests on attribute importance ratings between first-generation students and non-first-generation students revealed that first-generation students rated eight of the 38 attributes significantly more important than non-first-generation students did. Table 4 lists the means and t-test statistics for the eight attributes. The list of eight attributes suggests that first-generation students considered advisors’ responsive and empathetic attitudes in dealing with students more important compared to non-first-generation students. Since first-generation students may not have other family members who might guide them through college experiences, it is understandable that they have stronger need for more attentive and responsive academic advising services. However, any significant difference in attribute importance rating was found neither between international students and domestic students nor between working students and non-working students. Additionally, the attribute importance ratings were not correlated to how many hours the working students work per week either. However, the failure to find significant differences between international and domestic students may be largely due to the small sample size of international students ($n = 18$), and a follow-up study including more data from international students would be necessary.

In addition, to examine if some academic advising attributes become more or less important as students progress toward completion of a degree, an ANOVA was conducted on the attribute importance ratings using students’ standing toward completion of degree. The results indicated that the importance of advisors’ knowledge of study abroad programs differs across students in different standing toward completion of degree ($F(3,465) = 4.05; p = .007$). Post-hoc tests based on LSD procedure revealed that the importance rating of advisors’ knowledge of study abroad programs by senior students ($M = 4.83, S.D. = 1.84$) was significantly lower than sophomore students’ ($M = 5.58, S.D. = 1.70; p = .002$) and junior students’ ($M = 5.32, S.D. = 1.82; p = .015$). However, importance ratings of

TABLE 3
Academic Advising Attributes That Are More Important to Transfer Students

Attribute	Student	Mean	S.D.	t	df ⁺	Sig.
reliable registration system/software	non-transfer	5.86	1.50	-4.17	38.91	.000**
	transfer	6.62	0.90			
contacting others on students' behalf	non-transfer	5.61	1.53	-3.90	38.61	.000**
	transfer	6.34	0.94			
easy to follow bingo sheet	non-transfer	6.14	1.39	-4.55	51.45	.000**
	transfer	6.72	0.59			
informing students of upcoming events or deadlines	non-transfer	5.97	1.39	-3.63	42.31	.001**
	transfer	6.52	0.74			
creating long-term plan of study for students	non-transfer	6.11	1.28	-3.07	35.94	.004**
	transfer	6.66	0.90			
treating students in caring fashion	non-transfer	6.02	1.33	-2.13	468.00	.034 ⁺
	transfer	6.55	0.83			
knowledge of curriculum changes	non-transfer	6.30	1.22	-4.18	47.77	.000**
	transfer	6.79	0.56			
maintaining error free records	non-transfer	6.24	1.30	-3.56	44.43	.001**
	transfer	6.72	0.65			
providing services at promised time	non-transfer	6.17	1.31	-4.00	52.10	.000**
	transfer	6.66	0.55			
prompt services	non-transfer	6.07	1.28	-3.04	38.62	.004**
	transfer	6.55	0.78			
prompt email/phone responses	non-transfer	6.11	1.24	-3.91	48.09	.000**
	transfer	6.59	0.57			
knowledge of upper level courses	non-transfer	6.14	1.25	-2.97	39.54	.005**
	transfer	6.59	0.73			
providing service as promised	non-transfer	6.26	1.24	-3.00	40.10	.005**
	transfer	6.69	0.71			
knowledge of prerequisites	non-transfer	6.31	1.22	-3.65	50.85	.001**
	transfer	6.72	0.53			
knowledge of requirements	non-transfer	6.38	1.18	-3.19	42.86	.003**
	transfer	6.79	0.62			
having students' best interest at heart	non-transfer	6.26	1.20	-3.40	47.82	.001**
	transfer	6.66	0.55			
willingness to help	non-transfer	6.34	1.21	-3.41	50.09	.001 ⁺
	transfer	6.72	0.53			
providing services right the first time	non-transfer	6.22	1.24	-2.25	36.86	.031 ⁺
	transfer	6.59	0.82			

⁺ adjusted for inequalities of variances.

* significant at .05 level.

** significant at .01 level.

TABLE 4
Academic Advising Attributes That Are More Important to First-Generation Students

Attribute	Student	Mean	S.D.	t	df ⁺	Sig.
confidentiality of records	non-first-generation	6.25	1.30	-4.10	133.83	.000**
	first-generation	6.68	0.63			
knowledge of equivalence for transfers	non-first-generation	6.00	1.57	-2.92	107.03	.004**
	first-generation	6.42	0.92			
providing service as promised	non-first-generation	6.23	1.27	-4.08	135.54	.000**
	first-generation	6.65	0.61			
giving students individual attention	non-first-generation	6.16	1.29	-3.29	98.50	.001**
	first-generation	6.58	0.82			
protecting privacy	non-first-generation	6.25	1.26	-2.76	102.35	.007**
	first-generation	6.58	0.78			
willingness to help	non-first-generation	6.32	1.21	-2.36	88.22	.021*
	first-generation	6.63	0.88			
prompt email/phone responses	non-first-generation	6.11	1.26	-2.38	96.84	.019*
	first-generation	6.40	0.82			
having students' best interest at heart	non-first-generation	6.25	1.21	-2.25	93.15	.027*
	first-generation	6.53	0.83			

⁺ adjusted for inequalities of variances.

* significant at .05 level.

** significant at .01 level.

no other attributes differed across students in different standings. This result indicates that students' needs for academic advising services remain unchanged over the entire courses of their studies for the most parts even though the focus group interview participants stated that once they get their plan of study (or bingo sheet) they did not feel much need for further academic advising services.

Evaluations of Academic Advising Service Attribute Performances

While analyses of students' stated needs and importance of various academic advising service attributes help understanding students' needs for academic advising services, it should be noted that stated needs do not always

represent the true needs or priorities of attributes accurately. Moreover, even if they provide accurate understanding of students' needs, it is also important to understand where service gaps may exist and how big the gaps are to improve the overall quality of academic advising services. Therefore, students' evaluations of the 38 academic advising service attributes were analyzed.

Overall, participants' evaluations of the academic advising services attribute performance ranged from zero (for providing walk-in counseling) to .75 (for protecting confidentiality of students' records), indicating that the academic advising service performances are at least at expected level. A series of one- sample t-tests using zero

(representing performance at “exactly expected level”) as test value revealed that the participants evaluated the performance of the academic advising staff to be significantly above their expectations with regard to all but five attributes of informative website, informing upcoming students of events or deadlines, keeping notes of conversations with students, knowledge of scholarships, and providing walk-in counseling. In addition, analyses of Pearson correlation coefficients between students’ performance evaluations of each of the 38 attributes and their overall service quality rating showed that evaluations of all attributes performances were positively and significantly correlated with students’ overall service quality ratings at 95 percent confidence level. However, the performance evaluations of the attributes that represent academic advisors’ responsive and empathetic attitudes - willingness to help ($r = .63$), treating students in caring fashion ($r = .61$), readiness to respond to students’ requests ($r = .61$), giving individual attention ($r = .60$), and having students’ best interest at heart ($r = .60$) - were most highly correlated with students’ overall service quality perceptions.

Differences in Performance Evaluations across Student Segments

Compared to generally positive performance evaluations by the whole sample, a few differences in attribute performance evaluations across different students segments were found. For example, transfer students’ academic advising services performance evaluations were not significantly different from zero except for the two attributes of confidentiality of students’ records ($M = .79$, $S.D. = 1.37$; $t(27) = 3.03$, $p = .005$) and protecting students’ privacy ($M = .61$, $S.D. = 1.42$; $t(27) = 2.26$; $p = .032$). However, a series of independent samples t-tests revealed that transfer students’ performance evaluations were not significantly different from non-transfer students’ for all attributes but walk-in counseling. Transfer students’ evaluation of walk-in counseling ($M = -.61$, $S.D. = 1.99$) was significantly more

negative ($t(1,461) = 1.98$, $p = .048$) than that of non-transfer students ($M = .04$, $S.D. = 1.66$).

First-generation students’ academic advising service performance evaluations were even lower, ranging from $-.74$ (for creating long-term plan of study for students) to $.29$ (for protecting students’ privacy). None of their performance evaluations was significantly greater than zero while their evaluations of 16 attributes were significantly below zero. Table 5 lists the mean evaluations and one sample t-test statistics for the 16 attributes that were negatively evaluated by first-generation students. A series of independent samples t-test also showed that first-generation students’ evaluations were significantly more unfavorable than those of non-first-generation students for all attributes but for walk-in counseling and knowledge of study abroad programs. These results indicate that first-generation students have higher expectations and standards for academic advising services than those of non-first-generation students.

In contrast, international students’ performance evaluations for the 38 attributes were positive, ranging from $.61$ (contacting others on behalf of students) to 1.72 (keeping confidentiality of students’ record). International students’ performance evaluations were significantly greater than zero for 24 of the 38 attributes and they were also significantly more positive than those of domestic students for 16 attributes. Combined with relatively low stated importance ratings for academic advising attributes, these results indicate that international students may have low expectations and weak needs for academic advising services and are more lenient in evaluating academic advising services quality, though the results are inconclusive due to the small sample size of international students. This may be because most of the international students who participated in this survey came from eastern cultures - China and India - where students tend to be less critical of their advisors and faculty compared to western cultures. Alternatively, international students who chose to study abroad and have been admitted to

TABLE 5
Academic Advising Attributes Performing Below First-generation Students' Expectations

One Sample T-test						One Sample T-test					
Test Value = 0						Test Value = 0					
Attribute	Mean	S.D.	t	df	Sig.	Attribute	Mean	S.D.	t	df	Sig.
creating long-term plan of study for students	-0.74	1.45	-3.85	56	.000**	informing upcoming events or deadlines	-0.49	1.38	-2.69	56	.009**
readiness to respond to students' requests	-0.61	1.39	-3.35	56	.001**	knowledge of upper level courses	-0.47	1.65	-2.17	56	.034*
keeping notes of conversations with students	-0.60	1.43	-3.16	56	.003**	instilling confidence into students	-0.47	1.47	-2.44	56	.018*
informative website	-0.60	1.24	-3.64	56	.001**	ease of making appointment	-0.47	1.40	-2.55	56	.014*
knowledge of scholarships	-0.57	1.41	-3.03	55	.004**	treating students in caring fashion	-0.42	1.29	-2.45	56	.017*
understand students' needs	-0.56	1.41	-3.00	56	.004**	giving students individual attention	-0.40	1.50	-2.03	56	.047*
knowledge of equivalence for transfers	-0.54	1.32	-3.10	56	.003**	providing services right the first time	-0.40	1.31	-2.33	56	.023*
having students' best interest at heart	-0.53	1.44	-2.76	56	.008**	helping students balance course loads with life issues	-0.40	1.28	-2.38	56	.021*

* significant at .05 level.

** significant at .01 level.

foreign institutions may be more self-motivated and independent than others and rely less on advisors' guidance in pursuing their academic goals.

Working students' academic advising services evaluations were similar to overall evaluations, ranging from -.05 (walk-in counseling) to .69 (keeping confidentiality of students' record). However, a series of independent samples t-tests revealed that working students' evaluations of academic advising services attributes were not significantly different from those by non-working students for 23 attributes but were significantly lower than those of non-working students for 15 attributes. Table 6 lists the 15 attributes. These results indicate that working students have higher expectations and standards for academic advising services than those of non-working students.

Similarly, an ANOVA of attribute performance evaluations using students' standings toward completion of studies revealed significant differences for only two attributes of advisors' knowledge of internship or career opportunities

($F(3,458) = 2.97; p = .032$) and informing students of upcoming events or deadlines ($F(3,460) = 3.05; p = .028$). Post-hoc tests based on LSD procedure revealed that evaluation of advisors' knowledge of internship or career opportunities by senior students ($M = -.06, S.D. = 1.47$) was significantly lower than sophomore students' ($M = .41, S.D. = 1.35; p = .016$) and junior students' ($M = .28, S.D. = 1.43; p = .035$). This result indicate that students' expectations for this attribute of academic advising services become higher as students progress toward completion of their studies. Likewise, post-hoc tests based on LSD procedure revealed that evaluation of informing students of upcoming events or deadlines by senior students ($M = -.06, S.D. = 1.63$) was significantly lower than sophomore students' ($M = .44, S.D. = 1.45; p = .019$) and freshmen students' ($M = .52, S.D. = 1.37; p = .022$). This result seems to suggest that such proactive actions by advisors are most appreciated by less seasoned students but such actions lose their importance as students become more familiar with the registration processes and deadlines.

TABLE 6
Working Students' Performance Evaluations of Academic Advising Attribute

Attribute	Student	Mean	S.D.	t	df ⁺	Sig.
giving students individual attention	non-working	0.66	1.46	2.49	462	.013 **
	working	0.21	1.57			
providing service as promised	non-working	0.66	1.45	2.09	462	.037 **
	working	0.29	1.54			
readiness to respond to students' requests	non-working	0.62	1.63	2.38	133.98	.019 **
	working	0.18	1.51			
having students' best interest at heart	non-working	0.60	1.54	2.09	463	.037 **
	working	0.23	1.55			
understand students' needs	non-working	0.63	1.62	2.40	462	.017 **
	working	0.20	1.54			
keeping confidentiality of students' records	non-working	1.01	1.46	1.98	460	.048 *
	working	0.69	1.39			
protecting students' privacy	non-working	1.00	1.47	2.26	462	.025 **
	working	0.63	1.41			
contacting others on students' behalf	non-working	0.43	1.28	1.97	462	.049 **
	working	0.11	1.43			
knowledge of study abroad programs	non-working	0.38	1.26	2.16	461	.032 **
	working	0.06	1.28			
willingness to help	non-working	0.68	1.61	2.23	462	.026 **
	working	0.27	1.62			
creating long-term plan of study for students	non-working	0.45	1.61	1.98	462	.048 **
	working	0.08	1.65			
treating students in caring fashion	non-working	0.77	1.58	2.69	461	.007 **
	working	0.29	1.54			
ease of making appointment	non-working	0.68	1.55	2.03	462	.043 **
	working	0.31	1.58			
knowledge of equivalence for transfers	non-working	0.59	1.42	2.56	461	.011 **
	working	0.14	1.51			
helping students balance course loads with life issues	non-working	0.52	1.49	2.14	462	.033 **
	working	0.14	1.55			

⁺ adjusted for inequalities of variances.

* significant at .05 level.

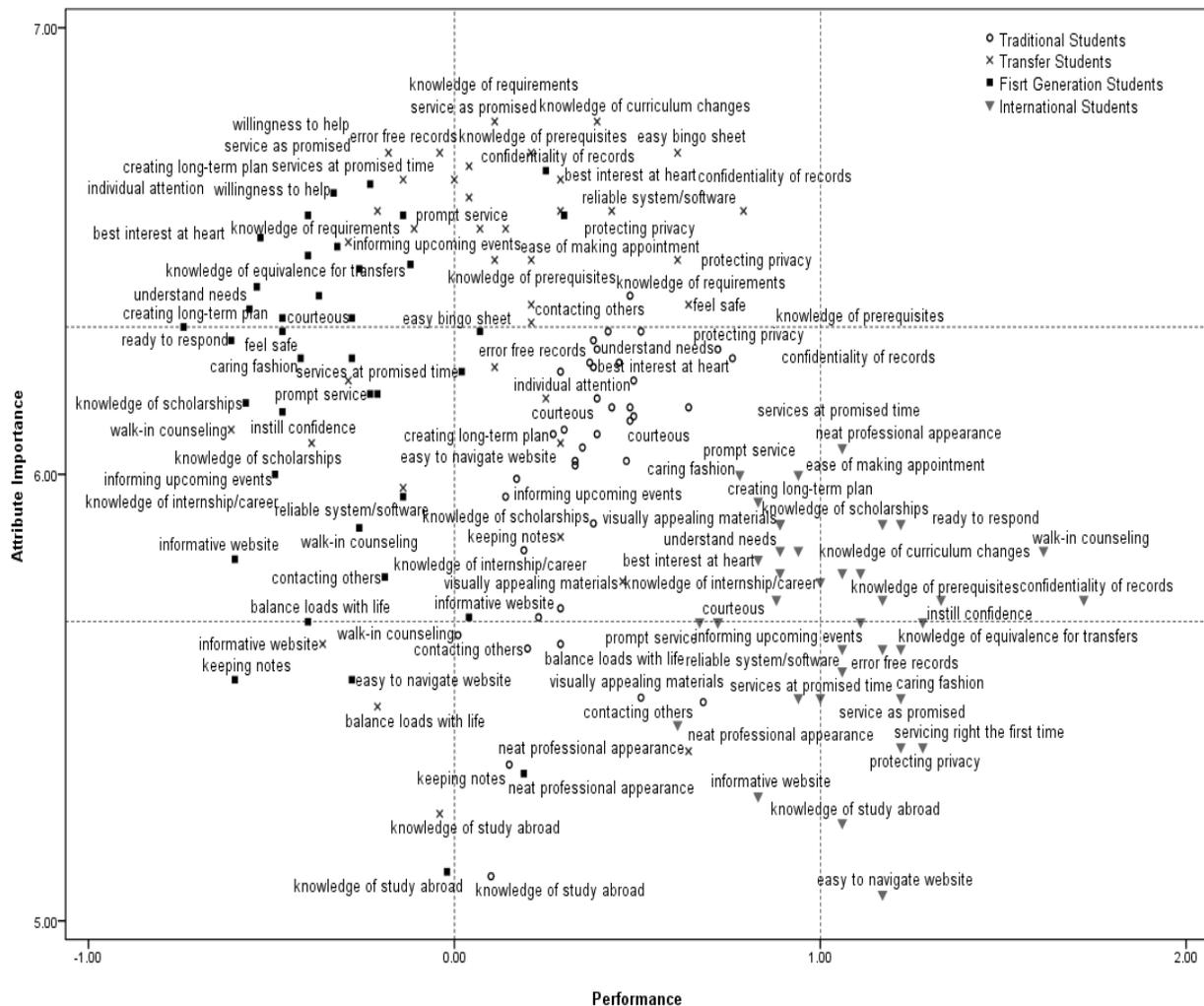
** significant at .01 level.

GENERAL DISCUSSION

Through two focus group interviews and a survey of students at an urban, comprehensive, regional, commuter university, this article attempted to uncover diverse groups of contemporary college students' needs for and expectations of academic advising services. In sum, the results show that first-generation students and transfer students have stronger needs for and higher expectations of several aspects of academic advising services compared to typical college students. In

addition, the results indicate that international students may have different needs and expectations of academic advising services compared to domestic students, although this result is inconclusive due to small sample size of international student survey participants. The Importance-Performance Grid in Figure 1 summarizes the findings and provide useful insights into which aspects of academic advising services must be emphasized and improved to serve different groups of students more effectively.

FIGURE 1
Academic Advising Services Attribute Importance-Performance Grid by Students Segments



Implications for Academic Advising Service Quality Improvements

Based on the findings from the two focus group interviews and a survey study, some interesting implications stand out. First, students’ quality perceptions of academic advising services as well as their expectations appeared to vary widely among different groups of students. One fix for the heterogeneity of students’ academic advising service expectations would be to communicate what students can expect and what not to expect from their academic advisors to students and correct some unrealistic expectations students might have (i.e.,

expecting advisors to comment on faculty members’ personalities or grading). Such communication of clear and realistic expectations of academic advising services can be reinforced through freshman orientations classes or brochures, using academic advising website, signs posted in the advising reception area, and perhaps through materials handed out at each advising session.

At the same time, students’ needs for and expectations of academic advising services should be clearly communicated to academic advisors through their job descriptions and training programs. In doing so, it is critical to

recognize the differences in needs for and expectations of academic advising services between different groups of students as the studies reported in this article demonstrated them. Like any other service providers who deal with diverse customers with different needs and expectations, academic advisors and universities must adopt a differentiated service approaches in which different versions of service blueprints and scripts are developed for different segments of customers, students, with each segment's best interests at heart and with their service priorities in mind. Universities must make ongoing training and professional development of academic advising staff a key part of their strategic initiatives. Such training should not simply focus on mechanical aspects of training, but rather on the changes in expectations of new generations of students and of different segments of students.

Another critical implication of the findings is the importance of focus on the core areas of academic advising services - helping students register for the right courses and finish their study successfully in a timely fashion. All across the board, students indicated that advisors' knowledge of course and registration issues (e.g., course pre-requisites, degree requirements, and curriculum changes) to be the most important attributes of academic advising services. In light of curriculum and degree requirements changes many higher education institutions are undergoing to accommodate the increasing demand for more active learning courses such as experiential learning and service learning courses, this finding emphasizes the importance of clear and seamless communication between faculty and academic advising staff regarding those changes.

In addition, the findings highlight the needs for training programs and performance evaluation systems that nurture and reinforce customer-oriented service culture among the academic advisors. The participants in both focus group interviews and the survey study consistently indicated that academic advisors' willingness to help and readiness to respond to their requests

are keys to quality academic advising services. While the participants indicated that students naturally grow accustomed to conducting many of their routine transactions (e.g., registration and bill paying) on their own beyond their first years, they also indicated that their needs for academic advising services remain strong throughout their durations of study. This suggests that students who seek academic advisors' guidance beyond their first years are likely to come expecting academic advisors' help with what they could not do themselves. Participants clearly stated that they expect advisors to put more effort into finding solutions to problems rather than just pointing students to places where they might find solutions. Some advisors may feel that they are teaching students to be independent and self-reliant problem solvers, but such intent appears to fall flat in an era where students are providing much of the "service" themselves. The expectations advisors have of their own positions may not yet have caught up with the students' needs and expectations. As frontline service employees' own service models shape their customer orientation, competence, and behaviors (Di Mascio 2010), an explicit job description and evaluation system that cultivate academic advisors to view advising services as the acts of formulating relationships with students through problem solving with responsiveness and empathy will significantly improve the quality of their advising services.

The finding that performance evaluations of all attributes were significantly correlated with students' overall academic advising quality ratings indicate that all aspects of academic advising services can be used to improve students' experiences with academic advising services, even if they may be rated to be relatively less important by students. For example, the findings indicate that academic advisors can enhance students' perceptions of academic advising services quality by making sure that each student walks away from each advising session with some tangibles (e.g., their "bingo" sheet or a printout of the requirements for different minors) in hand. This is in line with the findings that effective use of tangibles

can enhance quality perceptions of intangible services, like academic advising service, that relies on providers' knowledge and expertise (Bitner 1993). At one point, in service as an advisor, one of the authors not only provided copies of "bingo" sheets to students, but highlighted the bingo sheets with multiple colors to show which classes to take in which of the remaining semesters. This simple act provided significant guidance and reassurance to the students.

The data presented in this paper also makes a strong case for having professional advisors assisting students rather than having faculty advisors. The diverse needs and high expectations different types of students have for academic advising services indicate the complexity of advising tasks and the need for high level of dedication to advising tasks by advisors. While advising and interacting with students is a minor and often neglected part of a faculty member's role at many universities, professional advisors are specifically trained and evaluated on the attributes identified in this article. In this sense, professional advisors will be more consistent in their application of university rules, knowledgeable of the curriculum and degree requirements, and dedicated to students. Consequently, professional advisors will be able to help students navigate their way to graduation more effectively, although faculty advisors can be very useful in mentoring students and in providing specific career guidance.

Increasing the quality of academic advising services and students' perception of it is also important to administrators and to the strategic missions of higher education institutions. Accrediting bodies and government are increasingly looking at six-year graduation rates as a measure of quality of higher education institutions (Scott, Bailey and Kienzl 2006), wishing to hold colleges and universities accountable for their use of public funds, particularly in the form of federal financial aid. Given the external stakeholders' focus on increase six-year graduation rates, improving quality of academic advising services can be a

very effective and cost-efficient way to increase student retention rate and lower the number of years to graduate. Strategically designed academic advising services focusing on helping students with course selection and plans of study toward graduation will help students sidestep errors that may delay their graduations, and, thus, improve an institution's position in external stakeholders' minds. In addition, a better advising experience as students will also help to build loyalty for the school ensuring a long-term relationship with alumni, which is a critical resource for higher education institutions.

The importance of clear and accurate communication between advising staff, faculty members, administrators, and students also emerges as an important implication from this study. Faculty and administrators must be scrupulously vigilant about communicating curriculum changes to advisors so that students are provided with the most accurate information. This sharing will enhance teamwork between faculty and advisors and ensure greater adherence to plans of study. Such transparency will also reduce situations in which advising errors, because of misinformation, delay or prevent a student's graduation. Another area of communication that is important is keeping students informed of their academic progress. With increasing pressure on universities to raise six-year graduation rates, this is one way to keep students on track. The university at which the authors work recently implemented an academic advising software program that enables students have real-time access to their academic record in a format that makes it clear what courses they still need to complete. Once students have easy "self-service" access to this information and routine transactions, academic advisors can dedicate their time and effort to help students with more complex or urgent problems.

Limitations and Future Research Questions

Since this study was conducted at a single regional commuter university, it is unclear

whether the identified need for and expectations of academic advising services are comparable to those of the students at traditional universities. Therefore, conducting another study at a traditional university would be helpful to see whether the need for and expectations of academic advising services of commuter university students are comparable to those of traditional college students.

In addition, the number of international students participated in the survey study was too small (n=18), making it impossible to draw any conclusively meaningful inferences about the differences between international and domestic students' needs for and expectations of academic advising services. However, the distinctive pattern of attribute importance ratings and performance evaluations displayed by international students participated in the survey suggests that a follow-up study with more international students would be necessary and fruitful.

Finally, it would be interesting to see if importance and expectations of an academic advising service attribute changes depending on the past performance of the advising staff on the attribute. For example, as Maslow's need hierarchy theory suggests, an attribute may become more important for a future service encounter if students perceive particularly poor performance on the attribute, or an attribute may become less important for a future service encounter if students perceive positive performance on the attribute. Likewise, previous experiences with advising service staff may affect students' expectations of future performances. A longitudinal research that explores the dynamic relationships between past service performance, attribute importance, and service expectations over the courses of students' duration of studies would be interesting.

CONCLUSION

Universities have become much more sophisticated marketers over the last 20 years, particularly as they seek to recruit students in

an increasingly more competitive higher education marketplace. As the government and accreditors are continuing to pressure universities to demonstrate effectiveness and accountability, academic advising is becoming a more critical tool in the higher education institutions' marketing arsenal. Effective academic advising can serve as a differentiator in prospective students' decision making stage and it can significantly aid universities to improve student retention rate and graduation rate by ensuring that students take the right courses at the right time. Finally, by helping students feel confident and cared for, effective academic advising can have the long-lasting effect of fostering positive and loyal relationships between students and universities. Advancement offices at universities can draw upon such relationships in subsequent years for their public relations and other marketing activities.

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