ACADEMY OF MARKETING STUDIES JOURNAL

L. Jean Harrison-Walker
Editor
University of Houston-Clear Lake

All authors must execute a publication permission agreement taking sole responsibility for the information in the manuscript. The DreamCatchers Group, LLC is not responsible for the content of any individual manuscripts. Any omissions or errors are the sole responsibility of the individual authors.

EDITORIAL BOARD MEMBERS

ACADEMY OF MARKETING STUDIES JOURNAL

TABLE OF CONTENTS
FOR VOLUME 11, NUMBER 1

LETTER FROM THE EDITOR

The *Academy of Marketing Studies Journal* is owned and published by the DreamCatchers Group, LLC. The Editorial Board and the Editors are appointed by the Allied Academies, Inc., a non profit association of scholars whose purpose is to encourage and support the advancement and exchange of knowledge, understanding and teaching throughout the world. The *AMSJ* is a principal vehicle for achieving the objectives of the organization. The editorial mission of this journal is to publish empirical and theoretical manuscripts which advance the discipline. We look forward to a long and successful career in publishing articles which will be of value to the many marketing scholars around the world.

The articles contained in this volume have been double blind refereed. The acceptance rate for manuscripts in this issue, 25%, conforms to our editorial policies.

Our editorial policy is to foster a supportive, mentoring effort on the part of the referees which will result in encouraging and supporting writers. We welcome different viewpoints because in differences we find learning; in differences we develop understanding; in differences we gain knowledge and in differences we develop the discipline into a more comprehensive, less esoteric, and dynamic metier.

The Editorial Policy, background and history of the organization, and calls for conferences are published on our web site. In addition, we keep the web site updated with the latest activities of the organization. Please visit our site and know that we welcome hearing from you at any time.

L. Jean Harrison-Walker
University of Houston-Clear Lake

www.alliedacademies.org

DETERMINATION OF BRAND LOYALTY FACTORS AGE GROUP-18-24

R.K.Srivastava, University of Mumbai

ABSTRACT

This paper reports the results of a study of factors determining brand loyalty within the 18-24 age groups. This paper reports the results of a study of brand selection and loyalty within in 150 members of the 18–24 age groups. The study explores brand loyalty behavior across different product categories, and investigates the dimensions that drive loyalty behavior within this age group. First, the construct of brand loyalty is defined, followed by an overview of key research in the area. Finally, the study itself is detailed. The study concludes that there is a significant difference in the degree of brand loyalty exhibited by the 18–24-year-old respondents across product categories. The dimensions of brand selection also vary by product type.

Brand Loyalty in terms of quality, novelty and reputation influence was evident in coffee and toothpaste purchase, with brand as a reflection of self-image being something that is important to mobile handset brands.

INTRODUCTION

The topic of Brand Loyalty holds great interest for market researchers, marketing managers and marketing academics. Brand Loyalty is a key issue for many marketing managers, and companies spend millions each year tracking brand loyalty levels through market research organizations. This interest in brand loyalty is also reflected in the academic literature, where loyalty has also been referred to a commitment and retention. Loyalty is an important concept in strategic marketing.

A base of loyal customers allows marketers to charge a premium price and to reduce the cost of doing business through decreasing acquisition and promotion costs, thus increasing shareholders value and hence profitability (Bennett & Rundle-Thiele, 2005). It has been suggested that it takes a lot less money to increase the retention if current customers than to find new ones (Wood, 2001). Fred Reichheld, formerly with Bain Consulting, defined loyalty in the Harvard Business review, as "the willingness of someone – a customer, an employee, a friend – to make an investment or a personal sacrifice in order to strengthen relationship". Loyalty, therefore, is a big deal – taking lots of thought, planning and consideration on the part of the marketers.

From a firm's perspective, a successful brand enables it to maintain a high level of consumer acceptance, often in the face of considerable competition. In addition, brand loyalty can:

- Provide a solid foundation for new product launch and for licensing
- Offset a decline in market share during price and promotional wars
- Help provide resistance to competitive attacks (Kamakura & Russell, 1991)

Aaker, 1991) wrote, "The brand loyalty of the customer base is often the core of a brand's equity. If customers are indifferent to the brand and, in fact, buy with respect to features, price, there is likely little equity

From the customer's perspective, a brand provides a visible representation of difference between products. Brands allow consumers to shop with confidence in an increasingly complex world. A brand can signify product quality as well as aid consumers in differentiating the product from competitive offerings.

A brand that consumers trust will also serve to reduce perceived risk and post-purchase cognitive dissonance.Modeling of price elasticity effects also demonstrate the importance of loyalty (Guadagni & Little, 1983; Starr & Rubinson, 1978). More loyal consumers, as measured by probability of purchase or "share of requirements" from past purchase panel data, are less likely to switch due to a given price inducement; as a corollary a loyal buyer usually needs a bigger discount to switch than would a less loyal buyer (Baldinger & Rubinson, 1996)

Marketers must understand what brand loyalty is, bearing in mind that brand loyalty will be different for each brand managed. Research suggests that customers can demonstrate loyalty by purchasing, by being willing to recommend, and by providing advice to the company, and finally, customers could demonstrate brand loyalty through an intention to repurchase.

Thus, brand loyalty is a complex construct and it should not be assumed that behavioral loyalty involves feelings or positive cognitive processes as antecedents, brand attitude may be one possible determinant of loyal behavior, but there are others such as distribution, market concentration and promotional activity supporting a brand. A loyal buyer usually needs a bigger discount to switch than would a less loyal buyer (Baldinger & Rubinson, 1996). Clearly, it is important for brand owners to understand the variables that underpin the construct of loyalty and, in particular, loyalty behavior for their brands.

PROBLEMS AND ISSUES

Customer loyalty presents a paradox. Many see it as primarily an attitude-based phenomenon that can be influenced significantly by customer relationship management initiatives such as the increasingly popular loyalty and affinity programmes. However, studies show that loyalty in competitive repeat-purchase markets is shaped more by the passive acceptance of brands than by strongly held attitudes about them.

From this perspective, the demand-enhancing potential on loyalty is more limited than might be hoped. Generally, we say a person is brand loyal when he or she buys the same brand over and over, in spite of there being reasonably substitutable choices.But some argue this isn't necessarily

brand loyalty. Although it is tempting to define loyalty as simply repurchase, marketers often have little power over the variables and constraints directly controlling how customers pass through the purchase environment (Hess & Story, 2005).

It may be that the product brand is the only one available to the consumer, such as in a monopoly market place situation or, it may be simply consumer inertia: repetitive consumer behavior and the path of least resistance or, it may be that brand loyalty is more the result of indifference than choice: if all brand have the same basic ingredients, cost about the same, and perform at the same level, it really doesn't matter which brand the consumer buy – they get the same benefits.

Today most critical issue faced by the marketing managers is of declining brand loyalty. Research has shown that, today, solely loyal customers rarely make up more than 20% of the total customers buying. More importantly, research has shown that solely loyal customers buy less when compared to customers who are multi-brand loyal, and the number to solely loyal customers diminishes over time. Today, most customers include several brands in their preferred brand set. Research has cited that Brand loyalty doesn't exist for many products and services, and is declining for those who have a modicum of it, because the marketing organization and the brands are not loyal to the customers.

Marketers want customers to be brand loyal – but marketers commonly fail to be loyal to their customers (Schultz, 2005). Brand Loyalty has declined for three main reasons:

1. *Increasingly, people seek variety and like to try new brands and products; boredom thresholds have fallen and consumer like to break out of same old routines – and this has had a negative impact on loyalty.*

2. *Quality levels of products have risen to a standard where they no longer clearly differentiate the competing brands within the category. Consumer risk in switching brands is considerably lower today as the quality of substitute brands is no longer a concern.*

3. *Many brands still position themselves on the basis of quality and risk reduction, which does not resonate with modern consumers. Brands have different meanings for modern consumers compared with consumers of bygone eras.* (Bennett & Rundle-Thiele, 2005).

OBJECTIVE OF THE STUDY

Each of the studies in the following section seeks to identify consumer characteristics, purchasing attitudes and/or behavior that go some way to explaining brand loyalty. The study that

is the focus of this paper seeks to identify the factors that determine brand loyalty across three-product category (Toothpaste, Coffee, and Mobile handsets). It explores brand loyalty and brand purchasing behavior in the 18–24 age groups. The rationale for this and the specific research objectives that the work addresses are outlined in detail below.

The broad basis for the investigation is that, while the 18–24 age group is widely identified as low loyal when compared with other age groups, it should not be assumed that the group is low loyal per s**e**. Additionally research has shown that loyalty may vary depending on product category. The issue of loyalty in younger consumers and the degree to which this is dependent on product category led to the first objective of the study presented in this paper:

Objective 1:   To measure brand loyalty among 18–24 year olds across six products categories.

The aim was to see how brand loyal 18–24 year olds (the group previously identified as low loyal) are, and whether or not there was a difference in loyalty by product type. Past research has also shown that brand loyalty is complex and probably multi-dimensional.
As such, an additional contribution may be achieved by investigating a specific group in more depth. In this study (the methodology of which is outlined below), it was considered that if loyalty can vary by age group then the drivers of purchasing behavior also may be very specific. This led to the second objective of the study:

Objective 2:   To identify the factors that determines brand selection in the 18–24 age groups.

Published work has indicated various contributors to brand purchasing behavior. The study explores the influence of situational factors such as price and promotions in buying behavior. It also addresses factors like novelty, emotional attachment as well as reputation of brand. Other additional drivers of purchasing behavior were highlighted by the survey piloting process and included in the investigation.

RESEARCH METHODOLOGY

The sample was selected from students in higher education within the age group of 18-24 years. However, it is not suggested that this group is entirely representative of all 18-24 year-old consumers, although they may share many common characteristics. The sample was selected from various fields like management courses, chartered accountancy courses, etc. Statistical tests were conducted using all respondents, except where there are missing cases.

The following details the methodology and results for objective 1 and 2.A total of 150 graduate degree students within the 18-24-age band completed the study, which was analyzed using

SPSS for Windows. Brand loyalties for toothpaste, coffee and mobile handsets were measured using proportion of first preferred brand out of last 5 purchases.

This approach treats brand loyalty as the degree to which the usual or favorite brand within a product category is purchased, e.g. 3 out of last 5 purchases is going to first preferred brand. The products were selected to reflect broadly those chosen by other studies looking at product-specific loyalty. Additionally, the product categories were distinct enough to identify differing degrees of brand attachment, e.g. students may be more concerned about their coffee brand than their toothpaste brand. Respondents who did not buy the product were counted as missing values.

FORMULATION OF HYPOTHESIS:

Based on the objective 1 the following Null and Alternative Hypothesis were formed

H_0: *There is no significant difference in the degree of brand loyalty exhibited across three product categories. (M1=M2=M3)*

Ha: *There is significant difference in the degree of brand loyalty exhibited across three product categories. (M1≅M2≅M3)*

The mean proportion of number of times first preferred brand was purchased out of last 5 purchases (in percentage) for each product category shown in Table 1. Analysis of variance (ANOVA) was conducted in order to identify whether or not there was any significant statistical difference, $p<0.05$, between the mean responses across three product categories. The *F* ratio indicated a significant difference in first brand loyalty.

Table 1: ANOVA - First brand loyalty by product category						
Source of Variation	SS	Df	MS	F ratio	P-value	F crit
Between Groups	7396.213333	2	3698.106667	3.966012714	0.021010966	3.057621711
Within Groups	137070.08	147	932.4495238			
Total	144466.2933	149				
ANOVA – Single Factor						

Hence we reject the null hypothesis. We can conclude that there is significant difference in the degree of brand loyalty exhibited across three product categories. The research findings suggest that there is significant difference in the degree of brand loyalty exhibited across three product categories. This is given in table 2

Table 2: First brand loyalty by product category		
Rank	Product	Mean proportion (in percentage) of number of times first preferred brand was purchased out of last 5 purchases
1	Coffee	84.40
2	Toothpaste	75.72
3	Mobile Handsets	67.20

It can be seen from Table 2 that coffee has the highest degree of first brand loyalty and mobile handsets have the lowest. These results indicate that first brand loyalty among the 18-24 age groups does differ by product type. The decision as to whether a mean figure constitutes high or low loyalty is largely arbitrary

In order to get a richer picture of brand loyalty among the 18-24 age groups, a slightly different measure was taken. Respondents were asked to rate the statement 'I make my purchase of (toothpaste, coffee, etc) according to my favorite brand regardless of price' on an interval scale anchored at each end with 'strongly agree' (valued at 5) and 'strongly disagree' (valued at 1).

A similar study conducted for GMA by the polling company(TM) showed that 76 percent of Americans in all demographic groups consider a product's brand before making a final product selection.(Grocery Manufacturers of America press release 2002)

The rank order of price insensitive brand loyalty by product type is shown in Table 3.

Table 3: Price insensitive brand loyalty		
Rank	Product	Mean
1	Coffee	4.30
2	Toothpaste	4.26
3	Mobile Handsets	3.52

Taking any means above 2.5 as high agreement and any below as low agreement, it can be seen that respondents showed price insensitive brand loyalty to *all* products. As no means were towards the upper end of the scale, however, it should be considered that no category brands had a very high degree of price insensitivity.

The *F* ratio indicates a significant difference at the $p < 0.05$ levels in the degree of price insensitive brand loyalty cross three categories.

Table 4: ANOVA - Price insensitive brand loyalty						
Source of Variation	SS	df	MS	F ratio	P-value	F crit
Between Groups	19.29333333	2	9.646666667	8.721156212	0.000263528	3.057621711
Within Groups	162.6	147	1.106122449			
Total	181.8933333	149				
ANOVA – Single Factor						

Respondents showed a significantly higher degree of price insensitive brand loyalty to coffee than mobile handsets. From both Table 1 and 2 it is evident that there is a significant statistical difference in the degree of brand loyalty exhibited across product categories.

Objective 2:   To identify the factors that determines brand selection in the 18–24 age groups.

Having identified that brand loyalty and price sensitivity differ significantly by product category, it was important to explore the factors that determines brand-purchasing behavior within the age group under study. This was achieved using a two-step process; the first applying ANOVA and the second applying factor analysis.

Six statements (derived from the brand literatures and piloting process, Kim-Shyan Fam, David S. Waller (2004), *Hsiu-Yuan Tsao, Li-Wei Chen,(2005)* Jenni Romaniuk, Svetlana bogomolova**,**(2005), Gordon Fullerton,(2005),) regarding brand selection were rated by respondents according to the interval scale outlined above. Summarized (with abbreviations for further discussion), the statements were:

1.   *I make my purchase according to my favorite brand, regardless of price (loyalty)*
2.   *I like to change brands for the sake of novelty and variety (novelty)*
3.   *My choice of brand says something about me as a person (image)*
4.   *My choice of brand is influenced by promotions (promotion)*
5.   *I choose my brand because it has a good reputation (reputation)*
6.   *Quality is my primary concern when buying a brand (quality)*

ANOVA was conducted in order to assess whether or not there was any statistically significant difference between the levels of agreement with these statements, which represent variables that influence purchase. The *F* ratios indicated that there was a significant statistical difference in the responses to the statements with which respondents agreed for toothpaste brand purchase.

Table 5: ANOVA Toothpaste						
Source of Variation	**SS**	**Df**	**MS**	**F**	**P-value**	**F crit**
Between Groups	202.6566667	5	40.53133333	28.91021398	7.74228E-24	2.244703978
Within Groups	412.18	294	1.401972789			
Total	614.8366667	299				
ANOVA – Single Factor						

The means generated by ANOVA indicated the order of strongest agreement by statement for each product category. Table 6, 8 and 10 summarize the rank order of agreement with these statements across three products.

Table 6: Toothpaste (*n=150*)		
Rank	**Variable**	**Mean**
1	Quality	4.50
2	Loyalty	4.26
3	Reputation	3.62
4	Image	2.82
5	Novelty	2.46
6	Promotion	2.48

It is immediately apparent that there is a distinct break between the 'agrees' (above 2.50) and the 'disagrees' (below 2.50). This indicates a statistically significant difference between the statements with which respondents agreed and those with which they disagree. It can be seen that respondents most strongly disagreed with brand choice for the sake of 'novelty' and 'promotion' being an influence on purchase.

The strength of this disagreement may be regarded as a lack of importance of these criteria as a basis for toothpaste brand selection. There was strongest agreement that 'quality' was the basis of toothpaste brand selection (Table 6). This was significantly greater than for any other selection criterion except 'loyalty'. It should be noted that all statements with means on the 'agree' half of the scale could be regarded as having some influence on toothpaste purchase.

The factor analysis outlined later shows the relationship between these statements/ variables. It is clear from the ANOVA that no single variable drives toothpaste brand selection and this is the case for all product categories.

Table 7 shows the ANOVA for coffee purchase in order to assess whether or not there was any statistically significant difference between the levels of agreement with six variable statements.

Table 7: ANOVA - Coffee						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	109.0166667	5	38.00333333	29.64441496	2.33013E-24	2.244703978
Within Groups	3769	294	1.281972789			
Total	566.9166667	299				
ANOVA - Single Factor						

The *F* ratios indicated that there was a significant statistical difference in the responses to the statements with which respondents agreed for coffee brand purchase.

Table 8 shows the rank order of agreement with variable statements for coffee brand purchase. The statement with which respondents most strongly agreed with respect to their coffee purchase was 'quality' and agreement with this statement was significantly ($p<0.05$) greater than with any other.

Table 8: Coffee *(n= 150)*		
Rank	Variable	Mean
1	Quality	4.62
2	Loyalty	4.30
3	Reputation	3.72
4	Image	3.02
5	Promotion	2.82
6	Novelty	2.42

Additionally, the ANOVA indicates that the variables of 'reputation' and image could be regarded as having some influence on coffee purchase. Influence of promotions may be considered unimportant as drivers of coffee purchase. 'Novelty' as an influence was the statement with which respondents most strongly disagreed, so may be considered the least important driver of coffee purchase among this group. It should be noted that although 'quality' was the statement with which respondents most strongly agreed, it does not mean that on its own quality is the strongest driver of coffee brand selection. It is possible that other variables collectively may be more important, or quality, together with other variables, provides the best explanation of brand selection, as shown in the factor analysis later in this paper

Table 9 shows ANOVA for mobile handset to assess whether or not there was any statistically significant difference between the levels of agreement with variable statements.

Table 9: ANOVA mobile handsets					
Source of Variation	**SS**	**df**	**MS**	**F**	**P-value**	**F crit**
Between Groups	77.88	5	15.576	10.88764622	1.26366E-09	2.244703978
Within Groups	420.6	294	1.430612245			
Total	498.48	299				
ANOVA – Single Factor						

The *F* ratios indicated that there was a significant statistical difference in the responses to the statements with which respondents agreed for mobile handset brand purchase.

Table 10 shows the rank order of agreement with variable statements for mobile hand set brand purchase.

Table 10: Mobile Handsets *(n = 150)*		
Rank	**Variable**	**Mean**
1	quality	4.72
2	Reputation	4.02
3	Loyalty	3.52
4	Image	3.48
5	Promotion	3.30
6	Novelty	3.28

Respondents most strongly agreed with brand 'quality' and 'reputation' as being the basis of their mobile handset purchases. These statements had significantly (*p*<0.05) higher levels of agreement than any other. The influence of 'promotion' and 'novelty' may be considered unimportant as drivers of mobile handset purchase.

In all product areas there is a distinct statistical break between the statements with which respondents agreed and those with which they disagreed. Where there is no statistically significant difference in the levels of agreement between statements, there may be some underlying relationship(s). This was explored using factor analysis. It can be seen from the ANOVA that even when one variable is shown as highly influential in a product category, it does not mean that it is the sole driver of brand selection. Factor analysis groups the influences (variables) showing which collectively best explains purchase behavior.

In order to discover the main underlying factors of brand loyalty across the three product categories, factor analysis was applied. Following a principal component analysis the factors were rotated using the varimax rotation. The Eigenvalue used applied Kaiser's criterion of 1.

The factors representing the underlying factors of brand loyalty for the three product categories are shown in Table 11, 12 and 13. All product categories have more than one 'factor', indicating that there is more than one *group* of influences on brand selection. It can be seen from Table 11 that there two opposing factors of coffee brand purchase, collectively explaining 58.2 percent of the variance.

Table 11: Factors of coffee brand loyalty		
Factors	**Component 1**	**Component 2**
Loyalty	0.669	-0.466
Novelty	-0.117	0.868
Image	0.528	3.353E-02
Promotion	0.102	0.802
Reputation	0.723	0.251
Quality	0.711	0.251
% variance explained	29.658	28.553
Rotated Component Matrix		

Component 1 represents the factor '*outer directed brand loyalty*'. It is characterized by a price insensitive brand preference associated with the quality and reputation of the brand. The term 'outer directed' is based on loyalty being connected to product and brand evaluation rather than purchase being related to brand as a reflection of self-image. Component 2 represents the factors characterized by novelty and promotion.

Table 12 indicates that there are two factors of toothpaste brand loyalty that collectively explain 58.5 per cent of the variance.

Table 12: Factors of toothpaste brand loyalty		
Factors	**Component 1**	**Component 2**
Loyalty	0.468	-0.631
Novelty	0.15	0.826
Image	0.761	4.77E-02
Promotion	3.53E-02	0.553
Reputation	0.794	0.231
Quality	0.762	-0.197
% variance explained	33.885	24.668
Rotated Component Matrix		

Component 1 is characterized by image, reputation and quality being the influence in toothpaste brand purchase. Component 2 is characterized by novelty being the factor in brand selection. It is negatively associated with price insensitive brand loyalty. This may indicate that respondents are brand loyal to lower priced toothpaste brands so do not consider that their purchases are made 'regardless of price'.

There are three factors of mobile handset brand purchase (Table 13) that collectively explain 69.3 per cent of variance. Component 1 is characterized by a price insensitive brand preference. It is negatively associated with novelty being an influence for brand loyalty.

Table 13: Factors of handset brand loyalty			
Factors	**Component 1**	**Component 2**	**Component 3**
Loyalty	0.738	0.268	0.13
Novelty	-0.742	0.366	-4.10E-02
Image	0.228	0.75	-0.338
Promotion	-0.203	0.79	0.272
Reputation	2.53E-02	7.63E-03	0.893
Quality	0.462	-8.67E-03	0.602
% variance explained	23.377	23.199	22.763
Rotated Component Matrix			

Although not dominant, component 1 is clearly the major factor for mobile handset. The second factor, component 2, represents image and promotion sensitivity. This component is not associated with either brand preference regardless of price (not unexpectedly) or Novelty as an influence in brand purchase. It is very clearly an image and promotion orientation. Component 3 accounts for the lowest percentage of variance explained and represent the factor 'outer directed brand loyalty' and are characterized by quality and reputation of the brand.

RESULTS AND CONCLUSION:

Brand Loyalty is defined using the concept of habit formation, in which past consumption influences present consumption.(Faria, 2003) A base of loyal customers allows marketers to charge premium price and reduce the cost of operation Dalls'Olmo et.al (1997)Research Suggest that customer can demonstrate brand loyalty in variety ways.

Customer can demonstrate by purchasing (Nijssen, Sirdeshmukh & Holzmueller, 2003) or willing to recommend or provide advice(Gruen, 1995). More importantly, price cuts or sales promotion by themselves do not seem to have done much for brands in terms of sustaining brand loyalty. They may attract consumers in the short run: consumers may stock the brands and

consumers new to the brand may try it. But over a period of time, a brand's value may get diluted in consumers' psyche, and will eventually lose a strong base of consumers (Kumar & Sharma, 2005)

From both Tables 1 - 4 above it is evident that there is a significant statistical difference in the degree of brand loyalty exhibited by 18-24-year-old students across product categories. *This is the first such study conducted in the said age group.* The implication of this finding is that when studies explore loyalty differences between age groups, the results would be strongly influenced by the product categories chosen. Any conclusions drawn should be constrained to the product under study as not to do so would provide simplistic generalizations.

The factors of brand loyalty shown in Table 11, 12 and 13 also vary by product type. Although the differences in the dimensions across product categories are in some cases subtle ones, they are nonetheless important because they show the complexity of purchase behavior in this target group. All the product categories have loyalty behavior (whether it is price insensitive brand loyalty or loyalty based on outer-directed criteria such as the reputation of the brand) as their primary factor.

All the products had 'quality' as the statement with which respondents most strongly agreed in the ANOVA. This does not suggest that this is the single most important driver of brand purchase, but that quality is a highly important variable in brand selection of these products. It is either the primary or secondary factor for all product categories.

Product categories like coffee and toothpaste exhibited a similar profile in the factor analyses. It is clear that in the purchase of coffee and toothpaste brands, respondents indicated the underlying importance of quality and brand reputation to their loyalty. In case of mobile handsets, image was associated with price insensitive brand loyalty, quality and reputation of the brand. The importance of both branding and brand as a reflection of self-image were very specific to mobile handset in this study.

MANAGERIAL IMPLICATIONS

It can be seen that to suggest that younger consumers have low loyalty would be to miss the richness of their complexity. Opportunities in marketing also may be overlooked. The brand heritage that is evident in coffee and toothpaste purchase could be something that manufacturers might reflect in their positioning. For example, taste, as a reminder of home, might be a successful message in coffee promotion targeting this demographic group. Brand as a reflection of self-image is something that is clearly important and specific (among the products investigated) to mobile handset brands.

Again, this could be reflected in promotional activity; however, the advertising of mobile handsets might differ from that of toothpaste. With mobile handsets, creating the brand reputation as a reflection of self-image, and quality positioning, would be key to success. Although these are also important in toothpaste selection and should not be overlooked, product performance is also critical. The marketing of mobile handsets needs to reflect their relative price insensitivity compared with toothpaste. Value and variety are important attributes of coffee brand and so sales promotion

will be successful in this product category. In the longer term, however, marketers may wish to consider which brand-switching promotions will best protect their margins, so they can continue to invest in product innovation.

In spite of these study marketers need to continue to conduct qualitative research to understand in what ways customers are or could be loyal in their industry. It will not be adequate just to ask customers how they define themselves as being loyal. Rather qualitative research needs to ask customers how and why they are or are not loyal to the brand of interest. This line of questioning will assist marketers to both identify the loyal quality or states that are relevant in their industry, and to identify the drivers of the loyal qualities.

LIMITATION OF THE STUDY

While students increasingly may be a good representation of the 18-24 age group, further work need to be conducted on the non-student population to identify any differences. The study was confined to Mumbai city only. The study was conducted on a small sample size and further work needs to be done on a large sample size covering varied courses. The study was conducted on only three product categories. Research may be conducted covering variety of products showing brand purchasing behavior.

REFERENCES

Aaker, David (1991). *Managing Brand Equity*. New York, NY: The Free Press Publishing.

Baldinger, Allan L. & Rubinson, Joel (1996). *Journal of Advertising Research*, 36(6) 0021-8499, November 1.

Bennett, Rebekah & Sharyn Rundle-Thiele (2005).The brand loyalty life cycle: Implications for marketers, *Journal of Brand Management, 12*, 250-263.

Carmichael, M. (2000).Degrees of spending, *The Grocer*, 42–44.

Dam, Kim-Shyan & David S. Waller (2004). Ad Likeability and brand recall in Asia: A cross-cultural study, *Journal of Brand Management, 12*, 93-104.

Delgado-Ballester, E. & Munuera-Alema´n, J. L. (2001).Brand trust in the context of consumer loyalty, *European Journal of Marketing, 35*, 1238–1258.

Dillin, William R., Thomas J. Madden, Amna Kirmani & Soumen Mukherjee (2001). Understanding what's in a brand rating: A Model for assessing brand and attribute effects and their relationship to brand equity, *Journal of Marketing Research*, 415-429.

Faria, Joao Richardo,(2003). Optimal destruction of brand loyalty, Political economic paper 02.03,January.

Fullerton, Gordon (2005).The Impact of Brand Commitment on Loyalty to Retail Service Brands, *Canadian Journal of Administrative Sciences*, 97-110.

Gounaris, S. & Stathakopolous, V. (2004).Antecedents and consequences of brand loyalty: An empirical study, *Journal of Brand Management, 11*, 283–306.

Grocery Manufacturers of America press release June 13, 2002

Gruen,T.W(1995).The outcome set of relationship marketing in consumer markets, *International Business Review, 4*(4) ,447-469

Guadagni, P. & J. Little. (1983). A Logit Model of Coffee Choice Calibrated on Scanner Data. *Marketing Science*, 203-308.

Hess, Jeff & John W. Story (2005).Fidelity Factor, *Marketing Management*, 43-48

Kumar, S. Ramesh & Aalap Sharma (Feb 17,2005). Brand loyalty and marketing strategy Hindu Business line

Morgan, R. P. (1999–2000).A consumer-orientated framework of brand equity and loyalty, *Journal of the Market Research Society, 42*, 65–78.

Mukerjee, Kaushik (2005).What makes an outstanding brand, *Effective Executive*, 36-39.

Palumbo, F. & Herbig, P. (2000).The multicultural context of brand loyalty, *European Journal of Innovation Management, 3* (3), 116–124.

Parshar, Manu (2005). How to build consumer trust in brands?, *Indian Management*, 34-38.

Reast, Fon D. (2005).Brand trust and brand extension acceptance: the relationship, *Journal of Product & Brand Management, 14*, 4-13.

Riley, Dalls'Olmo & E.Ehrenberg (1997). *International Journal of Research in Marketing* 14(5), 437-450.

Romaniuk, Jenni & Svetlana bogomolova (2005).Variation in brand trust scores, *Journal of Targeting, Measurement and Analysis for Marketing, 13*, 363-373.

Rundle-Thiele, S. R.& Bennett, R. (2001).A brand for all seasons? A discussion of brand loyalty approaches and their applicability for different markets, *Journal Product and Brand Management, 10,* 25–37.

Schultz, Don E. (2005). The Loyalty Paradox: What is brand loyalty after all?, *Marketing Management,* 10-11.

Singh, Nijssen,E,, J,Sirdeshmukh & Holzmueller, H(2003). Investigating industry effect in consumer –firm relationship ;Preliminary results from a dispositional approach, *Journal of Academy of Marketing Science, 31(*1), 46-60.

Starr, Martin K. & Joel R. Rubinson. (1978). A Loyalty Group Segmentation Model for Brand Purchasing Simulation. *Journal of Marketing Research 15*(3), 378-83.

Tsao, Hsiu-Yuan & Li-Wei Chen (2005).Exploring Brand Loyalty from the perspective of brand switching costs, *International Journal of Management, 22*, 436-441.

Wood, Lisa M. (2001). Dimensions of brand purchasing behavior: Consumers in the 18-24 age group, *Journal of Consumer Behaviour, 4*, 9-24

MODEL LOG-LIKELIHOOD AS A PRAGMATIC MEASURE FOR COMPARING THE DEGREE OF PREFERENCE CHANGE IN CHOICE-BASED CONJOINT EXPERIMENTS

Qianqiu Zhu, The University of Georgia

ABSTRACT

The simulated log likelihood (SLL) of the static HB-estimated mixed logit model is proposed to be a pragmatic measure for comparing the degree of preference change in choice-based conjoint experiments. In a Monte Carlo study, three dynamic factors of preference change are simulated. They are learning, simplification and guessing. Their effects on the SLL are examined and it is found that with the increase of the level of the preference change factors, the SLL will decrease. The SLL is useful for research investigating the factors that affect preference change in choice-based conjoint experiments.

INTRODUCTION

Designers of surveys and experiments aim to reduce the occurrence of inconsistent responses and encourage thoughtful answers. Dillman, Tortora and Bowker (1998) has pointed out several guidelines that they suggest applying in the design of web surveys to improve data quality. Examples are like uses of progress bar, motivational messages and reasonable length of questions, etc. However, none of the above factors have been tested in empirical studies before to see if they really affect respondents' consistencies, because there is lack of a measure to accounting for the degree of preference change in a survey or an experiment.

In conjoint experiments, preference change results in inconsistent answers. Consumers' preferences are usually assumed to be constant during the course of a conjoint experiment in static models. In the context of a choice-based conjoint experiment, it means that consumers' part-worths do not change over different choice sets. This assumption also forms the basis for static mixed logit models, which represent the state of the art technique accounting for heterogeneity across consumers. With a static mixed logit model, the heterogeneity in preferences across consumers is accounted for, but not the heterogeneity over time. However, preference change over time has been documented in the literature of consumer decision-making and judgment. For example, it is suggested that consumers' preferences are constructed instead of simply being discovered (Payne

et al.1992; Slovic 1995). This implies that consumers' preferences may change across time and context.

Several preference change effects have been recognized so far. Learning, simplification, guessing and fatigue will be reviewed in the following section. When consumers evaluate a conjoint task, they are probably learning what attributes are important and how much weight they want to put on each attribute, simultaneously. The learning effect has been recognized in the field of conjoint analysis (e.g. Huber, et al. 1992; Liechty, et al. 2005). Research has also shown that consumers tend to be cognitive misers and employ some simplification rule in accomplishing conjoint tasks (e.g. Huber 1997; Liechty, et al. 2005). When simplification occurs, consumers do not consider all the attributes in an alternative. They only evaluate a reduced number of attributes to make their choices. Another source of preference change might come from random guessing (Haaijer, Kamakura, and Wedel 2000). Random guessing occurs when consumers are not willing to or unable to evaluate the conjoint task. Guessing is particularly a problem when choice-based conjoint experiments are employed. The multiple-choice format of the choice task in choice-based conjoint experiments makes it easy for the occurrences of guessing. Also, in choice-based conjoint experiments, there are no right or wrong answers for a question as in a performance test. This may further encourage the use of guessing as a strategy in accomplishing the choice task. The effect of fatigue is also recorded in the literature (e.g. Liechty, et al. 2005). When fatigue or boredom is present, the unobserved part of the utility that is not captured by the attributes goes up. Consumers are inconsistent in their choices. When fatigue or boredom reaches a certain level, it may be close to guessing. So, guessing can be considered an extreme scenario of fatigue.

Recently, studies that focus on the existence and the effects of preference change have emerged, although they are still in the probing period. DeSarbo et al. (2004) indicated that there were structural changes in preferences due to maturation, learning, fatigue and response strategy change within a single experiment, which was a ratings-based conjoint study on college students' preferences of apartments in their study. Liechty, et al. (2005) proposed a Bayesian dynamic linear methodology to detect and model preference change with another application of ratings-based conjoint experiment. Liechty et al. (2005) proposed two dynamic models that incorporated preference change. They found that that it was beneficial to incorporate preference change. However, they also stressed that the effects of preference change were not as important as the effects of the heterogeneity across individuals. A problem that exists in all the above studies is that the parameter estimation is unstable sometimes with the dynamic models. Also, 27 profiles were used as the rating tasks in all the three studies. For choice-based conjoint experiments, it may be too burdensome for consumers to handle a large number of choice sets. With a reduced number of choice sets, it remains unknown if dynamic models would perform well to accommodate preference change in a choice-based conjoint setting.

Given the evidence that preference change exists during the course of conjoint experiments, it is important to find out what factors are contributing to the occurrence of preference change and

how they affect preference change. By controlling these factors, preference data of higher quality may be obtained. But a difficulty exists in that no measures exist for measuring the degree of preference change in choice-based conjoint experiments. The purpose of the present study is to propose a pragmatic measure for comparing the degree of preference change and examine the effects of preference change on the proposed measure in the context of choice-based conjoint experiments. Specifically, the simulated model log likelihood (*SLL*) of the static HB-estimated mixed logit model is the measure being investigated. Three preference change effects: learning, simplification and guessing are simulated in a Monte Carlo study and their effects on *SLL* are examined. The proposed measure is useful in studies investigating factors affecting preference change in choice-based conjoint experiments.

THE HB-ESTIMATED MIXED LOGIT MODEL

Mixed logit models share a behavioral specification of utility maximization (e.g. Train 2003). Suppose that in a choice-based conjoint experiment, the *n* th person chooses among *J* alternatives in each of *I* choice situations. The behavioral specification states that the person chooses an alternative in the *i* th choice situation when this alternative gives the greatest utility among all alternatives in that choice situation. The *n* th person's utility from the *j* th alternative in the *i* th choice situation can be expressed as:

$$U_{nji} = \beta_n' X_{nji} + \varepsilon_{nji} \tag{1}$$

where $\varepsilon_{nji} \sim$ iid extreme vale and $\beta_n \sim N(b, \Omega)$. The mixed logit model assumes unique preferences for each individual, so β_n is different for each consumer. β_n and X_{nji} are vectors of length *L*, which equals the number of product attributes in the experiment. The population level parameters are *b* (mean) and Ω (covariance). In this study, the covariance matrix Ω is assumed to be diagonal. This is the simplest assumption on the covariance matrix. In other model specifications, the covariance matrix may not be diagonal, that is, the coefficients are correlated with each other. Because it is not the intention of the study to investigate the correlations between the coefficients, a diagonal Ω is used in this study. So, β_n has an independent normal distribution with mean b and covariance Ω. The conditional probability (conditional on β_n) for the *n* th person choosing the *j* th alternative in the *i* th choice situation can be written as,

$$P(Y_{nij} \mid \beta_n) = \frac{\exp(\beta_n' X_{ij})^i}{\sum_j \exp(\beta_n' X_{ij})} \tag{2}$$

If the chosen alternative in the i th choice situation is denoted as j^*, the conditional probability (conditional on β_n) for the n th person choosing alternative j^* in the i th choice situation can be written as,

$$P(Y_{nij*} \mid \beta_n) = \exp(\beta_n' X_{ij*})^i \Big/ \sum_j \exp(\beta_n' X_{ij}) \qquad (3)$$

And the conditional probability (conditional on β_n) for the n th person making the sequence of choices in all the I choice situations can be written as,

$$P(Y_n \mid \beta_n) = \prod_i P(Y_{nij*} \mid \beta_n) \qquad (4)$$

Thus, the unconditional probability for the n th person making the sequence of choices in all the I choice situations can be written as,

$$P(Y_n) = \int P(Y_n \mid \beta_n) f(\beta) d\beta \qquad (5)$$

where $f(\beta)$ is the density function for β. When Equation 5 has a closed form, that is, the integral can be resolved, the mixed logit model can be estimated by the usual maximum likelihood method without simulation. The log likelihood function for the sample (*LL*) is,

$$LL = \sum_n \log(P(Y_n)) \qquad (6)$$

However, Equation 5 does not have a closed form very often. Under these circumstances, the mixed logit model can be estimated with the two approaches mentioned earlier. The first approach is the maximum simulated likelihood method (MSL) that simulates the likelihood function by drawing from the density function of β and maximizes the simulated log likelihood (e.g. Revelt and Train 1998). The density function of β is pre-specified by the researcher. The second approach is the Bayesian approach that uses Gibbs sampling to improve a pre-specified prior distribution of β to arrive at a posterior distribution (e.g. Albert and Chib 1993; McCulloch and Rossi 1994; Allenby and Rossi 1999). The Bayesian approach considers b and Ω stochastic from the researcher's perspective. The researcher has prior information on b and Ω. The prior is updated with the data to obtain the posterior (e.g. Train 2003). Specifically, the posterior distribution is proportional to the conditional likelihood function (Equation 4) times the prior distribution.

$$F(\beta \mid Y_n) \propto P(Y_n \mid \beta_i) f(\beta) \qquad (7)$$

where $F(\beta \mid Y_n)$ is the posterior distribution of β. Gibbs sampling is used to obtain draws from the posterior distribution. Each parameter is drawn conditional on a draw of other parameters. Details of Gibbs sampling and the Bayesian approach can be found in Huber and Train (2001), Andrews, Ainslie, and Currim (2002) and Train (2003). Both of the two approaches need a pre-specified distribution of β. However, the Bayesian approach does not involve a maximization process, which is probably the biggest difference between the two approaches.

Train (2001) stated that the Bayesian approach has theoretical advantages over the classical approach from both the classical and the Bayesian perspectives. From the classical perspective, the Bayesian estimator needs less stringent conditions to be consistent, asymptotically normal and efficient than those for the classical estimator, in the circumstance when the integral in each estimator does not have a closed form. The two estimators cannot be compared if the integrals have closed forms, as suggested by Train (2001). From the Bayesian perspective, the MSL method needs to specify an asymptotic distribution for the MSL estimator in order to estimate the population level parameters. The posterior distribution is only approximated in the MSL method. While the HB method draws information from data on individuals' choices without referring to the asymptotic distribution. The HB method provides exact information on the posterior distribution. If the sample size is large, the MSL method is capable to provide equivalent estimates because error disappears asymptotically with the increase of the sample size. If the sample size is small, the HB method should be preferred in theory. However, one big drawback of the HB method is that it usually takes much more computational time than the MSL method does (Train 2001).

In this study, the effects of preference change on the model fit measure *SLL* of the static HB-estimated mixed logit model will be investigated. The model is static because consumer heterogeneity across time (preference change) is not represented in the model. Only consumer heterogeneity across individuals is included. Because preference change is not accounted for in the static model, it is expected that when the degree of preference change is higher, the model will have a worse model fit measure SLL, while other factors being constant.

The model fit is measured by the simulated log likelihood of the model (S*LL*). Train (2001) proposed the *SLL* for the MSL method, because there is not an exact log likelihood for this method. *SLL* can also be used as a measure for the model fit in the HB method. An intuitive explanation of the exponentiated *SLL* is that it represents the probability that all the consumers make the choices they do in the choice experiment. The formula of calculating the *SLL* is:

$$SLL = \sum_{n} \log(\hat{P}(Y_n)) \qquad (8)$$

The only difference between this formula and Equation 6 is that $\hat{P}(Y_n)$ is calculated through simulation. For the HB method, 2,000 draws per person are used to calculate the SLL.

It is difficult to compare the SLLs if different conjoint choice questions and different sample sizes are used in multiple data sets. So, in order for the SLLs to be comparable on the degree of preference change, same conjoint choice questions and same sample sizes should be used.

THE MONTE CARLO STUDY

The procedures of the current Monte Carlo study are stimulated by two simulation studies that aim to compare the performances of logit choice models with discrete versus continuous heterogeneity (Andrews, Ansari, and Currim 2002; Andrews, Ainslie, and Currim 2002). In the two studies, finite mixture models or latent class models were used to represent discrete heterogeneity; HB models were used to represent continuous heterogeneity. Basically, the two studies compare finite mixture models and HB models in the performance of model fit, parameter recovery and predictive power. In the current study, the purpose is to examine the effects of three preference change factors on the model fit measure SLL of the static HB-estimated mixed logit model. According to Train (2003), mixed logit models can deal with both discrete and continuous heterogeneity if proper model specifications are imposed, although they are more frequently used to represent continuous heterogeneity. The mixed logit model in this study deals with continuous heterogeneity across individuals with the HB method.

An existing data set on consumers' preferences for coffee makers are used as the basis of the current simulation study. The data were collected by Haaijer, et al. (1998) and made available by Skrondal and Rabe-Hesketh (2004). In the original data set, 185 persons indicated their choices of coffee makers. Each person was presented with eight choice sets with three alternatives in each choice set. Five attributes are included in their study. They are price, brand, capacity, filter and therm flask. A static HB model was estimated on the original data to get the estimates for the means and variances of the part-worths for the population. These means and variances are later used to simulate the true individual-level part-worths. In the Monte Carlo study, the same eight choice sets are used and choices are simulated for 370 consumers, which doubles the number of the sample size in the original data. The purpose of choosing 370 is to reduce the effects of small sample size and keep the sample size in a normal range, although it may not be considered a large sample. Train (2001) implied that a sample size of 361 is still a relatively small sample size.

The experimental design is a 23 factorial design. The three dynamic effects being investigated in this study are learning, rule simplification and guessing. In the learning scenario, the price attribute becomes more important over time and the brand attribute becomes less important. The part-worths of other attributes remain constant over time. There are three levels for the increasing or decreasing rate of the weights of the price and brand part-worths: 0, 0.1 and 0.3, which represent three levels of the learning effect. The 0 condition simply represents no learning effect

occurs and all the part-worths are constant over time. For the 0.1 condition, when the price part-worth is generated for a consumer, it remains the same for the first choice set. For the second choice set, the price part-worth is timed by 1.1, which is the weight. Then, the weight increases to 1.2 for the third set, 1.3 for the fourth set and so on. In the 0.1 condition, the weights for the brand attribute decreases by 0.1. The part-worth for the brand attribute remains the same for the first set and the weight becomes 0.9 for the second set, 0.8 for the third set and so on. For the 0.3 condition, the increasing rate for the price weights becomes 0.3 and the decreasing rate for the brand weights becomes 0.3.

In the rule simplification scenario, the part-worths for some attributes become zeros after a certain time. That is, these attributes are not being considered when consumers make their choices starting at a certain choice set. There are three levels for simplification: no simplification, two attributes remaining and one attribute remaining. For the condition of two attributes remaining, the price attribute and the brand attribute remain relevant to consumers in their decision making after the third choice set. The part-worths for the other three attributes become zero starting from the fourth set. For the one attribute remaining condition, only the price attribute remains relevant to consumers after the third set. When rule simplification described above occurs, there could be some cases in which the levels of the remaining attribute(s) are the same for two or more alternatives in a choice set. If this should happen, the choices of the simulated consumer are totally determined by the unobserved utility, in another word, the random error term. This is not quite in line with what usually happen in reality. In a real-world choice situation, when consumers cannot discriminate two alternatives based on the attributes they are interested in, they are more likely to sought for information on other attributes as opposed to simply guessing between the two alternatives. So, the rule simplification simulated in this study could be more severe than what actually happen in the real world.

In the guessing scenario, the part-worths for all the attributes in a choice set are zeros starting at a certain choice set. That is, a consumer's choice is not made based on any information on the attributes. Only the unobserved utility and random error, determine her choices. There are two levels of guessing: no guessing and guessing. For the guessing condition, all the part-worths for the seventh and the eighth choice set become zero.

There are three dynamic effects: learning (three levels), simplification (three levels), and guessing (two levels). So, there are eighteen experimental conditions in this study. When two or more preference change effects exist simultaneously, there is an order of override. The order of override is that guessing has the first priority, followed by simplification and learning. The order of override can be illustrated by Table 1 below.

Table 1: An Example of the Part-worth Weights for One of the 18 Conditions					
Choice set	Attribute weight				
	Price	Brand	Filter	Capacity	Therm
1	1	1	1	1	1
2	1.3	0.7	1	1	1
3	1.6	0.4	1	1	1
4	1.9	0	0	0	0
5	2.2	0	0	0	0
6	2.5	0	0	0	0
7	0	0	0	0	0
8	0	0	0	0	0
Notes: Part-worth weights when there is guessing, simplification of one attribute remaining, and learning at a changing rate of 0.3.					

The weights of part-worths for one of the 18 experimental conditions are shown in Table 1. This condition represents the seneriao when three is guessing, simplification at the level of one attribute remaining and learning at the level of the 0.3 changing rate. In this condition, three dynamic effects exist simultaneously. If guessing and simplification did not exist in this condition, the vector for price weights would be (1, 1.3, 1.6, 1.9, 2.2, 2.5, 2.8, 3.1)', the vector for the brand weights would be (1, 0.7, 0.4, 0.1, -0.2, -0.5, -0.8, -1.1)', and the weights for the other three attributes would be 1. When simplification is added at the level of one attribute remaining, the weights for all the attributes except price become zeros starting from the fourth set. When guessing is added, all the weights for the seventh and the eighth set become zeros.

When the raw individual-level parameters are generated, they are timed by the weights accordingly in each condition to simulate the 18 conditions of preference change. Note that under the same experimental condition, all the consumers are assumed to have the same pattern of preference change. The same set of part-worth weights are used for every simulated consumer. That is, consumers are homogeneous in the pattern of preference change. It is obviously not true in real life. However, this is actually the advantage of a simulation study, in which the researcher can control and create different levels of preference change to test the their effects. Without this assumption, it is difficult to tell which condition contains a higher level of preference change than another.

The true individual part-worths and consumers' choices are simulated based on the following three steps. In the first step, the population parameters are estimated. The original coffee maker data with 185 persons and eight choice sets were analyzed using the static HB-estimated mixed logit model. All the five independent variables (coffee maker attributes) are assumed to have independent

normal coefficients: $\beta_n \sim N(b, \Omega)$. That is, the covariance matrix Ω is diagonal. The means and variances of the five coefficients were obtained with the HB method. Then, these population-level means and variances are used to simulate the true individual-level part-worths. In the second step, individual's true coefficients are generated based on the population parameters estimated in the first step. Again, the coefficients are assumed to be independently normal. Each simulated consumer's raw part-worths are random draws from $\beta_n \sim N(b, \Omega)$. For example, consider the case in which 50 consumers' raw part-worths are simulated. Since the population parameters have been estimated, the distribution $\beta_n \sim N(b, \Omega)$ is known. Take 50 random draws from the population distribution and these random draws are used as the raw individual part-worths. The above process can be repeated 50 times to get more replications until a sample size of 50 consumers is obtained. Then, the raw individual part-worths are timed by the weights for each of the 18 experimental conditions to get the true individual part-worths. In the third step, each individual's choices are simulated. Given the true individual level coefficients vector β_n, the observable part of the utility Unji in Equation 1 can be expressed as $\beta_n' X_{nji}$. The unobservable part of the utility is assumed to be iid extreme value with zero as the location parameter and one as the scale parameter. Therefore, Unji can be obtained as the sum of an observable part and an unobservable part. The alternative with the highest value on Unji will be chosen in a choice set, based on the behavioral specification of utility maximization on which mixed logit models are derived.

The experimental condition in which the three dynamic effects are not present (the control group, literally) was replicated 20 times to achieve a more accurate baseline. All the other 17 conditions were replicated 10 times. Then, for each of the 190 simulated choice data sets, the static HB model is estimated and the model fit measure SLL is obtained. So, there are four variables and 190 observations in the final data. The dependent variable is SLL for model fit. The independent variables are learning, simplification and guessing. Table 3 provides a summary of the eighteen experimental conditions and their associated factor levels, as well as the mean value of the dependent variable. A three-way ANOVA was used to model the effects of the three independent variables on the dependent variable. All the main and interaction effects are included.

RESULTS AND DISCUSSIONS

In general, the three preference change factors: learning, simplification and guessing are all found to affect the SLL in the expected way. Table 2 provides a summary of the ANOVA results. The model is significant ($p<0.0001$). F-ratios for the main and the interaction effects are also listed with the associated p-values. Note that all the three-way interactions are highly significant ($p<0.0001$). In the following sections, significant main effects will be reported along with the three-way interactions.

Table 2: F-tests of Main and Interaction Effects of Model Performance Measures	
Source *(Degree of freedom)*	*F-Ratio* SLL
Model (17)	97.94 (<0.0001)
Learning (2)	7.74 (0.0006)
Simplification (2)	192.08 (<0.0001)
Guessing (1)	847.71 (<0.0001)
Learning x simplification (4)	14.81 (<0.0001)
Learning x guessing (2)	9.80 (0.0009)
Simplification x guessing (2)	19.10 (<0.0001)
Learning x simplification x guessing (4)	8.05 (<0.0001)
Notes: n=190; p-values in parentheses.	

Table 3: Means of Model Performance Measures					
	Factor level*			N	*SLL*
Experimental condition	Learning	Simplify	Guessing		*Mean* (Std)
1	0	0	0	20	-2833.09 (28.11)
2	0	0	1	10	-3025.84 (20.16)
3	0	1	0	10	-3006.99 (20.05)
4	0	1	1	10	-3064.97 (21.04)
5	0	2	0	10	-3037.71 (23.80)
6	0	2	1	10	-3085.03 (19.61)

Table 3: Means of Model Performance Measures					
	Factor level*			N	*SLL*
Experimental condition	Learning	Simplify	Guessing		*Mean* (Std)
7	0.1	0	0	10	-2912.90 (30.06)
8	0.1	0	1	10	-3039.32 (22.04)
9	0.1	1	0	10	-3015.85 (21.95)
10	0.1	1	1	10	-3087.99 (13.70)
11	0.1	2	0	10	-3007.61 (24.52)
12	0.1	2	1	10	-3096.29 (14.87)
13	0.3	0	0	10	-2925.99 (21.01)
14	0.3	0	1	10	-3041.91 (17.66)
15	0.3	1	0	10	-2973.77 (23.88)
16	0.3	1	1	10	-3090.16 (26.09)
17	0.3	2	0	10	-2951.93 (33.67)
18	0.3	2	1	10	-3076.65 (19.20)

*Notes on the factor levels:
1.   Learning: 0=no learning effects; 0.1= the changing rate of part-worth weights is 0.1; 0.3= the changing rate is 0.3;
2.   Simplification: 0=no simplification effects; 1= two attributes (price and brand) remaining to be relevant when consumers making choices; 2= one attribute (price) remaining;
3.   Guessing: 0= no guessing effects; 1= guessing (the part-worths for the seventh and the eighth choice sets are zeros).

Table 3 reports the means of the dependent variable *SLL* for each of the eighteen experimental conditions. The factor levels for each experimental condition are also listed in the

table. Each condition was replicated ten times except that the control group was replicated twenty times. The means and the standard deviations of *SLL* for each of the eighteen conditions are listed. They are used to graph the significant three-way interaction.

In Figure 1, the three-way interaction on the model fit measure SLL is shown. Overall, when the three factors are all at zero levels (no preference change), the static HB model has the best SLL among all experimental conditions. It appears that SLL decreases with the increase of the levels of the three preference change factors. Details are discussed below. Guessing and simplification have the expected main effects on SLL on all levels of other preference change factors. Specifically, when there is no guessing or simplification, the model fit measure SLL is significantly better than the situations when guessing or simplification is present. And, as the level of guessing or simplification increases, SLL goes down as expected. The effect of learning on SLL is a little bit more complicated to explain than the other two factors. It has an expected main effect that is also significant. When there is no learning, SLL has a larger value than the scenario when learning is present. But it is interesting to find that SLL is larger when the level of learning is at the 0.2 level than the 0.1 level.

Figure 1:
The Three-way Interaction (Dependent variable *SLL*)
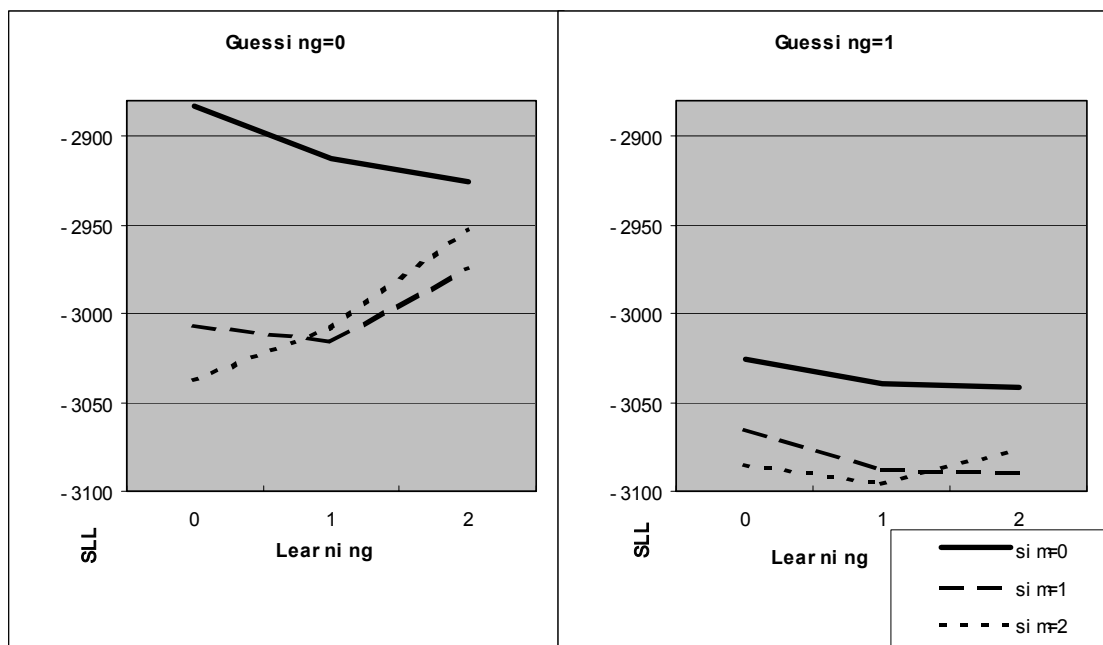
The three-way interaction on SLL is significant. When there is no simplification, SLL decreases with the level of learning increasing, no matter if guessing occurs. However, it is interesting to find that when the level of learning increases, SLL seems to increase when there is

simplification and no guessing (left panel). This pattern is not obvious when there is simplification and guessing (right panel).

Because simulation data were used in the current study, the interaction effects are difficult to explain. So the focus is on the main effects. Based on the three significant main effects, the SLL can be used as a pragmatic measure for the degree of preference change when investigating what factors affect preference change in choice-based conjoint experiments. Admittedly, there could be other factors contributing to the variability of the SLL. But in experimental conditions when other factors are being controlled, SLL would correlate with the degree of preference change.

SLL is not a stand-alone measure that describes the degree of preference change in choice-based conjoint experiments. It will only be meaningful to compare two SLLs from different experimental conditions. In the following example, the use of SLL is discussed. Suppose that two factors affecting the degree of preference change are of interests to the researcher. One is a motivational factor (M) and the other is a task complexity factor (C). Each factor has two levels. The researcher is doing an experiment to investigate the effects of the two factors on preference change. So there are four experimental conditions. The same choice questions are administered to the four experimental conditions and the static HB-estimated mixed logit model is fitted, the SLL can be used as the dependent variable (i.e. the degree of preference change). So the effects of the motivational factor and the task complexity factor can be examined.

In summary, SLL can be used as a pragmatic measure to compare the degree of preference change in choice-based conjoint experiments for different experimental conditions. However, its use is limited to making comparisons between experimental conditions when same choice questions and same number of respondents are used. For future research, stand-alone model-based measures for preference change are called upon.

REFERENCES

Albert, J. & S. Chib (1993). Bayesian Analysis of Binary and Polychotomous Data, *Journal of the American Statistical Association*, 88, 669-679.

Allenby, G.M.& P.E. Rossi, 1999. Marketing Models of Customer Heterogeneity, *Journal of Econometrics*, 89(1-2), 57-78.

Andrews, R. L., A. Ainslie& I. S. Currim (2002). An Empirical Comparison of Logit Choice Models with Discrete Versus Continuous Representations of Heterogeneity, *Journal of Marketing Research,* 39 (November), 479-487.

Andrews, R.L., A. Ansari & I. S. Currim (2002). Hierarchical Bayes vs. Finite Mixture Conjoint Analysis Models: A Comparison of Fit, Prediction, and Partworth Recovery, *Journal of Marketing Research,* 39 (February), 87-98.

DeSarbo, W. S., D. R. Lehmann & F. G. Hollman (2004). Modeling Dynamic Effects in Repeated-measures Experiments Involving Preference/Choice: An Illustration Involving Stated Preference Analysis, *Applied Psychological Measurement*, 28, 186–209.

Dillman, D. A., R. D. Tortora & D. Bowker (1998)., *Principles for Constructing Web Surveys: An Initial Statement*. (Technical Report No. 98-50). Pullman, WA: Washington State University Social and Economic Sciences Research Center.

Haaijer, R., M. Wedel, M. Vriens & T. J. Wansbeek (1998). Utility Covariances and Context Effects in Conjoint MNP Models, *Marketing Science,* 17 (3), 236-252.

Haaijer, R., W. Kamakura & M. Wedel (2000). Response Latencies in The Analysis of Conjoint Choice Experiments, *Journal of Marketing Research*, 37 (August), 376-82.

Huber, J. (1997). What We Have Learned from 20 Years of Conjoint Research: When to Use Self-Explicated, Graded Pairs, Full Profiles, or Choice Experiments *Sawtooth Software Conference Proceedings*, 243-56.

Huber, J. & K. E. Train (2001). On the Similarity of Classical and Bayesian Estimates of Individual Mean Partworths, *Marketing Letters*, 12, 257-267.

Huber, J., Wittink, D. R., Johnson, R. M. & Miller, R. (1992) Learning Effects in Preference Tasks: Choice-based versus Standard Conjoint in 1992 Sawtooth Software Conference Proceedings, Ketchum, ID: Sawtooth Software, Inc., pp. 275-282.

Liechty, J. C., D. K.H. Fong & W. DeSarbo (2005). Dynamic Models with Individual Level Heterogeneity: Applied to Evolution During Conjoint Studies, *Marketing Science, 24*(2), 285-293.

McCulloch, R. & P. E. Rossi (1994). An Exact Likelihood Analysis of the Multinomial Probit Model, *Journal of Econometrics*, 64, 207-240.

Payne, J. W., J. R. Bettman & E.J. Johnson (1992). Behavioral Decision Research: A Constructive Processing Perspective," *Annual Review of Psychology,* 43, 87–131.

Revelt, D. & K. E. Train (1998). Mixed Logit With Repeated Choices: Households' Choices Of Appliance Efficiency Level, *The Review of Economics and Statistics,* 80(4), 647-657.

Skrondal, A. & S. Rabe-Hesketh (2004). *Generalized Latent Variable Modeling: Multilevel, Longitudinal and Structural Equation Models.* Boca Raton, FL: Chapman & Hall/CRC.

Slovic, P. (1995). The Construction of Preference," *American Psychologist,* 50(August), 364–371.

Train, K.E. (2003), *Discrete Choice Methods with Simulation Discrete Choice Methods with Simulation,* Cambridge , Cambridge University Press, Cambridge, UK.

ARE SALES MANAGERS PREDISPOSED
TO SELF-MONITORING?

Harry A. Harmon, University of Central Missouri
Kevin L. Hammond, University of Tennessee, Martin
Craig A. Conrad, Western Illinois University
Robert L. Webster, Ouachita Baptist University

ABSTRACT

Frequently when people are in unfamiliar situations they look to others for cues to determine appropriate behavior, a process described as self-monitoring. The research reported here examined the self-monitoring construct with a national sample of sales managers and compares the results with previous research of salespeople. The results indicate that sales managers with a higher predisposition to self-monitoring (modify facet) were the higher performers. Significant differences by gender are reported. Sales management experience was a significant predictor of performance in the male subset, but not with the female subset. The sensitivity facet of self-monitoring was significantly influenced by sales management experience in the female sample.

INTRODUCTION

Frequently when people are in unfamiliar situations, or when they are uncertain of the proper behavior, they look to others for cues to determine appropriate behavior, a process Snyder (1974, 1979) described as self-monitoring. Such behavior then is the manifestation of an individual's predisposition to monitor (observe and control) their self-presentation and expressive behavior to others by adjusting their behavior according to situational cues. The high self-monitoring individual is defined as:

> . . . one who, out of concern for the situational and interpersonal appropriateness of his or her social behavior, is particularly sensitive to the expression and self-presentation of relevant others in social situations and uses these cues as guidelines for self-monitoring (that is, regulating and controlling) his or her own verbal and nonverbal self-presentation. (Briggs, Cheek, and Buss 1980, p. 679)

Snyder (1974) suggested that the high self-monitoring individual might communicate emotions (actual and arbitrary) through expressive behavior, or conceal those inappropriate emotions. The individual might appear to experience an emotion that he or she does not feel. The

Snyder research has generated other research streams with self-monitoring, including sales research, but the results have generally been inconsistent. We discuss some of the research and posit hypotheses for testing.

Dubinsky and Hartley (1986a, 1986b), the first researchers to examine the construct in a sales context, studied the moderating effect of self-monitoring on job performance, role conflict, and role ambiguity. The results indicated a lack of association between self-monitoring and other model variables (job performance, role conflict, and role ambiguity). Unexpectedly, results indicated that sales people exhibiting higher levels of self-monitoring experienced higher level of role conflict and role ambiguity. While these authors did not examine the direct effects between self-monitoring and job performance, indirect effects (through role ambiguity) did exist and were statistically significant.

Lennox and Wolfe (1984) used a student sample in an earlier study to conclude that the Snyder scale lacked internal validity and a theory based rationale. They argued that the acting ability (in the theatrical-entertainment sense) subset of the Snyder scale does not have much in common with the ability to modify self-presentation in everyday life. They also argued that cross-situational variability of behavior may not be positively associated with effectiveness in social interactions. Based on these arguments, Lennox and Wolfe (1984) revised the self-monitoring scale to include four distinct facets for the construct. Subsequent research (Snyder and Gangestad 1986) examined the construct and reported satisfactory reliability and face validity.

Goolsby, Lagace, and Boorom (1992) suggested the inconsistencies in previous research concerning self-monitoring and performance was due to the unidimensional Snyder scale. They argued "logic would dictate individuals high in psychologically adaptive traits should have higher sales performance levels than others" (p. 51). They attempted to clarify some of the inconsistent findings in previous research by examining the effects of several psychological adaptiveness traits on sales performance. Specifically, sensitivity to the expressive behavior of others ("sensitivity"), and the individual's ability to modify self-presentation ("modify") was compared with the Lennox and Wolfe (1984) scale. Gender differences were also examined.

Although the Goolsby, Lagace, and Boorom (1992) research did clarify some of the previous findings, several issues remain unresolved. For example, they found only partial support for the hypothesized positive relationship between one facet of self-monitoring and sales performance. That relationship would seem to match conventional wisdom but it is contrary to the findings of Dubinsky and Hartley (1986a), and suggests that further research is warranted to clarify the inconsistencies. Table 1 presents a summary of the self-monitoring research that indicates the inconsistency of previous studies.

Numerous researchers in several disciplines have argued for the development of better construct measures. "Researchers either underestimate the extent of measurement errors or do not recognize the serious impact measurement error can have on empirical results." (Cote and Buckley, 1988, p. 579). Other researchers, such as Churchill (1979), Peter (1979, 1981), and Churchill and Peter (1984), called for additional research to validate constructs. Our research addresses those

concerns for a better construct measure for self-monitoring. The literature does not provide a definitive answer for the appropriate scale to measure the construct, i.e., the empirical efforts to date have employed different scales in differing formats and situations. These studies are summarized in Table 2. The research reported here uses the multi-item Likert scale of Lennox and Wolfe (1984), which is the scale used by Goolsby, Lagace, and Boorom (1992).

TABLE 1: SUMMARY OF SELF-MONITORING RESEARCH		
Researcher	Scale	Findings
Snyder (1974, 1979)	original scale development	scale development 32 items, 4 factors
Snyder & Cantor (1979)	Snyder 1974	high > low self-monitors in determining behavior in person-in-situation scenarios
Briggs, Cheek & Buss (1980)	Snyder 1974	Snyder scale has problems, 3 subscales inadequate
Caldwell & O'Reilly (1982)	Snyder 1974	high self-monitors perform better than low self-monitors; short tenure related to high self-monitoring and performance
Ashford (1986)		proposed individuals engage in self-monitoring to increase environmental adaptability, survive in organizations
Lennox & Wolfe (1984)		Scale development (4 factors): ability to modify self-presentation; sensitivity to expressive behavior; cross-situation variability: attention to social comparison
Dubinsky & Hartley (1986a)	Snyder 1974	positive, but not significant, relationship between self-monitoring and performance
Dubinsky & Hartley (1986b)	Snyder 1974	positive, but not significant relationship between self-monitoring and performance
Fine & Gardial (1990)	Snyder 1974	self-monitoring increases similarity development, similarity facilitates inference between salesperson and customer similarity increases salesperson confidence to make sale self-monitoring moderates performance
Spiro & Weitz (1990)	Lennox & Wolfe 1984	modify significant positive correlation with performance; sensitivity positive but not significant correlation with performance; modify negative but not significant correlation with experience sensitivity
Goolsby, Lagace & Boorom (1992)	Lennox & Wolfe 1984	significant positive relationship between self-monitoring (modify) and performance; significant positive relationship between self-monitoring (sensitivity) and performance.

TABLE 2: SUMMARY OF SCALES USED TO MEASURE SELF-MONITORING					
Authors	Scale Items	Format	Item Factor Loading	Reliability	Validity
Snyder (1974)	25	True/False	not reported	Test-reset .83	convergent, discriminate
Lennox & Wolfe (1984)	13	6-Point Likert	.32 to .77	Cronbach Alpha .75 total .70 to .77 subscales	not reported
Snyder & Gangestad (1986)	18	True/False	.17 to .59	Cronbach Alpha .70	face
Dubinsky & Hartley (1986a)	25*	7-point Likert	not reported	Cronbach Alpha .69	not reported
Dubinsky & Hartley (1986b)	25*	7-point Likert	not reported	Cronbach Alpha .72	not reported
Goolsby, Lagace, & Boorom (1992)	13	6-point Likert	not reported	Cronbach Alpha .77 total .70 to .75 subscales	not reported
*Unidimensional					

Spiro and Weitz (1990) argue that as salespeople gain experience they learn to adapt and respond to a wider variety of selling situations. The individual may actively seek feedback from the supervisor (Ashford and Tsui 1991). Self-monitoring is one method salespeople (and sales managers) use to gain this knowledge of adaptation. The current study differs from earlier studies in that self monitoring is examined from the perspective of the sales manager. The use of a sales manager sample is unique and, to date, no research has focused on this important perspective on the relationships previously discussed.

RESEARCH FOUNDATIONS AND HYPOTHESES

Self-monitoring and Performance

Caldwell and O'Reilly (1982) reported self-monitoring was significantly related to job performance (as measured by subjective company evaluation forms). Spiro and Weitz (1990) reported a significant correlation between self-monitoring and subjective sales performance measures, but not with objective sales performance measures. Dubinsky and Hartley (1986a, 1986b) reported self-monitoring was not significant with job performance, only indirectly through role ambiguity. A positive, although not significant, path between self-monitoring and job performance was reported by Dubinsky and Hartley (1986b) who suggested the nonsignificant direct results may have been due to the psychometrically unsound measurement scale proposed by Snyder (1974).

Other studies that utilized the original Snyder scale and report satisfactory reliabilities and face validity include Snyder and Gangestad 1986, and Fine and Gardial 1990.

Fine and Gardial (1990) concluded that self-monitoring had a moderating effect on performance. They argued that this finding indicates a need for managers to identify the high self-monitoring individual and make use of this adaptiveness in a high tech environment as a missionary salesperson. Conversely the low self-monitoring individual might be better suited for low adaptability situations such as a straight rebuy. Overall the results outlined above suggest that a salesperson who is predisposed to self-monitoring is the better performer. These relationships have not been examined for sales managers.

The self-monitoring and performance relationship may be more important for sales managers because the sales force is productive only to the extent that it has effective leadership (Guest and Meric 1989; Jaworski and MacInnis 1989). The manager may find it advantageous to focus on the activities (i.e., direct the salesperson's effort) that will increase the manager's stature in the organization while ignoring other organizational activities (Jaworski and MacInnis 1989). There is considerable research devoted to identifying antecedents of salesperson performance, including job satisfaction, job tension, motivation, role ambiguity, task specific self-esteem, and verbal intelligence (Bagozzi 1978, 1980a, 1980b; Donnelly and Ivancevich 1975; Franke and Perreault 1982; Gentry, Mowen, and Tasaki 1991; Teas, Wacker, and Hughes 1979; Dubinsky and Hartley 1986a, 1986b; Anglin, Stolman, and Gentry 1990). Personal variables such as age, height, education, and martial status have also been examined (Churchill, et al. 1985). Again, a lack of research concerning how these variables relate to the performance of sales mangers is noted.

Bagozzi (1980a) reported that sales managers and salespeople differ in several aspects of their professions. The sales managers reported higher levels of job satisfaction, possibly attributable to higher compensation and an ability to better cope with ambiguity and tension. Salesperson motivation was more strongly related to overall job performance. A higher level of motivation translated to more new business (performance) for sales managers. Task specific self-esteem, role ambiguity, and job tension were positively related to job performance for salespeople but not with sales managers. Bagozzi (1980a) concluded that the successful sales manager should have the ability to adapt and change conditions in their environment to their advantage, while being attuned to the needs and demands of others.

The following research hypotheses are tested using the Lennox and Wolfe scale. This instrument is designed to measure the two facets of self-monitoring examined in the research we report, ability to modify self-presentation & sensitivity to expressive behavior of others.

Hypothesis 1:   Sales managers that have a high predisposition for self-monitoring (modify facet) will outperform sales managers with lower levels of self-monitoring.

H1: $\mu_{high} > \mu_{low}$

Hypothesis 2:   Sales managers that have a high predisposition for self-monitoring (sensitivity facet) will outperform sales managers with lower levels of self-monitoring.

$$H2: \quad \mu_{high} \quad > \quad \mu_{low}$$

Self-monitoring and Experience

Research with experience as a determinate of individual job performance has produced conflicting results (Churchill, Ford, and Walker 1974; 1976; Jolson 1974; Cron, Dubinsky, and Michaels 1988; Kohli 1989). A more-experienced salesperson is expected to have a higher level of job satisfaction because the unhappy/dissatisfied salesperson quits the job, whereas experience helped the salesperson who stayed cope with the job's difficulties (Churchill, Ford, and Walker 1974). Likewise, salespeople who have worked at the same firm for an extended time presumably are more likely (relative to shorter tenure salespeople) to be satisfied, to perform better, and to cope or deal with job conflicts better (Behrman, Bigoness, and Perreault 1981; Behrman and Perreault 1984; Bartkus, Peterson, and Bellenger 1989). However, Churchill, Ford, and Walker (1976) reported a negative relationship between experience and job performance, indicating that, contrary to expectations, as the salesperson's experience increased, job performance decreased. This phenomenon may be explained by a perceived missed opportunity, or an expected promotion that did not happen (Churchill, Ford, and Walker 1974). These relationships for sales managers have not been fully explained in previous research. The sales manager has achieved enough success to be promoted to the management position. The dissatisfied or unsuccessful individual has not reached the sales manager level, or has left the profession.

Caldwell and O'Reilly (1982) reported a stronger association between self-monitoring and performance for low tenure employees, *vis-a-vis* high tenure employees, indicating that the value of self-monitoring to increase performance decreases as the individual gains experience. However, the mean self-monitoring score for high tenure salespeople was significantly higher than the mean self-monitoring score for low tenure salespeople. Spiro and Weitz (1990) reported a positive, but not significant, correlation between performance and sensitivity; and a positive, significant correlation between performance and modify. Consequently, the following hypotheses are proposed for sale managers:

Hypothesis 3:   Sales managers that have a high predisposition for self-monitoring (modify facet) will have more job experience/job tenure than sales managers with lower levels of self-monitoring.

$$H3: \quad \mu_{high} \quad > \quad \mu_{low}$$

Hypothesis 4:   Sales managers that have a high predisposition for self-monitoring (sensitivity facet) will have more job experience/job tenure than sales managers with lower levels of self-monitoring.

$$H4: \qquad \mu_{high} \quad > \quad \mu_{low}$$

Gender influence

Research streams in several academic disciplines have developed for the study of differences in psychological traits across genders, e.g., developmental psychology, organizational science, and marketing (Goolsby, Lagace, and Boorom 1992). The findings have been inconsistent. Swan et al. (1984) argued that sales managers should not ignore the impact that psychological differences in salesmen and saleswomen have on productivity. Table 3 presents a partial list of research on the moderating impact of gender.

TABLE 3: MODERATING IMPACT OF GENDER (from Goolsby, Lagace, and Boorom 1992)	
Gilligan (1982)	women are socialized to acquire integrating and obliging styles
Chodrow (1974)	women have difficulty with individualization
Horner (1972)	women have difficulty with competitiveness
Kilmann and Thomas (1977)	men are more dominating and less compromising
Bernard (1981) Skolnik (1985)	women are more sensitive in selling situations, and over nurture customers
Carter and Bryant (1985)	women are required to engage in role reversals
Comer and Jolson (1991)	sales managers perceive saleswomen do have human relation skills but do find them lacking in selling ability

Goolsby, Lagace, and Boorom (1992) addressed the moderating impact of gender on the relationship between self-monitoring and job performance as a research question. They reported no statistically significant difference between salesmen and saleswomen for any of the measures of performance and self-monitoring relationships. We also investigate the possible impact of gender on self-monitoring as a research question because there is no other known literature from which to develop a hypothesis.

Research Question: Does the predisposition to self-monitoring differentially impact the sales performance of males and females?

METHODOLOGY

Sample Characteristics

The sampling frame consisted of sales managers employed by manufacturing organizations. Questionnaires were mailed to a sample of 2000 sales managers purchased from a commercial mailing list broker. A cover letter on university letterhead accompanied each questionnaire to explain the purpose of the study and to assure respondent confidentiality. The initial questionnaire was followed up by a second cover letter and questionnaire approximately two weeks later. These mailings produced a small number of responses from female sales managers, which is consistent with the Goolsby, Lagace, and Boorom (1992) argument that sales organizations typically do not have a large number of female sales personnel. A third attempt was made to contact the female sales managers in our sample. Although this additional attention to the female member section of the sampling frame may have compromised the sample's randomness, the importance of having adequate female representation in the sample was deemed highly desirable. Each piece of communication with potential respondents offered a summary of the findings to the participants.

The employment of a sales force engaged in outside sales was used as a defining criterion to calculate the response rate (Churchill 1991). This criterion indicated a number of ineligibles. For example, several firms reported that they used distributors rather than a formal sales force. The number of ineligible questionnaires was 79. Using the Churchill (1991) formula, Table 4, the response rate is the ratio of completed questionnaires to the number of eligible respondents in the sample. Eligible respondents are the sum of (1) completed questionnaires, and (2) an estimate of the number of eligible among the nonrespondents. The estimate is obtained by applying the eligibility percentage to the total nonrespondents. The eligibility percentage is the ratio of those determined eligible to the total whose eligibility or ineligibility has been determined. Completed usable questionnaires were received from 203 respondents, a 14.1 percent response rate. The somewhat low response rate, although not unusual for industrial research, increases the chance for bias arising from nonresponse error (Armstrong and Overton 1977). Therefore, an analysis of early versus late respondents was conducted by splitting the sample at the median based on the time of receipt of the response. The sample was then split into fourths. No significant differences were found between early and late respondents.

Sample descriptions as per Goolsby, Lagace, and Boorom (1992) are presented in Table 5 and may be used to facilitate comparison of the two samples. Approximately 84% of the respondents were male, 29% had a college degree, and 16% had a graduate degree (including 2 respondents with a doctorate). About 55% of the respondents had over 10 years sales management experience, and approximately 18% had less than 5 years sales management experience.

TABLE 4: RESPONSE RATE FORMULA

CQ = completed questionnaires
NC = not completed or refused
IN = ineligible

$$\frac{CQ}{CQ + [(CQ/CQ + IN)][NC]} = \text{Response Rate}$$

Response Rate Calculation
Completed Questionnaires 203
Eligibility not determined (or refused)1718
Ineligible 79

$$\frac{203}{203 + [203/(203 + 79)][1718]} = 14.1\%$$

TABLE 5: SAMPLE CHARACTERISTICS SALES MANAGERS			
	TOTAL SAMPLE n = 203	MEN n = 170, 83.7%	WOMEN n = 33, 16.3%
SALES EXPERIENCE			
< 5 Yrs	7	7	0
5-9 Yrs	27	14	13
10-14 Yrs	32	22	10
> 16 Yrs	137	127	10
MANAGEMENT EXPERIENCE			
< 5 Yrs	36	27	9
5-10 Yrs	55	41	14
> 10 Yrs	112	102	10
YEARS WITH PRESENT COMPANY			
< 5	55	47	8
5-9	52	35	17
10-14	30	24	6
> 14	66	64	2
SALESPEOPLE YOU SUPERVISE			
< 5	88	72	16
5-9	48	42	6
10-20	29	23	6
> 20	38	33	5

TABLE 5: SAMPLE CHARACTERISTICS SALES MANAGERS			
	TOTAL SAMPLE n = 203	MEN n = 170, 83.7%	WOMEN n = 33, 16.3%
EDUCATION			
High School	23	11	12
Some College	52	45	7
College Graduate	58	46	12
Some Graduate	35	35	0
Graduate Degree	33	31	2
Doctorate	2	2	0
AGE			
25-34	24	14	10
35-50	105	88	17
> 50	74	68	6

Questionnaire Development

Although the Lennox and Wolfe (1984) measurement instrument was previously utilized in research concerning sales persons it has not been used with sales managers. For this reason, the instrument was pretested to determine the appropriateness of items borrowed from other studies (Churchill 1991). First we consulted several faculty with a sales practitioner background. We used their suggestions to revise the instructions. Several researchers argued that the need for internal validity outweighs the concern for external validity associated with student samples (McKay et al. 1991; Mowen et al. 1985; Mowen, Brown, and Jackson 1980). Therefore as a final pretest, graduate students who were currently employed full time assumed the role of a sales manager. The result was a questionnaire that included several reworded items and clarified instructions.

The self-monitoring section of the questionnaire (Appendix) instructed the sales managers to use the past year as a reference period for their responses. We adapted the format used by Lennox and Wolfe (1984) to ask each sales manager "to consider how you interact with other people, including (but not limited to) the salespeople that you supervise, other managers, and your superiors." We also asked the sales manager to integrate across experiences to provide general explanations, a recall process that places less demand on the subjects and leads to greater representativeness (Sujan 1986). The nine-point scale was anchored by "Certainly, always true (9); and "Certainly, always false" (1) so that a high score indicated a high self-monitoring individual.

The performance measures were self-reported. Although self-reported measures may include a degree of inaccuracy (Behrman and Perreault 1984), self-reported performance does not necessarily include an upward bias (Churchill, et al. 1985). The sales manager was asked to make

comparisons with peers on the quantity aspect of performance, i.e., sales volume, number of new accounts, and his/her contribution to company profits. The sales manager also reported his or her performance, relative to other sales managers, on the quality aspect of their performance. The years of experience as a sales manager was reported by the respondent.

ANALYSIS

Measurement

The first requirement of meaningful performance research is a consensus of how to establish a satisfactory measure of performance, a state that has been difficult to reach. The relationship between salespersons' job performance and other variables has had mixed results (Bagozzi 1978, 1980a; Churchill, Ford, and Walker 1974, 1976; Dubinsky and Hartley 1986a, 1986b). Churchill, et al. (1985) notes "the appropriate way to measure performance is a dispute that lingers..." (p.113). The use of self-report measures versus more objective measures is the center of the argument. Previously reported inconclusive results suggested to us that a single item self-reported measure may not capture all contingencies, but such a measure provides satisfactory data if uniformly applied across the sample. Recall that our performance measure indicates the sales manager's assessment of his or her own ability relative to other sales managers.

Although the self-monitoring scale had been used in previous research, the factor structures and reliabilities were examined. We first examined the number of dimensions and loadings (Gerbing and Anderson 1988), then coefficient alpha and item-to-total correlations (Cronbach 1951). We performed a maximum likelihood factor analysis with SPSS to provide evidence of the appropriateness of a composite score as a single indicant in a data analysis (Howell 1987). The factor loadings criteria were set to two with an oblique rotation, the recommended rotational method when correlated factor dimensions are possible (Churchill 1991). The initial factor analysis for the 13-item measure indicated a two-factor solution. However, item 9 cross-loaded on factors 1 and 2. After dropping the item, a satisfactory two-factor solution was achieved that explains 39.8% of the variance. Lennox and Wolfe titled these factors "ability to modify self-presentation" and "sensitivity to expressive behavior of others," respectively, which we title "modify" and "sensitivity." Table 6 and Table 7 present the initial factor analysis and the final factor analysis. Table 8 presents a factor correlation matrix of the final factor analysis.

The next step was to assess scale reliability based on the 12-item (with two distinct factors) scale. Acceptable coefficient alphas, .75 and .81 (Nunnally 1952), and satisfactory item-to-total correlations are reported. The item-to-total correlations are low, which suggests that redundancy within the items is not a problem (Singh 1991). The results (Table 9) are comparable to the reliability coefficients reported in previous studies.

TABLE 6: SELF-MONITORING INITIAL FACTOR ANALYSIS		
Item Numbers	Modify	Sensitivity
12	.	.31
9	81	.
8	.76	
10	.74	
11	.66	
13	.62	
5	.58	
2		69
3		.68
1		.67
7		.66
4		.54
7		.36
		.31
Eigenvalue	3.57	1.77
Percent Variance Explained	27.5	13.6
Cumulative		41.1

TABLE 7: SELF-MONITORING FINAL FACTOR ANALYSIS		
Item Numbers	Modify	Sensitivity
8	.78	
12	.78	
10	.63	
13	.62	
11	.60	
5		.68
2		.68
3		.67
1		.66
7		.56
4		.36
6		.31
Eigenvalue	3.1	1.67
Percent Variance Explained	25.8	13.9
Cumulative		39.8

TABLE 8: SELF-MONITORING FACTOR CORRELATION MATRIX		
	Factor 1	Factor 3
Factor 1	1	
Factor 2	0.299	1

Table 9 also presents mean, standard deviation, and reliability coefficient statistics for the current research and previous research. A comparison of the mean responses, which may suggest construct validity, is difficult because the six studies employed different scale formats. We converted the previously reported means to nine-point formats by multiplying (by 9), and dividing (by 5, 6 or 7).

TABLE 9: COMPARATIVE STATISTICS FOR SELF-MONITORING RESEARCH			
Study	Mean	Std Deviation	Alpha
Current research of Sales Managers modify sensitivity	6.71 6.70	1.119 1.093	.75 .81
Lennox & Wolfe (1984) Students modify sensitivity	4.56* 5.18*	.9 - 1.2 .8 - 1.3	.70 .77
Dubinsky & Hartley (1986a) Retail Salespeople unidimensional 25 scale items	116.19* 4.64*	14.88	0.69
Dubinsky & Hartley (1986b) Insurance Agents unidimensional 25 scale items	129.31* 5.17*	15.42	0.72
Goolsby, Lagace & Boorom (1992) Professional Salespeople modify sensitivity	6.78** 6.86**	3.07*** 3.31***	.71 .81
Spiro & Weitz (1990) Professional Salespeople modify sensitivity	6.75* 6.84*	.72 .76	.77 .81
* Scale means are converted to 9-point format. ** Overall scale means are converted to item means. *** For overall mean			

The results indicate that all mean responses are above the midpoint. The sales manager "modify" mean is larger than the student sample mean reported by Lennox and Wolfe 1984). Similar results are noted in the sales manager sample with the other self-monitoring score,

"sensitivity", relative to Lennox and Wolfe (1984). Conversely, the mean responses reported by Goolsby, Lagace, and Boorom (1992) for salespeople are slightly higher than the sales manager sample. The converted Dubinsky and Hartley (1986a) means of 4.64 (retail sales clerks) and 5.17 (insurance agents), are lower than the sales manager mean scores.

Results of Hypotheses Tests

Multivariate normality, critical in multivariate data analysis (Hair et al. 1992), frequently inflates the chi-square if the assumption is violated. We did a Q-Q plot analysis (Johnson and Wichern 1988) and concluded that the data did not violate this assumption. We then proceeded to test the hypotheses by first splitting the sample at the median modify self-monitoring score, and then the median sensitivity score. We also split the sample at the median for job experience. We then performed an ANOVA with the median sample splits. Hypothesis 1 states that the sales manager with a predisposition to self-monitoring (modify) is the higher performer, is supported (F 3.04, p. 08). Hypothesis 2 states that the sales manager with a predisposition to self-monitoring (sensitivity) is the higher performer, is not supported. Hypotheses 3 and 4 state that sales managers with longer job tenure have the higher self-monitoring scores, modify and sensitivity, respectfully. Hypotheses 3 and 4 are not supported.

TABLE 10: RESULTS OF REGRESSION ANALYSES, RESEARCH QUESTION						
Dependent Variables	Self-Monitor Modify	Self-Monitor Sensitivity	Sales Manager Experience	Constant	R^2	F (Model)
Performance men women	**RQ (H1)** .21[c] -.46[a]	**RQ (H2)** .11 .36[c]	**RQ (H3)** .26[c] .13	1.85 3.92	.11 .16	7.24[c] 2.95[b]
Self-Monitoring, Modify men women			**RQ (H4)** .01 .14	6.61 7.01	.00 .00	.12 .63
Self-Monitoring, Sensitivity men women			**RQ (H4)** -.09 .45[c]	6.85 6.67	.00 .18	.25 7.46[c]
[a] Significant at less than .10 level [b] Significant at less than .05 level [c] Significant at less than .01 level						

A regression analysis for our research question, the impact of gender on the hypothesized relationships, indicates several significant differences, summarized in Table 10. Goolsby, Lagace, and Boorom (1992) concluded that the association between self-monitoring and performance is not related to gender. Significant regressions are reported when performance is regressed on sales management experience and modify (F = 7.24, p <.01) for the male sample. In the female sample, both self-monitoring dimensions are significant predictors of individual sales manager performance (modify, b = -.46, p < .10; sensitivity, b = .36, p < .01). Sales management experience is not significant in the regression. In the regressions with self-monitoring modify as the dependent variable, sales management experience is not significant for the men or women samples. However, when the sensitivity dimension of self-monitoring is regressed on sales management experience, the relationship is significant in the women sales manager sample (b = .45, p < .01).

DISCUSSION

Although some questions remain unanswered, the current research addressed the need to clarify and replicate previous results by extending the self-monitoring scale's applicability from a student sample (Lennox and Wolfe 1984), and salesperson samples (Dubinsky and Hartley 1986a, 1986b; Goolsby, Lagace and Boorom 1992) to a sales management context. These results suggest future research with a larger sample would be appropriate.

The results suggest that sales managers demonstrate a higher degree of self-monitoring than do retail salespeople, and to some extent, than do insurance agents, and the influence of self-monitoring is more predominant for female sales managers than for male sales managers. The results, while not significant for all hypotheses, demonstrate the value of the Lennox and Wolfe (1984) instrument over the unidimensional measures reported in previous sales literature. Dubinsky and Hartley (1986a; 1986b) suggested the lack of association between self-monitoring and job performance is contrary to conventional wisdom. The Goolsby, Lagace, and Boorom (1992) research, and the current research, explained the Dubinsky and Hartley (1986a, 1986b) counterintuitive results by examining the self-monitoring construct in another sales context with the multidimensional measure.

Our results confirm Goolsby, Lagace, and Boorom (1992) findings that the beta coefficients for men and women are in opposite directions for the modify dimension of self-monitoring, and are in the same direction for the sensitivity dimension. The inverse relationship of modify self-monitoring with performance for the women sales manager sample indicates that a predisposition to "modify self-presentation" decreases performance. Goolsby, Lagace, and Boorom (1992) reported salesmen's "ability to modify" was inversely related to performance, a relationship that was direct (and significant) in our sample of male sales mangers. We also report sales management experience is significantly related to "sensitivity" self-monitoring for women but not for men. The

research reported here confirms the Goolsby, Lagace and Boorom (1992) argument that self-monitoring has been inadequately operationalized in previous research.

APPENDIX
SELF-MONITORING SCALE ITEMS

Lennox and Wolfe (1984)

> The next group of questions concerns how you interact with other people, including (but not limited to) the salespeople that you supervise, other managers, your superiors, and in social or non-work situations. Please indicate your agreement or disagreement with each statement,

In social situations, I have the ability to alter my behavior if I feel that something else is called for.

I have the ability to control the way I come across to people, depending on the impression I wish to give them.

When I feel that the image I am portraying isn't working, I can readily change it to something that does.

I have trouble changing my behavior to suit different people and different situations.

I have found that I can adjust my behavior to meet the requirements of any situation I find myself in.

Even when it might be to my advantage, I have difficulty putting up a good front.

Once I know what the situation calls for, it's easy for me to regulate my actions accordingly.

I am often able to read people's true emotions correctly through their eyes.

In conversations, I am sensitive to even the slightest change in the facial expression of the person I'm conversing with.

My powers of intuition are quite good when it comes to understanding others' emotions and motives.

I can usually tell when others consider a joke to be in bad taste, even though they may laugh convincingly.

I can usually tell when I've said something inappropriate by reading it in the listener's eyes.

If someone is lying to me, I usually know it at once from that person's manner of expression.

REFERENCES

Anglin, Kenneth A., Jeffrey J. Stolman & James W. Gentry (1990), "The Congruence of Manager Perception of Salesperson Performance and Knowledge-Based Measures of Adaptive Selling," *Journal of Personal Selling & Sales Management*, 10 (Fall), 81-90.

Armstrong, J. Scott & Terry S. Overton (1977), "Estimating Nonresponse Bias in Mail Surveys," *Journal of Marketing Research*, 14 (August), 396-402.

Ashford, Susan J. & L. L. Cummings (1983), "Feedback as an Individual Resource: Personal Strategies of Creating Information," (1983), *Organizational Behavior and Human Performance*, 32, 370-398.

Ashford, Susan J. & Anne S. Tsui (1991), "Self-Regulation for Managerial Effectiveness: The Role of Active Feedback Seeking," *Academy of Management Journal*, 34 (no. 2), 251-280.

Bagozzi, Richard P. (1980a), "Performance and Satisfaction in an Industrial Sales Force: An Examination of Their Antecedents and Simultaneity," *Journal of Marketing*, 44 (Spring), 65-77.

Bagozzi, Richard P. (1980b), "Salespeople and Their Managers: An Exploratory Study of Some Similarities and Differences," *Sloan Management Review*, 21 (Winter), 15-26.

Bagozzi, Richard P. (1978), "Salesforce Performance and Satisfaction as a Function of Individual Difference, Interpersonal, and Situational Factors," *Journal of Marketing Research*, 15 (November), 517-531.

Bartkus, Kenneth R., Mark F. Peterson & Danny N. Bellenger (1989), "Type A Behavior, Experience, and Salesperson Performance," *Journal of Personal Selling & Sales Management*, 9 (Summer), 11-18.

Behrman, Douglas N., William J. Bigoness & William D. Perreault, Jr. (1981), "Sources of Job Related Ambiguity and Their Consequences Upon Salespersons' Job Satisfaction and Performance," *Management Science*, 27 (November), 1246-1260.

Behman, Douglas N. & William D. Perreault, Jr. (1984), "A Role Stress Model of the Performance and Satisfaction of Industrial Salespersons," *Journal of Marketing*, 48 (Fall), 9-21.

Bernard, J. (1981), *The Female World*, New York: The Free Press.

Briggs, Stephen R., Jonathan M. Cheek, and Arnold H. Buss (1980), "An Analysis of the Self-Monitoring Scale." *Journal of Personality and Social Psychology* 38, no. 4, 679-686.

Busch, Paul & Ronald F. Bush (1978), "Women Contrasted to Men in the Industrial Salesforce: Job Satisfaction, Values, Role Clarity, Performance, and Propensity to Leave," *Journal of Marketing Research*, 15 (August), 438-48.

Caldwell, David F. & Charles A. O?Reilly III (1982), ?Boundary Spanning and Individual Performance: The Impact of Self-Monitoring,? *Journal of Applied Psychology*, 67 (1), 124-127.

Carter, R.N & M.R. Bryant (1980), "Women as Industrial Sales Representatives," *Industrial Marketing Management*, 9, 23-26.

Chodrow, N. (1974), "Family Structures and Feminine Personality," in *Woman, Culture, & Society*, M.Z. Rosaldo and L. Lamphere (eds), Stanford, CA: Stanford University Press, 37-56.

Chonko, Lawrence B., Roy D. Howell & Danny N. Bellenger (1986), "Congruence in Sales Force Evaluations: Relation to Sales Force Perceptions of Conflict and Ambiguity," *Journal of Personal Selling & Sales Management*, 6 (May), 35-48.

Churchill, Gilbert A., Jr. (1979), "A Paradigm for Developing Better Measures of Marketing Constructs." *Journal of Marketing Research*, 16, no. 1 (February), 64-73.

Churchill, Gilbert A. (1991), *Marketing Research: Methodological Foundations*. Chicago: Dryden Press, 1991.

Churchill, Gilbert A., Neil M. Ford, Steven W. Hartley & Orville C. Walker, Jr. (1985), "The Determinants of Salesperson Performance: A Meta-Analysis." *Journal of Marketing Research*, 22 (May), 103-18.

Churchill, Gilbert A., Neil M. Ford & Orville C. Walker, Jr. (1974), "Measuring the Job Satisfaction of Industrial Salesmen," *Journal of Marketing Research*, 11 (August), 254-260.

Churchill, Gilbert A., Neil M. Ford & Orville C. Walker, Jr. (1976), "Organizational Climate and Job Satisfaction in the Salesforce," *Journal of Marketing Research*, 13 (November), 323-332.

Churchill, Gilbert A. & J. Paul Peter (1984), "Research Design Effects on the Reliability of Rating Scales: A Meta-Analysis," *Journal of Marketing Research*, 21 (November), 360-375.

Comer, L.B. & M.A. Jolson (1991), "Perceptions of Gender Stereotype Behavior: An Explanatory Study of Women in Selling," *Journal of Personal Selling & Sales Management*, 11 (1), 43-59.

Cote, Joseph A. & M. Ronald Buckley (1988), ?Measurement Error and Theory Testing in Consumer Research: An Illustration of the Importance of Construct Validation,? *Journal of Consumer Research*, 14 (March), 579-582.

Cron, William L., Alan J. Dubinsky & Ronald E. Michaels (1988), ?The influence of Career Stages on Components of Salesperson Motivation,? *Journal of Marketing*, 52 (January), 78-92.

Cronbach, L. J. (1951), "Coefficient Alpha and the Internal Structure of Tests," *Psychometrika*, 16 (October), 297-334.

Donnelly, James H., Jr. & John M. Ivancevich (1975), "Role Clarity and the Salesman," *Journal of Marketing*, 39 (January), 71-74.

Dubinsky, Alan J. & Steven W. Hartley (1986a), "Antecedents of Retail Salesperson Performance: A Path-Analytic Perspective." *Journal of Business Research* 14, no. 3, 253-268.

Dubinsky, Alan J. & Steven W. Hartley (1986b), "A Path-Analytic Study of a Model of Salesperson Performance." *Journal of the Academy of Marketing Science* 14, no. 1 (Spring), 36-46.

Dwyer, F. Robert & M. Ann Welsh (1985), "Environmental Relationships of the Internal Political Economy of Marketing Channels," *Journal of Marketing Research*, 22 (November), 397-414.

Fine, Leslie M. & Sarah Fisher Gardial (1990), "The Effects of Self-Monitoring and Similarity on Salesperson Inferential Processes." *Journal of Personal Selling & Sales Management* 10, no. 4 (Fall), 7-16.

Franke, G. R., D. N. Behrman & W. D. Perreault (1982), "Salesforce Performance and Satisfaction: Contemporaneous Relationships and Selected Antecedents," *AMA Educators? Conference Proceedings*, B. J. Walker Et al., eds., Chicago: American Marketing Association, 233-237.

Gentry, James W., John C. Mowen & Lori Tasaki (1991), "Salesperson Evaluation: A Systematic Structure for Reducing Judgmental Biases," *Journal of Personal Selling & Sales Management*, 11 (Spring), 27-38.

Gerbing, David W. & James C. Anderson (1988), ?An Updated Paradigm for Scale Development Incorporating Unidimensionality and Its Assessment,? *Journal of Marketing Research*, 25 (May), 186-192.

Goolsby, Jerry R., Rosemary R. Lagace & Michael L. Boorom (1992), "Psychological Adaptiveness and Sales Performance." *Journal of Personal Selling & Sales Management* 12, no. 2 (Spring), 51-66.

Guest, Donald B. & Havva J. Meric (1989), "The Fortune 500 Companies' Selection Criteria for Promotion to First Level Sales Management: An Empirical Study," *Journal of Personal Selling & Sales Management*, 9 (Fall), 47-52.

Hair, Joseph F., Jr., Rolph E. Anderson, Ronald L. Tatham & William C. Black (1992), *Multivariate Data Analysis with Readings*. New York: Macmillian Publishing Company.

Horner, M.S. (1972), "Toward and Understanding of Achievement Related Conflicts in Women," *Journal of Social Issues*, 28, 157, 175.

Howell, R. D. (1987), ?Covariance Structure Modeling and Measurement Issues, A Note On Interrelations Among a Channel Entity?s Power Sources,? *Journal of Marketing Research*, 24 (February), 119-126.

Jaworski, Bernard J. & Ajay K. Kohli (1991), "Supervisory Feedback: Alternative Types and Their Impact on Salespeople's Performance and Satisfaction," *Journal of Marketing Research*, 28 (May), 190-201.

Jaworski, Bernard J. &Deborah J. MacInnis (1989), "Marketing Jobs and Management Controls: Toward a Framework," *Journal of Marketing Research*, 26 (November), 406-419.

Johnson, Richard A. & Dean W. Wichern (1988), *Applied Multivariate Statistical Analysis* Englewood Cliffs, New Jersey: Prentice Hall.

Jolson, Marvin A. (1974), "The Salesman's Career Cycle,? *Journal of Marketing*, 38 (July), 39-46.

Kilmann, R.J. & K.W. Thomas (1977), "Developing a Forced Choice Measure of Conflict-Handling Behavior: The 'Mode' Instrument," *Educational and Psychological Measurement*, 37, 309-325

Kohli, Ajay K. (1989), ?Effects of Supervisory Behavior: The Role of Individual Differences Among Salespeople,? *Journal of Marketing*, 53 (October), 40-50.

Larson, James R., Jr. (1984), "The Performance Feedback Process: A Preliminary Model," *Organizational Behavior and Human Performance*, 33, 42-76.

Lennox, Richard D. & Raymond N. Wolfe (1984), "Revision of the Self-Monitoring Scale." *Journal of Personality and Social Psychology* 46, no. 6, 1349-1364.

McKay, Sandra, Joseph F. Hair, Jr., Mark W. Johnston & Daniel L. Sherrell (1991), "An Exploratory Investigation of Reward and Corrective Responses to Salesperson Performance: An Attributional Approach," *Journal of Personal Selling & Sales Management*, 11 (Spring), 39-48.

Morrison, Elizabeth Wolfe & Robert J. Bies (1991), "Impression Management in the Feedback-Seeking Process: A Literature Review and Research Agenda," *Academy of Management Review*, 16 (no. 3), 522-541.

Mowen, John C., Stephen Brown & Donald W. Jackson, Jr. (1980-81), "Cognitive Biases in Sales Management Evaluation," *Journal of Personal Selling & Sales Management*, 1 (Fall/Winter), 83-88.

Mowen, John C., Janet E. Keith, Stephen W. Brown & Donald W. Jackson, Jr. (1985), "Utilizing Effort and Task Difficulty Information in Evaluating Salespeople," *Journal of Marketing Research*, 22 (May), 185-191.

Nunnally, J. C. (1978), *Psychometric Theory*, McGraw-Hill, New York.

Peter, J. Paul (1981), "Construct Validity: A Review of Basic Issues and Marketing Practices," *Journal of Marketing Research*, 18 (May), 133-145

Peter, J. Paul.(1979), "Reliability: A Review of Psychometric Basics and Recent Marketing Practices." *Journal of Marketing Research* 16, no. 1 (February), 6-17.

Singh, Jagdip (1991), "Redundancy in Constructs: Problem, Assessment, and an Illustrative Example," *Journal of Business Research*, 22, 255-280.

Skolnik, R. (1985), "A Woman's Place is on the Sales Force," *Sales & Marketing Management*, 134(5), 34-37.

Snyder, Mark (1974), "Self-Monitoring of Expressive Behavior," *Journal of Personality and Social Psychology* 30(4), 526-537.

Snyder, Mark (1979), "Self-Monitoring Processes," *Advances in Experimental Social Psychology,* New York: Academic Press.

Snyder, Mark & N. Cantor (1979), *Thinking about ourselves and others: Self-monitoring and social knowledge,* Unpublished manuscript, University of Minnesota and Stanford University.

Snyder, Mark & Steve Gangestad (1986), "On the Nature of Self-Monitoring: Matters of Assessment, Matters of Validity," *Journal of Personality and Social Psychology* 51 (1), 125-139.

Spiro, Rosann L. & Barton A. Weitz (1990), ?Adaptive Selling: Conceptualization, Measurement, and Nomological Validity,? *Journal of Marketing Research*, 27, 61-69.

Sujan, Harish (1986), "Smarter Versus Harder: An Exploratory Attributional Analysis of Salespeople's Motivation," *Journal of Marketing Research*, 23 (February), 41-49.

Swan, J.E., D.R. Rink, G.E. Kiser & W.S. Martin (1984), "Industrial Buyer Image of the Saleswoman," *Journal of Marketing*, 48 (Winter), 110-116.

Teas, R. Kenneth, John G. Wacker & R. Eugene Hughes (1979), "A Path Analysis of Causes and Consequences of Salespeople's Perceptions of Role Clarity," *Journal of Marketing Research*, 16 (August), 355-369.

THE RELATIONSHIP BETWEEN MARKETING AND PRODUCT DEVELOPMENT PROCESS AND THEIR EFFECTS ON FIRM PERFORMANCE

Serkan Aydin, Gebze Institute of Technology
Ayse Tansel Cetin, Gebze Institute of Technology
Gokhan Ozer, Gebze Institute of Technology

ABSTRACT

This paper focuses on the relationship between marketing performance and new product development process and their effects on a firm's performance. In order to measure the hypotheses in the study, multi-item scales are employed, and existing measures from the literature are used. Marketing performance has impacts on new product cycle time and innovation capability. Furthermore, marketing performance, innovation capability, and product design capability affect a firm's performance. Managers should consider the crucial role of innovation and new product design capability in order to obtain competitive advantage against potential rivals. However, the firm's R&D activities require increased budget expenditures as well as organizational commitment to learning. Our study reveals that new product development cycle time has a non-statistically significant positive effect on a firm's performance, since the firm's R&D budgets are insufficient in Turkey when compared to firms in other countries. Therefore, companies do not attempt to gain competitive advantage by offering new product and services faster than rivals, but they aim at surviving by meeting customer needs. In conclusion, our study confirms that marketing performance, innovation capability and product design capability affect a firm's performance.

INTRODUCTION

In today's competitive environment, firms should meet their customers' needs, develop new products that satisfy the demand of their target customers, find new markets for their products, diversify their markets, and produce superior quality products with low costs and short delivery time in a timely manner. Product life cycles in especially high technology industries are even reduced to about one year due to rapid changes in technology and customer expectations. For instance, a survey revealed that fortune 1000 firms, well-known for their innovativeness, generate about one third of the total revenues in their marketplace (Booz & Hamilton, 1982). New product development and marketing activities seem, therefore, to be among the most crucial factors in obtaining and sustaining competitive advantage.

According to Schaefer (1999), successful new products are the principal indicators of profitability of a firm, so product development is argued to be an important source of competitive advantage for firms. However, new product development is a complex process including core competencies, and various tasks that must be partitioned into manageable-sized tasks. On the other hand, the ability to design and develop new products, in response to changes in customer needs, is not sufficient enough for a firm to have a competitive advantage (Rungtusanatham & Forza, 2004). A new product must also be cost-efficient, i.e., efficiently produced and competitively priced.

Success of new product development process is related to the firm's ability to determine and understand customer needs. Moreover, considerable marketing effort is needed to ensure that the customer needs are properly identified and translated into technical specifications (Evans & Lindsay, 1996). Hence, marketing proficiency of the firm has an impact not only on the firm's performance but also on the success of new products. Obviously, marketing makes a crucial contribution to long-term business success (Llonch et al., 2002).

This paper has four sections. The second section surveys the literature about the relationships between a firm's performance, new product development and marketing proficiency. Research hypothesis is presented in the third section. The fourth is devoted to methodology, measures, and tests of the hypothesis. The managerial implications and study's limitations are discussed in the fifth.

LITERATURE

Marketing Performance

Kotler and Andreasen (1996, p. 379) defines marketing as "the process of planning and executing programmes designed to create, build and maintain beneficial exchange relationships with target audiences for the purposes of satisfying individual and organizational objectives." Marketing enables firms to achieve their goals more effectively (Houston, 1986). Sinkula (1994) stresses that marketing has a key role in understanding and acting upon the environment by gathering, disseminating, interpreting and storing data and information.

Woller (2002) notes that marketing includes both a set of functional activities: product design, production, promotion, pricing and distribution, and a mind-set that emphasizes the creation of value, both ultimately aimed to influence customer behaviour in specific ways. According to Kohli & Jaworski (1990), marketing helps firms to take a pro-active attitude to do business and be responsive to customer needs and market changes. In this respect, marketing links the external environment with relevant functional areas in the firm (Gummesson, 1991). Therefore, marketing proficiency of a firm represents its ability to obtain information about its environment: customers, competitors, etc., to transform and process it with other functional departments. Clearly, the marketing proficiency of the firm affects the firm's performance (Woodside et al., 1999). Based on the relationship between marketing proficiency and a firm's performance, Hooley et al. (2005)

argues that the firm will command a stronger competitive position in the market by leveraging marketing proficiency. Hence, marketing proficiency plays a key role for successful strategic planning, operations and accomplishing corporate-wide goals (Yoon & Choi, 2002).

New Product Development

In new product development process, identifying needs and translating them into technical specifications require coordination of marketing and product development efforts. In order to coordinate organizational functions, such as marketing, product design, development, manufacturing etc., effectively, various techniques, such as. Balanced scorecard, concurrent engineering, quality function deployment can be used.

According to Ettie (1997), strategic context of new product development is related to proficiency in all organizational function (e.g. marketing, R&D, manufacturing etc.). New product development strategy requires a master plan which guides the firm's innovation efforts and links new product development to the corporate plan (Cooper, 1987). Moreover, product development requires a mixture of overlapping activities, constrained costs, compressed time to market, improved quality and increased flexibility to be effective (Driva et al., 2000). To coordinate this mixture of overlapping activities, Brown & Eisenhardt (1995) suggest that organization should establish a communication web in which information is gathered from multiple sources, analysed, interpreted and acted on in order to improve product development process.

Admittedly, the foundation of the new product development process is innovation (Hwang, 2004). Thompson (1965) defines innovation as the generation, acceptance, and implementation of new ideas, processes, and products. Innovation is recognized as an engine for economic growth (Muller et al., 2005) and cited as an important factor for sustaining competitive advantage (Malewicki & Sivakumar, 2004), since innovativeness has a positively consistent effect on new product development (Kleinschmidt & Cooper, 1991).

Product design is also considered as an essential aspect of innovation as well as the early phase of new product development process (Gomez et al., 2004). Product design covers consecutive activities determining customer or market expectations, focusing on the creation of design concepts, developing a product or a service to meet a specific demand, selecting materials, and testing the finished product (Lamancusa et al., 2004). In accordance with Industrial Designers Society of America (IDSA), product design is a crucial factor early on in the new product development process (Veryzer, 2002). At the same time, Hsiao & Chou (2004) observe that product design process affects both product life cycle and success/failure of new product development process.

The performance of new product development process is related to the product development cycle time. According to Hartley et al. (1997), product development cycle time is affected by the following factors: i- firm's organizational structure and processes, ii- suppliers' organizational structure and processes, and iii- structure and processes of buyer-supplier interfaces. At many firms

speeding up the new product development process is already a top priority for the managers (Swink, 2002). Indeed, Lynn et al. (1999) observed the fact that new product development cycle time -speed to market or accelerating product development- was a significant determinant of a new product's success. However, as the timely new product development could improve success of a firm, it might also have risks because of the acceleration in new product development cycle time (Crawford, 1992). Therefore, "developing and launching a new product within the proper time frame" (Lynn et al., 1996) is more important than an acceleration in new product development cycle time.

RESEARCH HYPOTHESES

Marketing and New Product Development Performance

Product development process should be connected to marketing activities for the purpose of identifying customer needs and translating them into a new product. According to Kleinschmidt & Cooper (1991), one of the nine drivers of new product success is marketing synergy. Therefore, marketing proficiency of a firm determines the success of the product development process. Indeed, previous studies in the literature (Maidique & Zirger, 1984; Song & Parry, 1996; Kim et al., 2005 etc.) illustrate that marketing proficiency of a firm significantly affects the success of the new product development process. Since determining proper time frame for offering a new product is a marketing activity, marketing and managerial proficiency are the determining factors for real innovations (Kleinschmidt & Cooper, 1991). Furthermore, market size and growth in demand play a strong role in the success of innovative activity (Schmookler, 1972). It is obvious that market size and growth in demand is partly affected by performance of marketing activities, such as market research and development.

Hypothesises can be formulated:

Hypothesis 1:	Marketing performance has a positive effect on new product development cycle time.
Hypothesis 2:	Marketing performance has a positive effect on innovation capability of a firm.
Hypothesis 3:	Marketing performance has a positive effect on product design capability of a firm.

New Product Development and Firm Performance

New product development process affects the quality of a product. It can be argued that the perceived value of a product in the market depends on the quality of its design (Evans & Lindsay, 1996). Improvements in product development process enhance the firm's reputation, corporate

image, and the perceived value of the product. Thus, the firm can offer the product at a higher price, achieve greater market share, and, thereby, maximize its sales revenues accelerating product development and "developing and launching a new product within the proper time frame", and have a positive impact on a firm's performance.

We propose Hypothesis 4 as follows:

Hypothesis 4:　　　New product development cycle time has a positive effect on
　　　　　　　　　a firm's performance.

As stated by Calantone et al (2002), Kleinschmidt & Cooper (1991), Cho & Pucik (2005), there is a significant correlation between innovation capability of a firm and its performance.

We propose the following hypothesis as:

Hypothesis 5:　　　Innovation capability of a firm has a positive effect on its
　　　　　　　　　performance.

The product design determines not only the performance of a product, but also its manufacturing and storage costs (Gomez et al, 2004). Most of the studies to date confirm the significant effects of product design on financial performance, market share, sales volume, and profits (Potter et al., 1991; Roy & Potter, 1993; Press, 1991 etc.).

Thus, our sixth hypothesis is:

Hypothesis 6:　　　Product design capability of a firm has a positive effect on its
　　　　　　　　　performance.

Marketing and Firm Performance

Marketing proficiency of a firm is defined as an ability to understand what the customer needs are, and how to meet them better than the competitors do (Hill, 1994; Conant et al., 1990; Li, 2000). Thus, primary determinant of quality is appropriateness for use (Anderson et al., 1997). Therefore, marketing proficiency is expected to have a positive effect on product quality. On the other hand, quality is the key factor of customer satisfaction and customer loyalty (Aydin & Ozer, 2005, Brady & Robertson, 2001 etc.). Furthermore, pre and post-sale services affect customer satisfaction. Price also plays a pivotal role in the relationship between the product quality and customer satisfaction (Anderson et al., 1997). Customer satisfaction and loyalty may positively affect market share, return on investments (ROI) and profit (Yeung et al., 2002; Anderson et al., 1997 etc.). It is obvious that, improvements in marketing performance result in improvements in a firm's performance.

Therefore, we propose the last hypothesis as follows:

Hypothesis 7:   Marketing performance has a positive effect on a firm's performance.

All the relationships among the variables were illustrated in Figure 1 on the following page.

RESEARCH METHODOLOGY

Measure Development

In order to measure the constructs in the study, multi-item scales are employed and existing measures in the literature are used. 5-point Likert scale is used with anchors from "strongly disagree" to "strongly agree". To measure marketing performance and product design capability, a five-item scale was adapted from Li (2000) and Browne et al. (1998).

To evaluate innovative capacity, the four-item instrument developed by Browne et al. (1998) is used. New product development cycle time is measured via three items developed by Lynn et al. (1999). Lastly, firm performance questions were adapted from Kaynak (2003) and Calantone et al. (2002).

Figure 1: Conceptual Model
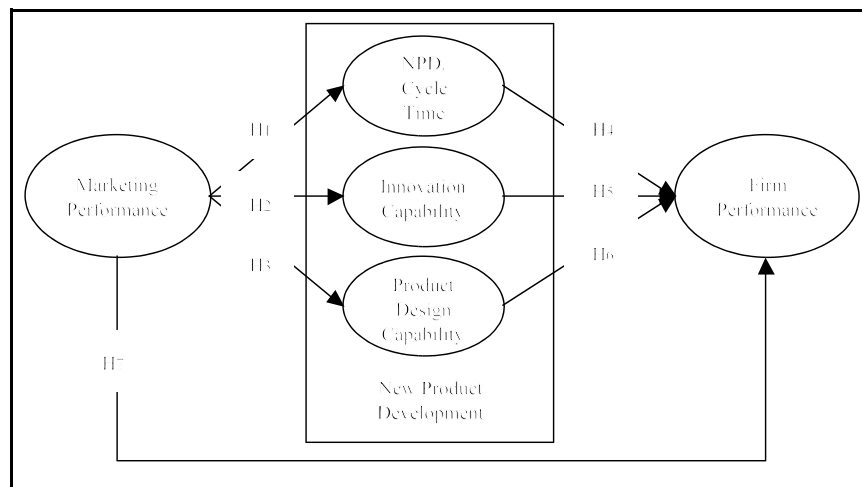
Data Collection

A survey is conducted for data collection in the manufacturing industry in Turkey. A list of 200 manufacturing firms in Kocaeli, a major industrialized city in Turkey, was compiled from the Chamber of Commerce, and a questionnaire was mailed to these 200 firms. Among those, 85 firms responded and filled out the survey form. Because of careless responses of the participants, 15 of the responses were eliminated. As a result, the response rate is 35 percent**.** (70 out of 200 firms). 37.1 percent of the firms in the sample are small size (<100, employees). The response rate 52.9% and 10% for the medium size (100-499 employees), and large size firms (500 or more employees), respectively. 24.3% of the respondents are general managers and 75.7 % of respondents are assistant managers. Data covers the following sectors: food, textile, chemicals, basic metal, transport equipment, machinery and equipment, chemicals, rubber, paper, paper products, wood, and wood products.

Non-response bias was tested via analysis of mean scores on the items of factors for early -30 observations- and late respondents -30 observations-. According to t tests at 5% level, there was no significant differentiation between item scores of early and late respondents. Consequently, non response bias is not significant for this study.

Measure Validation

Firstly, data were analysed via exploratory factor analysis, the principal component analysis and Varimax rotation, to evaluate the unidimensionality of the constructs. Unidimensionality is a necessary condition for reliability and construct validation (Mak & Sockel, 2001, p.271). The findings of the factor analysis revealed a five-factor structure, explaining 72.9 per cent of the variance with all five factors greater than 1. All items loaded appropriately onto their respective factors, all the factor loadings were greater than 0.5 and no cross-loadings above 0.4 were identified. The factor loadings supported the internal consistency, since all the factor loadings were greater than 0.3 (Kim et al, 2004). The KMO measure of sampling adequacy was 0.877; it illustrated that the factor analysis was meritoriously appropriate (Hair et al., 1998).

For reliability analyses, Cronbach's alpha coefficient was used. The reliability coefficients for marketing performance, product design, innovation capability, product design cycle time, and firm performance were 0.75, 0.91, 0.84, 0.88 and 0.92 respectively. Our study Cronbach's alpha value for all the factors were over 0.70. This rate has been accepted to be sufficiently reliable in the literature (Nunnaly 1978). All construct items, item loadings, and Cronbach's alpha values are presented in Appendix A.

Tests of the Hypotheses

The relationships among the variables could be analysed via structural equation modelling technique. However, structural equation modelling requires a large sample size as stated by Hair et al. (1998, p.604) "…more typical is a minimum ratio of at least five respondents for each estimated parameter, with a ratio of 10 respondents per parameter considered more appropriate." Since the number of observed case in this study is 70 and is rather small, we apted for linear regression analysis. The regression models are as follows:

$$CT = b_0 + b_1 * MP + e \qquad \text{(RM1)}$$
$$IC = b_0 + b_2 * MP + e \qquad \text{(RM2)}$$
$$PD = b_0 + b_3 * MP + e \qquad \text{(RM3)}$$
$$FP = b_0 + b_4 * NPCT + b_5 * IC + b_6 * PDC + b_7 * MP + e \qquad \text{(RM4)}$$

CT: New product cycle time,
IC: Innovation capability,
PD: Product design capability,
MP: Marketing performance,
FP: Firm performance,
e: error term

Hypotheses, regarding the effect of marketing performance on product design, innovativeness capability, and new product development cycle time, were tested via simple linear regression models (RM1-RM3). The results of the regression analysis are presented in Table 1. Regression model 1 (RM1) explains 33% of the observed variance in new product development cycle time. It is significantly greater than zero ($F^1_{68}= 33.792$; $p< 0.01$). Marketing performance has a positive and significant effect ($b_1 = 0.921$; $p< 0.01$) on new product development cycle time. It supports Hypothesis 1.

As shown in Table 1 (see RM2 and RM3 columns), marketing performance explains significantly %26 of the observed variance in innovation capability ($F^1_{68}= 24.098$; $p< 0.01$) and %44 of the observed variance in product design ($F^1_{68}= 54.34$; $p< 0.01$). Furthermore, marketing performance has a positive and significant effect on both innovation capability ($b_2= 0.620$; $p< 0.01$) and product design capability ($b_3 = 0.898$; $p< 0.01$). These findings provide support for the Hypothesis 2 and Hypothesis 3.

RM4 is an extended model. Firm performance is the dependent variable, and marketing performance, innovation, product design capability and new product development cycle times are the independent variables. The result of regression model RM4 shows that this model is statistically significant ($F^4_{65}= 24.958$; $p< 0.01$), and the independent variables explain 60% of the observed

variance in the firm's performance. Furthermore, innovation capability ($b_5 = 0.276$; $p < 0.01$), product design capability ($b_6 = 0.147$; $p < 0.10$), and marketing performance ($b_7 = 0.577$; $p < 0.01$) are found to exert positive and significant effects on a firm's performance. However, new product development cycle time has no significant impact on a firm's performance ($b_4 = 0.001$; $p < 0.45$).

Table 1: Regression Results				
	Regression Models			
	RM 1	RM 2	RM 3	RM 4
Independent Variable	Dependent Variable	Dependent Variable	Dependent Variable	Dependent Variable
	New Product Cycle Time	Innovation Capability	Product Design Capability	Firm Performance
Intercept	-0.307/(0.0545)	1.509/(0.435)*	0.208/(0.419)	0.180/(0.376)
Marketing Performance	0.921/(0.158)*	0.620/(0.126)*	0.898/(0.122)	0.577/(0.134)*
New Product Cycle Time	-	-	-	0.001/(0.086)
Innovation Capability	-	-	-	0.276/(0.115)*
Product Design Capability	-	-	-	0.147/(0.115)**
R^2	0.332	0.262	0.444	0.606
F	33.792	24.098	54.34	24.958
First values are unstandardized parameter estimation Second values in parentheses are standardized error of the parameter estimation. (*): Significant parameter at 1%. (**): Significant parameter at 10%.				

CONCLUSION

This paper provides two insights, the first, the effects of marketing performance on new product development process: innovation, new product design and new product development cycle time, and the second, the effects of these factors, including marketing performance on firm performance. These effects are analysed via regression analysis because of the insufficient sampling size to use structural equation modelling. The findings support all the hypotheses, except one (H_4), and is consistent with the findings reported in the literature.

Clearly, marketing performance has a positive effect on innovation capability, product design capability and new product development cycle time. However, regression analyses (RM1-RM3)

show that marketing performance has the most influence on product design capability. This powerful influence stems from marketing activities which involve a firm's ability to both meet customers' needs and follow the changes in market in a timely manner. Organizations should be flexible when it comes to technological changes and customer demands. (Calantone, et al., 2002). Although innovation capability is related to marketing performance, innovativeness of the firm is a function of its learning orientation (Calantone et al., 2002), organizational culture that fosters, openness to new ideas (Hurley & Hult (1998), risk taking, and flexibility (Cho & Pucik, 2005) etc. Similarly, new product cycle time is influenced by many factors, such as vision, new product development process, long-term view, and product refinement (Lynn et al., 1999), etc. Consequently, it may be argued that these factors have a significant influence on both innovation capability and new product cycle time, compared to product design.

Regression model RM4 reveals that marketing performance, product design capability, and innovation capability have positive and a significant effect on a firm's performance. According to the b parameters of dependent variables in RM4, the most affective factor on a firm's performance is marketing performance. Also, t-tests show that b_7 parameter of marketing performance, is significantly greater than b_5 parameter of marketing performance, $t = 5.33$, $p < 0.01$, and b_6 parameter of product design capability, $t = 5.18$, $p < 0.01$. Literature also supports our findings. As explained before, marketing performance influences not only a firm's performance but also the new product development process. Therefore, marketing performance has both direct and indirect effect on a firm's performance. In fact, if we had been able to use the structural equation modelling, we could have determined these relationships specifically.

According to Peters & Waterman's study (1987), successful firms better understand their user requirements, and the main cause of failure in new product developments is not consulting the users and ignoring users' demands. Certainly it may be argued that managers should focus on marketing activities for improving their firm's performance.

Our findings also confirm that innovation and new product development capability have positive impact on the firm's performance, and thereby, both enable firms to obtain competitive advantage. Our results support findings in the literature. At this point, it is important to state that managers should improve their firm's research and development activities. Needless to say, improving a firm's R&D activities require increased budget expenditures and organizational commitment to learning. However, although new product development cycle time has a positive effect on the firm performance, this is not statistically significant. One possible explanation may be that firms' R&D budgets are insufficient in Turkey in comparison to the firms in other countries, such as in the OECD countries. Since R&D is not taken seriously by most business in Turkey, the main competitive advantage arises from meeting customer needs satisfactorily, rather than offering new products and services faster than rivals.

Among the 29 OECD countries, Turkey is a country which allocates the least amount of its resources to R&D expenditures. While Finland allocates 3.37 %, Japan, 2,98 %, and Spain 0.94 %

of their respective GNP's, in Turkey this ratio is only 0.64% (DIE, 2004). However, the findings from both this paper and the studies in the literature reveal that innovation and new product design capability influence a firm's performance, and thereby, enhance the firm's competitive advantage. By integration of Turkish economy into EU economy, it is clear that competition will increase. Therefore, companies should consider the crucial role of innovation and new product design capability not only to survive in a competitive business environment but to obtain competitive advantage against potential rivals.

There is general agreement that active policies by governments could play a major role in creating and facilitating a favourable climate to encourage and attract R&D investment of local and foreign companies (Unctad, 2005). According to the research of UNCTAD (2005), Turkey is the 19th most attractive location for R&D investment in spite of the fact that Turkey has a large and fast growing market and low-cost skilled labour (engineers and scientists) for R&D activities. Therefore, Turkey can attract direct foreign investment for R&D by forming integrated industrialization projects and by following creative science-technology and human resource policies.

LIMITATIONS AND FUTURE RESEARCH DIRECTION

This paper has several limitations. Even though we tried to contact more firms, time and budget constraints limited our study to only 70 firms. Furthermore, only one manager from each firm responded to the questionnaire form. Probable perceptual differences among managers in a firm could have been eliminated by contacting more than one manager in the firm. In this way, the measurement error from the managers' perceptions could have been minimized.

As stated earlier, there are many factors affecting innovation and product design capability, such as learning orientation, organizational culture, risk taking and flexibility etc., in addition to marketing performance. The effect of new product development process on a firm's performance is also related to its manufacturing capability, such as flexibility, manufacturing planning, capacity, and materials management, etc. Therefore, in our future research, we plan to include these factors and analyse the relationships among these variables simultaneously.

REFERENCES

Andersen, B., Browne, J., Devlin, J.& Rolstadas, A. (1997). Performance measurement: The ENAPS approach. *The International Journal of Business Transformation,* 1(2), 73-84.

Aydın, S. & Özer, G. (2005). The analysis of antecedents of customer loyalty in the Turkish mobile telecommunication market. *European Journal of Marketing*, 39(7), 910-925.

Booz, A. & Hamilton (1982). *New product management for the 1980's*, New York:Booz-Allen&Hamilton Inc.

Brady, M.K. & Robertson, C.J. (2001). Searching for a consensus on the antecedent role of service quality and satisfaction: An exploratory Cross-National study. *Journal of Business Research*, 51(1), 53-60.

Browne, J., Devlin, J. Rolstadas, A., & Andersen, B. (1998). Performance measurement - the ENAPS Approach. *The International Journal of Business Transformation*, 1(2), 73-84.

Brown, S.L., & Eisenhardt., K.M. (1995). Product development: Past research, present findings, and future directions. *Academy of Management Review,* 20(2), 343-378.

Calantone, R.J. & Cavusgil, S.T., Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial Marketing Management*, 31(6), 515-524.

Cho, H.J. & Pucik, V. (2005). Relationship between innovativeness, qualıty, growth, profıtabılıty, and market value. *Strategic Management Journal*, 26(6), 555-575.

Conant, J.S., Mokwa, M.P., & Varadarajan, P.R. (1990). Strategic types, distinctive marketing competencies and organizational performance; A multiple measure-based study. *Strategic Management Journal*, 11(5), 365-383.

Cooper, R.G. (1987). Defining product development strategy. *IEEE Transactions on Engineering Management,* 34(3), 184-193.

Crawford, C.M. (1992). The hidden costs of accelerated product development. *Journal of Product Innovation Management*, 9(3), 189-199.

Devlet İstatistik Entitüsü (DİE). Retrieved, 01.09. 2004, from http://www.die.gov.tr.

Driva, H., Pawar., K.S., & Menon., U. (2000). Measuring product development performance in manufacturing organisations. *International Journal of Production Economics*, 63(2), 147-159.

Ettlie, J.E. (1997). Integrated design and new product success. *Journal of Operations Management,* 15(1), 33-55.

Evans, J.R. & Lindsay, W.M. (1996). *The management and control of quality 3rd ed,* West Publishing Co., St Paul, MN.

Gomez., R.C., Vidal, J.A., & Alcami, R.L. (2004). A model of product design management in the Spanish Ceramic Sector. *European Journal of Innovation Management*, 7(2), 150-161.

Gummesson, E. (1991). Marketing-orientation revisited: The crucial role of the parttime marketer. *European Journal of Marketing*, 25(2), 60-75.

Hair, J.F., Anderson, R.E., Tatham, R.L., & Black, W.C. (1998). *Multivariate data analysis with Readings, N*ew Jersey: Prentice Hall, Englewood Cliffs.

Hartley, J.L., Zirger, B.J., & Kamath, R. R. (1997). Managing the buyer-suplier interface for on-time performance in product development. *Journal of Operations Management*, 15(1), 57-70.

Hill, T. (1994). *Manufacturing strategy, 2nd ed.,* Irwin Professional, Burr Ridge, IL.

Hooley, G.J., Greenley, G. E., Cadogan, J. W., & Fahy, J. (2005). The performance impact of marketing resources. *Journal of Business Research*, 58(1), 18-27.

Houston, F.S. (1986). The marketing concept: What it is and what it is not. *Journal of Marketing,* 50(2), 81-87.

Hsiao, S.W., & Chou, J.R. (2004). A creativity-based design process for innovative product design. *International Journal of Industrial Ergonomics*, 34(5), 421-443.

Hurley, R.F., Hult, GTM. (1998). Innovation, market orientation, and organizational learning: an integration and empirical examination. *Journal of Marketing*, 62(3), 42-54.

Hwang, A.S. (2004). Integrating technology, marketing and management innovation. *Research Technology Management*, 47(4), 27-31.

Kaynak., H. (2003). The relationship between total quality management practices and their effects on firm performance. *Journal of Operations Management*, 21(4), 405-435.

Kim, M.K., Park, M.C. & Jeong, D.H. (2004). The effects of customer satisfaction and switching barrier on customer loyalty in Korean Mobile Telecommunication Services. *Telecommunications Policy*, 28(2), 145-159.

Kim, J.Y., Wong, V., & Eng, T.Y. (2005). Product variety strategy for improving new product development proficiencies. *Technovation*, 25(9), 1001-1015.

Kleinschmidt, E.J., & Cooper, R.G. (1991). The impact of product innovativeness on performance. *Journal of Production and Innovation Management*, 8(4), 240-251.

Kohli, A.K., Jaworski, B.J. (1990). Market orientation: The construct, research propositions, and managerial implications. *Journal of Marketing*, 54(2), 1-18.

Kotler, P. & Andreasen, A.R. (1996). *Strategic Marketing for Non-profit Organizations* (5th edn.). Pearson Education/Prentice-Hall, Upper Saddle River, New Jersey.

Lamancusa, J.S., Jorgensen, J.E., & Fridley, J.L. (2004). *Product dissection – a tool for benchmarking in the process of teaching design.* Proceedings of the 1996 Frontiers in Education Conference, Salt Lake City UT November.

Li, X. Ling. (2000). An analysis of sources of competitiveness and performance of Chinese manufactures. *International Journal of Operations & Production Management*, 20(3), 299-315.

Llonch, J., Eusebio. R., & Ambler, T. (2002). Measures of marketing success: A comparison between Spain and the UK. *European Management Journa*l, 20(4), 414-422.

Lynn, G., Abel, K. D., Valentine, W. S., & Wright. R. C. (1999). Key factors in increasing speed to market and improving new product success rates. *Industrial Marketing Management,* 28(4), 319-326.

Lynn, G., Valentine, W., & Robert, W. (1996). A benchcmarking study of new product and process development. *Engineering Management Journal*, 8(4), 5-14.

Maidique, M. A., & Zirger, B. J. (1984). A study of success and failure in product innovation: The case of the U.S. electronics industry. *IEEE Transaction on Engineering Management,* 51(1), 192-203.

Mak, B. L., & Sockel, H. (2001). A confirmatory factor analysis of IS employee motivation and retention. *Information and Management*, 38(5), 265-276.

Malewicki, D., & Sivakumar, K. (2004). Patents and product development strategies: A model of antecedents and consequences of patent value. *European Journal of Innovation Management*, 7(1), 5-22.

Muller, A., Valikangas, L., & Merlyn P. (2005). Metrics for innovation guidelines for developing a customized suite of innovation metrics. *Strategy and Leadership*, 33(1), 37-45.

Nunnally, J. C. (1978). *Psychometric theory, 2nd edition.* McGraw-Hill, New York.

Peters, T., & Waterman, R. H. (1987). *Yönetme ve yükseltme sanatı,* Çev: Selami Sargut, Altın Kitaplar Yayınevi, İstanbul.

Potter, S., Roy, R., Capon, C., Bruce, M., Walsh, V., & Lewis, J. (1991). *The benefits and costs of investment in design: Using professional design expertise in product*, *engineering and graphic projects*, Design Innovation Group, Manschester.

Pres, M. (1991). *Design management in the Ceramics Industry*, Stafforshire University Design Research Centre, Stoke on Trent.

Roy, R., & Potter, S. (1993). *The commercial impacts of investment in design.* Design Studies, 14(2), 171-93.

Rungtusanatham, M., & Forza, C. (2005). Coordinating product design, proecess design, and supply chain desing decisions part A: Topic motivation, performance implicaitons, and article review process. *Journal of Operations Managament*, 3(4), 257.

Schaefer, S. (1999). Product design partitions with complementary components. *Journal of Economic Behavior & Organization*, 38(3), 311-330.

Schmookler, J. (1972). *Patents, invention and economic growth - data and selected essays*, edited by Zvi, Grilliches & Leonid Hurvicz, Cambridge: Harvard University Press.

Sinkula, J.M. (1994). Market information processing and organizational learning. *Journal of Marketing, 58 (1), 35-45.*

Song, X. M., Parry, M. E. (1996). What separates Japanese new product winners from losers. *Journal of .Production Innovation Management*, 13(5), 422-439.

Swink, M. (2002). Product development- faster, on time. *Research Technology Management*, 45(4), 50-58.

Thompson, V.A. (1965). Bureaucracy and innovation. *Administrative Science Quarterly* 10/1: 1-20.

UNCTAD (2005). *Trade and development board commission on investment, technology and related financial issues expert meeting on the impact of FDI on development Geneva,* 24–26 January 2005.

Veryzer, R. (2002). Design and development of innovative high-tech Products. *Design Management Journal*, 2(Winter), 51-60.

Woller, G. (2002). From market failure to marketing failure: Market orientation as the key to deep outreach in microfinance. *Journal Of International Development, 14(3), 305-324.*

Woodside, A.G., Sullivan, D.P., Tarppey III, R. J. (1999). Assessing relationships among strategic types, distinctive marketing competencies, and organizational performance. *Journal of Business Research*, 45(2), 135-146.

Yeung, M.C., Ging, L.C., & Ennew, C.T. (2002). Customer satisfaction and profitability: A reappraisal of the nature of the relationship. *Journal of Targeting, Measurement and Analysis for Marketing*, 11(1), 24-33.

Yoon, S.J., & Choi, Y.G. (2002). Comparison of marketing performance between manufacturing and service sector firms in Korea. *Journal of Asia Pacific Marketing*; 1(2), 63-87.

Appendix A: **Constructs and Items**	
Marketing Performance (Cronbach's alpha: 0.71)	Factor Loadings
Improving firm reputation	0.779
Increase order for goods	0.614
Differentiating markets	0.585
Reducing costs of marketing activities	0.582
Improving marketing techniques, methods and tools	0.483
Innovation Capability (Cronbach's alpha: 0.82)	
Developing new products or services	0.767
Improving current products or services	0.723
Increase in new ideas	0.671
Creativeness in operations	0.601
Product Design Capability (Cronbach's alpha: 0.84)	
Benefit from professional designers	0.824
Dropping the number of components for products	0.803
Improving product design activities	0.752
Fitting to product design budget	0.744
Reducing product life costs	0.679
New Product Cycle Time (Cronbach's alpha: 0.83)	
Increase in patents	0.791
Increase in finished R&D	0.79
Increase in frequency of offering new product	0.686
Firm Performance (Cronbach's alpha: 0.90)	
Increase in sales	0.862
Increase in profits	0.845
Increase in market share	0.721
Increase in ROI	0.642
Increase in profit margin	0.576

CONSUMER KNOWLEDGE AND CONSUMPTION: A HUMAN CAPITAL MODEL

M.J. Alhabeeb, University of Massachusetts Amherst

ABSTRACT

Using the Human Capital Model, and taking a Household Production Function approach, this paper lays out a theoretical foundation to illustrate the structural relationships between consumer knowledge and consumption efficiency. Consumers' acquisition of product knowledge and the development of their buying skills are considered, in this model, as household commodities, which are produced and consumed at home. Production and consumption of such commodities outside the traditional scope of the market may reduce the household's costs of shopping in the market, and eventually, increase the efficiency of household consumption. Important implications for researchers, marketers, and consumers are suggested.

INTRODUCTION

A substantial body of research has been conducted in the fields of marketing and consumer behavior to investigate consumer knowledge and explore its influence on the individual differentials in consumer behavior, and identifying the consequences of those differentials on the behavior of the firm. However, there has been a noticeable shortage of studies, even in the field of economics, to link consumer knowledge to consumption costs within a consumer unit. Such an overlook would seem surprising, especially in the context of the human capital model and its increasing credibility and popularity since Becker ushered this area of economic theory about four decades ago (Becker, 1964, 1976; Becker,Grossman, and Murphy, 1994; Becker and Murphy, 1988; Mincer, 1958; Schultz, 1959; Stigler and Becker, 1977). Recently, a single significant study (Ratchford, 2001) has brought up the theoretical and empirical investigations of the human capital interpretation in consumer behavior in a hope to revive the interests of economists and consumer researchers, and underscored the importance of the role of consumer knowledge in the efficiency of household consumption.

Human capital basically refers to the accumulated and embodied knowledge, skills, and expertise, which have been acquired and preserved through investments in formal or informal education, training, and learning by doing, as well as general life experience. It is, in this sense, a stock variable, which could reflect all those qualities of a person that affect his or her capacities to gain satisfaction and earn income. Such a stock can, therefore, be increased by investment and decreased by depreciation (Koorman and Wunderink, 1997). Bryant (1995) believes that a major

reason for which individuals invest in human capital is to increase their total wealth (which may not be restricted to monetary wealth, but can also be represented by all aspects of gain). He specifies the way of investment in spending time and money to maintain and augment one's stock of wealth, not only in education, training, and acquiring more knowledge and skills, but also in one's health and mobility.

In the context of consumer behavior, the investment in consumer knowledge and skills is expected, according to Bonner (1992) and Shim and Dubey (1995), to contribute to:

1) Better management of resources, and more rational choices that have direct effects on their wellbeing.
2) More effective interactions in the market place for the best possible purchase deals (Knapp, 1991).
3) Better informed consumer decision-making processes (Chi, 1983), and ultimately:
4) Increased satisfaction and higher standard of living.

Shim and Dubey (1995) distinguished between consumer knowledge and consumer skills, even though the terms have been empirically correlated, and been used interchangeably or simultaneously. According to this distinction, consumer knowledge is more likely to refer to product related information that is stored in consumer's memory (Selenes and Gronhaug, 1986), but consumer skills are more likely to refer to the consumption related behaviors (Kuo, 1987), which are supposed to be learned, and remain subject to adjustments and modifications based on the range of consumer experience. Efficient consumer skills can be demonstrated, not only by displaying utility-maximizing behaviors, but also by following rational consumption and adopting socially desirable tactics. According to Sproles, geistfeld, and Badenhop (1980), the ability to successfully identify the best choice among a set of alternatives to provide the highest satisfaction would summarize what it takes to be a perfectly efficient consumer. In his measurement of the skillful and rational consumer practices by adolescents, Kuo (1987) identifies four activities:

1) Comparative shopping, as opposed to impulsive buying.
2) Budgeting and saving.
3) Seeking and getting more information on high-ticket and/or high risk items.
4) Assessing and evaluating advertisement claims.

Other studies have additional concerns regarding the identification of the skillful practices such as consumer knowledge about retailers (Tatzel, 1982); consumer awareness and use of label information (Davis, 1987; Koester and May, 1985); and awareness and use of material, style, and color (Draper and Baily, 1978; Oppenheim, 1977). For consumer rationality and consumption efficiency, consumer's perceived knowledge and skills are broken down into three multidimensional domains, according to Shim and Dubey (1995):

Domain I: This domain is defined by the "Efficient Shopping Skills", which includes different dimensions such as comparison shopping skills, value-oriented skills, shopping planning skills, and information gathering skills.

Domain II: This domain is defined by the "Product Knowledge", which includes all the appearance and performance information on a product.

Domain III: This domain is defined by the "General Consumer Proficiency", which includes consumer awareness of his rights and responsibilities in addition to other supplemental dimensions such as general comprehension and budgeting skills.

There is no doubt that for all these dimensions and domains to work in consistent and harmonious system, rigorous development and committed investment in the system of consumer information are needed, and only with that directed investment, overall and integrated consumer knowledge can be utilized, and comprehensive buying skills can be put to test.

Using the household production theory, and both human capital and allocation of time models, and guided by the empirical evidence from related research in consumer behavior and consumption patterns, this paper provides an analytical framework to explore the feasibility of the human capital interpretation of how consumption can be optimized by reducing the cost of consumer search due to the qualitative accumulation of consumer knowledge, and systematic development of his buying skills.

HUMAN CAPITAL AND THE HOUSEHOLD PRODUCTION FUNCTION

The household production theory represents, according to Deaton and Muellbauer (1987), a mix and integration between the economic theory of the consumer, and the economic theory of the firm. This characterization illustrates that in the context of the decision-making process, a consumer unit such as a household may behave in a manner analogous to the behavior of the firm, especially in terms of the efficient use of resources to produce utility-yielding commodities. In his original model, Becker (1964, 1976) considered these commodities as the "primary objects of consumer choice" for they have real and positive value, which can yield a direct consumer utility.

$$U = u(Z_i)$$
$$U = u(Z_1, Z_2, ...Z_n) \qquad\qquad 1$$

Where Z_i (i = 1, 2, 3...n) represents the quantity and service of the commodity. These commodities are produced within the household, a non-market sector. To produce such commodities, the household uses a vector of market goods and services (x_i), a vector of household members' time (t_i),

and a vector of other environmental variables (E), which collectively reflect the state of the art of production or the technology level of the production process.

$$Z_i = z_i(x_i, t_i, E) \qquad 2$$

A household would maximize its utility function (U) subject to two types of constraints: the usual income constraint, as it is used by the neoclassical theory of consumer choice, and a new constraint of the household time. The income constraint describes that the cost of all goods and services (x_i) purchased at the market price (p_i) should not exceeds household income (I):

$$I = \Sigma x_i p_i \qquad 3$$

While time constraint describes that a household's total time (T) would be equal to time spent in the production of household commodities t_i, in addition to time spent in the labor market t_w.

$$T = t_w + \Sigma t_i \qquad 4$$

$$t_w = T - \Sigma t_i \qquad 4a$$

The two constraints can be combined to reflect what Becker calls a "full income constraint, S" to reflect the household's time and money budgets independently from the household's part of time devoted to its earning activities:

$$S = wT + V = \Sigma (w t_i + x_i p_i) \qquad 5$$

Where w is the market wage rate and V is the household's non-wage income. Another way to look at full income is to assume that total household income (I) is equal to wage income (wt_w) and non-wage income (V), where wage income is calculated by multiplying the time spent in the labor market t_w by market wage w.

$$I = \Sigma w t_w + V$$

Substituting the value of t_w from equation 4a, we obtain:

$$I = \Sigma w (T - \Sigma t_i) + V$$

$$I = \Sigma w T - \Sigma w \Sigma t_i + V$$

This can be rearranged as:

$$I + \Sigma \, w \, \Sigma \, t_i \; = \Sigma \, wT + V \equiv S$$

To maximize the household's utility function (U) in equation 1, the Lagrangian method can be used:

$$\pounds = u(Z_1, Z_2, ...Z_n) - \lambda \, [\, \Sigma \, (\, w \, t_i + \, x_i p_i \,) \, - S \,]$$

If we consider any couple of the household commodities such as Z_i and Z_j the first order conditions for the maximization of the utility function with respect to such commodities reveal that the ratio of the marginal utilities of the commodities $MU_i \, / \, MU_j$ must equal the ratio of their marginal costs, denoted by $\mu_i \, / \, \mu_j$ which, in turn, represents the ratio of the shadow prices of the commodities as determined by, not only the market prices of goods and services used in the production of the household commodities, but also by the productivity of these goods and services as inputs in the production process of Zi:

$$MU_i \, / \, MU_j = w(dt_i \, / \, dZ_i \,) + p_i \, (dx_i \, / \, dZ_i \,) \equiv w(dt_j \, / \, dZ_j \,) + p_j \, (dx_i \, / \, dZ_i \,)$$

$$\text{If } \; w(dt_i \, / \, dZ_i \,) + p_i \, (dx_i \, / \, dZ_i \,) = \mu_i \; , \text{ and}$$

$$w(dt_j \, / \, dZ_j \,) + p_j \, (dx_i \, / \, dZ_i \,) = \mu_j \, , \text{ then}$$

$$MU_i \, / \, MU_j = \mu_i \, / \, \mu_j$$

THE HUMAN CAPITAL APPROACH

Because variable E in equation 2 above represents the state of production or its technological level, it can plausibly be referring to the human capital component, which is contributing to the production of the household commodities. Since human capital is embodied by the stock of potential physical and mental attributes such as knowledge and intelligence, talents and skills, motivations and energy, it can be invested in through health, education and training, and where economic, social and time resources are spent to increase the individuals' productivity and enhance their performance. Traditionally, human capital studies focus on activities related to improving people's productivity in the labor market such as in the cases related to the return to investment in formal education, formal or informal training programs, and on-the-job learning. Within the economics of the family or the household, human capital studies focus on the investment in children, where parents' monetary, psycho-social, and time resources are spent to increase the quality of

children in terms of their health, education, and upbringing environment. Aside from a few pioneering studies, which provided the basic theoretical framework to apply human capital model to consumption (Becker et al., 1994; Becker and Murphy, 1988; Stigler and Becker, 1977), little to none has been done to track down the effects of human capital in the area of consumer economics, especially in the area of consumer knowledge and information, and it may not be far-fetched to attribute the lack of such applications in the consumer field to the notion that human capital is traditionally known to be more relevant to the labor side and its impact on productivity, which may not seemingly make it to be as relevant to the consumptive function.

CONSUMER KNOWLEDGE AND COST OF CONSUMPTION

Ratchford (2001) shows that there are some important potential applications of the human capital model in the study of consumer behavior, with an outline of the major empirical approaches to these applications. He argues that consumer knowledge and skills reduce what he calls the "full price" to produce household commodities through the reduction in time, and the increase in productivity. The differential in full price, not in innate preferences, would eventually lead to differences in consumer behavior as well as in consumption pattern across households and over time. He further argues that consumers should deliberately invest in their knowledge and skills regarding their current consumption, which would eventually lower the cost of their future consumption throughout their lifetime.

Investment in human capital can affect at least five aspects of consumer behavior. These aspects are:

- Consumption patterns through the life cycle.
- Consumer lifestyle.
- Consumer brand loyalty.
- Consumer choice of product features.
- Consumer search and information.

Shopping for consumer goods and services, for instance, can be considered as a household commodity that is produced and consumed at home, where some or all of the above aspects of consumer behavior can be relevant. As a commodity, shopping can be denoted by (Z_s), which would require market goods and services (X_j) such as the gasoline, for the car used in transportation for shopping. Such goods and services would be valued at a market price (P_j). Shopping would also require time for search and for buying (T_j), valued at a market wage rate (w_j). Such a wage rate can be set based on the notion that a certain household member would otherwise be qualified for. Finally, shopping would require consumer knowledge and skills (K_j), which are acquired and developed by past experience of search and consumption, education, and other human capital inputs.

$$Z_s = f(X_s, T_s, K_s)$$

When this function is maximized for a lifetime (n), the consumer's dynamic maximization would be subject to the discounted value of the resources used.

$$I = \Sigma \frac{(P_s X_s + w_s T_s)}{(1+r)n}$$

$$I = \Sigma (P_s X_s + w_s T_s)(1+r)^{-n}$$

where I is household income, r is market prevailing interest rate, and s refers to the shopping activity. The first-order conditions reveal that:

$$P_s = CV_s + FV_s$$

$$w_s = CV_{sj} + FV_{sj} \qquad j = 1, 2, ..., n$$

Where CV_s, FV_s are the current and future values of the goods and services used in shopping, and $CV_{sj} + FV_{sj}$ are the current and future values of time spent in shopping. These values are respectively equal to:

$$CV_s = [(1+r)^j / \lambda]a^j (\delta U / \delta Z)(\delta Z / \delta X)$$

$$FV_s = [(1+r)^n / \lambda] \Sigma a^n (\delta U / \delta Z)(\delta Z / \delta X)$$

$$CV_{sj} = [(1+r)^j / \lambda]a^j (\delta U / \delta Z)(\delta Z / \delta T)$$

$$FV_{sj} = [(1+r)^n / \lambda] \Sigma a^{kn} (\delta U / \delta Z)(\delta Z / \delta T)$$

The impact of market goods and household time on the future utility can be measured by:

$$P_s - FV_s \qquad \text{and} \qquad w_s - FV_{sj} \quad \text{respectively, where the full price of shopping becomes:}$$

$$P_s - FV_s \equiv P_s / (\delta U / \delta Z)(\delta Z / \delta X), \text{ also, this would equal to:}$$

$$w_s - FV_{sj} \equiv W_s / (\delta U / \delta Z)(\delta Z / \delta X) = \mu_s$$

As more time is invested in shopping (T_s), more knowledge and skills can be gained. Mathematically, the term $(\delta Z / \delta T)$ as a derivative gets larger and larger with the increased time,

and as a result, the entire term $W_s / (\delta Z/ \delta X)$ gets smaller and smaller. This means that the full price of shopping μ_s would go down as the consumer gain more knowledge. The decline in a relative price of shopping would be reflected on the increase in the quantity and/or quality of consumption, which at a reduced rate of cost reflects a positive increase in the efficiency of consumption.

KNOWLEDGE CALIBRATION AND CONSUMER LEARNING

Gaining and utilizing a consistent knowledge by consumers is not a simple or straightforward task. It is a highly involved and multidimensional process, which according to Alba and Hutchinson (2000), is seldom complete or errorless. Furthermore, different elements of this process may separately or jointly exert varying, and sometimes, conflicting influences on the normally complicated decision making process for consumers. The impact of consumer knowledge and skills is fundamental and significant on the way consumers make choices. Alba and Hutchinson (2000) study the calibration of consumer knowledge and skills, which they define as "the agreement between objective and subjective assessments of the validity of information used in decision making". They believe that the calibration of consumer knowledge allows consumers to cope with, not only different orientation and sources, but also with incomplete and erroneous information, and that what explains the significance of the calibration process. In their earlier study, Alba and Hutchinson (1987) distinguish between consumer's familiarity with a product and consumer's true expertise. Familiarity can naturally be generated out of any encounter with the product, whether the outcome is positive or negative, while expertise is measured relative to a performance criterion, and therefore, implies an increase in consumer's ability to get the right choice. Analogous distinction is being made between accuracy and confidence in regard to calibration. Accuracy, as an objective measure, reflects knowing the facts, while confidence, as a subjective measure, reflects the feelings associated with the process as well as the nature of its final outcome. Calibration therefore can reflect the correspondence between accuracy and confidence. In other words, calibration would involve assessing what consumers know against what they think they know. Alba and Hutchinson (2000) concludes that in an empirical context, high level of calibration are rarely achieved, but moderate levels, which may include some degrees of systematic bias such as over-confidence or under-confidence, are the norm. Also, in some situations, accuracy and confidence may be completely uncorrelated.

The prediction of product quality and performance by consumers play an important role in the formation of consumer knowledge and skills, and consequently, a role in the making of consumer choice. Osselaer and Alba (2000) focus on the relationships of two sets of constructs and their effects on consumer learning to predict product quality and assess its performance. The set includes product quality and cues of brand name on one hand, and quality and cues of product attributes on the other. The study pays a special attention to what the authors call "blocking

phenomenon", where the learning of one predictive cue can block the learning of subsequently encountered cues. The authors believe that such a phenomenon is especially "pertinent to consumer learning since consumers do not often encounter all predictive cues simultaneously, and it is likely that exposure to brand cues will precede exposure to information about the attributes that truly determine quality". They suggest that brand name cues may block the learning of quality-determining attribute cues, which may lead consumers to value brand cues at the expense of attribute cues. Another reasoning for why consumers favor the brand cues lies in the nature of consumer learning process. Such nature is what Osselaer and Alba describe as "forward looking and competitive", where there is not enough evidence referring to consumer engagement in the analysis of retrospectively considered experience.

Consumer choice of an alternative product can highly be influenced, among other factors, by consumer's approach and his goal orientation. The most common couple of approaches and goal orientations can be shown by a look at two major groups of consumers:

♦ The first group of consumers includes those who would immediately pick their choices, if faced with several alternative products. This approach is identified as the "choice-oriented approach".

♦ The second group of consumers includes those who would take time for deliberation, use value judgment, and assign certain assessments to all possible alternatives before deciding on the final choice. Such an approach is identified as the "value-oriented approach".

Empirical research shows that consumer's approach and orientation can significantly affect the structure of consumer preferences (Carmon and Simonson, 1998; Coupey et al., 1998; Fischer and Howkins, 1993;; Fischer et al., 1999; Schkade and Johnson, 1989; Tversky et al., 1988;). The value-oriented approach can be expressed using different criteria, other than the basic one of involving the worthiness of the product as compared to the monetary value paid for it. Many empirical studies indicate that consumer's value judgment can revolve around other different criteria such as product attractiveness as it is assessed subjectively by consumers (Fischer and Howkins, 1993); likelihood to purchase the product (Nowlis and Simonson, 1997); brand name considerations (Shiv et al., 1997); and the expected satisfaction to be derived from the product (MacInnis and Price, 1987, Shiv and Huber, 2000).

In some empirical research, consumer's anticipated satisfaction is linked to the notion that consumers, especially throughout a pre-consumption phase, activate a heuristically constructed mental images that would serve as a guide to form the extent of the expected satisfaction preceding the real satisfaction, which would be derived out of the actual consumption (Adaval and Wyer, 1998; Anand and McGill, 1994; Phillips, 1996; Phillips et al.1995; Walker and Olson, 1997). A study by Shiv and Huber, 2000 investigates how a shift in consumer preference arise from differences in

processing strategies produced by the anticipated goals of satisfaction-oriented type, as compared to choice-oriented goals. They confirm that consumer goals involving anticipated satisfaction can evoke processing strategies that require a greater degree of mental imagery. Such imagery usually results in an increased allocation of attention to vivid attributes, and hence a greater weight for such attributes in the construction of preferences. An alternative interpretation of why consumers pick a certain approach from the choice-oriented versus the value-oriented approaches is what is called the "prominence effect", where products which exhibit more prominent attributes tend to be preferred more by consumers than products with less prominent attributes. This preference causes the choice-oriented approach to be more predominant (Tversky et al., 1988). Yet, another interpretation offered by Nowlis and Simonson (1997) suggests that product attributes that are easy to compare can simply get more weight in choice-oriented as compared to value-oriented approach.

CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH

At a theoretical level, this study identifies an important link between consumer behavior and the development of human capital within the consumer unit. It suggests that acquisition and use of consumer knowledge and skills is a form of investment in human capital, which primarily contributes to the maximization of consumer utility. The study explains the technical mechanism by which this maximization occurs, and it also details how investment in learning would lead to lowering the relative price of consumer search, which eventually causes an increase in the quantity and/or quality of consumption. In the light of a lower relative price, such a change in consumption would mean an increase in consumption efficiency. The study also explains the process of consumer learning and the nature of calibration of knowledge and skills.

In addition to the managerial implications on consumer and firm levels, there are implications for future research. On a household level, individual consumers can benefit from cultivating a different sort of investment, which is the investment in learning to be a good consumer, who literally puts rationality in use by maximizing the gain and minimizing the costs. This investment is governed by less restricted constraints, lower risk, but can yet be highly rewarding. On a firm level, there is a marketing lesson on how firms can adapt their strategies to positively contribute to the increase in consumer knowledge and skills. Since an increase in the quantity and quality of consumption may occur due to investment in consumer knowledge and skills, it would be rewarding to marketers to facilitate the acquisition and improve the quality of information they provide on their products, and allow more opportunities for consumers to hone their purchasing skills.

On both fronts of the household and market, additional research is needed to support the theoretical notions of this study. Future empirical research may examine the validity of the human capital model in the current perspective. Additional investigation is needed to identify the factors which may impact consumer's acquisition and utilization of knowledge and skills in the market. One

of the possible directions for future research is the development of empirical measuring indices for consumer knowledge and skills for certain fields or products, and also the development of objective criteria to gauge the extent of consumption efficiency associated with certain knowledge level or skill index. Important implications can be drawn for consumer education that would guide the consumer education programs on ways to assess consumer knowledge and skills and disseminate the most effective approaches to utilize them in achieving the ultimate consumer goals. Similarly, for the marketing side, further research is needed to explore ways to deal with consumer knowledge as a form of marketing investment to gain more loyalty and higher market share. Marketers would be wiser to focus on helping consumers to shift more toward the product attribute orientation in their decision making. They would also be wiser to develop more effective marketing programs to increase the sale of their products as well as assure the highest possible satisfaction of their clientele.

REFERENCES

Alba, J.W. & Hutchinson J.W. (2000). Knowledge calibration: What consumers know and what they think they know. *Journal of Consumer Research*, 27, 123-156.

Alba, J.W. & Hutchinson J.W. (1987). Dimensions of consumer expertise. *Journal of Consumer Research*, 13, 411-454.

Adaval, R. & Wyer, R. (1998). The role of narratives in consumer information processing, *Journal of Consumer Psychology*, 7, 207-246.

Anand, P. & McGill, A. (1994). Differences in the relative influence of product attributes under alternative processing conditions, *Journal of Consumer Psychology*, 3(1), 29-49.

Becker, G.S. (1964). *Human capital: A theoretical and empirical analysis*, New York: Columbia University Press.

Becker, G.S. (1976). *The economic approach to human behavior*, Chicago: The University of Chicago Press.

Becker, G.S. & Murphy, K.M. (1988). A theory of rational addiction*, Journal of Political Economy*, 96, 675-700.

Becker, G.S., Grossman, M. & Murphy, K.M. (1994). An empirical analysis of cigarette addiction, *American Economic Review, 84, 396-418.*

Bonner, P.A. (1992). *Consumer competency: A national status report*. Ypsilanti: Eastern Michigan University, National Institute for Consumer Education. (ERIC Document Reproduction Service No. ED1).

Bryant,W.K. (1995). *The economic organization of the household*. Cambridge University Press.

Carmon, Z. & Simonson, I. (1998). Price-Quality tradeoffs in choice versus matching: New insights into the prominence effect, *Journal of Consumer Psychology*, 7(4), 323-343.

Chi, M.T. (1983). The role of knowledge on problem solving and consumer choice behavior. *Advances in Consumer Research*, 10, 569-571.

Coupey, E., Irwin, J. & Payne, J. (1998). Product category familiarity and preference construction, *Journal of Consumer Research*, 24, 459-468.

Davis, L.L. (1987). Consumer use of label information in ratings of clothing quality and clothing fashionability. *Clothing and Textile Research Journal*, 6, 8-14.

Deaton, A. & J. Muellbauer (1987). *Economics and consumer behavior*. Cambridge: Cambridge University Press.

Draper, W. & Bailey, A. (1978) *Steps in clothing skills* (2nd ed.). Peoria, IL: Bennett.

Fischer, G.W., Carmon, Z., Ariely, D. & Zauberman, G. (1999). Goal-based construction of preference: Task goals and the prominence effect. *Management Science*, 45, 1057-1075.

Fischer, G.W. & Hawkins, S. (1993). Strategy compatibility, scale compatibility, and the prominence effect. *Journal of Experimental Psychology: Human Perceptions and Performance*, 19, 580-597.

Knapp, J.P. (1991). *The benefit of consumer education: A survey report*. Ypsilanti, MI: Michigan Consumer Education Center.

Koester, A.W. & May, J.K. (1985). Profiles of adolescents' clothing practices: Purchase, daily selection, and care. *Adolescence*, 20, 97-113.

Koorman, P. & Wunderink, S. (1997). *The economics of household behavior*. New York: Palgrave Macmillan.

Kuo, C. (1987). The learning of consumer skills in adolescents: An eclectic approach. *Proceedings of the Annual Conference of the Association for Education in Journalism and Mass Communication*, San Antonio, TX.

MacInnis, D., & Price, L. (1987). The role of imagery in information processing: Review and extensions, *Journal of Consumer Research*, 13, 473-491.

Mincer, J. (1958). Investment in human capital and personal income distribution, *The Journal of Political Economy,* Vol. LXVI, No.4.

Nowlis, S.M. & Simonson, I. (1997). Attribute-task compatibility as a determinant of consumer preference reversals, *Journal of Marketing Research*, 34, 205-218.

Oppenheim, I. (1977). *Consumer skills*. Peoria, IL: Bennett.

Osselaer, S.M. & Alda, J.W. (2000). Consumer learning and brand equity. *Journal of Consumer Research*, 27, 1-16.

Phillips, D. M. (1996). Anticipating the future: The role of consumption visions in consumer behavior. In Brucks, M. and D. MacInnis (eds.), *Advances in Consumer Research*, Provo, UT: Association for Consumer Research, 70-75.

Phillips, D. M., Olson, J. & Baumgartner, H. (1995). Consumption visions in consumer decision making, In Kardis, F. and M.. Sujan (eds.), *Advances in Consumer Research*, Provo, UT: Association for Consumer Research, 280-284.

Ratchford, B.T. (2001). The economics of consumer knowledge, *Journal of Consumer Research, 27,* 397-411.

Schkade, D.A., & Johnson, E.J. (1989). Cognitive processes in preference reversals. *Organizational Behavior and Human Decision Processes*, 44, 203-231.

Schultz, T.W. (1959). Investment in man: an economist's view, *The Social Service Review*, Vol. xxxiii, No. 2.

Selenes F. & Gronhaug, K. (1986). Subjective and objective measures of product knowledge contrasted. *Advances in Consumer Research*, 13, 67-70.

Shim, S. & Dubey, S. (1995). Conceptualization and measurement of perceived consumer knowledge and skills in apparel products: An exploratory study among college students. *Family and Consumer Sciences Research Journal*, 23,3, 227-248.

Shiv, B., Edell, J. & Payne, J. (1997). Factors affecting the impact of negatively versus positively framed ad messages, *Journal of Consumer Research,* 24, 285-294.

Shiv, B. & Huber, J. (2000). The impact of anticipating satisfaction on consumer choice. *Journal of Consumer Research*, 27, 202-214.

Sproles, G.B., Geistfeld, L.V. & Badenhop, S.B. (1980). Types and amount of information used by efficient consumers. *Journal of Consumer Affairs*, 14, 37-48.

Stigler, G. & Becker, G.S. (1977). De Gustibus Non Est Disbutandum, *American Economic Review,* 67, 76-90.

Tatzel, M. (1982). Skill and motivation in clothes shopping: Fasion-conscious, independent, anxious, and apathetic consumers. *Journal of Retailing*, 58, 90-97.

Tversky, A., Sattah, S. & Slovic, P. (1988). Contingent weighting in judgement and choice. *Psychological Review*, 95, 371-384.

Walker, B., & Olson,J. (1997). The activated self in consumer behavior: A cognitive structure perspective, *Research in Consumer Behavior*, 8, 135-171.

DO NOT CALL LISTS: A CAUSE FOR TELEMARKETING EXTINCTION OR EVOLUTION?

Connie R. Bateman, University of North Dakota
JoAnn Schmidt, University of North Dakota

ABSTRACT

Are you one of the more than 122 million consumers registered on the National Do Not Call registry as of April 2006? (www.ftc.gov, Apr 21, 2006) If you have registered, are you one of the 92% claiming fewer calls are being received? (www.harrisinteractive.com, Feb 23, 2006) Are you aware the telemarketing industry is larger and more profitable today than before the Do Not Call List went into effect?

This paper will review secondary data from various governmental, corporate, media and trade journal sources and reveal a critical issue in the telemarketing industry where consumers were concerned about their right to privacy and disgruntled with the growing number of invasive telemarketing sales calls received in their homes. The information will reveal how quickly consumers have taken advantage of the tool provided by the Do Not Call List to stop these unwanted calls and how the various State and Federal Governments as well as the Courts have handled the Do Not Call laws along with the telemarketing industry's reactions. Implications for government, businesses and consumers are made after reviewing the information found as well as providing an attempt to allow the reader to make a prediction about future legislation regarding other privacy issues, such as do not email lists, based on the information.

Consumers seem to have won the day with the restrictions imposed on telemarketing practices regarding live telephone calls. Is this just the beginning of such consumer popularity choices or will the governments and courts decide not push their fate in keeping a balance between a company's right to do business and the consumer's right to privacy?

INTRODUCTION

The Do Not Call strategy basically allows consumers to register their telephone numbers on a list whereby, non-charity telemarketing organizations must perform regular list checks and cease to make unsolicited calls to list members or risk paying fines and penalties levied by government agencies. The Do Not Call registry was created to offer consumers a choice regarding telemarketing calls. The Federal Trade Commission (FTC), the nation's consumer protection agency, made a decision to create the National Do Not Call Registry. This was the result of a comprehensive, three-year review of the Telemarketing Sales Rule, in addition to extensive experience in Rule

enforcement over a seven year period. The FTC held numerous meetings and briefings to gain feedback from interested parties, and considered over 64,000 public comments. The majority of consumers were in favor of creating the registry and businesses were emphatic and consistent in expressing their need for an established business relationship exemption (www.ftc.gov, Feb 23, 2006).

§ 310.4(b)(1)(iii)(B) of the Telemarketing Sales Rule specifically identifies the pattern of calls that are considered abusive telemarketing acts or practices and clearly states its intent for a federally maintained Do Not Call List allowing consumers the choice to add their telephone numbers to the list to try and limit the number of outbound telephone sales calls they were receiving. Even though the FTC was offering consumers a choice regarding telephone calls, the Commission was also aware of the profitable telemarketing benefits to businesses and was careful to add a clause for established business relationships to ensure businesses were not harmed by not being able to call their customers.

> *"It is an abusive telemarketing act or practice and a violation of this Rule for a telemarketer to engage in, or for a seller to cause a telemarketer to engage in, the following conduct…Initiating any outbound telephone call to a person when…that person's telephone number is on the ''do-not-call'' registry, maintained by the Commission, of persons who do not wish to receive outbound telephone calls to induce the purchase of goods or services unless the seller has obtained the express agreement, in writing…or has an established business relationship with such person, and that person has not stated that he or she does not wish to receive outbound telephone calls..."*

Telemarketing is an effective tool for businesses. In September 2003, when the Do Not Call List went into effect, efforts by telemarketers were generating about $211 billion in goods and services made up of about 180 million successful sales attempts, so it would seem as if not all consumers felt sales calls were a nuisance (www.siliconvalley.com, Oct 23, 2003). However, telemarketers were making nearly 24 billion calls annually in order to achieve this. Sales calls were frequently placed during the evening hours and conducted with the aid of computers, which often left the consumer hearing "dead air" when the call was answered. The FTC recognized that consumers were unhappy with telemarketer practices and talked about the issue in the Rule.

> *''…one of the most invasive practices of the telemarketing industry. "Hang up'' calls and ''dead air'' frighten consumers, invade their privacy, cause some of them to struggle to answer the phone only to be hung up on, and waste the time and resources of consumers working from home. The Commission noted that ''abandoned calls'' include two distinguishable scenarios: ''hang up'' calls, in*

which telemarketers hang up on consumers whom they have called without speaking to them; and ''dead air'' calls, in which there is a prolonged period of silence between the consumer's answering a call and the connection of that call to a sales representative.''

Consumers were ready for a change and welcomed the thought of being in control of their own privacy when the FTC promulgated the revised Telemarketing Sales Rule in January 2003, providing for a National Do Not Call List putting telephone numbers off-limits to outbound telemarketers. The people-pleasing concept of the Do Not Call List aroused the ire of telemarketing firms and caused a flurry of activity at both state and federal political levels. In the last decade various legislative directives for the implementation and maintenance of Do Not Call Lists as well as other consumer privacy issues have been passed at both the State and Federal levels and put to the test in various court battles.

The consumer popularity of tighter restrictions on telemarketer practices imposed by the Do Not Call Lists has certainly not escaped the notice of Congressmen at both the Federal and State levels. This popularity is demonstrated with the endorsement of 100 percent of the states, rule promulgation at both the State and Federal levels, Congressional backing proven by the passage of the Omnibus Appropriations Act of 2003 authorizing the FTC to implement and enforce the Do Not Call provisions of the Telemarketing Sales Rule and a strong voter approval. This voter approval was confirmed when more than 50 million people had signed up for the National Do Not Call List from the time consumers could start to sign up on June 27, 2003 (www.pqasb.pqarchiver.com, Mar 1, 2005) when it went into effect on October 1, 2003. In just two and half years the Do Not Call list entries have more than doubled to over 122 million (www.ftc.gov, Apr 21, 2006).

Telemarketers have also recognized the fact that consumers have clearly spoken their wishes and for the most part have been abiding by the Do Not Call legislation as shown by more 33,000 telemarketing organizations accessing the registry each month and downloading an average of 45 area codes out of a possible 317 (Miller, 2005). Telemarketers as well as other businesses were quick to realize they either had to change their way of doing business or risk becoming extinct in the shrinking market access or face the penalties imposed by both State and Federal government agencies if they failed to follow the directive of the Do Not Call laws. In the two and half years since the Federal Do Not Call List has been in effect, telemarketers have been going through an evolution of business strategy changes. Although there are telemarketing agencies that have been forced out of business and diminished direct call solicitations for businesses due to the Do Not Call legislation, telemarketers who have changed their business focus, such as offering in-bound customer services, are appearing to reap the rewards of creating companies that are becoming more efficient and profitable.

Consumers seem to have won the day with the restrictions imposed on telemarketing practices regarding live telephone calls. Is this just the beginning of such consumer popularity

choices or will the governments and courts decide not push their fate in keeping a balance between a company's right to do business and the consumer's right to privacy?

LEGISLATION

Early Legislative Attempts

How did mass telemarketing get started? It is believed that Ford Motor Company may have conducted the first mass-dialing sales initiative in 1964 when the company made 20 million calls to consumers in an effort to generate leads for their local car dealerships. And as early as the mass telephone marketing got started, so did the legislative actions. Also, in 1964, the Tampa, Florida city council passed an ordinance banning "telephone calls for the purpose of offering for sale or selling products or services…without the present existence of a current business relationship" (www.search.epnet.com, May 26, 2003).

Various attempts at legislation were started over 30 years ago, even before telemarketing grew to be such a large industry. Walter Baer is a scholar whose major field of study is the convergence of technology and marketing. He is also credited with the paperless sending of messages from computer to computer, more commonly known as email today. Baer was concerned about privacy issues and felt there had to be something that could be done about the growing invasion of privacy. In 1978, he prepared a petition to the FCC demanding a National Do Not Call list, restrictions on computerized dialers and the penalties that should go with callers not honoring the restrictions, all parts included the current laws today. However, at that time the FCC failed to grasp the technological impacts and deemed such a law would not be necessary. The commission felt most calls were not made under the state-to-state jurisdiction of the FCC and that computers just weren't that widespread.

The Expanding Industry

The FCC's predictions may have held true, as it was very expensive to make interstate long distance calls at that time. However, both legislative and technological changes in the early 1980's helped the telemarketing industry to blossom. One of the factors was the deregulation of the long-distance telephone market and the break up of AT&T telephone. Many new telephone companies were created and competition arrived to help drive down the price of long distance calls, many times to merely pennies, making it very cost-effective for telemarketing pitches.

Technology played its part in the phenomenon with rapid advances in the computer industry coupled with the computerized auto dialers. For a mere $4000, a company could employ an auto dialer that was capable of dialing hundreds of homes at a time and then rerouting successful connections to live telemarketers. This provided companies with inexpensive and efficient

technology that was capable of dialing many numbers in the hopes someone at the other line would be willing to hear the sales pitch (www.search.epnet.com, May 26, 2003).

When looking at the amount of calls telemarketers are able to generate, it is no wonder that so many consumers are unhappy with the untimely telephone calls and were eager to embrace the Do Not Call legislation. One estimate has shown that the 10 largest telemarketing agencies in the United States can make over 550 random telephone calls per second (www.pianet.com, Mar 15, 2006). This means approximately 16 billion phones calls containing some type of sales pitch were happening per year in the United States where there were about 166 million residential and another 150 million cell telephone numbers. In 2003, telemarketing was a huge industry that had swelled from just $10 billion annually to a whopping $274 billion annually (www.search.epnet.com, May 26, 2003).

Consumers especially seemed to have an adversity to "dead air" or cold calls generated from the use of preemptive or auto dialers with computers. As early as 1988, 20 states had already enacted legislature restricting the use of auto dialers, usually requiring the caller to provide identification. Telemarketers were also aware of consumers' growing unhappiness with the practice and had already made a move to get rid of the annoying cold calls by utilizing pre-recorded messages. Telemarketers have traditionally been using technology to maneuver around legislation that has been passed to restrict telemarketing practices (www.search.epnet.com, May 26, 2003).

Do Not Call List - Federal Legislation

The authority for the Do Not Call legislation has its roots in the Constitution where Congress was established to pass laws, including the ability to establish various commissions, which are given the power to aide in the compliance of Legislative actions. One such commission is the Federal Trade Commission (FTC) which was established in 1914 as an independent agent of the U. S. Government to help make sure markets were able to be competitive by investigating companies and eliminating unfair methods of competition within the market structure (www.ftc.gov, Feb 23, 2006). The FTC has jurisdiction over communication that occurs across state lines. The agency was founded by Woodrow Wilson to help break up the huge trusts and monopolies that were in place in the United States at that time. Then in 1938, Congress passed the Wheeler-Lea Amendment, which included a broad prohibition against "unfair and deceptive acts or practices" which helped to establish the basis which has lead to the prominent role the FTC has played in protecting consumers in various activities, including the Telephone Consumer Protection Act of 1991.

The FTC generally works in conjunction with the Federal Communications Commission (FCC) regarding communications issues. The FCC is another independent Federal agency that was established by Congress with the implementation of the Communications Act of 1934 and was given the responsibility to regulate interstate and international communications. The FCC's jurisdiction

includes all 50 states, the District of Columbia and any U.S. possessions and includes communications by radio, television, wire, satellite and cable (www.ftc.gov, Feb 23, 2006).

The initial federal legislative protection mandated in the Telephone Consumer Protection Act (TCPA) of 1991 required the Federal Communications Commission (FCC) to promulgate procedures to protect the privacy rights of consumers without a cost to the consumers. The wording in the TCPA hinted that a "single national database to compile a list of phone numbers…" may be required. However, the FCC determined at that time that the most "efficient, effective and economic manner" would be for each telemarketing firm to maintain their own do not calls lists and opted not to maintain a national list (www.junkbusers.com, Dec 15, 2003). Consumers could then directly sue for damages if telemarketers were not honoring their request for removal from the company's calling list.

Other federal legislation includes the Telemarketing and Consumer Fraud and Abuse Prevention Act of 1994, granting the Federal Trade Commission to "prescribe rules prohibiting deceptive…and other abusive telemarketing acts" and on February 23, 2003 President Bush signed the $4 billion spending Omnibus Appropriations Act of 2003 authorizing the FTC to "implement and enforce the Do Not Call provisions of the Telemarketing Sales Rule" and included about $16 million for launching the National Do Not Call registry (www.siliconvalley.com, Oct 23, 2003).

The FTC found that consumers were not protected enough from the company-specific Do Not Call rules set forth in the original Telemarketing Sales Rule. Consumers were still receiving at least one unwanted sales call per company calling and even if the consumer requested to have their name added to the company's individual Do Not Call list, there was no way to verify the company actually placed the consumers name on their list. The commission discusses their concerns in the Rule.

> *"The company-specific approach is extremely burdensome to consumers, who must repeat their ''do-not-call'' request with every telemarketer that calls; consumers' repeated requests to be placed on a ''do-not-call'' list are ignored; consumers have no way to verify that their names have been taken off of a company's calling list; consumers find that using the TCPA's private right of action is very complex and time-consuming, and places an evidentiary burden on the consumer who must keep detailed lists of who called and when; and finally, even if the consumer wins a lawsuit against a company, it is difficult for the consumer to enforce the judgment. In addition to the fact that it has proven ineffective, there is another problem that is not even addressed by the company-specific provision. In particular, because a great many telemarketers are now placing huge patterns of unsolicited telemarketing calls, many consumers find even an initial call from a telemarketer or seller to be abusive and invasive of privacy."*

Do Not Call Provisions of the Revised Telemarketing Sales Rule

The FTC was able to help remedy this by using a very important piece of legislation from the Telemarketing Sales Rule of 1995 for the implementation of the current National Do Not Call list. This Sales Rule allows the FTC to enforce the provisions of the Telemarketing and Consumer Fraud and Abuse Prevention Act of 1994 and set forth fines for violations (www.the-dma.org, Dec 16, 2003). It is under this Telemarketing Sales Rule, the FTC, according to APA guidelines, posted a revised Telemarketing Sales Rule in the Federal Register with an effective date of March 31, 2003. This important revision allowed consumers to place their telephone numbers on a nationally maintained Do Not Call list affecting interstate telemarketing calls and newspapers circulating in more than one state starting on June 27, 2003. Once placed on the list, a telephone number remains on the list for a period of 5 years and provisions added so the List is periodically purged of all disconnected or reassigned numbers. The Commission discusses their intent in the Rule.

> *"The Commission has determined that consumer registrations will remain valid for five years, with the registry periodically being purged of all numbers that have been disconnected or reassigned. The Commission wishes to minimize the inconvenience to consumers entailed in periodically reregistering their preference not to receive telemarketing calls. However, the Commission is also aware that the length of time registrations remain valid directly affects the overall accuracy of the national registry. A number of commenters stated that 16 percent of all telephone numbers change each year, and that 20 percent of all Americans move each year. Unless the system includes a process to counteract this effect, numbers in the national registry that have been disconnected and then reassigned to other line subscribers would remain in the registry even though those line subscribers to whom the numbers are reassigned may not object to receiving telemarketing calls."*

This amendment to the Telemarketing Sales Rule also required telemarketers to pay an annual access fee to the list of $29 per area code, or a maximum of $7,250 and to check the list every 3 months. Companies caught violating the request can be assessed a fine of up to $11,000 for each violation. Specific exclusions included calls from charities and of not surprisingly, polls on behalf of politicians, or if a person has purchased, leased or rented an item in the previous 18 months. However, if a consumer has asked to be placed on a company's specific Do Not Call list, the seller may not call the consumer again even if the seller continues to do business with the consumer (www.ftc.gov, Feb 23, 2006). This revised ruling also provided a clause in which individuals could directly sue violators up to $500 if they receive a call more than twice in 12 months (www.usatoday.com, Jun 27, 2005). In addition, telemarketers were required to have their name and telephone number show up on caller Id instead of "out of area" by January 1, 2004 and call times

were restricted to only place calls between 8 a.m. and 9 p.m. (www.usatoday.com, Sep 25, 2003). Even though many consumers had expressed concerns regarding the hours chosen for the restrictive time, the Commission talks about consumer accessibility in the Rule as stated, "The Commission recognizes that while some consumers may find it objectionable to receive telemarketing calls between 8:00 a.m. and 9:00 p.m., the majority of consumers would not find calls within these hours to be particularly abusive of their privacy."

The Commission realized the most intrusive and frightful aspect of outbound telemarketing calls, were the annoying "dead air" or "hang up" calls, commonly referred to as abandoned calls. The FTC made sure the revised ruling contained safe harbor provisions for consumers to help remedy these types of calls brought about by technology and the use of computer and preemptive dialers. The Commission wanted to ensure consumers had ample time to answer telephone calls and when the calls were answered to ensure interaction with the caller occurred in a timely manner. The safe harbor provisions encompass four parts in the Rule.

> *"...certain specified standards designed to minimize call abandonment. These standards are: (1) the seller or telemarketer must employ technology that ensures abandonment of no more than three percent of all calls answered by a consumer, measured per day per calling campaign; (2) the seller or telemarketer must allow each telemarketing call placed to ring for at least fifteen seconds or four complete rings before disconnecting an unanswered call; (3) whenever a sales representative is not available to speak with the person answering the call within two seconds of that person's completed greeting, the seller or telemarketer must promptly play a recorded message; and (4) the seller or telemarketer must retain records…"*

Another important aspect to the revised Telemarketing Sales Rule was to ensure non-profitable and charitable organizations would not be severely hampered. The Commission was also aware of Constitutional protections of the First Amendment as it pertains to charitable organizations. The Commission still allowed recourse to call recipients by retaining the company-specific exclusion as stated in the Rule.

> *"Calls on behalf of charitable organizations will be subject to the company-specific ''do-not-call'' provision…Because of the central role of the telephone and of professional fundraisers in the non-profit arena… [C]haritable solicitations involve a variety of speech interests . . . that are within the protection of the First Amendment and therefore have not been dealt with as purely commercial speech.''*

The most significant industry opposition to the do not call list came from not exempting existing business relationships from the Rule. One business, Gottschalks, a regional department store

chain headquartered in Fresno, California, conducted a poll of its patrons and submitted their findings to the FTC. In their poll, 13,000 out of 15,000 customers indicated they would support allowing Gottschalks to call them even if they had signed up on a Do Not Call registry to block other sales calls (www.ftc.gov, Oct 23, 2006). Comments received by the Commission from industry representatives along with the Commission's findings were noted in the Rule.

> *"In failing to include an exemption for existing business relationships, the proposed Rule is at odds with the approach taken by the states with regard to ''do-not-call'' registries. All state ''do-not-call'' laws, except Indiana's, include such an exemption. State regulators noted that there have been few complaints from consumers about calls from companies with whom they have an existing business relationship. In addition, FCC regulations under the TCPA exempt ''established business relationships'' from the company-specific ''do-not-call'' regulations. Based on the record as a whole, the Commission is persuaded that the benefits of including an exemption for established business relationships outweigh the costs of such an exemption. Therefore, the Commission has decided to provide an exemption for ''established business relationships'' from the national ''do-not-call'' registry, as long as the consumer has not asked to be placed on the seller's company-specific ''do-not-call'' list...The amended Rule limits the ''established business relationship'' exemption to relationships formed by the consumer's purchase, rental or lease of goods or services from, or financial transaction with, the seller within 18 months of the telephone call or, in the case of inquiries or applications, to three months from the inquiry or application."*

The FTC was careful to make sure the list itself and the information contained on the list would not be used in a harmful manner. In order to protect consumer's privacy, Rule states, "For both telephone and Internet registrations, the only personal identifying information that will be maintained by the national ''do-not-call'' registry will be the consumer's telephone number." The Rule also specifically prohibits sellers from abusing the list as indicated, "of the proposed Rule prohibited any seller or telemarketer from selling, purchasing, or using a seller's ''do-not-call'' list for any purpose other than complying with the Rule's ''do-not-call'' provision" (www.ftc.org, Feb 23, 2006).

Of course honest mistakes do happen and Commission also included safe harbor provisions for businesses. Section 310.4(b)(3) of the revised Rule contains provisions to ensure businesses are not charged penalties in the case of mistakes.

> *" During the original rulemaking, the Commission determined that sellers and telemarketers should not be held liable for calling a person who previously asked not*

to be called if they had made a good faith effort to comply with the Rule's ''do-not-call'' provision and the call was the result of error. The Rule established four requirements that a seller or telemarketer must meet in order to avail itself of the safe harbor:

(1)   it must establish and implement written procedures to comply with the ''do-not-call'' provision;
(2)   it must train its personnel in those procedures;
(3)   it must maintain and record lists of persons who may not be contacted; and
(4)   any subsequent call must be the result of error.

The above criteria tracked the FCC's regulations, which set forth the minimum standards that companies must follow to comply with the TCPA's ''do-not-call'' provision. By comparison, iIn the NPRM, the Commission proposed three additional requirements which have to be met by sellers or telemarketers or others acting on behalf of a seller or charitable organization before they may avail themselves of the ''safe harbor:''

(1)   they must use a process to prevent telemarketing calls from being placed to any telephone number included on the Commission's national registry using a version of the registry obtained not more than 30 days before the calls are made;
(2)   they must maintain and record consumers' express verifiable authorizations to call; and
(3)   they must monitor and enforce compliance with their ''do-not-call'' procedures.''

The Federal Communications Commission (FCC) threw in its endorsement of FTC's Do Not Call registry in an amendment to the Telephone Consumer Protection Act of 1991 (TCPA). This amendment provides for coordination with the FTC list. This endorsement was important as broadened jurisdiction was realized since the FCC has the authority to impose the restrictions on intrastate calls as well as calls from commercial telephone carriers, banks and the airline industry, industries that were among those generating the largest volume of telemarketing calls (www.adlawbyrequest.com, July 7, 2003).

In more recent adaptations by both the FCC and FTC, effective January 1, 2005, telemarketers are required to "scrub" or compare their contact lists against the National Do Not Call List every 31 days instead of every 3 months, providing a faster response time for consumers (www.ftc.gov, Feb 23, 2006). The actual information provided to companies from the National Do

Not Call List is simply the 10 digit telephone numbers sorted by area code. Currently, a company can access the first 5 area codes for free and subsequent area codes can be accessed for $56 per area code with a maximum cost of $15,400 to obtain the entire national database each year (www.ftc.gov, Feb 23, 2006).

Howard Beales of the Federal Trade Commission's Bureau of Consumer Protection, observed, "The principle behind the National Do Not Call Registry is consumer choice. The idea is that it's your home, it's your phone, and now it's your choice whether to get telemarketing calls at home" (www.state.ny.us, Jul 7, 2003). This opinion appears to be shared by many and seems to be the one common premise behind the concept of all of the Do Not Call legislative actions.

Do Not Call - State Legislation

State politicians had also realized the voter popularity of Do Not Call legislation. As early as 1993, Florida congressmen had passed the first Do Not Call list legislation to protect their elderly from unwanted solicitation calls at a state level (www.tampabaylive.com, Sep 24, 2003). In April 1998 only 2 states had passed Do Not Call legislation, and by December 2000, twelve states had already enacted legislation for state-maintained Do Not Call registries (www.adlawbyrequest.com, Dec 4, 2000). As of August of 2003, 43 states had Do Not Call legislation in place and the remaining 7 states had pending legislation (www.gryphonnetworks.com, Feb 15, 2006). North Dakota's Do Not Call list law was effective August 1, 2003 and by the end of September 2003, almost 132,000 North Dakotans, or about 57% of telephone subscribers had added their names to the list (www.grandforksherald.com, Sep 25, 2003). In April 2002, all 50 states banded together to submit combined comments to the FTC regarding its proposed amendment to the Telemarketing Sales Rule regarding the Do Not Call registry. States overwhelming agreed with a National Do Not Call list but were concerned the federal registry would undercut the states' consumer protection laws and discourage states from passing their own legislative actions (www.adlawbyrequest.com, Apr 30, 2002). Most state-level Do Not Call lists work in conjunction with the original federal legislation and more recently, the National Do Not Call List.

Traditionally the FTC has maintained that the federal laws do not supersede the effectiveness of the states' laws that are frequently more restrictive. However, the FCC is less forgiving in this area and does not allow the state laws to conflict with the federal laws, especially concerning the entities for which the FCC has jurisdiction (www.the-dma.org, May 5, 2004). Five states currently have laws more restrictive than the federal law. New Jersey, Indiana and Wisconsin all have laws that do not recognize the "established business relationship" exception and North Dakota and Florida have laws that do not allow "pre-recorded voice messages" to individuals (www.epic.org, Jan 2006). The FTC is guarded in ruling for any state preemption until more time has passed to see how successful the current approach is working but remains hopeful that eventually a single list could be enforced. The FTC talks about this in the Rule.

"At this time, the Commission does not intend the Rule provisions establishing a national ''do-not-call'' registry to preempt state ''do-not-call'' laws. Rather, the Commission's intent is to work with those states that have enacted ''do-not-call'' registry laws, as well as with the FCC, to articulate requirements and procedures during what it anticipates will be a relatively short transition period leading to one harmonized ''do-not-call'' registry system and a single set of compliance obligations. The Commission is actively consulting with the individual states to coordinate implementation of the national registry to minimize duplication and maximize efficiency for consumers and business."

Currently, 35 states work directly in conjunction with the Federal Do Not Call registry. When consumers sign up for the list directly through the Federal list, no additional cost to the consumer occurs and the registration has an effective range of 5 years. Other states such as Colorado, Indiana, Kentucky, Massachusetts, Missouri, Oklahoma, Louisiana, Mississippi, Pennsylvania, Tennessee and Wisconsin all maintain separate lists where consumer registration is free and the duration lasts anywhere from 2 years to unlimited. Finally, Alaska, Florida, Texas and Wyoming all have separate state maintained lists that require user registration fees and some renewal fees anywhere from $2.25 per telephone number in Texas to $50 per telephone number in Alaska (www.aarp.org, June 2005). Many of the states that do maintain their own lists strongly recommend that consumers sign up at both the state and federal levels to ensure the maximum protection. In some cases, the state laws are more restrictive and in others the federal law is more restrictive.

COURT CASES OPPOSING DO NOT CALL LEGISLATION

The National Do Not Call registry does appear to be courting two conflicting, constitutional issues, the right of privacy and the freedom of speech (www.search.epnet.com, Oct 2003). These conflicts allowed for a flurry of activity at both the legislative and appellate levels at both the State and Federal levels. Just a few days short of the much anticipated launch date of the FTC's National Do Not Call registry enforcement, two U.S. District Courts ruled to prevent its operation (www.privacyrights.org, Nov 2003). For many companies, telemarketing delivers. When compared one-on-one with other direct response media including direct mail, telemarketing has a lower cost per contact, lower cost per lead, lower cost per conversion and a lower cost per sale and/or renewal (King, Dec 17, 2003). So it stands to reason, that successful businesses with large amounts of money available did not embrace the Do Not Call List without a fight.

Companies that feel their rights have been infringed upon pour millions of dollars into lobbying efforts at both the Federal and State congressional levels as well as bringing about lawsuits. This was demonstrated in one such lawsuit, U.S. Security v. FTC, brought about by Direct Marking Association (DMA). This trade association comprises business and nonprofit organizations using

and supporting direct marking tools and techniques. DMA is an advocate for industry standards and responsible marketing and has over 4,800 corporate, affiliate and chapter members from the U.S. and 46 other countries.

On September 23 2003, U.S. District Court Judge Lee R. West of the Oklahoma District Court ruled in favor of Direct Marketing Association on a technicality, stating the FTC overstepped its boundaries of authority and did not have jurisdiction to promulgate the Do Not Call service and that it was the FCC in which congress has given authority. He indicated the recently adopted rules allowing the FTC to create the list were not valid and that the amended Telemarketing Sales Rule did not specifically speak to the Do Not Call List authority in the TCP Act of 1991, however, he did not issue an order for the FTC to stop the list and also hinted that if Congress should pass legislation granting the FTC the necessary authority to create the least, the FTC would have the authority to do so. The FTC immediately filed for a motion to stay Judge West's order pending an appeal to the Oklahoma Federal Court (www.msnbc.com, Sep 24, 2003). In a lightening-speed response to this court ruling, Congress the very next day, on September 25, 2003, passed bill HR 3161 in both houses to grant the FTC explicit authority to create a National Do Not Call List for telemarketers, rendering Judge West ruling moot (www.cnnmoney.com, Sep 26, 2003). The House passed the bill by 412-8 and the Senate passed the bill by 95-0, almost a unanimous vote. Billy Tauzin, the Louisiana representative who had introduced the bill, stated, "When it comes to legislation, Congress is usually a slow-moving beast. But when 50 million American's are mad, we can be a real speedy rabbit" (www.usatoday.com, Sep25, 2003)

However, this victory proved to be short-lived. U. S. District Judge Edward Nottingham of the Denver Circuit Court heard the case of Mainstream Marketing v. FTC where he decided the Do Not Call list was unconstitutional on the grounds of violating free speech and discrimination because it applies to calls from businesses but not charities (www.tmcnet.com, Sep 29, 2003). Then in yet another turn of events, on October 7, 2003, the Tenth Circuit Court granted the FTC a stay on Denver Court's decision and operations of the Do Not Call List are going forward while the appeal is pending its review (www.msnbc.com, Oct 8, 2003). The Tenth Circuit Court found that the FTC passed the difficult four-pronged test in order to succeed under the Federal Rules of Appellate Procedure 8 and 18: 1) likelihood of success on appeal; 2) threat of irreparable harm if the stay or injunction is not granted; 3) absence of harm to opposing parties if the stay or injunction is granted; and 4) any risk of harm to the public interest. By passing the 4-part standards test, the District Court was able remove the order barring the enforcement of the new do-not-call list legislation set forth in the lower court (FTC v. Mainstream Marketing Services Order, Oct 7, 2003). However, the 10th Circuit Court did uphold the Do Not Call legislation. One of the statements found in the 10th Circuit Court ruling staying the order to bar of the implementation of the Do Not Call List, seems to give some insight into the court's position. The Court indicated that it felt that the FTC would be able to demonstrate a reasonable fit between substantial government interests set forth in the legislation and

the implementation of the Do Not Call List (FTC v. Mainstream Marketing Services Order, Oct 7, 2003).

The FTC had attempted justification of First Amendment cases in the Rule and how the Do Not Call provisions outlined by the Commission should be consistent with other cases such as Central Hudson Gas & Elec. V. Pub Serv. Comm.of N.Y and Rowan v. Post Office Dept.

> *"The Commission believes that, with respect to telemarketing that solicits sales of goods or services, the ''do-not-call'' registry provisions are consistent with the relevant First Amendment cases. In Central Hudson Gas & Elec. v. Pub Serv. Comm. of N.Y., the Supreme Court established the applicable analytical framework for determining the constitutionality of a regulation of commercial speech that is not misleading and does not otherwise involve illegal activity. Under that framework, the regulation (1) must serve a substantial governmental interest; (2) must directly advance this interest; and (3) may extend only as far as the interest it serves—that is, there must be ''a 'fit' between the legislative ends and the means chosen to accomplish those ends . . . a fit that is not necessarily perfect, but reasonable . . . that employs not necessarily the least restrictive means but . . . a means narrowly tailored to achieve the desired objective. With regard to the first of these criteria, protecting the privacy of consumers from unwanted commercial telemarketing calls is a substantial governmental interest...is designed to advance the privacy rights of consumers by providing them with an effective, enforceable means to make known to sellers their wishes not to receive solicitation calls. The registry is also designed to cure the inadequacies as a privacy protection measure that became apparent in the company-specific ''do-not-call'' provisions included in the original Rule. Thus, the second of Central Hudson's criteria is satisfied. Finally, the national ''do-not-call'' registry is a mechanism closely and exclusively fitted to the purpose of protecting consumers from unwanted telemarketing calls…In Rowan v. Post Office Dept., the Supreme Court upheld a federal statute empowering a homeowner to bar mailings from specific senders by notifying the Postmaster General that she wished to receive no further mailings from that sender…The Commission believes that the First Amendment similarly raises no impediment to Rule provisions that will enable a person by signing up on a national ''do-not-call'' registry to block commercial communications via telephone, which are far more intrusive than the communications, at issue in Rowan, via printed words and images."*

Traditionally, courts have overwhelming deferred to agencies rulings unless proof of some gross constitutional violation such as arbitrariness or capriciousness can be proven (Cann, 2002). In other topic covered by Cann, courts also primarily defer to Congressional intent in their decisions. In the event the 10th Circuit Court had ruled in favor of telemarketers, Congress itself could have

always passed another law even further clarifying their intent for an FTC implemented Do Not Call List and could directly state no judicial review is allowed to counteract further court litigation. The courts would not be able to review due to statutory preclusions to judicial review as in Traynor v. Turnage 1988 (Cann, 2002).

Neil M. Richards, associate professor of law at Washington University in St. Louis, set forth some interesting observations. The appellate Courts' decisions will stand and Congress cannot overrule a court's decision about a court's interpretation of the meaning of the first amendment. Richard's points out the telemarketer's first amendment free speech rights are derived from the right of consumers to hear messages. However, in his opinion, this was not because of the rights of advertisers to send the messages. The Do Not Call List seems to imply that people have spoken and if their name is on the list, they do not want to hear the messages, thereby, the first amendment rights of telemarketers would not be violated. However, Richards also noted that in the past, the 10th Circuit Court had not been very receptive to consumer privacy claims against telemarketers (www.washinguniveristy.com, Oct 2003).

Richard's prediction of the Court's reception out to be unfounded and on February 17, 2004, a panel of three judges on the 10th Circuit Court of appeals ruled unanimously dismissing the claims of violation of free speech and unfairness because it does not apply to charitable or political calls. A statement from the Court said, "We hold that the Do Not Call registry is a valid commercial speech regulation because it directly advances the government's important interests in safeguarding personal privacy and reducing the danger of telemarketing abuse without burdening an excessive amount of speech" (www.firstamendmentcenter.org, Feb 17, 2004).

After the 10th Circuit Court's ruling Ken Paulson, the First Amendment Center executive director, was pleased with how the Court addressed the issue regarding future government intrusion into the constitutional issue of freedom of speech. Paulson says, "The court says that there would be no justification for more direct government regulation of telemarketing because this system of allowing customers an opt-in is an effective alternative. That means other areas in which there are calls for greater government intervention—including the Internet and cable television—are best addressed in both practical and constitutional terms through a system where consumers make the choices" (www.firstamendmentcenter.org, Feb 17, 2004). This statement seems to hint the courts will continue to uphold legislative actions as long as consumers are able to continue to make their own choices.

The American Teleservices Association (ATA), formerly called the American Telemarketer's Association, filed an appeal to the U.S. Supreme Court to rule on the constitutionality of the National Do Not Call registry in May of 2004, which was rejected by the Supreme Court in October 2004 (www.epic.org, Oct 2004). This rejection by the Nation's highest court sent the message to consumers and telemarketers that the National Do Not Call List was here to stay.

On a more local front, in December 2005, the 8th U.S. Circuit of Court Appeals overturned a previous decision in the lawsuit, Fraternal Order of Police v. Stenehiem, made by U.S. District Judge Ralph Erickson of Fargo where Erickson had stated North Dakota's telemarketing law which made the distinction between volunteers and professional callers for charity or non-profit calls was not legal. Circuit Court judges Roger Wollman and J. Leon Holmes stated, "The (state law) does not substantially limit charitable solicitations, and is not unconstitutionally overbroad." Charities may make fundraising calls to people who have joined the no-call list, but only if they use employees or volunteers. Professional telemarketers are not allowed to call people on the list. (www.firstamendmentcenter.org, Apr 21, 2006) A petition was filed in April 2005 by 33 different organizations trying to invalidate the more restrictive state regulations and allow the FCC alone, jurisdiction over telemarketing across state lines. Also, the Direct Marketing Association has asked the FTC to consider reducing its policy on the abandoned or dead air calls, to be more in line with the more lenient policies set forth in the FCC regulations on abandoned calls. (www.online.wsj.com, Sep 28, 2005).

If any of the petitions are successful in getting implemented or more restrictive state laws are no longer acknowledged to have precedence, larger loopholes could potentially be available to telemarketers in their practices and consumers could potentially start receiving more calls. Electronic Privacy Information Center (EPIC) officials are planning to present their case to the FCC citing their fear of returning consumers to the era of the unwanted telephone calls. Chris Hoofnagle of EPIC, states, "The five states with stricter laws are an important beachhead for consumers. They currently prevent telemarketers from using computerized callers or making calls based on existing business relationships because they need to avoid breaking any state laws when they do national marketing campaigns" (www.msnbc.msn.com, Jul 20, 2005). However, proponents of lifting the restrictive state regulations argue that telemarketers need to have one standard to follow that is uniform. Bill Raney, a telecommunications lawyer who defends companies against Do Not Call lawsuits stated, "There is no evidence that (a favorable FCC ruling) will lead to large increases in telemarketing calls." Another factor that should be considered, if the petition to have the state regulations invalidated succeeds, this would have a potentially profound impact on any and all State regulations and laws that are more restrictive than Federal laws, not just the Do Not Call directives.

Lawsuits Filed Against Telemarketers

The first actual federal suit was filed by the FCC against American Home Craft, Inc. in the U.S. District Court for Northern California also under the federal TCPA as all of the calls were made intrastate, or within the state of California. In the suit, California Attorney General, Bill Lockyer, was seeking at least $100,000 in fines along with a permanent injunction for the company to abide by the law. The suit alleged that American Home Craft did not attempt to purchase the registry available since September 1, 2003. Lockyer made the following statement, "This lawsuit should put

all telemarketers on notice to get a copy of the Do Not Call registry and take the law seriously" (www.ag.ca.gov, Dec 8, 2003).

As of September 2005, nearly two years after the Federal Do Not Call List was effective, over a million violations were reported but only a few fines have been levied or lawsuits filed against violators (www.online.wsj.com, Sep 28, 2005). The FTC had filed 14 lawsuits and levied 4 fines. The FCC had issued warnings and only 2 fines. One such company fined was AT&T Corporation for $780,000 for Do Not Call violations. That particular suit has an ironic twist, as AT&T is the contactor that actually maintains the National Do Not Call Registry (www.privacyrights.org, Nov 2003). In July 2004, AT&T agreed to pay $490,000 and the second company, Primus Communications agreed to pay $400,000.

Then on December 15, 2005, the FTC announced the issuance of its largest penalty for Do Not Call violations when it imposed a $5.3 million fine against the satellite provider, DirecTV Group Inc. The penalty targeted the common business practice of companies that hire telemarketers to utilize cold calls and other sales tactics to generate new business (www.proquest.umi.com, Dec 14, 2005). This suit is important as it demonstrates a company is accountable for the calls being made on their behalf.

As a result of the lawsuit, DirecTV terminated its contracts with 4 of the 5 telemarketers named in the suit claiming the 4 companies had made unwanted and unlawful calls to existing and potential customers and claims to fully support the National Not Call Registry. When asked why the Federal lawsuit quantity is so small, both registry officials of the FTC and the FCC basically felt telemarketers were for the most part following the rules and only a few of the complaints investigated were actual violations (www.online.wsj.com, Sep 28, 2005). Another reason for the limited number of fines appears to correlate with the number of resources available for investigations. Generally, the federal agencies have only had resources available to investigate a single company after multiple complaints have been reported. (www.abcnews.go.com, Aug 2005) Although various fines levied through both Federal and State governments is over $10 million. A partial listing is shown in Table 1.

Table 1: Recent Do Not Call List Fines		
Date	Company Name	Fine Amount
04-12-06	Sports Authority Florida (FL)	$112,500.00
02-24-06	Book of the Month Club (FTC)	$680,000.00
01-12-06	Total Remodeling Inc. (New Jersey)	$151,500.00
12-14-05	DirecTV (FTC)	$5,340,000.00
07-31-05	Chesapeake Window and Building (Maryland)	$25,000.00
07-15-05	Columbia House (FTC)	$300,000.00

Table 1: Recent Do Not Call List Fines		
Date	Company Name	Fine Amount
06-07-05	Real Time International (Virginia)	$196,000.00
05-05-05	EchoStar Communications (Missouri)	$50,000.00
03-18-05	ABI Marketing (Pennsylvania)	$90,000.00
03-15-05	AT&T (Pennsylvania)	$35,000.00
03-03-05	Dynasty Mortgage (FCC)	$770,000.00
02-17-05	Braglia Marketing Group, L.L.C. (FTC)	$3,500.00
02-17-05	Flagship Resort Dev. & Atlantic Palace (FTC)	$500,000.00
02-10-05	SBC Communications (Missouri)	$150,000.00
02-01-05	Florida 2004 Settlements & Fines	$319,750.00
11-28-04	Solartherm Remodelers, Inc. (Pennsylvania)	$1,900.00
09-08-04	Primus Telecommunications (FCC)	$400,000.00
08-06-04	Comcast Cable (Pennsylvania)	$7,500.00
07-09-04	Shelterguard, Inc. (Ohio)	$65,000.00
06-24-04	American Home Craft, Inc. (California)	$45,000.00
05-09-04	Sunset Mortgage Co., L.P. (Pennsylvania)	$19,000.00
04-12-04	AT&T (North Carolina)	$30,000.00
04-12-04	American Communications (North Carolina)	$15,000.00
03-30-04	67 Settlements in New York	$1,050,960.00
05-01-01	Tennesse Regulatory Authority Settlements	$7,000.00
	DNC Fine Total:	$10,364,610.00
(http://dontphoneme.com/dncfines.htm. Retrieved April 21, 2006).		

In its latest report to the chairman, the FTC sums up the latest statistics regarding its rule enforcement. (www.ftc.org, Apr 21, 2006)

"The agency has filed 19 enforcement actions against 102 individual and corporate defendants, alleging that they had called consumers whose numbers were on the

DNC Registry. In 12 of those cases, the FTC obtained settlements with orders requiring payment in the aggregate of more than $6 million in civil penalties and more than $5 million in consumer redress."

Information from the Direct Marketing Association (DMA) seems to back the claims as well. In September 2003, DMA had requested the entire telemarketing industry to voluntarily abide by the rulings. The Association felt their call for compliance had been adhered to by about 90 percent of the industry (www.the-dma.org, Feb 17, 2004). Surprisingly, even telemarketers themselves are counting on increased federal enforcements to help cull out the telemarketing firms performing willful violations. Tim Searcy, chief executive of the American Teleservices Association remarked, "We are asking the Federal Government to do a better job of enforcing. I want to remove from the marketplace anyone who is not abiding by the Do Not Call List. Let's make sure that we have a level playing field for legitimate practitioners" (www.abcnews.go.com, Aug 2005).

Various states have also brought suits against Do Not Call List violators. Since 1991, Florida has collected over $1 million in penalties and fines and has over 171,000 people on its list. Florida consumers must also pay an annual fee to be included in the list (www.tampabaylive.com, Sep 24, 2003). Another suit filed July 10, 2003, provides an example of trends where federal and state governments and legislative acts work in conjunction for Do Not Call actions. The state of Missouri sued MCI, AT&T and SBC Missouri for violating the federal Telephone Consumer Protection Act (TCPA) as Missouri's own Do Not Call legislation exempts telephone companies (www.adlawbyrequest.com, Jul 21, 2003).

MARKETPLACE ACTIVITY AND IMPACT

Popularity of Do Not Call Lists

"Unwanted telemarketing calls are intrusive, annoying and all too common. When Americans are sitting down to dinner or parents are reading to their children, the last thing they want is a call from a stranger with a sales pitch, " stated by George W. Bush in his Statement on the National Do Not Call Registry prior to signing the Do Not Call Registry law passed by Congress (Weekly Compilation of Presidential Documents, September 2003).

This sentiment certainly seemed to be true for many Americans. From the first registrations in May 2003 to October 1, 2003, when the FTC's Federal Do Not Call list went into effect, over 50 million Americans had already signed up for the list. Consumers were unhappy with interrupted meal and family times and for many, the call is not what is the most bothersome to consumers. The call for something not wanted seems to cause the largest objection to telemarketing calls (www.msnbc.com, Sep 24, 2003).

By April 2006, over 122 million American's had added their telephone numbers, both residential and wireless, to the List (www.ftc.gov, Apr 21, 2006). "The level of public involvement's really quite extraordinary. More people have expressed a preference in telemarketing than voted for the last president of the United States," observes Mark Rotenberg, director of the Electronic Privacy Information Center (www.news.com, Oct 1, 2004).

Telemarketing Industry Impact - Evolution Versus Extinction

When the Do Not Call legislation went into affect in 2003, telemarketers were anticipating the legislation to cost the industry about $50 billion in sales each year, about half of its business (www.siliconvalley.com, Oct 23, 2003). Efforts by telemarketers were generating about $211 billion in goods and services made up of about 180 million successful sales attempts out of the nearly 24 billion calls being made annually, so it would seem as if not all consumers felt sales calls were a nuisance. In September 2005, The Direct Marketing Association, which had commissioned an independent study, announced that in 2005 companies in the United States had spent more than $161 billion on direct marketing and generated $1.85 trillion in sales, or approximately 10.3% of the total United States FPD for 2005 (www.the-dma.org, Sep 29, 2005).

Scott Hovanyetz, a reporter who covers the telemarketing industry in the trade publication DM News, has chronicled some of the layoffs that occurred in the telemarketing industry after the Federal Do Not Call List went into effect. He said, "that certainly the jobs lost are in the thousands or tens of thousands but it's hard to arrive at a more exact figure because call centers tend to be transient, with high turnover." The largest fallout of lost jobs and closed call centers was in the small to midlevel firms that only have a few clients. A loss of one major client for the smaller out-bound telemarketing firms means closing the doors, especially when the resources to transition to another type of market are not available (www.news.com, Oct 1, 2004). So far, the actual call center closings have been minor in comparison with the telemarketing industry as a whole.

Not all telemarketing jobs lost can be blamed on the Do Not Call legislation. Some of the larger telemarketing firms were already in the process of using off-shore locations like India or near-shore locations like Canada where cheaper labor is found (www.the-dma.org, Aug 27, 2004). Traditionally, the largest factor of lost positions in the telemarketing industry is due to new technologies. Many call centers are using the Internet and on-line services to collect payments and change addresses without the need for a live agent to conduct the transaction.

In October 2003, Andrew Tilton and economist for Goldman Sachs estimated between 100,000 and 150,000 jobs would be lost over the next year due to the new legislations, a fairly small number in the 130 million people direct marketing work force. In an interesting reflection, Tilton noted the Do Not Call List could actually boost the telemarketing industry's profitability as the list effectively eliminates those consumers who probably would not have made a purchase anyway (www.msnbc.com, Oct 8, 2003).

It would appear as if Tilton's predictions of improved profitability have come true for much of the telemarketing industry. The telemarketing industry seems to have escaped extinction by evolving into more efficient consumer communication industry.

Improved Telemarketing Practices

Many telemarketing firms are actually seizing the new opportunities being presented through the Do Not Call legislation. Many of the larger, more progressive telemarketing companies are shifting their efforts to inbound customer service, proactive customer care services and technical support venues as well a shift into the business to business or charity markets, not hampered by the Federal legislation (www.webapp2.concderto.com, Jul 2005).

Interesting comments were received from industry representatives when the FTC asked for comments prior to ruling on the Do Not Call List where some felt a Do Not Registry may actual benefit the industry as stated in the Rule (www.ftc.gov, Feb 23, 2006).

> *"Although industry fears the economic impact a national registry might have, ironically, an FTC ''do-not-call'' registry may actually benefit rather than harm industry. For example, the federal framework, with its exemptions, would provide greater consistency of coverage, at least with regard to interstate calls. In addition, industry would benefit because telemarketers would reduce time spent calling consumers who do not want to receive telemarketing calls and would be able to focus their calls only on those who do not object to such calls."*

A few of the more creative niches found by direct telemarketers include interactive chat and toll-free numbers manned by operators. These types of calls are used in conjunction with other types of advertising such as Internet Web sites, newspaper ads and billboards (www.news.com, Oct 1, 2004). Online advertising, e-mail, search, CRM and database marketing are giving companies more precision in marketing, advertising and customer relations. Many companies have felt the answer to greater profit lies in the inbound market, which embraces opt in approach to telemarketing. Opt in is the concept where an individual initiates the contact to a company and asks to be explicitly included in communication. The overall implication is the individual is automatically excluded until contact has been initiated. The opposite is true for opt out. Unless an individual explicitly asks to be excluded from communication, a company can deliberately include that individual in communication efforts.

Many forward-thinking companies are shifting their marketing focus to customers who call or contact them. Whether the customer approaches through a call center, Web site or interactive voice-response system, the inbound channel represents a golden opportunity to build and capitalize on an existing relationship. Companies are finding that customers who have initiated a call are more

likely to give of their time and attention. Rather than being interrupted with an outbound call, a customer controls when the interaction occurs. The result experienced is open communication with customers, leading to more effective marketing.

Another tactic used by telemarketers is the use of recorded messages instead of live messages in the states that allow them. The restrictive Do Not Call rules were geared more towards live calls. Telemarketers have used more of the recorded calls leaving identification and a return number. This practice has become another popular way to utilize an opt in approach to telemarketing, using methods to entice customers to call them back.

The real-time nature of the inbound interaction also creates opportunities. It's a chance to address customers on a personal level, to extend the relationship and learn more about what drives them and what their pain points are. Companies that can make the most of this intelligence are in a strong position to survive in a post-DNC marketing landscape. Inbound marketing is about building existing relationships (Miller, May 15, 2005).

Not only have telemarketing companies enjoyed better business practices, but the businesses they are providing service for are also seeing larger bottom lines in the marketing efforts being utilized. Some of the rewards seen by businesses include a targeted pool of buyers, enhanced customer service, greater customer loyalty and a more streamlined and productive workforce (www.webapp2.concderto.com, Jul 2005).

Consumer Impact - Consumer Satisfaction

Are Do Not Call practices working? When the FTC passed the revised legislation in 2003, it anticipated about 80% of unwanted calls should be stopped with its Do Not Call List (www.usatoday.com, Sep 25, 2003). In statistics published by the United States Telecom Association, there were approximately 107.5 million households with telephone services as of July 2005 and approximately 184.7 million wireless subscribers as of December 2004 (www.usta.org, Mar 7, 2006). The FTC feels the Do Not Call List is a success and has stated that more than 122 million residential and wireless telephone numbers have been registered with the National Do Not Call Registry. In the latest Chairman report issued in April of 2006, the Commission praises the Do Not Call List and talks about its success (www.ftc.gov, Apr 21, 2006).

> *"Compliance with this law has been high and the Registry has been a significant success. Yahoo! ranked the launch of the FTC's Do Not Call website as one of the top 100 moments on the web over the last 10 years. The success of the DNC Registry has also caught the attention of the international community. Encouraged by the success of the Registry, Canadian and Mexican agencies have consulted with the FTC in developing their own do not call registry frameworks."*

In general consumers seem to be enjoying fewer intrusive sales calls. In a Harris Interactive poll conducted as of September 30, 2004, 57% of adults in the United States indicated they had signed up for the Federal Do Not Call registry. Of these participating consumers, 92% said they were getting fewer calls and 25% had said they had received no calls. In another survey conducted by Customer Care Alliance, it was determined consumers were enjoying an 80% drop in the number of calls received (www.proquest.umi.com.ezproxy.library.und.edu, Oct 1, 2005). In the same Harris Interactive poll conducted as of December 14, 2005, 76% of adults had indicated they had signed up on the registry and 92% of those consumers indicated they had received fewer calls but only 18% said they had received none (www.harrisinteractive.com, Jan 12, 2006).

Based on the results of various surveys conducted, it would appear as if the telemarketing industry is abiding by legislative actions and honoring consumer's wishes so consumers appear to be enjoying fewer invasive calls.

Consumer Impact - Consumer Expectations

Is the Do Not Call legislation working as consumers had expected? When the National Do Not Call List went into affect, many consumers were disappointed and felt they were still getting calls they felt they should not be getting. This happened in part because of some of the exemptions built into the Do Not Call rules and the lack of communication to consumers what these exemptions included. Many consumers did not realize that charitable sales calls could still occur, or that telephone surveys and political solicitations could still be conducted and more importantly, that any business with an established relationship with the consumer could still be making telephone pitches legally.

The established business relationship appears to be quite broad and provides the largest hoop hole in the laws telemarketers can still utilize. For instance, if a consumer subscribes to a magazine subscription, the publisher can call during the life of the subscription plus the next 18 months after the subscription runs out. Any company in which a person has an ongoing relationship, like a bank, credit card, insurance, etc. can make calls. Probably the largest ambiguity experienced in the Sales Rule seems to be when a person makes an inquiry or submits an application to a company. The company is allowed to make a call for up to 18 months after the last inquiry; however, no clear-cut definition of what constitutes an inquiry exists. At any time, though, a consumer can still ask the caller, even if it is charitable organization, to not call again, and the company must adhere to those wishes or face the stiff fines promised in the Sales Rule (www.ftc.gov, Feb 23, 2006).

Public awareness and consumer education on what the Do Not Call legislation does cover seems to be growing but is still slow. In the latest Harris Interactive poll conducted in 2005, 63% of the individuals signed up for the registry indicated they did not realize survey research and political polls were allowed under the Do Not Call legislation (www.harrisinteractive.com, Jan 12, 2006).

It would appear as if many consumers are not terribly concerned with the number of calls that still come through so there seems to be an acceptance of the number of calls that have been stopped by the legislation and consumers are generally happy as a whole with the concept of reduced calls provided with Do Not Call lists regulations.

FUTURE

When the Supreme Court denied hearing the appeal to the 10th Circuit Court case that validated the constitutionality of the Do Not Call legislation, the message became clear that the law is here to stay. There have been other requests of such items as Do Not Email and Do Not Span types of lists. Is it possible the National telephone list was only the beginning?

The FCC has already set up a list of Internet domains that is used by the mobile telephone carriers in an effort to help keep unwanted spam messages off mobile telephones, a violation of the Can-Spam Act of 2003. The Can-Spam Act of 2003, which took effect January 1, 2004 requires unsolicited commercial e-mail message to be labeled, to provide opt-out instructions and to include the sender's actual physical address. The Act also prohibits deceptive use of subject lines and false headers. The FTC was also granted authority to establish a National Do Not E-mail registry.

In June of 2004, the FTC submitted a feasibility report regarding the establishment of a Do Not E-mail list required in the Can-Spam Act. The FTC felt by providing such a list, an increase in Internet spamming could occur with so many valid e-mail addresses available to companies. Therefore, the findings of the FTC were that a national list would not be feasible without some mechanism in place to be able to authenticate the actual origin of e-mail messages (www.realtors.org, Jun 17, 2004).

Government officials are extremely aware of the growing e-mail and Internet spamming practices and are hoping to find some relief against unwanted spamming. One such effort includes a memo of understanding among Australia, the United Kingdom and the United States requiring cooperation between agencies and countries that have conflicting laws regarding spamming and to be able to conduct joint investigations into spam violations. Both Australia and the United Kingdom have more restrictive, opt in laws regarding e-mail spamming. The United State's spamming law utilizes the opt-out approach so spamming is deliberately allowed. Therefore, the Unites States would only be allowed to prosecute offenders from the various countries if recipients have explicitly requested to opt out and the other countries can prosecute according to their more restrictive opt in laws (www.computerworld.com, May 7, 2004).

Faxes have become another area seeing attempts at imposed restrictions. The FCC had tried to impose tighter restrictions on faxing and when the agency promulgated the restrictions, it did not provide for the exemption of the existing business relationship when sending faxes. Congress at that time recognized the impact of this restriction on commerce and passed legislative action to establish their position. On July 9, 2005, President Bush signed the Junk Fax Prevention Act into law. This

Act provided the restoration of existing business relationships in commercial faxes. The Act also included another important piece of legislation where commercial faxes needed to provide an opt-out provision on the first page of the fax that provides a free method at any time for the recipient to request removal from the distribution (www.pianet.com, Mar 15, 2006).

This rule promulgation seems to demonstrate that Congress will enact laws when they deem it necessary to get their wishes known and that law makers also realize the importance of allowing businesses to communicate with consumers in order to satisfy the free enterprise system and to keep the economy thriving while still allowing business and consumers a way to opt out as their choice. The question that is looming in the nearest future is regarding what the FCC finds with its ruling on the petition to allow the FCC alone, jurisdiction over telemarketing across state lines. As indicated earlier, the FCC does not allow state's individual jurisdictions to supersede its rulings. At the present time, the FCC is endorsing the FTC's Do Not Call directives. The FTC has hinted at endorsing a single Do Not Call List and set of rules but has indicated it will reserve judgment on a ruling of this type depending upon the success of the current Rule provisions. If the FTC or the FCC decides in favor of single Do Not Call provisions, it could have a far-reaching impact on what the future will hold regarding the passing of further privacy Laws at both Federal and State levels and the ability of these laws to pass the highest Courts in the land.

CONCLUSION

Any type of legislation that provides a feeling of privacy protection, such as the Do Not Call legislation is extremely popular to voters. States have proven their backing by passing their own legislation and then subsequently in bringing about lawsuits against Do Not Call violators on behalf of their citizens. Congress has demonstrated its approval of Do Not Call legislation by expediently passing the bill to clarify its intent for the FTC to implement the National Do Not Call list only one day after the Denver Court ruled the FTC was not granted the appropriate authority by Congress. It appears that the Denver Court has made it clear that it will uphold any rulings that provide for consumer choice.

The FTC itself has been very careful when promulgating its rules that it continues to keep rules within constitutional boundaries and is cognizant of business and consumers and the needs of each as demonstrated in the dialog throughout the Revised Ruling.

Voter popularity of the Do Not Call List strategy on so many fronts has made it successful. It will remain to be seen if any of the other types of anti-privacy types of the legislation also uphold as well. Even though at this time, the United State's spamming laws are less restrictive than those of other countries, a legislative action at any time could change this to be more like other countries' opt-in choices and level the playing field regarding international communication as well as internal communication. American's could see another roller-coaster ride and perhaps some new creative twists to implementing people-pleasing laws.

Telemarketing is one area where consumers' especially feel their privacy is at jeopardy. People want the choice as to the types of information they are willing to accept. Smart telemarketers are realizing that the traditional opt-out method of telemarketing may become a practice of the past. It may be time to figure out innovative ways to entice consumers with an opt-in approach of doing business where businesses are more cognizant of finding products for customers rather than finding customers for products.

REFERENCES

About the FCC. Federal Communications Commission. Retrieved February 23, 2006, from http://www.fcc.gov/aboutus.html

Anti-Telemarketing laws under attack. Electronic Privacy Information Center. Retrieved January 17, 2006, from http://www.epic.org/privacy/telemarketing/preemptiveattack.html

Appellate Court rules on do-not-call list: The DMA issues statement – 17 Feb 2004. Direct Marketing Association. Retrieved November 10, 2005, from http://www.the-dma.org/cgi /dispnewsstand?article=1858.html

Attorney General Lockyer files first lawsuit against telemarketer for calling phone numbers on the national do not call registry – 6 Nov 2003. Office of the Attorney General State of California. Retrieved December 8, 2003, from http://www.ag.ca.gov/newsalerts/2003/03-137.htm

Bush will sign do not call legislation, court fight still expected – 29 Sep 2003. TMCnet. Retrieved October 23, 2003, from http://www.tmcnet.com/enews/2003/092903a.htm

Cann, Steven J. (2002). *Administrative law (Third Edition)*. Sage Publications.

Congress cannot overrule 'do not call' list in court victories for telemarketers; a 'tragedy' for consumers – Oct 23, 2003. Washington University News. Retrieved December 8, 2003, from http://www.washinguniversity.com/news/donotcall.htm

Congress Passes 'Junk Fax Prevention Act of 2005 – 29 June 2005. National Association of Insurance Agents. Retrieved March 15, 2006, from http://www.pianet.com/IssuesOfFocus/ OngoingIssues/privacy/6-29-05-3.htm

Conkey, C. (2005). Do-not-call lists under fire. *Wall Street Journal- Eastern Edition*, 28 Sep 2005. Retrieved November 10, 2005, from http://online.wsj.com/public/ article_print/SB112785978695153775/htm

Conkey, C. (2005). Record fine levied for telemarketing; DirecTV to pay $5.3 million for calling consumers on the 'do not call' list. *Wall Street Journal- Eastern Edition,* 14 Dec 2005, D.1. Retrieved March 1, 2006, from http://proquest.umi.com.ezproxy.library.und.edu/ pqdweb?index=2&did=941095011/htm

Davidson, P. (2003, June 27). Sign-up starts today for do-not-call list. *USA Today*. Retrieved March 1, 2005, from http://pqasb.pqarchiver.com/USAToday/access/352584331.html

Do not call' list faces more hang-ups – 23 Sep 2003. CNN Money. Retrieved December 8, 2003, from http://www.cnnmoney.com/donotcall092303.htm

Do-not-call list 'up and running – 8 Oct 2003. MSNBC News. Retrieved October 23, 2003, from http://msnbc.com/news/088251/asp

Do not call: North Dakota list is safe from ruling, Attorney General says – 25 Sep 2003. Grand Forks Herald. Retrieved December 8, 2003, from http://www.grandforksherald.com

Do-not-call registry – 4 Oct 2004. Electronic Privacy Information Center. Retrieved March 4, 2006, from http://www.epic.org/privacy/telemarketing/dnctimeline.html

Do not call registry law enforcement – Apr 2006. The FTC in 2006: Committed to Consumers and Competition. Retrieved April 21, 2006, from http://www.ftc.gov/os/2006/03 /ChairmanReportFinal2006.pdf

Do not call trends - 2003. Gryphon Networks. Retrieved February 15, 2006, from http://www. gryphonnetworks.com/nasdalliance/nasddonotcalltrends.pdf

Edwards, J. (2003, May 26). Dinner, interrupted. *Brandweek*, 44 (21), 28. Retrieved March 1, 2005, from http://search.epnet.com/login.aspx?direct-true&db-alp&an=9936789

8th Circuit upholds N.D. do-not-call law – 8 Dec 2005. Associated Press. Retrieved April 21, 2006, from http://www.firstamendmentcenter.org/news.aspx?id=16164

FCC joins FTC in endorsing national do-not-call registry – 7 July 2003. Hall Dickler ADLaw By Request. Retrieved December 2, 2003, from http://www.adlawbyrequest.com/ regulation/DoNotCall070703.shtmal

FTC v. Mainstream Marketing Services order. United States Court of Appeals, Tenth Circuit court documents Filed October 7, 2003. Retrieved October 10, 2005, from http://www.ftc.gov/os/2003/ 09/mmsiftcnoa.pdf

Federal court rules against do-not-call registry – Sep 2003. The Mercury News. Retrieved October 23, 2003, from http://www.siliconvalley.com/mld/siliconvalley/6849984.htm

50 State Attorneys General urge FTC to beware of preemptive effect of national "do not call" registry – 30 Apr 2002. Hall Dickler ADLaw By Request. Retrieved December 2, 2003, from http://www.adlawbyrequest.com/regulation/DoNotCall042902.shtml

Florida do-not-call list continues despite ruling – 24 Sep 2003. Associated Press. Retrieved December 11, 2003, from http://www.tampabaylive.com/stories/2003/09/030925flllist.html

Gearon, C. J. (2005, June). State-by-state guide to do-not-call registration. *AARP Bulletin*. Retrieved April 10, 2006, from http://www.aarp.org/bulletin/consumer/a2003-06-30-statenocall.html

Governor Strengthens Do Not Call Telemarketing Program – 7 July, 2003. Office of the Governor, State of New York. Retrieved October 23, 2003, from http://www.state.ny.us/ governor/press/year03/july7_2_03.htm

Growth trends continue for direct marketing – 29 Sep 2005. Direct Marketing Association. Retrieved March 26, 2006, from http://www.the-dma.org/cgi/disppressrelease?article=704.html

A guide to the Federal Trade Commission 2006. Federal Trade Commission. Retrieved February 23, 2006, from http://www.ftc.gov/bcp/conline/pubs/general/guidetoftc.htm

Ivey, S. (2005, October 1). U.S. says do-not-call list has reduced intrusion, a lot. *Chicago Tribune*. Retrieved March 1, 2006, from http://proquest.umi.com.ezproxy.library. und.edu/pdqweb?index=5&did=905132741.html

King, W. M. (2003, December 17). The great telemarketing reallocation rush of 2003. *Grizzard Performance Group*. Retrieved April 20, 2006, from http://www.databasesystemscorp.com/tech-telemarketing_01.htm

Kongshaug, N. (2005, August 14). But despite 900,000 complaints, only 12 offenders have been fined for violations. *ABC News*. Retrieved November 10, 2005, from http://abcnews.go.com/ NWNT/print?id=1037365

Lawmakers seek to keep do-not-call list plan on track – 25 Sep 2003. USA Today. Retrieved December 8, 2003, from http:///usatoday.com/donotcall/htm

Maddox, K., Callahan, S. & Krol, C. (2005). Top trends; whether finding new ways to reach customers or establish a higher profile in the executive suite, b-to-b marketers have proven remarkably agile and adaptable in the past five years. *BtoB Crain Communications Inc.*, 90 (7). June. Retrieved April 20, 2006, from http://rdsweb1.rdsinc.com.ezproxy. library. und.edu/ texis/rds/suite2/+7hePz_GenxwwwwwFqz666swn9vqxFqo15nGW6v64FmO/full.html

McBride, S. (2004, May 7). Australia, US and UK unite to battle spam. *Computerworld*. Retrieved April 10, 2006, from http://www.computerworld.com.au/index.php /id;710630776;fp;16;fpid;0

McCullagh, D. (2004, October 1). Hanging up on telemarketers. *CNET News*. Retrieved November 10, 2005, from http://news.com/2102-1028_3-5391178.html

Miller, J. (2005, May 15). They'll call you. *Direct, PRIMEDIA Business Magazines & Media*, 17 (7). Retrieved April 20, 2006, from http://rdsweb1.rdsinc.com.ezproxy.library.und.edu/ texis/rds/suite2/+VoeP69GenxwwwwwFqz666swn9vqxFqo15nGW6v6/full.html

Missouri sues MCI, AT&T and Southwestern Bell for violating federal do-not-call laws – 21 July 2003. Hall Dickler ADLaw By Request. Retrieved December 2, 2003, from http://www. adlawbyrequest.com/inthecourts/TCPA072103.shtmal

National do-not-call registry: three-quarters of U.S. adults are registered – 12 Jan 2006. Harris Interactive. Retrieved February 23, 2006, from http://www.harrisinteractive.com/ harris_poll/index.asp?PID=627

National do not call registry update – 17 June 2004. National Association of Realtors. Retrieved November 10, 2005, from http://www.realtors.org/vlibrary.nsf/pages/dncupdate2.htm

New York "do not call" list proves popular – 4 Dec 2000. Hall Dickler ADLaw By Request. Retrieved December 2, 2003, from http://www.adlawbyrequest.com/legislation/DoNotCall.shtml

The Power Of the 'Do Not Call' Movement—What's Ahead for Year Two. *One eNewsletter*, 2 (1), July 2005. Retrieved November 10, 2005, from http://webapp2.concderto.com/ one_enwsletter/v2i1/article3.html

Putting the Brakes on Nuisance Marketing Calls – Feb 2001. National Conference of State Legislatures. Retrieved December 8, 2003, from http://www.ncsl.org/programs/ lis/cip/telemarketing0201.htm

Q&A for Telemarketers and Sellers About the Do Not Call Provisions the FTC's Telemarketing Sales Rule. Federal Trade Commission 2006. Retrieved February 23, 2006, from http://www. ftc.gov/bcp/conline/alerts/dncbizalrt.htm

Recent Do Not Call List Fines. *Call List Scrubber*. Retrieved April 21, 2006, from http://dontphoneme.com/dncfines.htm

Schmitt, J. (2004, May 5). B-to-B do not call lists. *Direct Marketing Association.* Retrieved November 10, 2005, from http://www.the-dma.org/cgi/dispnewsstand.html

Smolla, R. (2003). Must 'do not call' conflict with free speech?. *Consumers' Research Magazine*, 86 (10), 24. Retrieved March 5, 2006, from http://www.search.epnet.com/ login.aspx?direct=true&db-alph&an-11335726

Statement on the national do not call registry – 29 Sep 2003. Weekly Compilation of Presidential Documents, 39 (39), 1265. Retrieved March 1, 2005, from http://search.epnet.com/login.aspx? direct=true&db-aph&an-12374712.htm

Sullivan, B. (2005, July 20). Do Not Call list under attack, activist say. *MSNBC*. Retrieved April 10, 2006, from http://msnbc.msn.com/id/8618576/page/2/print/1/displaymode/1098

Telecom statistics – 3 Jan 2006. US Telecom. Retrieved March 7, 2006, from http://www.usta. org/index.php?urh=home.news.telecom_stats

Telemarketing, past, present and future – 2003. JunkBusters. Retrieved December 15, 2003, from http://www.junkbusters.com/fcc.htlm

The telemarketing sales rule – 2003. Direct Marketing Association. Retrieved December 16, 2003, from http://www.dmaconsumers.org/telemarketingsalesrules.html

10th Circuit backs federal do-not-call list – 17 Feb 2004. Associated Press. Retrieved November 10, 2005, from http://www.firstamendmentcenter.org/news.aspx?id=12696.html

US call center jobs moving to Canada – 27 Aug 2004. Direct Marketing Association. Retrieved November 10, 2005, from http://www.the-dma.org/cgi/dispnewsstand?article=2688.html

What now for the national do not call registry? Do not call registry is 'fully up and running' – Nov 2003. Privacy Rights Clearinghouse. Retrieved December 12, 2003, from http://www.privacyrights.org

SPOUSE'S JOINT DECISION-MAKING: IS LEVEL OF INITIAL DISAGREEMENT IMPORTANT?

Cheryl B. Ward, Middle Tennessee State University

ABSTRACT

Family purchase decisions are examined in light of product category, differing individual preference intensities, spouses' preference intensity for jointly purchased products, past history, and level of disagreement. A 2x2x2x2 ANCOVA with covariate explores spouses' predispositions in joint purchase decisions. Of specific interest is the impact of high versus low levels of initial disagreement as it modifies main effects in final decisions. Results indicate that decisions were more likely to favor males in across category choices when a high level of disagreement was present and when spouses had differed in preference intensities between possible product choices under high levels of disagreement.

INTRODUCTION

Though family dynamics are continually changing, the primary decision unit in society is *still* the family and gaining an improved understanding of spousal decision making may have implications for people who market to couples. As a result, there has been a recent resurgence in research interest regarding family purchase-decision dynamics (Aribarg, Arora, and Bodur 2002; Arora and Allenby 1999; Seetharaman, Ainslie, and Chintagunta 1999; Su, Fern and Ye 2003, Ward 2006). Studies have shown that spouses may adjust influence strategies used in purchase decisions over time (Corfman and Lehmann 1987; Su et al. 2003; Ward 2005). Marketers may also become more effective at guiding personal selling activities (Aribarg et al. 2002) and gain insight into targeting communication messages to spouses as the spousal decision making process becomes better understood (Arora and Allenby 1999; Petrevu 2001). For instance, a better understanding of how spousal influence is used in family purchase decisions can help marketers to identify influential spouses and to better target communication marketing messages to the spouse who may have primary decision making authority regarding the product decision in question (Su, Fern, and Ye 2003).

Marketers have also recently acknowledged the importance of differentiating product category in family purchase decisions (Aribarg et al. 2002; Seetharaman et al. 1999; Ward 2003, 2006). Aribarg et al. (2002) determined that product category may impact the effectiveness of salesperson strategies and Seetharaman et al. (1999) found that households display similar state dependence across product categories, with income and family size having little influence.

Ward (2006) found that product category and gender preference intensities played a significant role in the final decisions made by spouses in joint product decisions. Specifically, decisions in across category product selections were more likely to favor the males' preferred product than the females'. In addition, males were more likely to gain their preferred product choice in a joint decision when the males and females expressed strong preference intensities for differing product choices in a joint decision exercise. However, Ward did not address the issue of whether her results hold true under differing levels of *initial* disagreement. Research has shown that different levels of disagreement do impact the level of conflict spouses believe to be present in the joint purchase decision (Ward 2003), though it was significant for across category choices only. Do these findings also affect the final choices of spouses in the purchase process?

The purpose of this study is to extend the understanding of the joint decision making process and determine whether previous findings hold true when the data is partitioned into two groups based upon the spouses' initial level of disagreement (high or low) regarding likelihood of product purchase prior to interaction with his/her spouse. Specifically, this study extends the Ward (2006) study to determine the effect of differing levels of spousal disagreement on spouses final purchase decisions. Do results significantly change for the effect of product category and gender preference intensities under high versus low levels of initial disagreement?

RESEARCH HYPOTHESES

In extending Ward's (2006) study, many of the same rationales apply for the hypotheses in this study. Prior research suggests that men are more likely to be self-relevant, whereas women are more likely to consider others when making a decision. Women are more emotional in an interpersonal context and men are more emotional in an achievement context (Kelly and Hutson-Comeaux 1999; Meyers-Levy 1988). Accordingly, Ward (2006) found that males are less willing to compromise towards the product category favoring the female than the female towards the product category favoring the male. However, in within category choices, where spouses are choosing between two or more brands or models within the same product category, males are more willing to compromise given that they may be less likely to experience a sense of loss regardless of which product is chosen.

It is predicted that Ward's findings are likely impacted by the original level of disagreement in the initial product pairings. Results are expected to be stronger in those decision contexts where males and females experienced a high level of disagreement in their initial evaluation of the likelihood of the product purchase being made. Ward (2006) found that in joint decision responses, across category product decisions were more likely to favor the male than the female; whereas, within category product decisions were more likely to favor the female than the male. Thus, hypothesis one states:

H1   The relationship between across category product choices and product choice is stronger in high levels of disagreement than in low levels of disagreement.

Ward (2006) found that in joint decision responses where spouses differ in preference intensities for the products, the joint product decision should be more likely to favor the male than the female. In high levels of disagreement, greater conflict should exist, thus, hypothesis two states:

H2:   The relationship with gender preference intensity should be stronger in high levels of disagreement than in low levels of disagreement.

If spouses have differing preference intensities for the products, then each spouse would be expected to be less willing to compromise in paired decision choices involving across product categories than in within product categories. Consequently, this study predicts that a man would be more determined to "win" when he differs in preference intensity with his wife and when the decision involves across category choices than within category choices. Wives are thought to be more likely to compromise than are husbands in an effort to preserve the stability of the relationship. Ward (2006) found that in joint decision responses, the decision was more likely to favor the male when spouses differed in preference intensities for across category decisions than when spouses differed in preference intensities for within category decisions. Once again, the level of disagreement present is hypothesized to impact this interaction in the males favor. Thus, hypothesis three states:

H3:   The interaction effect between product category and gender preference intensity should be more significant in a high disagreement decision context than in a low disagreement decision context.

METHODOLOGY

This study uses Ward's (2006) sample to test the impact of the initial level of spousal disagreement regarding likelihood of product purchase on final product choice. Ward recruited sixty-nine couples from various church, school, and community groups in Middle Tennessee to participate in this study, with 61 couples completing the entire task. The couples resulted in a sample size of 480 joint product decisions or observations, an average of 7.8 observations per couple. The products to be evaluated for this study were grouped into eight separate categories for within versus across category evaluations. A total of 54 different products within a wide price range, representing purchases that couples would likely make over the course of their marriage, were evaluated by participants and included choices in home entertainment, furniture, kitchen appliances, non-home entertainment, household chores, office/education, and environment/ health.

Data Collection

Ward had each spouse first complete an Individual Product Questionnaire in which he/she evaluated the likelihood of purchasing the 54 products over the next two years (100 point scales) and what price level they would be willing to spend for the product (selecting one of three options). The responses on the first questionnaire were used to create product pairings for the second stage of data collection, the joint interview. Based on their ratings of the products/services, couples were randomly placed in one of two primary categories: (1) couples presented with choices of products from within product categories (29 couples), or (2) couples presented with choices from across product categories (32 couples). The spouses were shown a series of products, two at a time. In a controlled meeting with the researcher, the spouses individually rated the likelihood of purchasing the items within the next two years, dividing 100 points between the two items (100 point constant sum scales). These numbers were used to indicate preference intensity for the products. A fifty-fifty evaluation was not allowed in that it indicated no decision for one product over the other. After evaluating the products individually, the couples then repeated the process except that this time they were presented the product pairings and told they were free to discuss the products with their spouses. The goal for the couple was to come to a joint consensus on which of the two products would most likely be acquired and to divide 100 points between the two products indicating their joint decision. The couple completed this step for each of the product pairings in order to create a decision history for the spouses.

Development of Variables

Joint Decision Response (Dependent) Variable.

The joint decision response variable (DECISION) is measured based on the 100 points allocated by each couple to the paired decision choices. Responses below 50 favor the male's preferred product, while responses above 50 favor the female's preferred product. In this context, the couples were forced to come to a joint decision between the products as to which product was most likely to be purchased by the couple and then, also as a couple, to divide 100 points between the two products. It is important to note than when the paired choices were presented, one product represented the product that the male had favored in the Individual Product Questionnaire and the other product represented the product that the female had originally favored. Thus, this variable is able to capture whether the couple's joint product decision favored the male's or the female's initial product preference.

Explanatory Variables.

Product category, cumulative past history, gender preference intensity, and the level of disagreement initially experienced by the spouses are the explanatory variables used in this study to test the hypotheses. Product category (CATEGORY) is a dichotomous measure of the across versus within decision effects. All product choice decisions involved couples selecting between two products. These paired products were either from the same product category or from different product categories.

Cumulative past history (PAST) is measured by identifying cumulatively which spouse has won in their prior joint decisions. For the first decision, and in cases when each has won the same number of decisions, this variable is coded 0. Gender preference intensity (GENDINTENSE) is a dichotomous measure of the gender effect of each spouse having different preference intensities based on the two products chosen by the researcher for the paired product options used in the *joint product decision*. If both the male and female either rated product a (both assigned preference intensities greater than 50 points) or product b (both assigned preference intensities less than 50 points) as the preferred product, then both spouses are said to prefer the same product in the joint decision process. However, if the male rated product a with more than 50 points and the female rated product b with more than 50 points (or vice versa), the spouses have differing gender preference intensities.

The level of spousal disagreement (DISAGREE) is a dichotomous measure of the level of disagreement between spouses when they *individually* rated the 54 products from the original questionnaire as to likelihood of product purchase. The individual product ratings were later used to create the initial pairings in the joint paired product decisions. This variable is coded 0 for low level of disagreement (when spouse assigned fewer than twenty-five points more for his/her product than his/her spouse in the individual survey), and coded 1 for high level of disagreement (when spouse assigned at least twenty-five or more points for his/her product than his/her spouse in the individual survey). The twenty-five-point cutoff was established because it represented as close as possible a 50/50 split of the data joint decisions into low and high levels of disagreement joint decisions. The final totals were that 218 of the decisions (45.4%) were classified as low disagreement decisions and 262 were classified as (54.6%) high-level disagreement decisions. Ward used the same variable in her earlier conflict paper (2003), but did not test its interactive impact in the product choice paper (2006).

A 2 (product category: within vs across) X 2 (gender preference intensity: agree vs differ) X 2 (cumulative past history: female did not win vs. female won) X 2 (level of disagreement: high vs. low) between subjects design with one continuous covariate (couple preference intensity) is used in testing the hypotheses in this study. Because of prior expectations and hypotheses, all two-way and three-way interactions among the four dichotomous variables were generated.

RESULTS

Main Effects

The ANCOVA model was run using 480 joint decisions (observations). table 1 (2 X 2 X 2) reports the Type III Sums of Squares, F statistic, and P-Value for each variable after partitioning the full data set into two groups: low disagreement versus high disagreement. The results are reported in table 1.

Table 1: Joint Decision 2 X 2 X 2 Ancova Model with One Covariate Partitioning Data into Low and High Disagreement					
Low Level of Disagreement					
Explanatory Variables and Interaction Terms	DF	Type III SS	F statistic	P-Value	R-square
PAST	1	0.27	0	0.974	
GENDINTENSE	1	12.46	0.05	0.829	
CATEGORY	1	1100.41	4.14	0.043	
PRE	1	158633.67	597.08	0	
CATEGORYxPAST	1	202.55	0.76	0.3834	
CATEGORYxGENDINTENSE	1	861.25	3.24	0.73	
GENDINTENSExPAST	1	25.29	0.1	0.7579	
Overall Model Statistics	7	185765.55	99.89	0	0.734
High Level of Disagreement					
Explanatory Variables and Interaction Terms	DF	Type III SS	F statistic	P-Value	R-square
PAST	1	10874.93	49.32	0	
GENDINTENSE	1	8320.24	37.73	0	
CATEGORY	1	2992.39	13.57	0	
PRE	1	132568.11	601.22	0	
CATEGORYxPAST	1	535.38	2.43	0.121	
CATEGORYxGENDINTENSE	1	3218.63	14.6	0	
GENDINTENSExPAST	1	10473.77	47.5	0	
Overall Model Statistics	7	166436.78	107.83	0	0.782

As anticipated, the model is stronger at high levels of disagreement than at low levels of disagreement (*R-square .782 vs. .734*). Moreover, several variables that were significant in Ward's

(2006) original study are no longer significant at low levels of disagreement and become highly significant when looking only at high levels of disagreement. Specifically, past history and gender preference intensity are not significant at low levels of disagreement and product category, although still significant, is not as strong at low levels of disagreement (*p < .05*) as at high levels of disagreement (*p < .001*).

Thus, the results reported by Ward (2006) were likely generated in cases involving product pairings which involved high levels of disagreement. The results at low levels of initial disagreement are not as consistent with the underlying product choices. Results by Ward (2006) are likely limited as a result of not considering the effect of level of disagreement on the joint decision process.

Based on these results, a new variable was created to attempt to statistically capture the impact of the level of disagreement on the joint decision responses of the spouses. The model was rerun with full data as a 2 X 2 X 2 X 2, incorporating the DISAGREE variable as a dichotomous measure of low versus high disagreement (table 2). Interactions between the level of disagreement, product category, and gender preference intensity in explaining the joint decision would indicate that results are dependent on the level of disagreement present in the initial product choice pairings.

Table 2: Joint Decision 2 X 2 X 2 X 2 Ancova Model with One Covariate					
Explanatory Variables and Interaction Terms	DF	Type III SS	F statistic	P-Value	R-square
DISAGREE	1	3563.3	14.69	0.0001	
CATEGORY	1	4860.43	20.04	0.0001	
CATEGORY*DISAGREE	1	1299.78	5.36	0.021	
PAST	1	4974.01	20.51	0.0001	
PAST*DISAGREE	1	5404.55	22.29	0.0001	
CATEGORY*PAST	1	589.26	2.43	0.1197	
CATEGORY*PAST*DISAGREE	1	2224.14	9.17	0.0026	
GENDINTENSE	1	3801.83	15.68	0.0001	
GENDINTENSE*DISAGREE	1	4674.23	19.27	0.0001	
CATEGORY*GENDINTENSE	1	4320.08	17.81	0.0001	
CATEGORY*GENDINTENSE*DISAGREE	1	1574.22	6.49	0.0112	
PAST*GENDINTENSE	1	4383.87	18.08	0.0001	
PAST*GENDINTENSE*DISAGREE	1	5584.45	23.03	0.0001	
CATEGORY*PAST*GENDINTENSE	1	493.37	2.03	0.1544	
CATEGORY*PAST*GENDINTENSE*DISAGREE	1	1475.18	6.08	0.014	
PREINTEN	1	291968.19	1203.96	0.0001	
Overall Model Statistics	479	466257.25	91.23		0.7592

Results for the control variables in the full model are as expected and consistent with previous studies (Corfman and Lehmann 1987; Ward 2006). Cumulative past history (PAST) and couple preference intensity (PREINTEN) are both significant in explaining the couples' joint decisions. The variables of interest in this study, level of disagreement, product category, and gender preference intensity, also have significant main effects (*p < .0001*), confirming the findings in Ward (2006).

Table 3: Interaction Effects		
Two Way Interactions:		
Means for JOINT DECISION Across CATEGORY (Verification of H1)		
	CATEGORY = 0 (Within)	CATEGORY = 1 (Across)
DISAGREE = 0 (Low)	51.654	51.016
DISAGREE = 1 (High)	52.07	47.418
Means for JOINT DECISION Across GENDINTENSE (Verification of H2):		
	GENDINTENSE = 0 (Couples Concur in Preference Intensity)	GENDINTENSE = 1 (Couples Differ in Preference Intensity)
DISAGREE = 0 (Low)	54.238	21.304
DISAGREE = 1 (High)	53.458	24.333
Three Way Interactions (Verification of H3):		
Low Disagreement		
Category x Gendintense		
	CATEGORY = 0 (within)	CATEGORY = 1 (across)
GENDINTENSE = 0 (concur)	53.492	55.071
GENDINTENSE = 1 (differ)	28.5	15.769
High Disagreement		
Category x Gendintense		
	CATEGORY = 0 (within)	CATEGORY = 1 (across)
GENDINTENSE = 0 (concur)	55.041	51.79
GENDINTENSE = 1 (differ)	33.875	10.455

The hypotheses in this paper predicted that the interaction effects between product category, differing gender preference intensity, and level of disagreement would provide information in joint product decisions above that explained by their main effects alone. As a result, the interaction effects from table 2 will be examined in more detail. In addition, table 3 contains the means assigned to the joint product choice for each level of the relevant dichotomous explanatory variables. A mean greater than 50 means that the joint decision favored the female, while a mean less than 50 means that the joint decision favored the male.

The two-way interaction between product category and level of disagreement is significant, $F(1, 479) = 5.36, p < .05$. Means revealed that the current joint decision was more likely to favor the male ($M = 47.418$) over the female in across category decisions when the level of disagreement was high, supporting hypothesis one (table 3). However, when the level of disagreement was low, or when the decision involved within category choices, the decision favored the female ($M = 51.016$).

The two-way interaction between level of disagreement and gender preference intensity was also significant, $F (1, 479) = 19.27, p < .001$. However, while means confirmed that the decision was more likely to favor the male than the female when the couples differed in gender preference intensity, the results favored the male *even more strongly* at lower levels of disagreement, than at higher levels of disagreement ($M = 21.204$ *vs. 24.333*). Thus, although hypothesis two is partially supported, the findings regarding the lower level of disagreement were unexpected. Perhaps in situations where the couple had initially experienced low levels of initial disagreement regarding the likelihood of the product purchase, females, in an effort to minimize interpersonal discord, concede the decision choice to the males.

The three-way interaction of interest involved the impact of product category, gender preference intensity, and level of disagreement on the couples' joint decision responses and was significant, $F (1, 479) = 6.49, p < .01$. Specifically, means revealed that although joint decisions favored the males over females in across category decisions when the spouses differed in their gender preference intensities, the results were even stronger for males in high levels of initial disagreement ($M = 10.455$) than in low levels of disagreement ($M = 15.769$), supporting hypothesis three. When spouses did not differ in the level of preference intensities, joint decisions were more likely to favor females than males (means greater than 50).

CONCLUSIONS

Initial results from this study extend the findings by Ward (2006). The level of disagreement that spouses exhibit in purchase situations significantly affects the outcome of joint purchase situations. In addition, gender effects are more obvious when one partitions data into high and low levels of spousal disagreement. Men and women react differently in purchase situations involving low versus high levels of spousal disagreement.

When the data is partitioned and couples are separated into samples where product choices involved both high and low levels of disagreement between the spouses, preference intensities continue to be highly significant for both spouses under both levels of disagreement. However, past history, gender preference intensity, and, more marginally, product category were significant only at high levels of initial spousal disagreement. With these results in mind, a new variable for disagreement was created and the model rerun to attempt to capture the effects of high versus low levels of disagreement in the results.

The interaction between product category and level of disagreement showed that decisions were more likely to favor males in across category product choices when a high level of initial disagreement was present. However, decision choices were more likely to favor the product preferred by females when the decisions involved within category choices or in across category choices where the level of disagreement was low. This finding appears to be consistent with earlier studies which found men to be more self-relevant and achievement-oriented than women, although women were found to be more concerned with interpersonal relationships than men (Kelly and Hutson-Comeaux 1999, Meyers-Levy 1988). Generally, in decisions involving within category choices where the decision was more likely to involve selecting a specific brand or model of a product then women had more input in the decision process then men. This finding was also true when the decision involved across category choices where different product options were presented, but where the spouses had indicated low levels of disagreement in their initial product evaluations. However, in those situations involving products from across category choices when spouses had high levels of initial disagreement, the final decision was more likely to favor the males preferred product than the females.

The interaction between gender preference intensity and level of disagreement had more unexpected results. While the joint decisions were more likely to favor the males preferred product when the spouses differed in preference intensities, as predicted, the results were stronger under lower levels of disagreement than under higher levels of disagreement, which wasn't predicted. The means quite strongly favor the males product choice over the females product choice for both levels of disagreement, so at lower levels of disagreement, females may be more inclined to concede to the males preferences in an effort to preserve harmony in the relationship, while at higher levels of disagreement, the female may be more adamant about supporting her preferred product.

The three-way interaction once again supported the gender effects discussed in these conclusions. Specifically, whenever spouses disagreed in preference intensities, the males preferred products were chosen. The results are even stronger under high levels of disagreement than under low levels of disagreement. Means favored the males preferred product option most strongly when the spouses had disagreed in preference intensities in across category choices under high levels of disagreement. More specifically, when spouses indicated high levels of disagreement initially regarding the product choices and then indicated differing preference intensities during the joint decision exercise, males preferred product options were significantly more likely to be chosen in the

final joint decision response than were females preferred product options. Means did favor the females preferred options when the couples did not differ in preference intensity, even when the spouses may have initially experienced high levels of disagreement. Perhaps males are more likely to view those situations as an opportunity for both spouses to "win" in that the couples' gender preference intensities for the products concur.

Extending this study to incorporate differing levels of spousal disagreement shows that *Ward's (2006) findings were largely driven by those couples who initially experienced high levels of disagreement with their spouses' regarding likelihood of product purchase*. As a result, this study suggests that the level of disagreement between spouses regarding product choices may significantly impact the spousal joint decision making process, and ultimately, the final product selection of the couple. Results suggest that future researchers investigating joint decisions should either create paired products based on high levels of disagreement or create a separate disagreement variable to control for this effect.

Some limitations to this study should be noted. First, the results found here may have limited generalizability. This study was conducted in the Southeast where husbands and wives may have more traditional role expectations than in many other parts of the country. Also, the majority of the participants in this study were from a white European, predominantly Christian background. There is some evidence that African-American and Hispanic couples may use different decision-making dynamics than do white couples (Cohen and Kaufman 1991; Webster 1994). Thus, participants from different racial or religious backgrounds may produce different results. Although participants reported that they found the task realistic, the process was artificial and did not require actual expenditures on the part of the couple. Had actual monies been at stake, the results may have differed. Also, participants were presented with only two products at a time when, in reality, participants may be faced with many more than two purchase options at a given time.

Implications of these findings may have importance for marketers as they attempt to better understand the decision making process for the most important consumption unit in society—the family. Having a better understanding of the decision process may help retailers and salespeople to better target their communication messages to prospective buyers. The effect of gender roles in the decision process may have significance for marketers as they deal with the dyadic unit of husbands and wives in purchase situations. As roles change for spouses and family dynamics continue evolving, it is important for researchers to continue this type of research in an effort to capture the changes that may be occurring within family decision making with changing family structures.

REFERENCES

Aribarg, A., Arora N. & Bodur H. (2002). Understanding the Role of Preference Group Revision and Concession in Group Decisions. *Journal of Marketing Research*, 39 (August), 336-349.

Arora, N. & Allenby G., (1999). Measuring the Influence of Individual Preference Structures in Group Decision Making. *Journal of Marketing Research*, 41 (November), 476-487.

Cohen, J.& Kaufman C. (1991). The Impact of Subculture on Black Spousal Decision Making. *Research in Consumer Behavior*, 5, 1-31.

Corfman, K. (1991a). Comparability and Comparison Levels Used in Choices Among Consumer Products. *Journal of Marketing Research*, 28 (August), 368-374.

Corfman, K. (1991b). Perceptions of Relative Influence: Formation and Measurement. *Journal of Marketing Research*, 28 (May), 125-136.

Corfman, K. & Lehmann D. R. (1987). Models of Cooperative Group Decision-Making and Relative Influence: An Experimental Investigation of Family Purchase Decisions. *Journal of Consumer Research*, 14 (June), 1-13.

Kelly, J. R. & Hutson-Comeaux, S. L. (1999). Gender-Emotion Stereotypes are Context Specific. *Sex Roles*, 40 (1/2), 107-120.

Meyers-Levy, J. (1988). The Influence of Sex Roles on Judgment. *Journal of Consumer Research*, 14 (March), 522-530.

Petrevu, S. (2001). Exploring the Origins and Information Processing Differences Between Men and Women: Implications for Advertisers. *Academy of Marketing Science Review* [Online], http://www.amsreview.org/amsrev/theory/putrevu10-01.html.

Seetharaman, P.B., Ainslie, A. & Chintagunta, P. K. (1999). Investigating Household State Dependence Effects Across Categories. *Journal of Marketing Research*, 41 (November), 488-500.

Su, C., Fern, E. F. & Ye, K. (2003). A Temporal Dynamic Model of Spousal Family Purchase-Decision Behavior. *Journal of Marketing Research*, XL (August), 268-281.

Ward, C. B. (2006). He Wants, She Wants: Gender, Category, and Disagreement in Spouse's Joint Decisions. *Advances in Consumer Research*, 33, 117-123.

Ward, C.B. (2005). A Spousal Decision Making Exercise: Do Couples Perceive Differences in Influence Tactics Used in Decisions Involving Differing Product Categories and Levels of Product Disagreement?. *Journal of Applied Business Research*, 21 (2), 9-22.

Ward, C.B. (2003). The Impact of Product Category and Level of Disagreement on Relative Conflict: Does Product Category Affect the Joint Decision Making Process for Spouses?. *Academy of Marketing Studies Journal*, 7 (1), 61-75.

Webster, C. (1994). Effects of Hispanic Ethnic Identification on Marital Roles in the Purchase Decision Process. *Journal of Consumer Research*, 21 (September), 319-331.

THE IMPACT OF CULTURAL AND RELIGIOUS VALUES ON CONSUMER'S ADOPTION OF INNOVATION

Morris Kalliny, University of Missouri-Rolla
Angela Hausman, Xavier University

ABSTRACT

Although managing the adoption of innovations domestically can be frustrating, the complexity of the issue increases tremendously when companies take a global approach to marketing. Differences in cultural and religious values can have a great impact on the process of innovation adoption. This study investigates the role of these cultural and religious values, specifically, collectivism/individualism/, uncertainty avoidance and power distance. A conceptual model is presented to illustrate the relationship between cultural/religious values and adoption of innovation.

INTRODUCTION

Adoption of innovations is an important topic, attracting the attention of many researchers (Bass, 1969; Rogers, 1976; Zaltman, 1971). Since global marketing has become more important than ever due to rapid and continuing economic expansion in many developing countries, a better understanding of the determinants of market potential and adoption speed across different countries is of particular relevance to firms deliberating their market expansion strategies (Talukdar, Sudhir & Ainglie, 2002). Except for a few studies (e.g. Gatignon and Robertson, 1991; Gatignon ibid., 1989), there is a lack of prior research regarding how cultural and religious values may affect consumer's adoption of innovation.

The adoption decision varies from one person to another (Daghfous et al., 1999) according to individual characteristics, such as demographics (age, location, etc.), socioeconomics (income, social class, etc.), psycho-graphics (personality, open-mindedness, etc.), and culture (ethnicity, value system, etc.), as well as other factors (Rogers, 1995). Unfortunately, most research has a pro-adoption bias and little research focuses on factors that inhibit adoption (Frambach and Schillewaert, 2002; Rogers, 1995). Although some studies have focused on non-adoption (e.g. Stevens et al., 1989), the phenomenon is complex and requires further investigation to identify specific factors affecting non-adoption decisions (Frambach and Schillewaert, 2002). As stated above, there is a lack in prior research regarding cultural and religious factors that may play a role in consumers'

adoption of innovations and this paper proposes a model designed to partially fill this gap. The objective of this paper is threefold: 1) to investigate the impact of culture on adoption of innovation; 2) to investigate the impact of religion and religious practices on adoption of innovation; and 3) to investigate the impact of fatalism on adoption of innovation. We attempt to fulfill these objectives by answering the following question: is innovation perceived to be a good thing in different cultures? In the subsequent sections we provide a rationale and a conceptual model for the impact of culture, religion and fatalism on consumer's adoption of innovation. In the last section of the paper, we propose a plan as to how our propositions might be operationalized and tested.

THEORETICAL FRAMEWORK

Cooper (1998) argued that innovation is often treated as an all-inclusive term by both practitioners and investigators, even when they may be referring to different events or processes. Researchers and practitioners have defined innovation in several different ways (Rogers 1995, Bass, 1969). However, a growing number of practitioners and researchers define innovation as any idea, practice, or object that the adopting individual or organization regards as new (Damanpour and Evan, 1984; Damanpour, 1991, Rogers, 1995). Although this definition has been criticized for being hard to operationalize (Gatignon and Robertson, 1991), it is deemed most appropriate for our study as it relies on the perception of the adopter and not necessarily on the true innovativeness of the idea, practice or the object being adopted. Because our study is based on the perception of the adopter (consumer), this definition is the most appropriate. This definition reflects Kinnunen's contention (1996) that an innovation does not need to be objectively new, as long as it is novel for the adopter.

Roger's work (1995) is one of the most frequently cited reviews of innovation adoption. In a survey of several thousand innovation studies, Rogers identified five antecedents- *relative advantage, complexity, compatibility, observability and trialability*- affecting the rate of adoption and adoption diffusion. We use Roger's theory as a basis for the present study. In the following section, we look at religious values and consumer's adoption of innovation as the first part of the proposed theoretical model.

RELIGIOUS VALUES AND ADOPTION OF INNOVATION

The media often contains reports of countries banning certain products and innovations from being marketed to its citizens. For example, on September 10, 2003, CBS news reported that the government of Saudi Arabia has banned Barbie toys from Saudi Arabian markets citing religious reasons. The report stated that the religious police of Saudi Arabia declared Barbie dolls to be a threat to morality, complaining that the revealing clothes of the "Jewish" toy — already banned in the kingdom — are offensive to Islam. "Jewish Barbie dolls, with their revealing clothes and shameful postures, accessories, and tools are a symbol of decadence in the perverted West" (CBS

News, 2003). Similarly, a Kuwaiti imam imposed a "fatwa" (religious ruling) on Barbie dolls as unfit products for children and some religious sources in Iran denounced the dolls as having unwholesome effects on the minds and morality of young children (Gulf Marketing Review, June 1996). Let us beware of her dangers and be careful," said a message posted on the site. Sheik Abdulla al-Merdas, a preacher in a Riyadh mosque, said "These revealing clothes will be imprinted in their minds (referring to girls) and they will refuse to wear the clothes we are used to as Muslims." The government of Saudi Arabia launched a website that has what it calls 'banned products'. The kingdom does not just recommend the non-use of the products, but makes acquiring these products illegal. (http://www.hesbah.gov.sa/).

Moreover, the situation is not isolated to Islamic cultures. For instance, Amish eschew modern conveniences, preferring to operate their businesses and households using less efficient manual means rather than modern technology. Several religious groups similarly forgo modern medicine based on their belief that such intervention interferes with God's will. These are not the only Christian groups that have such practices. Consider the teachings of the Catholic Church and others against the adoption of birth control. Churches argue that birth control should not be adopted by Christians because the Bible teaches that it is God who opens and shuts the womb (Brushaber, 1991). Finally, Eastern religions also have an influence on adoption of innovation. According to Masson (1976), some eastern religions sanctify ascetic denunciation of possessions to reach a higher consciousness. Lastovicka et al. (1999) reported findings supporting this renunciation of material possessions in efforts to attain spiritual goals. In fact, Jainists believe enlightenment occurs only through extreme nonconsumption (Lastovicka et al 1999).

This poses a dilemma for consumers who are interested in adopting new products and may lead to non-adoption. Ravichandran (2001) stated consumers predisposed toward adoption will refrain when the risks of adoption outweigh the benefits. For some customers, we argue the risk of adoption is much higher, because they face religious persecution or social rejection for their adoption decisions. One can argue that even if the new product is not contained on the banned list, the customer may still engage in a mental struggle trying to decide whether the new product fits the cultural and religious requirements of the group. In addition, economic rationale suggests that consumers who adopt a new product are those who have access to the product. In some cultures, access to certain products may not be possible in local markets; therefore, adoption of those products will be difficult and slow (Talukdar et al., 2002).

It is important, however, to point out that the relationship between religious values and adoption of innovations is necessarily moderated by the product type. For example, it would be reasonable to assume that culturally sensitive products maybe easier to criticize than others. For example, products that are viewed by religious leaders as exerting a societal force contrary to the teachings of the religion are easier to criticize than other products. Therefore, we propose:

Proposition 1a: *The adoption of innovation risk will be higher for consumers who are controlled by religious authorities (e.g., Saudi Arabia, Iran, etc.) than for consumers who are not.*

Proposition 1b: *The adoption of innovation risk will be higher for the adoption of culturally sensitive products than for other products*

In some countries, there is no separation between church and state. For instance, in the Arab countries (e.g. Saudi Arabia, Kuwait, etc.) at least some aspects of Islamic law are enforced by the government. In these cases, owing a forbidden product does not stop with the fear of getting in trouble with the law, but as Jaya (2002) argues, it is fear of being branded as unIslamic and condemned as an infidel, which are serious crimes that create social problems for the individual and society. This is evident in Saudi Arabia where certain products such as port and alcohol are banned by the kingdom (http://www.saudi-us-relations.org/articles/2006/ioi/060318-samba-wto.html). Therefore, we propose:

Proposition 2:   *Adoption of innovation for religiously sensitive products will be slower in theocracies than in countries where separation of church and state exists.*

CULTURAL VALUES AND ADOPTION OF INNOVATION

One of the most comprehensive and generally accepted definitions of culture is Kroeber and Kluckhohn's (1952) definition of culture as patterns of behavior acquired and transmitted by symbols, including their artifacts; the core of culture consists of ideas and their attached values; culture systems may be considered as products of action or as elements directing future action. The last part of the definition emphasizes the importance of the value system found in a culture and what role it plays in determining not only present actions, but also future actions (quoted in Adler, 2002). Plausibly, the value system of a nation, in particular religious and cultural values, will play an important role in determining the adoption of innovation.

Daghfous et al. (1999) stated that few researchers have studied the relationship between individuals' values and reactions toward new products. Daghfous et al. (1999) argue that the inclination of an individual to adopt a new product reflects his level of attachment to or rejection of a system of values. We believe the value system of the individual plays a role in the decision to adopt or reject innovations.

Operationalizing elements of culture is difficult, although the dimensions identified by Hofstede (1980) are among the most widely accepted. Three of these dimensions appear particularly appropriate in studying the effects of culture on adoption: power distance; collectivism; and uncertainty avoidance. Prior studies effectively position cultures within these three dimensions, where positioning is often the effect of more ephemeral values of the culture. Cultural dimensions are not independent, since they are based on the same underlying value system. Thus, cultures tend to be similar on all dimensions or dissimilar on all dimensions.

POWER DISTANCE

For instance, Arab countries scored 80 on Hofstede's dimension of power distance. This is not surprising when we consider some factors in the Arab cultures. Kabasakal and Bodur (2002, p. 47) stated, "The verses in Koran (the holy book of Islam) reflect inequalities in power distribution. Islam clearly advocates that people accept the authority of people in leadership positions. It is stressed that *people should not be critical of decisions and application of their superiors and obey them without any questions."* (Italics added).

Diametrically opposed to high power distance cultures, we have the United States. This is not surprising either, since several cultural influences contributed to low power distance. For example, the United States is based on a protestant ethic that emphasizes equality between people. The idea of absolute or even too much power for leaders or superiors in the American culture is discouraged and even rejected by most people.

Children are socialized into appropriate thought patterns at a young age. Ali, (1993) argues that when a person reaches the age of thirteen or fourteen years, he/she is trained to playing strict social roles and adhering to societal norms (e.g. obey authority and older persons, listen and show respect). The result of this socialization is that children grow to emulate proscribed cultural patterns, which affects future behavior of these individuals.

As demonstrated above, in communities where power distance is high, respect and obedience toward those who are in power is expected. We argue here that power distance leads people to more willingly accept the wishes of others since questioning authority is discouraged through cultural norms and training. In low power distance communities like the United States we may find aspiration groups who may exert a strong influence on other consumers by being a role model. In high power distance communities, however; consumers may be discouraged from imitating those in power and be advised to avoid such imitation through discouraging them of consuming certain products.

In many of the high power distance societies, those who are in power have a great impact and influence on those who do not. Based on this logic we propose the following:

> *Proposition 3:*   *Individuals living in high power distance cultures will be more influenced by leaders and elders with respect to their adoption decisions than those living in low power distance cultures.*

UNCERTAINTY AVOIDANCE

The uncertainty avoidance dimension focuses on the level of tolerance for uncertainty and ambiguity within the society (Hofstede, 2001). A high uncertainty avoidance ranking indicates the country has a low tolerance for uncertainty and ambiguity. This creates a rule-oriented society that institutes laws, rules, regulations, and controls in order to reduce the amount of uncertainty (Hofstede, 2001). Therefore, cultures high in uncertainty avoidance also tend to be high in power distance. Low uncertainty avoidance cultures are more tolerant of ambiguity and tend to be less rule-oriented, more ready to accept change, and to take greater risks (Hofstede, 2001). Ravichandran (2001) argues that adoption of complex technologies always involves a certain degree of risk. There are many uncertainties that an innovation brings, and the more radical the innovation, the more risk it brings. The diffusion literature has shown that innovators are more willing to take risks and they are more tolerant of risk compared to other groups. Therefore, we propose:

> *Proposition 4:*   *Adoption of radical innovations will be slower in societies where the uncertainty avoidance is high compared to societies where the uncertainty avoidance is low.*

COLLECTIVISTIC/INDIVIDUALISTIC SOCIETIES

Hofstede (1984, p. 225) defines individualism and collectivism based on the strength and breadth of ties between the individual and society. In individualistic cultures, strong ties exist only with familiar others, while in collectivistic cultures; strong ties exist with a more diffuse group. A high individualism ranking indicates that individuality and individual rights are paramount within the society, while a low individualism ranking typifies societies where the rights of the society are paramount. Thus, these cultures tend to be high in power distance. Uncertainty avoidance and collectivism also tend to covary, with collectivistic cultures using relationships to avoid discord with peers and superiors and to reduce uncertainty (Tsai & Levinson, 1997).

Pryor and Whales (1997) argue that social norms are more important in guiding the behavior of individuals in a collectivist society. Those from an individualistic society frequently question ethical standards established by their societies, while members in collectivist cultures tend to accept

them (Singhapakdi et al., 1999). Individualistic cultures cater to personal fate, personal achievement, and independence from the in-group (Perea and Slater, 1999). Consumers in individualistic cultures place their own needs, desires and wants before that's of the group (Perea and Slater, 1999). In individualistic societies the individual is the center of attention and autonomy and self reliance are emphasized in these societies. Individuals in these societies are most likely to dislike being dependent on other people or having other people dependent on them.

Based on these characteristics, a consumer who is living in a collectivistic society might be expected or required to adhere to what the group decides and not just to what he/she decides. The individual is expected to consider how a decision will impact not only his life but the lives of those around him. We argue that in individualistic societies, potential adopters will be more likely to engage in consultations with other members like family members, colleagues, etc. Based on this, we propose:

> *Proposition 5:*   *Individuals living in collectivist cultures will be more influenced by society with respect to their adoption decisions than those living in individualistic cultures.*

FATALISM

As opposed to cultural values and their effect on individual adoption decisions, in this section of the paper we focus on an individual value that has a potential impact on adoption of innovations, specifically fatalism. There have been numerous studies regarding fatalism, although not in an adoption context (Hasker, 1988; Nielsen, 1973; McClure et al., 2001; Day and Maltby, 2003). Nielsen (1973) defines fatalism as the extent to which an individual believes life events are pre-determined, rather than based on his actions. Those who believe in fatalism tend to adopt a passive attitude toward the future. This passive attitude is based on the argument that it would be pointless for a man to deliberate about what he is going to do, because the results of his actions are predetermined and whatever path he chooses, the outcome will be the same. Several authors argue that high fatalism is an obstacle to development in both developed and less developed countries (Weber, 1969; Lambert, 1960; Lerner and Schramm, 1967). This passive attitude could be compared to non-fatalists' attitude toward the past. Non-fatalists believe that there is nothing to be done about events that have taken place in the past (Day and Maltby, 2003). Although they may try to avoid making the same mistakes they made in the past, such avoidance does not change what happened in the past. Another explanation for this is being dogmatic. Consumers (laggards) may avoid adoption due to their dogmatic attitudes toward innovation.

Based on this argument, a relationship might exist between fatalism and adoption of innovations. Extending the above, fatalists believe there is nothing they can do to change what takes

place in their lives; hence they will be less motivated to adopt a new product that could change the events that take place in their lives. Thus, we propose:

> *Proposition 6:*   *Adoption of innovation will be slower in fatalistic individuals compared to non-fatalistic individuals.*

CONCLUSION

Our purpose was to theoretically investigate the impact of religious and cultural values and individual fatalism on consumers' adoption of innovation. Figure 1 provides a summary of the proposed relationships presented in this paper. We argued that some of the major religions like Islam, Christianity and Hinduism could have a great impact on the adoption of specific innovations based on religious teachings and requirements. However, this relationship between religious values and adoption of innovations is necessarily moderated by the product type. Some products like Barbie dolls are easier to criticize than other products since they are viewed by religious leaders as exerting a societal force contrary to the teachings of the religion. We also argued that cultural values will have an impact on adoption of innovation. Figure 1 shows the proposed relationships between adoption of innovation and collectivism and power distance to be moderated by how the product is viewed by the initial adopters. This indicates that some products may be adopted faster than others due to the moderation effect.

In spite of the limitations of his paper, there are some important implications. First, we indicated that understanding the cultural values can help explain differences in consumers' innovation adoption. This understanding is important because it provides firms with options with respect to modifying the products they introduce, how the product should be positioned in each country, and point to countries not suitable for certain new product introductions. For example, for the Saudi Arabia customers, a firm may choose to produce Barbie dolls whose dress more closely resembles traditional Muslim garb if they wish to avoid having Barbie toys banned from the kingdom. Second, we indicated that understanding the religious belief system of a country may assist in providing an understanding of how a customer may respond to a new innovation or a product. For example, in societies where religious and government leaders have a high level of control, businesses may choose to approach the leaders and sell them on the product before the product is introduced to the general public. By doing that, leaders could be viewed as champions of innovations and that may make it easier for the public to adopt an innovation. Companies could turn this to their advantage if were able to convince religious and governmental leaders to use and allow the public to use the product.

Figure One: Summary of Relationships
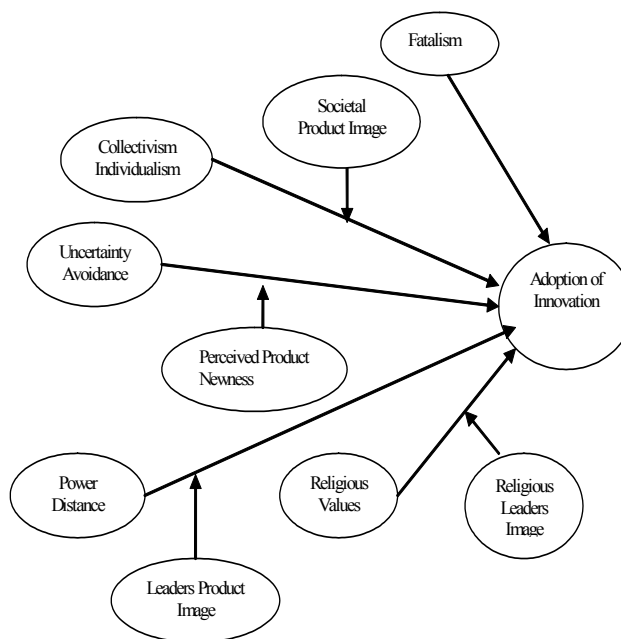
Finally in societies where there is a high level of fatalism, businesses could design a marketing campaign to stress the benefits of the products and show practical examples of how the product could positively influence the life of the consumer. Businesses may even try to align their marketing campaign of the innovation to fit the fatalism idea by stressing that the new product is part of the consumer's fate.

In this paper we attempted to present a theoretical model and a rationale for the impact of cultural and religious values and fatalism on consumers' adoption of innovation. It is the authors' plan to test these relationships as a second part of this paper. We believe the ideal setting for testing these relationships would be a group of Arab countries (Saudi Arabia, Egypt, and Lebanon) and the United States. We choose these countries because of our belief that Arab countries could be placed on a continuum in regard to religious values and reflect theocracies. Moreover, these countries are culturally opposite for most western cultures, scoring high on power distance and uncertainty avoidance and are collectivistic while the U.S. culture is low power distance, low uncertainty avoidance and individualistic. In addition, the Arab culture tends to be more fatalistic than the U.S. culture. Comparisons across Arab cultures would also be useful, based on differences between Arab countries. For example, women in Saudi Arabia are required by the law to cover their faces in

public while such a requirement does not exist in Egypt or Lebanon. So Saudi Arabia, Egypt and Lebanon present the diversity that exists in the Arab countries. Operationization of the variables is aided through the existence of established scales to measure constructs and a variety of culturally neutral (those which do not offend religious leaders) and culturally sensitive products (which do), of both radical and continuous innovations might allow testing of all the variables.

REFERENCES

Adler, Nancy (2002). *International dimensions of organizational behavior.* Cincinnati, OH: South-Western.

Ali, Abbas (1993), "Decision-Making Styles, Individualism and Attitudes Toward Risk of Arab Executives," *International Studies of Management & Organization*, 23 (3), 53-74.

Bass, Frank M. (1969), "A New Product Growth Model for Consumer Durables," *Management Science*,15, January, 215-27.

Brushaber, George (1991), "The Joy of Procreation," *Christianity Today*,.35 (13), 45.

Cooper, R. Juett (1998), "A Multidimensional Approach to the Adoption of Innovation," *Management Decision* 36 (8), 493-502.

Daghfous, Naoufel, John Petrof, and Frank Pons (1999), "Values and Adoption of Innovations: A Cross-Cultural Study," *Journal of Consumer Marketing*, 16 (4), 314-31.

Damanpour, Fariborz (1991), "Organizational Innovations: A Meta-Analysis of Effects of Determinants and Moderators," *Academy Of Management Journal*, 34 (3), 555-90.

Damanpour, Fariborz & William Evan M. (1984), "Organizational Innovation and Performance: The Problem of 'Organizational Lag," *Administrative Science Quarterly*, 29 (3), 392-410.

Day, Liza & John Maltby (2003), "Belief in Good Luck and Psychological Well-Beings: The Mediating Role of Optimism and Irrational beliefs," *The Journal of Psychology* 137 (1) 99-110.

Frambach, Rudd & Niels Schillewaert (2002), "Organizational Innovation Adoption: A Multi-Level Framework of Determinants and Opportunities for Future Research," *Journal of Business Research* (55), 163-76.

Gatignon, Hubert & Thomas Robertson (1991), "*Innovation Decision Processes*," in Robertson, T.S. and Kassarjian, H. (Eds), Handbook of Consumer Behavior, Prentice-Hall, Englewood Cliffs, New Jersey, pp. 316-48.

Gatignon, Hubert, Jehoshua Eliashberg & Thomas Robertson (1989), "Modeling Multinational Diffusion Patterns: An Efficient Methodology," *Marketing Science*, 8 (3), 231-48.

Gulf Marketing Review (1996). "Iranians Slam 'Satanic' Barbie." 25 (June): 4.

Hasker, William (1988), "Hard Facts and Theological Fatalism," *NOUS* (22), 419-36.

Henry, Walter A. (1976), "Cultural Values Do Correlate With Consumer Behavior," *Journal of Marketing Research*, 13 (May), 121-27.

Hofstede, Greet. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations*, Thousand Oaks, CA: Sage Publications.

Hofstede, Greet. (1980). *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills, CA: Sage Publications.

Hofstede, Greet. (1984). *Culture's Consequences: International Differences in Work-Related Values*, Newbury Park, CA: Sage Publications.

Jaya, Chris (2002), "Using Islam to Exert Control", *New Straits Times-Management Times*, Jan, 03.

Kabasakal, Hayat & Muzaffer Bodur (2002), "Arabic Cluster: A Bridge Between East And West", *Journal of World Business* 37, 40-54.

Kinnunen, Jussi (1996), "Gabriel Trade As a Founding Father of Innovation Diffusion Research, *ACTA Sociologica* 3(9), 431-42.

Lambert, Richard (1960), "*The Social and Psychological Determinants of Developing countries*" in Hoselitz, ed., Industrialization and Society, Mouton: *UNESCO*, 116-32.

Lastovicka, John, Lance Bettencourt, Renee Hughner & Kuntze Ronald (1999), "Lifestyle of the Right and Frugal: Theory and Measurement," *Journal of Consumer Research*, 26 (June), 85-99.

Lerner, Daniel & Wilbur Schramm, (1967), *Communications and Change in Developing Countries*, Honolulu: East-West Center Press.

Masson, J. Moussaieff (1976), "The Psychology of the Ascetic," *Journal of Asian Studies*, 35 (August) 611-25.

McClure, John, Michael Allen & Frank Walkey, (2001), "Countering Fatalism: Causal Information in News Reports Affects judgments About Earthquake Damage," *Basic and Applied Social Psychology*, 23 (2), 109-21.

Nielsen, Richard (1973), "Communicating With the Motivating High Fatalists," *The American Journal of Economics and Sociology,* 32 (4), 337-51.

Perea, Anna & Michael Slater (1999), "Power Distance and Collectivist/Individualist Strategies in Alcohol Warnings: Effects by Gender and Ethnicity," *Journal of Health Communication*, 4, 295-310.

Pryor, John. B. & James Whales (1997), "A Typology of Sexual Harassment: Characteristics of Harassers and the Social Circumstances Under Which Sexual Harassment Occurs" In O'Donohue, W. (ed.) *Sexual Harassment: Theory, Research, and Treatment*. Boston, MA: Allyn & Bacon, 129-51.

Ravichandran, T. (2001), "Innovation Assimilation in The Presence of Knowledge Barriers, Technology Uncertainty and Adoption Risks," *Academy Of Management Proceedings*.

Rogers, Everett (1995), *Communications of Innovations*, New York: The Free Press

Rogers, Everett M. (1976), "New Product Adoption and Diffusion," *Journal of Consumer Research*, 2 (4), 290, 314.

Singhapakdi, Anusorn & Mohammed Rawas (1999), "A Cross-Cultural Study of Consumer Perceptions About Marketing Ethics," *Journal of Consumer Marketing,* 16 (3), 257-72.

Stevens, Robert, Warren William & Martin Roy (1989), "Nonadopters of Automatic Teller Machines," *Akron Business and Economics Review* (20), 55-63.

Talukdar, Debarata, K. Sudhir & Andrew Ainglie (2002), "Investigating New Product Diffusion Across Products and Countries," *Marketing Science*, 21 (Winter), 97-114.

Tsai, Jeanne L. & Robert W. Levenson (1997), "Cultural Differences on Emotional Responding: Chinese American and European American Dating Couples During Interpersonal Conflict," *Journal of Cross-Cultural Psychology* (28), 600-25.

Weber, Max (1969). *Theory of Social and Economic Organization*, New York: Oxford Press.

Zaltman, Gerald (1971), "On the Nature of Innovations," *American Behavioral Scientist*, 14 (5), 651-74.

Allied Academies

invites you to check our website at

www.alliedacademies.org

for information concerning

conferences and submission instructions

Allied Academies

invites you to check our website at

www.alliedacademies.org

for information concerning

conferences and submission instructions