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CUSTOMERS DO NOT ALWAYS PREFER PERSONALISED PRODUCTS: THE ROLE OF PERSONALIZED OPTIONS RANGE IN PERSONALIZATION

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ABSTRACT

Existing research on personalization has verified that customers perceive personalized products more highly than standard alternatives. Although many business practitioners are apparently convinced that providing various assortments or personalizing options is inevitably superior to standardization in securing market share, the empirical result of this paper suggests that personalization is not necessarily the optimal strategy. This research argues that customers prefer standard products over personalized alternatives when the range of personalization is perceived as excessive. That is, customers are more likely to select standard products over personalized alternatives when faced with inordinately complex decision-making.

This study tests four hypotheses: (1) As the range of personalizing options steadily increases beyond a customer-perceived optimal point, attitudes toward personalized products will increasingly assume the form of an inverted U (i.e., inverted bell curve); (2) As the range of personalizing options steadily increases beyond a customer-perceived optimal point, purchase intention for personalized products will increasingly assume the form of an inverted U; (3) Customers will demonstrate a more positive attitude for standard products over personalized products with a higher level of personalizing options beyond a customer-perceived optimal point; (4) Customers will demonstrate a higher purchase intention for standard products over personalized products having a higher level of personalizing options beyond a customer-perceived optimal point. Results indicate that, given the condition of over-complexity, product attitude and purchase intentions regarding personalization will be characterized by an inverted U-shape pattern. In addition, the results reveal that customers prefer standard products over personalized alternatives when the range of personalizing options exceeds a customer-perceived optimal point.

Keywords: personalized products, standard products, range of personalizing options, perceived complexity

INTRODUCTION

Over the past decade, many firms have begun to satisfy the specific requirements of individual customers through the use of new technologies (Simonson 2005). Especially, firms have increasingly adopted a strategy of providing customers with the ability to make their own choices on important product features at a price similar to that of standardized alternatives (Moon, Chadee, and Tikoo 2008). For example, computer manufacturer Dell is well known for its success in meeting the various needs of individual customers by offering an enormous number of computer configurations (Moon et al. 2008). Similarly, the Subway sandwich chain has been successful in satisfying individual customer desires by providing multiple choice options. This personalized approach has been adopted by diverse business sectors such as information technology, automobile, fast food, hospitality, and sunglasses (Moon et al. 2008; Simonson 2005). As Simonson indicates, "It has thus been assumed in recent years that the age-old practice of targeting market segments is dominated and will be replaced by individual marketing. That is, in the future, customers in most markets may expect and will receive offers customized to their individual preferences" (p.42).

The practice of having customers make their own choices regarding important product features can be explained by the concept of personalization. Personalization, involving customization of certain offerings on the basis of customer preferences (Tuzhilin 2009), has been suggested as a revolutionary approach to market segmentation (Bardakci and Whitelock 2003). In fact, personalization is regarded as the ultimate response to market segmentation since this approach treats individual customers as individual segments by satisfying their specific needs (Bardakci and Whitelock 2003).

Previous studies have indicated that personalized products are perceived as being more valuable than standardized products (Bardakci and Whitelock 2004; Franke and Piller 2004; Franke and Schreier 2008; Franke and Schreier 2010; Franke, Schreier, and Kaiser 2010; Goldsmith and Freiden 2004; Schreier 2006). These studies argue that personalization enhances perceived value by increasing perceived product uniqueness, aesthetics and functional fit (Franke and Schreier 2008). Bardakci and Whitelock (2004) examined the extent to which customers were ready for customization and found that a sizable customer segment was ready to accept customized products. Franke and colleagues compared the perceived value of customized versus standard product in terms of willingness to pay and found that personalized products offered greater benefits for customers (Franke and Piller 2004; Franke and Schreier 2008; Franke and Schreier 2010; Franke et al. 2010).

However, although identifying individual customer preferences and providing customized offerings to satisfy those preferences have become the emerging standard business practice in a wide range of markets, empirical research on personalization has not been fully undertaken (Franke and Schreier 2008; Goldsmith and Freiden 2004; Simonson 2005; Vesanen 2007). For one, there may be some customers who prefer standard products over personalized alternatives depending on product features. For example, some customers may want to purchase off-the-shelf versions, whose features have been determined based on mass market preferences, instead of purchasing personalized products (Syam, Krishnamurthy, and Hess 2008). On this issue, Kramer, Spolter-Weisfeld, and Thakkar (2007) suggest that some customers are not receptive to personalization and put more weight on the collective preferences of their in-group. Furthermore, Goldsmith and Freiden (2004) found that some customers were ready for personalization while others were not, implying that there may be market segments that prefer standard products.

Therefore, we posit that some customers prefer standard products over personalized alternatives depending on product features. Specifically, this research suggests that some customers purchase standard products instead of personalized alternatives in order to avoid complexity derived from selecting options in the process of personalization.

RESEARCH MODEL AND HYPOTHESES

Personalization

Personalization, which may resolve the long-standing debate on standardization versus customization, combines customization and standardization in that it offers tailored products to suit individual customer preferences at a cost similar to that of standard products by adopting efficient production systems and mass marketing (Moon et al. 2008). Scholars have defined personalization in slightly different terms. IImhoff, Loftis, and Geiger (2001) define personalization as a firm's competence to segment and manage its customer base at the individual level. On the other hand, Riecken (2000) defines personalization as the building of a direct relationship with each individual customer to establish customer loyalty by identifying and satisfying each customer's needs. Although definitions of personalization are not identical, scholars agree that personalization provides individual customers with tailored offerings based on customer preferences (Tuzhilin 2009). Moon et al. (2008) note that personalization empowers customers to select product features that match their individual preferences and create customized products based on their own needs.

In this paper, we define personalization as customizing or tailoring some features of a product or service based on previous literature (Moon et al. 2007, Tuzhilin 2009)

Range of Personalizing Options

Many firms have undertaken to meet diverse customer needs by increasing product variety (Gouville and Soman 2005). If firms increase the range of personalizing options, customers can be provided with products closer to their individual set of preferences (Huffman and Kahn 1998). A strategy of offering a wide variety of products to appeal to individual customers has been deemed to be effective in increasing market share (Huffman and Kahn 1998). Diversity of assortment size, product selection, etc. provide customers with several important benefits (Gourville and Soman 2005). Customers can reduce satiation and satisfy curiosity by selecting products among a more diverse assortment. Also, customers are more likely to identify the products they seek to purchase based on their preferences. Thus, retailers increase product selection and manufacturers expand product assortment to meet diverse customer preferences (Gourville and Soman 2005). Ultimately, personalization can offer thousands of unique configurations by combining various personalizing options (Dellaert and Stremersch 2005), thereby eliciting customer responses similar to those when the product assortment is increased (Dellaert and Dabholkar 2009). That is, increases in personalizing options and product assortment share a commonality in that these two strategies provide consumers with more choice options (Dellaert and Dabholkar 2009)

However, some researchers question the effectiveness of the large assortment strategy and argue that this strategy can lead to negative consumer responses should the heightened complexity cause cognitive overload (Dellaert and Stremersch 2005; Gourville and Soman 2005; Huffman and Kahn 1998). Gourville and Soman (2005) examined when and why 'overchoice' might backfire and found that increasing product assortment could decrease sales and thus market share when product choice required excessive effort. This logic underlying product assortment can be applied to personalization. Although personalization involves a better product outcome as the benefit, the strategy of increasing personalizing options can cause customers to experience confusion due to complexity during the personalization process as it inevitably requires customers to invest a greater amount of cognitive effort when selecting personalizing options (Dellaert and Dabholkar 2009; Dellaert and Stremersch 2005; Valenzuela, Dhar, and Zettelmeyer 2009). Although Huffman and Kahn (1998) do not examine the effect of personalization directly, consumer responses from their research can be inferred. They noted that a wide assortment could overwhelm customers through information overload, resulting in dissatisfaction with chosen alternatives or the decision not to make a choice at all, i.e., no sale. They also argue that an enormous number of potential options may be frustrating and confusing rather than beneficial, and reduction of perceived complexity is required to reduce or eliminate these negative customer responses. On this issue, Dellaert and Stremersch (2005) examined the antecedents of customization utility and found that product utility had a positive impact while complexity had a negative impact on customization utility. Although they found the antecedents of customer utility for different levels of personalization, as they noted in their paper, they did not address the issue of how customers decide between a personalized product and its standard alternative.

Although several studies posit a relationship between product utility and process complexity in personalization (Dellaert and Dabholkar 2009; Dellaert and Stremersch 2005), few empirical studies have examined the impact of cost-benefit trade-offs on ultimate customer decision-making. Customer decision-making on whether to purchase a personalized product or a standard alternative depends on each individual's perception of costs and benefits (Dellaert and Dabholkar 2009). When customers put more weight on product outcome as the benefit, they may prefer personalized products over standard ones. However, when customers put more weight on process complexity as the cost, they may prefer standard products over personalized ones. In this paper, we posit that the range of personalizing options will influence the preference of personalized products and standard products.

The range of personalizing options can be divided into low, medium, and high. Products with a low range of personalizing options do not require much cognitive effort during the personalizing process, thus minimizing decision-making complexity (Dellaert and Dabholkar 2009). However, these products also result in a reduced level of product utility for customers that may ultimately result in negative customer responses (Dellaert and Dabholkar 2009). As the range of personalizing options increases, product utility and decision complexity increase in tandem (Dellaert and Stremersch 2005). If the range of personalizing options is medium or perceived to be optimal, customers may be willing to purchase personalized products in spite of the increased decision complexity since they put more weight on product utility as benefits than decision complexity as costs (Bardakci and Whitelock 2003). That is, customers are ready to purchase personalized products even if personalization involves a degree of inconvenience for customers (Bardakci and Whitelock 2003).

However, as the range of personalizing options steadily increases beyond the perceived optimum level, customers may begin to feel frustration and confusion caused by information overload and decide not to purchase personalized products, even though doing so may cause them to give up their optimal option (Huffman and Kahn 1998). As Huffman and Kahn (1998) noted, customized sofas with a huge number of options such as 500 styles, 3000 fabrics, and 350 leather types may be more confusing than beneficial. Also, Gourville and Soman (2005) argue that a sharp increase in product assortment can cause negative consumer responses because choosing a particular item among wide product assortment is complicated for consumers and this complex decision process can provoke negative feelings such as frustration. Specifically, the above researchers varied assortment size from low to high in their experiment and examined the consumer choice of target brand. Although they did not aim to reveal an inverted U curve relationship between product assortment size and consumer choice in terms of target brand, experimental results indicate that, as assortment size increases, the probability of target brand choice assumes the form of an inverted U. As Dellaert and Dabholkar (2009) noted, consumer responses or perception of product assortments is consistent with consumer responses toward personalization in that personalization increases the variety of product type and provide consumers with their optimal option. With this logic, we expect that, as the level of personalization increases, consumer response will exhibit an inverted U shape. That is, the optimal level of personalization is expected to generate positive consumer responses, while personalization beyond the optimal level (e.g., hundreds or thousands of product options), Huffman and Kahn (1998) noted in their research, can generate negative consumer responses.

Also, we can compare consumer responses toward standard products and personalized ones. Perfectly standard products are those with zero options. Therefore, consumer responses toward standard products may not be identical to personalized products even when personalized products have just a few options (e.g., 1 option). Previous research suggested that zero has special meaning for consumers (Shampanier, Mazar, and Ariely 2007). Shampanier et al. (2007) revealed that consumer responses change drastically when the price drops from 1 cent to zero compared to when the price drops from 2 cents to 1 cent because zero conveys a special meaning for consumers. Thus, consumer responses toward standard products with zero options may differ from those toward personalized products. Although there has not been much research to compare consumer responses towards standard products and personalized products, some research argues that some consumers prefer inaction or the status quo option over action (Chernev 2004). Also, Syam et al. (2008) noted that some consumers prefer standard products rather than designing a custom product. Although they do not consider the level of personalization, this research implies that some consumer responses toward standard products may be more favorable than personalized products. Thus, this research aims to compare consumer responses toward standard products and highly personalized products.

According to previous research on product assortment, consumers overloaded with information or choice options tend to be frustrated with complexity resulting from a perceived excess of product assortment and forego making a choice to avoid complex decision-making (Huffman and Kahn 1998). This logic can be applied to this research. When consumers are offered a personalized product with "overchoice" options, they may feel frustration and express a negative response toward the highly personalized product. That is, to avoid excessive process complexity, consumers may reject a personalized product and purchase the standard alternative instead. This is consistent with Dellaert and Stremersch (2005), who argue that the extent of personalization can lower the utility of personalization and Syam et al. (2008), who argue that standard products may occasionally be more appealing than personalized alternatives.

To examine the pattern of consumer responses toward personalized products and standard alternatives, this paper adopted product attitude and purchase intention as important consumer responses. According to the theory of reasoned action, an individual's behavioral intention is the motivating factor that reflects behavior (Ajzen 1991; Fishbein 1967). Also, behavioral intention tends to be influenced by attitudes toward the behavior that refers to the degree of favorable or unfavorable evaluation of the behavior (Ajzen 1991; Fishbein 1967). Although behavior intention is also influenced by social pressure, termed subjective norm, most previous research measured attitude and behavioral intention to predict consumer behavior because attitude and purchase intention are closely related (Laroche, Kim, and Zhou 1996). Therefore, based on previous research, this paper posits the following four hypotheses on two variables, attitude toward a product (watch) and intention to purchase the product:

H1 *As the range of personalizing options steadily increases beyond a customer-perceived optimal point, attitudes toward personalized products will increasingly assume the form of an inverted U (i.e., bell curve).*

H2 *As the range of personalizing options steadily increases beyond a customer-perceived optimal point, purchase intention for personalized products will increasingly assume the form of an inverted U.*

H3 *Customers will demonstrate a more positive attitude for standard products over personalized products with a higher level of personalizing options beyond a customer-perceived optimal point.*

H4 *Customers will demonstrate a higher purchase intention for standard products over personalized products with a higher level of personalizing options beyond a customer-perceived optimal point.*

RESEARCH METHODS

Experimental Design and Subjects

This study was conducted to test Hypotheses 1 to 4. For this study, 195 undergraduate students in Korea were recruited. The subjects were randomly assigned to one of seven conditions that corresponded to a specified range of personalizing options. The product with no personalizing options represented a standard product, and the remaining six products with personalizing options involved personalization to varying degrees. We manipulated the range of personalizing options from low to high for the six personalized product conditions to examine the relationship between personalization level and customer response.

Experimental Stimuli

For this study, we selected a product category fulfilling the following conditions. First, personalization for the product should be meaningful for customers. Previous research conducted such experiments using hedonic goods such as T-shirts, scarves, watches, cell phone covers, sunglasses or backpacks (Franke and Piller 2004; Franke and Schreier 2010; Franke et al. 2010; Kramer et al. 2007; Moon et al. 2008; Moreau and Herd 2010; Schreier 2006). Furthermore, Bardakci and Whitelock (2003) observed that customers are not concerned whether a functional product is customized or not. Second, the product chosen should be sufficiently relevant to appeal to the survey's student subjects. Therefore, we considered hedonic products as experimental stimuli and selected fashion watches among the candidates adopted in previous studies.

In the case of personalized products, we adapted an experimental stimulus that had been used in previous studies (Franke and Piller 2004; Schreier 2006). Franke and Piller (2004) adopted a watch that offered a wide variety of personalizing options: options for the strap (80 options), case (60 options), face (150 options), hour/minute hands (30 options) and second hand (30 options). They conducted the experiment offering these personalization options mentioned above through a website created by Global Customization Ltd., Hong Kong, a spin-off company established by the Advanced Manufacturing Institute of Hong Kong University of Science and Technology (HKUST). Therefore, we regarded the personalizing options adopted by Franke and Piller (2004) as meaningful for consumers although the importance of all options may not be identical. We selected the personalizing options that Franke and Piller (2004) adopted in their experiment and adjusted the number of personalizing options to manipulate the range of personalization.

We generated seven versions of a print advertisement to deliver product image and information. For product image, we used the same visual image of a watch in all versions. For manipulation, we created six versions of the print advertisement showing different personalized products with different levels of personalization and one version showing a standard product (no personalizing options). In the six personalized product conditions, we emphasized that customers could select their desired product options. In the standard product condition, subjects were informed that the product was a composite of the most popular options, as previous research did (Franke and Piller 2004). For every condition, the subjects were informed that the products would be delivered free of charge in three working days. Also, to negate the brand name effect, we did not reveal a brand name for the watch.

Experimental Procedure and Measures

After subjects were instructed to imagine situations in which they planned to purchase a watch, they looked at an ad involving either one of the six personalized products or the one standard product and answered several questions. We measured product attitude and purchase intention as dependent variables. Product attitude was measured by the responses 'like/dislike,' 'favorable/unfavorable' and 'positive/negative' (α=0.93, Kramer et al. 2007; Moon et al. 2008). Purchase intention was measured by 'likely to purchase/unlikely to purchase' and 'likely to recommend/unlikely to recommend' (α=0.86, Zhang 1996). Perceived complexity as mediator was measured by 'procedure of product choice is complicated,' 'procedure of product choice takes a lot of effort,' and 'procedure of product choice is difficult' (α=0.91, Dellaert and Dabholkar 2009). In addition, we measured product involvement and product knowledge as covariates. Product involvement was measured by the expressions 'important,' 'of concern to me' and 'matters to me' (α=0.87, Zaichkowsky 1985). Product knowledge was measured by 'I have much knowledge about watches.' Product attitude and purchase intention were measured on a 7-point semantic differential scale, and perceived complexity, product involvement and product knowledge were measured on a 7-point Likert scale.

RESULT

Before examining the four hypotheses, we conducted a trend analysis to identify the relationship between the range of options and perceived complexity for the one standard product and the six personalized products. As expected, perceived complexity increased as the range of personalizing options progressed from zero (standard product) to increasingly higher levels (personalized products). Specifically, the linear relationship between the extent of the personalizing option range and perceived complexity was statistically significant (linear relationship $F(1, 188)=43.48$, $p<0.001$; quadratic relationship $F(1, 188)=0.59$, $p=0.44$).

Examining hypotheses 1 and 2, we conducted two trend analyses—product attitude and purchase intention—for the six personalized products and discovered that attitudinal patterns toward personalized products assumed the form of an inverted U as the number of personalizing options increased (quadratic relationship $F(1,159)=6.41$, $p=0.01$; linear relationship $F(1,159)=0.03$, $p=0.85$, see Figure 1, Table 1). Also, the pattern of purchase intention was the same as that for product attitude, i.e., inverted U, as personalizing options increased (quadratic relationship $F(1,159)=4.23$, $p=0.04$; linear relationship $F(1,159)=0.01$, $p=0.89$, see Figure 2, Table 2). Therefore, Hypotheses 1 and 2 were supported.

Figure 1

Influence of Personalizing Option Range on Product Attitude

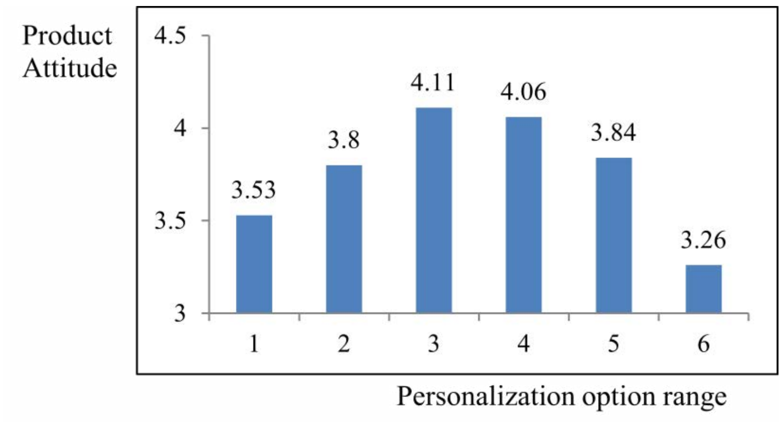
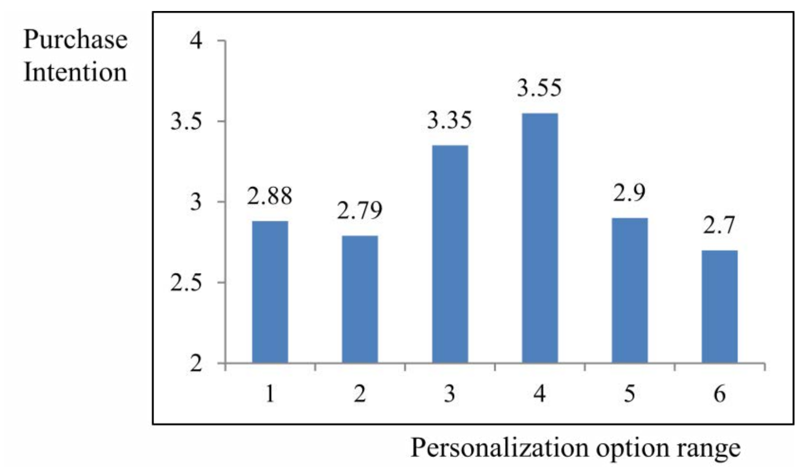


Figure 2

Influence of Personalizing Option Range on Purchase Intention



Examining hypotheses 3 and 4, we conducted ANOVA on product attitude and purchase intention, respectively, for the standard product and the personalized product having the widest range of personalizing options. As expected, subjects showed higher product attitude toward the standard product than the personalized product with the highest level of personalizing options ($M=3.93$ vs. 3.26, $F(1,60)=3.14$, $p=0.08$, see Table 3). Also, subjects showed higher purchase intention for the standard product than the personalized product with the highest level of personalizing options, although this difference was not statistically significant ($M=3.27$ vs. 2.70, $F(1,60)=2.24$, $p=0.14$, see Table 4). Therefore, Hypothesis 3 was supported while Hypothesis 4 was not.

Additionally, we conducted ANOVA on product involvement and product knowledge to rule out the possibility that these covariates would influence the result of this experiment and concluded that there was no difference in product involvement and knowledge levels among the experimental conditions (Fs<1).

Table 1
INFLUENCE OF PERSONALIZING OPTION RANGE ON PRODUCT ATTITUDE

Product Type	Standard Product	Personalized Product (Range of Personalizing Options: Low to High)					
Mean	3.93	3.53	3.80	4.11	4.06	3.84	3.26

Table 2
INFLUENCE OF PERSONALIZING OPTION RANGE ON PURCHASE INTENTION

Product Type	Standard Product	Personalized Product (Range of Personalizing Options: Low to High)					
Mean	3.26	2.88	2.79	3.35	3.55	2.90	2.70

Table 3
ANOVA ON PRODUCT ATTITUDE (FOR STANDARD PRODUCT AND PERSONALIZED PRODUCT WITH THE HIGHEST LEVEL OF PERSONALIZING OPTIONS)

Source	Sum of Squares	d.f	Mean Squares	F-ratio	P-value
Product Type	7.011	1	7.011	3.144	.081
Error	133.808	60	2.230		

Table 4
ANOVA ON PURCHASE INTENTION (FOR STANDARD PRODUCT AND PERSONALIZED PRODUCT WITH THE HIGHEST LEVEL OF PERSONALIZING OPTIONS)

Source	Sum of Squares	d.f	Mean Squares	F-ratio	P-value
Product Type	4.917	1	4.917	2.239	.140
Error	131.796	60	2.197		

To test the mechanism of complexity as a mediator, we conducted, based on Baron and Kenny (1986), a mediation test with both the standard and personalized product with the highest range of personalizing options. The results were as follows. First, subjects under the personalized product condition exhibited higher perceived complexity than under the standard product condition (β=0.61, p<0.001). Second, perceived complexity had a negative impact on product attitude (β=-0.33, p=0.008). Third, subjects under the personalized product condition showed a less favorable product attitude than did subjects under the standard product condition (β=-0.22, p=0.08). Fourth, when complexity was controlled, the effect of complexity on product attitude was significant (β=-0.31, p=0.04) while the effect of product type on product attitude was not (β=-0.03, p=0.82). As a result, perceived complexity mediated the effect of product type on product attitude. This mediation test suggests that perceived complexity is responsible for the preference of standard products over personalized products when the level of personalization is overwhelmingly high.

CONCLUSION

Many firms have adopted strategies that provide customers with various assortments or personalization to achieve competitive advantage (Huffman and Kahn 1998). Business practitioners tend to assert that, to secure market share, high variation strategies such as personalization are superior to standardization, presumably on the assumption that personalized products automatically deliver higher benefit for customers than do standard products. Indeed, previous researchers found that personalization or customization could create a higher product outcome based on customer preferences in terms of willingness to pay (Franke and Schreier 2008; Franke and Schreier 2010; Franke and Piller 2004; Franke et al. 2010; Schreier 2006). However, personalization does not always succeed in attracting customers and sometimes even evokes negative responses from customers who perceive complexity in the personalization process. As Huffman and Kahn (1998) noted, customers may be confused or frustrated to see the offer: "choose from 500 styles; choose from 3000 fabrics; choose from 350 types of leather" (p.492). In such cases, customers may choose not to purchase a product even though personalization can create greater benefit or utility for them.

This research argues that, beyond a certain point, personalization can backfire. In the experiment, we verified that the evaluation for a personalized product changed toward an inverted-U as personalizing options increased. This result implies that customers evaluate personalization differently and prefer optimal or medium levels of personalization rather than low or extremely high levels. In addition, we found that customers evaluated the standard product more favorably than the personalized alternatives when the range of personalizing options was overwhelmingly high. That is, customers are more likely to select the standard product rather than the personalized product when they want to avoid overly-complex personalization procedures.

This research revealed major findings and produced significant implications for researchers. Previous research revealed reasons why customers perceive personalized products more highly than standard ones and assumed that personalization is a more effective strategy than standardization. This research argues that, when the decision-making process is complex, standardization could be a more effective strategy, especially for customers seeking to avoid complexity related to the decision making effort required for personalization.

Some limitations and further research directions are worth noting. First, for the experimental stimuli, we selected a watch, which falls under hedonic products, and excluded a utilitarian product since the perceived value of personalization in utilitarian products is seemly trivial compared to hedonic products (Bardakci and Whitelock 2003). Although selecting hedonic products as experimental stimuli seems to be valid, customer decision-making for other product categories such as utilitarian or functional products may differ. Therefore, comparing the effect of personalization across different product categories would be worthwhile.

Second, we revealed that not every case of personalization leads to positive responses from customers and extreme personalization may very well lead to negative evaluation due to the complex decision-making process. This paper examined variations in customer responses regarding different levels of personalization. However, individual customers may respond to the range of personalization differently based on their personal characteristics. For example, customers with a high level of innovation or need for cognition may enjoy products offering an extreme range of personalizing options. Thus, investigating the individual traits that influence the choice between personalization and standardization may also prove fruitful.

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APPENDIX
Experimental Stimuli: Personalizing Options for Product Types

Product Types	Personalizing Options
Standard Product	No options
Personalized Product (1)	Strap length: From 100mm to 200mm Strap width: From 15mm to 40mm Case diameter: From 20mm to 50mm Case design: 5 options Frame design: 5 options
Personalized Product (2)	Strap length: From 100mm to 200mm Strap width: From 15mm to 40mm Case diameter: From 20mm to 50mm Case design (number): 15 options Case design (face): 15 options hour/minute/second hands: 10 options
Personalized Product (3)	Strap length: From 100mm to 200mm Strap width: From 15mm to 40mm Case diameter: From 20mm to 50mm Case design (number): 60 options Case design (face): 150 options hour/minute/second hands: 30 options
Personalized Product (4)	Strap length: From 100mm to 280mm Strap width: From 15mm to 40mm Strap material: 30 options of plastics Strap color: 30 options Case diameter: From 20mm to 50mm Case design (number): 60 options Case design (face): 150 options hour/minute/second hands design: 30 options hour/minute/second hands color: 10 options
Personalized Product (5)	Strap length: From 100mm to 280mm Strap width: From 15mm to 40mm Strap material: 60 options of plastics Strap color: 60 options Case diameter: From 20mm to 50mm Case design (number): 60 options Case design (face): 150 options hour/minute/second hands design: 30 options hour/minute/second hands color: 30 options
Personalized Product (6)	Strap length: From 100mm to 280mm Strap width: From 15mm to 40mm Strap material: 150 options of plastics Strap color: 150 options Case diameter: From 20mm to 50mm Case frame color: 150 options Case design (number): 350 options Case design (face): 350 options hour/minute/second hands design: 100 options hour/minute/second hands color: 150 options

THE MODERATING ROLE OF CONSUMER EDUCATION ON THE INTENTION TO BUY A HIGH RISK PRODUCT ONLINE

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ABSTRACT

A survey of 1,606 currently registered U. S. boat owners was conducted to determine their likelihood of purchasing a major durable (boat) in an online format along with the various factors and preferences to be considered in consummating such a purchase. Data from each respondent was gathered for the purpose of assessing their perceived personal risk in making such a purchase and to determine their personality traits with respect to technology, curiosity, and openness to new experiences. Respondents intention to buy this high risk product online was measured prior to and after providing education on the online purchase process that specifically addressed key risk factors.

The results indicate that consumer education can change the likelihood of buying online but that the impact of education is mediated by the personality of the respondent. Specifically, a significantly greater change in interest in buying online was observed for personality types who are higher in openness to new experiences and curiosity as well as more comfortable with technology.

INTRODUCTION

The evaluation of internet shopping behavior has been ongoing for nearly 20 years, beginning in the mid-1990s when online retail sales were mostly considered to be a novelty venue, and continuing through present times. In 2013, total U.S. e-commerce retail sales were in excess of $260 billion which reflects a change of approximately 3.5% from the prior year (U.S. Census Bureau News 2014). Driving the growth are two factors: 1) increased use of smart phones and tablets, which are being used to research purchases and find the best price; and 2) traditional retailers' increased investment in their online businesses. Interestingly, growth is not originating from new customers. Instead, growth is being driven by existing online shoppers who are gradually moving from low consideration goods to more sophisticated products (Forrester Research Online Retail Forecast, 2012-2017 [U.S.]).

The theory of why consumers do or do not shop online has been examined carefully as the medium has grown exponentially. At the very lowest level, McGuire (1974) suggests that all shopping motivation is primarily driven by individual gratification and satisfaction. A 2005 review of the literature on online consumer behavior reports that three theories have played dominant roles: theory of reasoned action, expectation-confirmation theory, and innovation diffusion theory (Cheun, Chan, & Limayem 2005). Each of these theories is helpful in understanding consumer behavior at different stages from intention to adoption to repurchase.

Limayem, Khalifa and Frini (2000) hypothesized that internet shopping could be explained by specific behavioral theories such as Fishbein and Ajzen's (1975) theory of reasoned action or Ajzen's (1991) theory of planned behavior. Monsuwe, Dellaert and Ruyter (2004) using the technology acceptance model showed that attitudes toward online shopping were affected by ease of use, usefulness, consumer traits, situational factors, product characteristics, trust, and previous online shopping experience. More recently, Gupta and Kim (2010) used mental accounting theory to investigate internet shopping. Under this theory, customers evaluate potential transactions and then approve or disapprove each potential transaction. Factors, such as risk, pleasure, and convenience, determine the perceived value of the transaction and therefore, determine the intention to purchase online (Gupta and Kim 2010).

The growing body of literature indicates that the drivers of online shopping can be divided into five categories: consumer characteristics, product/service characteristics, medium characteristics, merchant characteristics, and environmental influences. Early explanations for the determinants of online shopping behavior varied widely but were broadly classified as relating either to specific consumer motivations/traits (or some aspect of the consumer), features of the online medium, and, in some cases, a combination of both. Pachauri (2002), for example, classified the determinants into the following four concepts: (1) time minimization, i.e., consumers are searching for the best product at the lowest price and they shop online when the "time" to accomplish this is minimized; (2) risk minimization, i.e., again, since consumers want to optimize decision-making regarding price and quality of products, they shop online where merchant reliability, credibility, and trustworthiness are not significant deterrents; (3) consumer lifestyle, i.e., shopping behavior is a function of one or several consumer variables such as sociodemographics, buying motives and needs, and attitudes, interests, and opinions; and (4) contextual influence, i.e., online shopping behavior can be driven by "contextual" factors such as website atmosphere and site accessibility. Khalifa and Limayem (2003) reported the key influences on intention to shop online includes perceived consequences, specifically cheaper prices; facilitating conditions, such as transaction efficiency; and social influences of family and media. Sorce, Perotti and Widrick (2005) reported four primary motives for shopping online: (1) convenience; (2) informativeness; (3) selection; and (4) the ability to control the shopping experience. Consistent with the stream of research explaining online shopping behavior, this research explored the moderating effect of consumer education on the intention to shop online. Specifically, this study considers how the effects of personality traits and perceived risk can be altered by consumer education about the online purchase process.

Personality Traits and Online Shopping

Specific personality traits have been investigated as predictors of online shopping. Even though the internet was before his time, Berlyne (1950, 1954) would likely have postulated that initial attraction to internet shopping would be a function of the human needs of curiosity and novelty. More recent internet specific research has expanded upon this. For example, Donthu and Garcia (1999) discovered that online shoppers were more willing to innovate and take risks and were more impulsive than their non-internet shopping counterparts. Goldsmith (2002) also identified innovativeness as a predictor of online buying. Kwak, Fox, and Zinkhan (2002) reported that individuals with higher scores on traits like sensation seeking and opinion leadership were more likely to buy online than those with lower scores on those scales. Copus (2003) investigated the personality traits of vigilance and openness to change. Vigilance, the tendency to trust versus being suspicious about others' motives and intentions, determines an expectation regarding whether a merchant will take advantage of the consumer. As expected, vigilance was negatively correlated to online purchasing while openness to change was positively correlated (Copus 2003).

Bosnjak, Galesic, and Tuten (2007) found that three of the Big Five personality factors, neuroticism, openness to experiences, and agreeableness had small but significant influence on willingness to buy online. However, affective involvement was a highly significant determinant of online buying intention while the need for cognition was negatively related. These results suggest that the decision to buy online is more likely made with "emotion" rather than "reasoning". In support of the emotional connection to online shopping, Tsao and Chang (2010) revealed that more extroverted and more open to experience individuals sought fun, excitement, and enjoyment during online shopping experiences. Anaza (2014) in exploring the relationship between customer citizenship behaviors in online shopping found that agreeableness influenced empathic concerns which in turn affected the consumers' willingness to engage in helping behaviors online. Finally, Chen (2011) reported that while significant advances have occurred from a technology perspective, not much has changed for internet shoppers in the past 10 years. Specifically, the propensity to trust, buying impulsiveness, and value consciousness are all strong predictors of consumer willingness to purchase products online. In addition, traits such as openness to change, risk taking, curiosity, and innovativeness have been identified consistently with a willingness to shop online.

H_1 *Personality characteristics impact the likelihood of purchasing online.*

Trust and Online Shopping

Two crucial early worries for consumers that influence online purchase behavior are privacy and trust. Privacy issues pertain to unauthorized collection and secondary usage of personal information as well as the safety of credit card information being utilized in the online transaction. A 2005 survey conducted by Privacy and American Business (P&AB 2005) indicated that concerns about the use of personal information kept 64% of respondents from purchasing from a company while two-thirds of respondents declined to register at a website or shop online because they found the privacy policy to be confusing and/or unclear. However, concerns over privacy may be lessening. In a recent survey reported by Accenture (2012), respondents indicated that the ability of companies to present relevant offers is more important than concern over companies tracking their website activities.

Schoenbachler and Gordon (2002) reported that consumers needed a level of trust toward a website prior to revealing information. Further, consumer trust of a website is a salient issue in determining whether a purchase will actually be consummated or not. Pan and Zinkhan (2006) discovered that consumers respond more favorably to a site with a clearly stated privacy policy than one without. Miyazaki and Fernandez (2000) found that a clearly stated privacy policy results in a lower perceived risk for the consumer. Gefen, Karahanna and Straub (2003) disclosed that prior experience with a website is positively related to online trust. Others independently discovered that concern for both financial and personal information tended to lessen as e-shoppers became more experienced (Bart, Shankar, Sultan & Urban 2005; Chen & Barnes 2007). Tsai, Egelman, Cranor and Acquisti (2011) discovered some consumers were willing to pay a premium to purchase products from privacy protected websites. Although consumer expectation about privacy may be evolving, it is expected that security issues will continue to impact purchases made online.

Another security/trust factor which has stunted consumer acceptance of certain products/product categories in the online medium is the personal risk of the online purchase. Pavlou (2003) defined perceived risk as a consumer's subjective assessment that a loss will be suffered in pursuit of a desired outcome. Kolsaker, Lee-Kelley, and Choy (2004) discovered that perceived risk was more highly correlated with "willingness to shop online" than convenience. Both Yoon (2002) and Shankar, Urban, and Sultan (2002) found lack of trust translates into buying reluctance. A study by Chang and Wu (2012) expanded on the nature of the relationship between trust and online purchase intention by finding an association between perceived risk and the formation of a positive cognitive-based attitude toward online purchase intention. In addition, perceived risk indirectly influenced affect-based attitude through its impact on cognitive-based attitude.

Perceived risk has also been explored for its influence on online shopping intention through involvement. Fram and Grady (1997) found that product categories that involved fashion, material, and/or size decisions were considered high risk and were much less likely to be purchased online. Bhatnagar, Misra and Rao (2000) discovered that the probability of purchasing online decreased dramatically with increases in product risk. High product risk was closely aligned with: (1) higher product technical complexity; (2) higher ego-related needs; (3) higher price; and (4) any product category where feel and touch are important. These product groups are often associated with higher levels of involvement. Since involvement has been found to moderate the impact of perceived risk on online buying intention (Chang and Wu 2012), there may be an opportunity to engage the consumer in cognitive-based responses that encourage involvement.

H_2 *Personal risk impacts the likelihood of purchasing online.*

Web Communications and Online Shopping

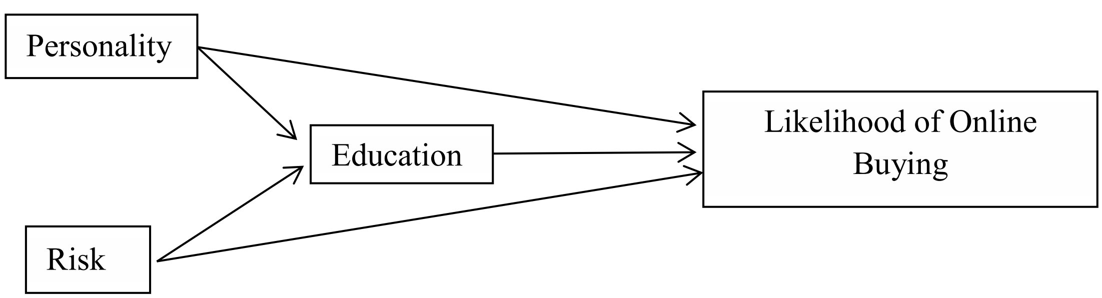
Web site design and other characteristics of the media influence online shopping behavior. For example, consumers respond more favorably toward web sites with a clearly stated privacy policy (Pan and Zinkhan 2006). The consumer's flow experience at a website positively relates to purchase intention (Hsu, Chang and Chen 2012). The online customer experience incorporates both cognitive and affective states that drive online shopping satisfaction, trust and online repurchase intention (Rose, Clark, Samouel and Hair 2012). A company's investments in website design signal its ability to deliver products and services to the consumer (Schlosser, White and Lloyd 2006). Product photos, product information provided by a third party, and consumer control over the presentation of the information can reduce performance uncertainty for an online retailer (Weathers, Sharma, and Wood (2007). Therefore, web communications can directly address risk, specifically as it relates to the likelihood that the merchant will perform. The merchant can signal to the consumer, the merchant's knowledge and ability to perform. Merchants who address specific risk factors associated with a purchase, convey to the consumer that they have the processes and competencies in place to handle the transaction.

Although the influence of web communications on purchase intentions have been observed in previous studies, there remains a question as to the extent to which media influences can overcome the effects of personality characteristics. Since personality characteristics are more enduring than situational, it would be expected that web design and communications will only increase online purchase intention for personality types that demonstrate a minimum threshold of willingness to buy online. Personality traits will remain the more dominant influence in a consumer's willingness to buy.

H_3 *Web communications and design will increase the likelihood of online purchase only if the consumers' personality traits support a minimum threshold of willingness to buy online.*

The relationships among personality, risk, education and the likelihood of shopping online are summarized in Figure 1.

Figure 1: Model



SAMPLING PROCESS AND DATA COLLECTION

The product chosen for this study is a boat. Boats fall into the durable category and are infrequently purchased online. The sale of boats has a similar infrastructure to automobiles in that there are several manufacturers selling through a network of dealers to a consumer base that relies on the dealer network to provide service after the sale. However, the boating category introduces some additional variables into the online equation because: (1) a boat purchase is most likely a discretionary purchase; (2) it is a purchase primarily driven by a leisure/recreational motivation; and (3) price might vary between a few thousand dollars to several million dollars depending upon the size of the boat and selected amenities. For this study, the size of the boat was limited to $\leq$ 40 feet. This size range includes the following specific categories:

1. fiberglass sport/deck boats 17-23';
2. fiberglass sport cruiser boats 24-38';
3. fiberglass fishing boats 15-23';
4. fiberglass fishing boats 24-40';
5. aluminum fishing boats 14-28'; and
6. pontoon boats.

These six categories account for more than 80% of all new boat unit volume in the United States. Boating represents a substantial market. Global recreational boating revenues were approximately $20 billion in 2011 and expected to rise to $30.6 billion by 2017 (Lucintel, 2012).

The sample for this study was selected from registered boat owners in the United States. Quotas were established for each of the following variables:

1. boat type (sport/deck, sport cruiser, fiberglass fishing 15'-23', fiberglass fishing 24'-40', aluminum fishing, and pontoon)
2. geography (North, South, West)
3. age (21-45, 46+)
4. gender (male, female)
5. buyer type (first boat, 2nd or more boat)

Table 1 shows the breakdown for each of the above specified variables. Only individuals who had purchased previously a new boat were included in the study. A total of 1,606 useable surveys were completed.

Table 1
Types of Boat Owners Included in Sample

Sample Breakdown	**Fiberglass Sport/Deck Boats 17'-23'**	**Fiberglass Sport Cruiser Boats 24'-38'**	**Fresh/Salt Fiberglass Fishing Boat 15'-23'**	**Fresh/Salt Fiberglass Fishing Boats 24'-40'**	**Aluminum Fishing Boats 14'-28'**	**Pontoon Boats**	**Total**
Overall	284	284	264	229	282	263	1606
Geography							
North	119	110	96	91	109	93	618
South	80	90	91	95	83	78	517
West	85	84	77	43	90	92	471
Age							
21-45	183	150	128	91	90	77	719
46+	101	134	136	138	192	186	887
Buyer Type							
1st Boat	85	52	58	49	64	51	359
2nd or More Boat	199	232	206	180	218	212	1247
Female Owner							216

Measurement of the Research Constructs

Each respondent was contacted by telephone. The interviewers obtained recorded respondents' responses to questions pertaining to each of the research constructs: personality traits, perceived risk, initial likelihood of buying online, and the likelihood of buying online after hearing an explanation of the merchant's process.

Personality was measured using eight statements from the Hogan Personality Inventory. These statements, shown in Table 2, pertain to three (3) personality traits that have been identified in previous studies as predictors of online purchase of major durables. They are technology, curiosity, and openness to new experiences. Each participant's scores for the 8 statements were summed and a total score for the 8 statements ranging from 0-80 was determined for each respondent.

Table 2
Mean Scores for the Personality Traits of Technology, Curiosity and Openness to New Experiences

PERSONALITY STATEMENTS	OVERALL MEAN
I have taken things apart to see how it works	6.55
I know how to use a computer	7.08
I love scary rides at theme parks	5.05
I love to play computer games	4.72
I love technology	6.63
I would like to travel in foreign countries	6.07
I know how to "surf the net"	6.11
I will try anything once	6.32

Survey Question: For each of the following statements please tell me the degree to which this statement describes you. Please use a scale of 0 to 10 where a 10 means you **COMPLETELY AGREE** with the statement and a 0 means you **COMPLETELY DISAGREE** with the statement.

Based on this total score, four general personality "types" were identified within the sample, as follows:

1. **PEBCAKs** – (Problem Exists Between the Chair and Keyboard) – these respondents are, in general, technology challenged, incurious and not open to new experiences (total score 0-20);
2. **CONSERVATIVES** – they are largely PEBCAKS but with a little curiosity and some appetite to try new experiences (total score 21-40);

3. **MODERATES** – these individuals are somewhat curious, willing to try some new experiences and are much more technology savvy than either PEBCAKs or CONSERVATIVES (total score 41-60);
4. **TECIs** – (Technology Experienced Curious Innovators) – these are highly technology savvy individuals, exceedingly curious, and who embrace everything new and exciting in life (total score 61-80).

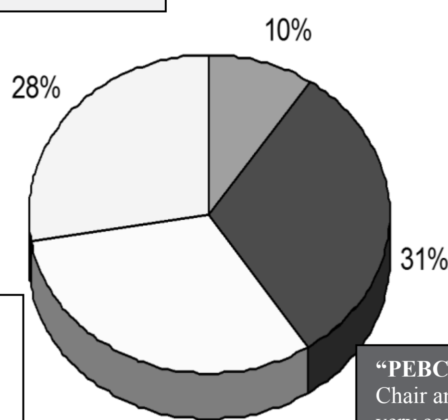
Figure 2 describes in more detail each of the four personality types identified above and percentage of each type represented in the sample.

Risk associated with the online boat purchase was evaluated using six statements covering various forms of risk. These included sharing of personal information, product quality, merchant reputation, purchase process, payment and personal risk. Respondents were asked to indicate their level of concern with each type of risk. In addition, the respondents were asked to rate the overall level of risk that they associate with an online boat purchase. Table 3 reports the mean scores on these statements.

Figure 2: Personality Type Descriptions and Overall Size in Sample

"TECIs" [Technology Experienced Curious Innovators] live with their computers, are highly curious, and embrace almost everything new and exciting in life. They most likely own sport/deck boats and cruisers, but they are also "family anglers" so some own fiberglass fishing boats. They are the youngest personality type with more than 60% 45 or less years old. Nearly 40% are "new-to-boating" which is significantly higher than all other personality types. They are also the most affluent type with nearly 45% having household income between $100-$300k and 30% between $150k -$300k.

"CONSERVATIVES" [Online and in Life] could be considered PEBCAKs with a little courage – they are conservative, but more open to trying something new and will try new things occasionally. They are frequently owners of aluminum (14'-28') and small fiberglass (15'-23') fishing boats. More than 53% have household income between $50k and $150k, but nearly 30% have household income between $25k - $75k. Nearly 2/3 are 46+ and more female owners are conservatives than any other personality type.



"MODERATES" [Mindset and Willing to Try Some New Experiences] represent a large group of consumers who are considerably more savvy using the Internet than PEBCAKs or CONSERVATIVES and are much more fully engaged in life's adventures. They are both curious and open to new experiences with a dash of caution. They are more likely to be owners of sport/deck boats and cruisers, although they are represented in all boat types. They are younger, with nearly 50% being under 46, and more affluent than PEBCAKs and CONSERVATIVES with nearly 1/3 having household income between $100k and $200k.

"PEBCAKs" [Problem Exists Between Chair and Keyboard]. These consumers are very conservative – online, in many of life's adventures, and even fiscally. They are incurious individuals and not interested in new experiences. They are often owners of Pontoons, and Aluminum Boats (14'-28), and small fiberglass (15'-23') fishing boats. Nearly 40% have household income under $75k, and 88% are age 46+. These consumers are less likely to have children living at home.

Table 3 **Mean Scores for Risk Factors for Online Boat Purchase**	
PURCHASING BOAT ONLINE CONCERNS AND PERSONAL RISK	**OVERALL SAMPLE MEAN**
Survey Question: There could be several concerns you might have **in** purchasing a boat on the Internet. For each item, indicate your level of concern using a scale of 0 to 10 with 10 being **EXTREMELY CONCERNED** and 0 being **NOT CONCERNED AT ALL.**	
Disclosure of financial/personal information in unknown environment	7.22
How the purchase process would work	6.51
Issues with the product (seeing, touching, meeting expectations, etc.)	5.28
Dealing with website/dealer I don't know	6.62
The actual payment transaction	5.96
Survey Question: How would you rate the personal risk of purchasing a boat on the Internet? Indicate your level of personal risk using a scale of 0 to 10 with 10 being **HIGH PERSONAL RISK** and 0 being **NO PERSONAL RISK.**	
Personal risk of online boat purchase	5.44

Essentially these trust issues can be divided into two distinct dimensions. The first dimension revolves around financial/personal data concerns while the second dimension centers on non-financial issues such as ambiguity about how the process would work, not being able to see the product, and/or the issue of dealing with an unknown website/dealership. The biggest concerns to the overall population were disclosure of financial/personal information in an unknown environment (7.22/10), dealing with an unknown website/dealer (6.62/10) and how the process would work (6.51/10). This is totally consistent with expectations given the empirical data that has emerged to date. Table 3 also substantiates what is reported in the literature regarding personal risk, i.e., an online boating transaction would likely fit in all of the high risk categories identified by Bhatnagar, Misra and Rao (2000) and so the average rating of 5.44/10 for personal risk is not surprising.

The likelihood of an online purchase was measured at two intervals. An initial evaluation of a hypothetical scenario involving the purchase of a new boat was taken. In this scenario, the respondents were asked to assume that they were shopping for a new boat and had researched several boat brands using a variety of sources (print, online, friends, boat shows and dealers). The respondents had also investigated the prices and established an acceptable price range for the desired boat. Finally, the respondents were told that they are ready to make the purchase and have the option of buying online. The respondents were asked to indicate on a scale of 1 to 10 the likelihood they would purchase online. It should be noted that in this scenario that there are no price or feature advantages. The mean score is shown in Table 4.

Table 4 Initial Likelihood of Online Purchase	
LIKELIHOOD TO PURCHASE A BOAT ONLINE BEFORE THE PROCESS IS DESCRIBED	**MEAN**
Overall	4.56
Survey Question: Assume you have been shopping for a new boat and have researched several boat brands either on the internet, by reading magazines, talking to friends, or visiting dealerships or boat shows. Assume you even went for a test ride. Further, assume you have researched the cost of boats in which you are most interested and have even requested a price quote from a dealer. Now you have decided you're ready to buy a new boat. Assume you have an acceptable price range in mind based on the boat and the options you want. What is different about this buying experience is that you can now purchase this boat online. First, I would like to understand how you feel about this concept before any descriptions of the possible process are offered. If you could purchase a new boat on the Internet today, and every part of the process such as delivery, trade-in, purchase price and service was satisfactory to you, how likely would you be to do this? Please use a scale of 0 to 10 with 10 being **EXTREMELY LIKELY** and 0 being **EXTREMELY UNLIKELY**.	

Likelihood of online purchase was measured a second time after the respondents were provided information about the merchant's process. This consumer education intervention addressed the following issues:

1. finding the right new product;
2. finalizing price;
3. trade-in/selling current boat;
4. financing the new product;
5. taking delivery of the new product;
6. service after the sale; and
7. communication after the sale.

Each aspect of the consumer education intervention was discussed with the respondents and each is explained in the following paragraphs. It should be noted that some of the transaction elements introduce options that are not available from the traditional dealer channel.

Locating a suitable boat containing the desired features/options might be accomplished in one of two ways: (1) custom building the product online in some fashion; or (2) scanning through the available inventory of one or more dealers.

Establishing/finalizing pricing is a two-step process. First, it is important to understand with whom the consumer would prefer to interact – dealer or manufacturer. Secondly, by what method/process would price be determined, e.g., "no-haggle", or a negotiation/offer of some sort.

With respect to trade-ins, a major difference between the automotive market and boat market revolves around the used product. In the automotive market, a highly developed, well-structured used vehicle system exists resulting in the easy disposal and/or sale of used products. Many automobile dealers are making more profit per vehicle on their used inventory than on their new inventory. Trading your "used" vehicle in on your new vehicle is an accepted and encouraged practice. In the boating industry, just the opposite is true. The used boat market is highly fragmented and many dealers would prefer not to take trades. The consumer preference is to have a system similar to automobiles, i.e., the selling dealer sees the trade and offers a price. But close behind the first preference is market reality – "Sell the boat on my own".

Financing for marine products is another area that differs markedly from automotive. Many automobile manufacturers have their own financing arms as part of their business and, thus, are readily prepared to finance their new product. Most boat manufacturers have not vertically integrated into financing so boat dealers are forced to do for survival what auto dealers do for profit and/or competition – develop local relationships for financing. It is not surprising that by a substantial margin, consumers would prefer to obtain financing through their own sources. But in second place, consumers would prefer the automotive model (even though it doesn't exist) of obtaining a loan from the manufacturer.

Most consumers prefer taking delivery of a new boat either (1) at the dealership where it is purchased; or (2) at the buyer's marina or slip. For the former, a primary consideration is insuring that the boat can be properly towed. There is a slight preference for picking the boat up from the selling dealer. Interestingly, the second most popular response was to have the boat delivered to the buyer's driveway. This undoubtedly reflects a high proportion of repeat buyers in the sample population who would likely be more inclined to have towing issues already resolved.

Communication after the boat sale can be accomplished in several ways: email, phone, live chat, and in-person. Most preferred was a phone call at the time of boat selection. This alternative suggests that there may well be a call center role in developing this channel. Note also that the communication preference mean is much lower than earlier preferences signifying a likely role for consumer education as this channel is developed. Table 5 summarizes the means scores for consumer preference for each of the process features.

Table 5
Consumer Preferences for Online Boat Purchase

PURCHASE TRANSACTION ISSUE	CONSUMER PREFERENCE	MEAN/10
Finding the product	Search the online inventory from several dealers in my market area	7.22
Finalizing the price	Negotiate the price with the dealer of my choice	7.73
Trade-in/selling current boat	Have the dealer of my choice see my trade and offer a price	7.11
Financing the new product	Obtain a loan from my own bank, credit union, or other financial service	7.68
Taking delivery of the new product	I would pick up the boat at my selling dealer	6.83
Service after the sale	Use the dealer who delivered the boat	7.93
Communication after the sale	A phone call at a time I select confirming the details of my purchase including the boat, price, delivery, financing and service	4.31

Once the respondents understood the online purchase process, they were asked again their likelihood of buying the boat online. These results are shown in Table 6.

Table 6
Likelihood of Internet Boat Purchase after Education

LIKELIHOOD TO PURCHASE A BOAT ONLINE AFTER THE PROCESS IS DESCRIBED	MEAN
Overall	5.28
Survey Question: Thinking about all of the options we just discussed related to buying a new boat on the internet, and **ASSUMING THAT MOST OR ALL OF YOUR PREFERENCES** for finding the boat, negotiating the price, taking delivery, arranging for financing, and obtaining service were met, how likely would you be to purchase a new boat on the Internet? Please use a scale of 0 to 10 with 10 being **EXTREMELY LIKELY** and 0 being **EXTREMELY UNLIKELY**.	

RESEARCH ANALYSIS AND RESULTS

The overall mean of 4.56 (on a 0-10 scale) suggests a relatively low interest in purchasing a boat online that improved somewhat (5.28) after some education on the online purchasing process. An analysis of the distribution of the responses reveals two distinctly different groups – Group 1 (nearly 34% of the sample) are those with virtually no interest in the concept of purchasing a boat online. This group responded with a 0, 1, 2, and 3. Group 2 (over 43%) are those with a highly favorable attitude toward an online purchase. This group responded with a 7, 8, 9, and 10. The distribution of the entire sample is shown in Table 7.

Table 7
Response Distribution for the Initial Likelihood of Online Purchase

0-10 Ratings	Total %	
0	21.2%	Low interest in the online boat
1	2.7%	
2	5.4%	
3	4.5%	
0-3 (Subtotal)	33.8%	
4	4.6%	
5	12.3%	
6	6.2%	
4-6 (Subtotal)	23.1%	
7	10.4%	High interest in the online boat
8	14.1%	
9	6.7%	
10	11.6%	
7-10 (Subtotal)	43.1%	

This split of the sample into low and high initial interest in online boat purchase was used in testing the hypotheses. The two groups together are 77% (1,234) of all respondents. The personality types for each group were examined. Table 8 shows the distribution of the personality types for the low and high initial interest groups. Comparison of the low and high initial interest groups reveals a highly significant relationship between personality type and initial interest in purchasing a boat online (χ^2=500.44; p<.0001).

Table 8
High vs. Low Interest Groups by Personality Types

PERSONALITY TYPE	OVERALL STUDY (N=1606)	HIGH INTEREST IN PURCHASING BOAT ONLINE (N=691)	LOW INTEREST IN PURCHASING BOAT ONLINE (N=543)	TOTAL
PEBCAK (Problem Exists Between Chair and Keyboard)	30.5% (490)	7% (49)	57.8% (314)	29.4% (363)
Conservative	10.0% (161)	5.5% (38)	15.8% (86)	10% (124)
Moderate	31.1% (499)	39.6% (274)	17.9% (97)	30.1% (371)
TECI (Technology Experienced Curious Innovator)	28.4% (456)	47.7% (330)	8.5% (46)	30.5% (376)
TOTAL	100% (1,606)	100% (691)	100% (543)	100% (1,234)

(χ^2=500.44 – p<.0001)

The Goodman-Kruskal index of predictive association of interest in purchasing a boat online from personality type is .8136 illustrating the high relevance of personality type in predicting the online purchase. Therefore, there is support for H_1, personality characteristics impact the likelihood of purchasing online.

Next, these two groups were examined for differences in their risk perceptions. Table 9 contains the mean scores for the two groups with respect to each of the risk factors. T-tests were conducted and the mean scores between the two groups were statistically different on every risk statement. The Low Interest group sees the online boat purchase transaction as a significantly riskier proposition across every trust and risk issue measured. Therefore, there is support for H_2, perceived personal risk impacts the likelihood of buying online.

Table 9
Online Purchasing Concerns and Personal Risk Means
High vs. Low Interest Group Comparisons and T-Test Results

PURCHASING BOAT ONLINE CONCERNS AND PERSONAL RISK	OVERALL SAMPLE MEAN	HIGH INTEREST IN PURCHASING BOAT ONLINE MEAN	LOW INTEREST IN PURCHASING BOAT ONLINE MEAN	T-TEST (PROB)
Disclosure of financial/personal information in unknown environment	7.22	5.46	8.27	19.189 (p<.0001)
How the purchase process would work	6.51	5.82	7.30	10.107 (p<.0001)
Issues with the product (seeing, touching, meeting expectations, etc.)	5.28	4.08	6.53	16.731 (p<.0001)
Dealing with website/dealer I don't know	6.62	6.11	8.19	14.204 (p<.0001)
The actual payment transaction	5.96	5.57	6.36	5.395 (p<.0001)
Personal risk of online boat purchase	5.44	4.96	5.82	5.873 (p<.0001)

It is also insightful to recognize which trust and risk items are of concern to each group as this provides additional understanding regarding the specifics of the risk hierarchy. For example, the High Interest group is most concerned with "Dealing with website/dealer I don't know" and least concerned with "Issues with the product (seeing, touching, meeting expectations, etc.)". In other words, the High Interest group displays characteristics of individuals with channel familiarity, i.e., concern about completing a transaction with an unknown/lesser known entity (store, dealer, website, etc.) but generally not having concerns about the product itself, the payment transaction, or disclosing financial/personal information.

The Low Interest group demonstrates all of the characteristics of a consumer about to enter a channel with which they have no familiarity. This includes being most concerned about "Disclosure of financial/personal information in unknown environment" and "Dealing with website/dealer I don't know". They are more concerned about "How the purchase process would work" than they are about "The actual payment transaction" because the payment transaction is not typically going to take place for them. These results reemphasize the necessity for consumer education as part of the process of selling a major durable like a boat in the online channel.

Once respondents better understood the process for buying a boat online, they were queried again as to their likelihood to purchase. Table 6 shows that the mean likelihood for purchase on the internet is .72 points higher after the process is described than prior to the process being described. Comparing the means reveals this is a significant difference ($p<.0001$). This result shows that an educational process can improve consumers' willingness to buy online.

Two tests were performed for examining the ability of consumer education to overcome the initial attitude toward online purchases associated with personality types (H_3). First, a comparison of the mean scores on the likelihood of buying a boat online before and after the education intervention was conducted. The results are shown in Table 10. For every personality type there was an increased likelihood of buying online following the education and this difference was statistically significant. Therefore, there is evidence that consumer education can influence every personality type to be more open to buying online.

Table 10
Mean Scores on Likelihood of Purchase
Before and After the Education Intervention by Personality Type

PERSONALITY TYPE	BEFORE MEAN	AFTER MEAN	MEAN DIFFERENCE	STD ERROR OF THE MEAN DIFFERENCE	T-VALUE
PEBCAK	1.92	1.99	.069	.011	6.038
Conservative	3.09	3.35	.261	.037	7.073
Moderate	5.47	6.23	.760	.029	26.056
TECI	6.91	8.45	1.539	.168	9.167
All	4.56	5.28	.720	.051	14.154

The magnitude of the mean differences ranged from a low of .069 for the PEBCAK personality to a high of 1.539 for the TECI personality group. ANOVA tests were run to examine differences among the personality types in responding to consumer education. The differences after the education intervention remained statistically significant. This indicates that despite improvements across all personality types that the improvements did not eliminate the effect of personality on the likelihood of buying online. Therefore, there is support for H_3. The results of the ANOVA are reported in Table 11.

Table 11
ANOVA Results for Personality Types after the Education Intervention

	Sum of Squares	Degrees of Freedom	Mean Square	F-Value
Between Groups	10933.139	3	3644.380	536.011
Within Groups	10892.112	1602	6.799	
Total	21825.250	1605		

DISCUSSION

The role of personality and perceived risk in online purchase behavior is well-documented. This study's findings support the growing body of literature on these two variables on the consumer's willingness to buy online. An important question for extending the body of knowledge is determining the extent to which consumer education can overcome the reluctance to buy online. Separating consumer education from consumer experience is challenging and, therefore, the product chosen for this study was a product that is sold online infrequently. The consumers in this sample may have had experience in buying this product but none had any experience with buying this product online. Furthermore, the high involvement and high risk characteristics of this product would create additional barriers to buying this particular product online even if the consumer had some experience with online buying. Therefore, this study minimizes the overlapping of consumer experience with consumer education.

In this study, the consumer education was directed at specific risk factors. These risk factors included all parts of the purchase transaction: search, price negotiation, trade-in, financing, delivery, and after sale service. Through education, the consumer learned how each of these parts of the purchase transaction would be addressed in the online shopping environment. Education provides an opportunity for reducing the consumer's perception of risk. The results indicate that education that moderates the risk perception can increase consumer's willingness to buy online even though they have no previous experience buying this particular type of product online.

The role of personality is revealed as a significant influence even when consumer education that moderates the risk factors is provided. The personality traits of technology, curiosity and openness to new experiences remain key determinants of how effective consumer education can be. Those who are more curious, willing to try new experiences and technology savvy are more likely to change their attitudes when provided with information that directly addresses their concerns about the purchase transaction. These were the personality types that populated the group that showed initially a high interest in buying this product online. One could argue that this group was more receptive to learning because they had an interest in buying online. Therefore, education that directly addressed their concerns will be incorporated more easily and quickly into their attitudes toward buying online.

In contrast, the low interest group was heavily populated by personalities that were not as comfortable with technology, were less open to new experiences and less curious (73%). Changing their attitudes toward online buying may require a longer education process than was used in this study. The mental distance to be overcome is much greater.

By looking at the degree of change before and after the education intervention, the close connection between personality type and willingness to buy online becomes evident. The range of change possible with a short education program is severely impacted by personality type. The mean difference for the least technologically savvy, least open to new experience and least curious personality type was less than 10% of the highest technologically savvy, most open to new experience and most curious personality type. Although the change in attitude toward online buying was statistically significant for every personality type, the final attitude states for the PEBCAK and Conservative groups were still unlikely to be sufficient to result in online buying by these two groups. However, one could see that the TECI personality type is highly likely to buy online (moving from a mean of 6.91 to 8.45). Even the Moderate personality type had moved across the 50% threshold toward likely to buy online. Education, even in the absence of personal experience, can address barriers to buying online for some personality types.

Practical Implications

While the above data demonstrates a clear relationship between trust/risk and willingness to purchase online, this would be a complex variable for a marketing manager in the marine industry to target. Of considerably higher value would be either a specific consumer demographic, a particular type of boat, or a behavioral and/or lifestyle characteristic that could be easily targeted. However, an examination of geographic, gender, age, and buyer type (1st time versus multiple purchases) differences between the High and Low Interest groups uncovered no significant differences.

Distribution channels ultimately have to support both positioning and brand strategy. New channels must be carefully considered in this context. The new boat market has shifted considerably in recent years moving away from stern-drive product to outboard aluminum models and overall boat sales are mostly flat worldwide. But the reality is that the consumer purchase decision process for boats continues to be in the multi-month range (as opposed to automobiles – typically less than 30 days) and is primarily driven by boat shows and visits to dealerships. The internet offers the same advantages for boats that it offers for automobiles: 1) speedier access to product information; 2) current new and used inventory; and 3) comprehensive pricing information. But more importantly in the case of boats, it offers an opportunity to move the consumer buying process along more rapidly.

How might a dealer or boat manufacturer take advantage of the information provided in this study? First, this research positively indicates that a substantial percentage of boat owners are highly interested in an online boat-buying process. It further demonstrates that those most likely to be interested can be readily identified. A simple form such as is illustrated in Table 12 can be utilized to gather information from potential customers in any venue, e.g., boat shows, boating events, dealership visitors, or even website visitors. It could also be emailed to current customers. Those whose score exceeds 40 would be prime candidates for becoming engaged in an online boat transaction.

However, those respondents whose score is less than 40 are not throwaways. They simply are less likely to want to purchase a boat online. A direct mail campaign might easily direct respondents scoring over 40 to a specific website while those respondents scoring less than 40 would be invited to a dealership "event".

Table 12: Personality Type Data Collection Instrument

For each of the following statements please indicate to what degree this statement describes you.
Please use a scale of 0 to 10 where a 10 means you **COMPLETELY AGREE** with the statement and 0 means you **COMPLETELY DISAGREE** with the statement.

SCORE

a) ____ I have taken things apart to see how they work.
b) ____ I know how to use a computer.
c) ____ I love scary rides at theme parks.
d) ____ I love to play computer games.
e) ____ I love technology.
f) ____ I would love to travel in foreign countries.
g) ____ I know how to "surf the net".
h) ____ I will try anything once.

Which boat brand do you currently own? ___A ___B ___C ___D ___E

____ Don't currently own product but am considering brand(s): ____________

LIMITATIONS AND FUTURE RESEARCH

This research has attempted to explore how education can change attitudes toward online buying for a high risk, high involvement product that is not currently sold online. Several limitations regarding this research must be noted. First, it has focused on a single major durable recreational good (power boats) sold in a specific geography (U.S.) and has only considered a few relevant variables (trust and risk, selected demographics, buyer type, boat type, and personality types). Second, the education intervention was limited in duration and in risks addressed. There are several ways that this research might be extended.

First, there are numerous potential elements that were excluded in this analysis that may possibly impact this decision. For example, motivation and the use of the product may also influence the willingness to buy online. For individuals who fish, the boat (and boating) are just means to an end. Others boat to spend time with friends or family or just escape the everyday stress of life. This analysis does not include an assessment/impact of motivation or product use. Second, this study provides little insight into understanding why consumers of major recreational durables are drawn to the internet channel as a purchase option. For example, there was no attempt to understand any respondent's current level of internet purchase activity and its impact upon channel acceptance. A study could extend this research by exploring the interaction of previous experience with online purchasing generally and education about the process of purchasing a product that has not been sold online. Third, because power boats are sold all over the world, these findings should be validated on a less geographically restricted sample of boat owners. Lastly, this study only focuses on a single major recreational durable product – power boats. There are numerous other products (recreational and non-recreational) that this could be extended to (e.g., kitchen appliances, ATVs, sport utility vehicles, washers and dryers, snowmobiles, motorcycles, and jet skis).

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NAVIGATING THE RETAIL ENVIRONMENT: AN EXPLORATORY INVESTIGATION OF IN-STORE MAPPING APPLICATIONS

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ABSTRACT

For more than one decade, consumers have access to sophisticated geographic information systems (GIS) enabled through handheld digital devices like mobile telephones, laptops and tablets. The overarching deliverable is the convenience of finding locations on a street-by-street basis, enhanced by satellite systems that facilitate virtual updates to applications such as Google Map. These GIS systems or mapping applications have been extended to retail environments in which consumers can navigate any retail environment, ranging from shopping malls to large sports arenas.

Google's introduction of in-store electronic maps has spawned a myriad of competitive applications, including but not limited to RedLaser, Aisle411, Micello and Meridian. All of these mapping applications offer different levels of advanced digital mapping of shopping malls, business campuses, and sports arenas to wireless device users, as well as information about store inventories and pricing. The present study explores U.S. consumers' attitudes toward in-store mapping applications. The results of this investigation reveal that consumers have a positive attitude toward these mapping applications. Furthermore, the study identifies a number of retail GIS attributes that delivered value: inventory levels of desired products; comparative pricing; alignment of retail layouts and "shopping list" items; and sales promotions. We also found that in-store map applications fit well into U.S. culture and are likely to become even more popular in the future.

INTRODUCTION

Consumers are offered new mobile products on a continuous basis as a result of relentless improvements in computer hardware and software. It has been over one decade since *MapQuest* introduced street-by-street navigation for Web surfers which lets users track their own outdoors location on electronic maps (Burrows, 2012). Recently, consumers are able to navigate all types of retail and entertainment venue – mega-malls, big box retail stores, airports and other large services landscapes – through the use of mobile in-store map applications.

Google's introduction of in-store electronic maps in Year 2012 includes hundreds of Home Depot stores, IKEA stores [in the U.S.] and more than 20 U.S. airports. This has generated a great deal of interest from consumers and marketers, generating market entrants such as Aisle411, Micello, RedLaser and Meridian. These competitive retail mapping applications compete to offer various levels of detailed locational, product and pricing information in major shopping malls, business campuses, and sports arenas to wireless device users (Tode, 2013; Burrows, 2012). Mobile mapping applications are growing as a manageable marketing mechanism to attract and develop customer relationships and fortify the retail experience. The implementation of mapping application software includes thousands of retail giants like Target and Walgreens. The retailers' adoption of in-store mapping application afford consumers convenience and direct them to specific products and promotions in their stores. Using this marketing tool, the retailers can "push" targeted SKUs that offer greater profit margins (Halter, 2014; Tode, 2013). While these in-store and retail environment mapping applications offer many benefits to retailers, they also pose several challenges. Both retailers and developers are challenged to preserve the integrity and privacy of data garnered from software developers and potential "hackers." Another challenge in negotiating how advertising revenues generated from a shopper's location will be shared. Global flagship stores in mega-malls like the Mall of America and Westfield Malls in the U.S. and Bondi Junction Mall in Australia are in the process of rolling out even more features to their in-store map applications (Burrows, 2012). An increased number of retailers are joining the in-store mapping application landscape, including Hy-Vee, Price Chopper, Schnucks, Shop 'n' Save, Winco and Strack & Van Til (Tode, 2013).

When consumers use in-store map applications, they can locate their position inside different sections of the retail environment. They can learn more about the store, explore the products offered by the business and take advantage of sales promotions throughout the process. For instance, through the integration of Point Inside's StoreMode platform into the Lowe's iOS and Android mobile apps, Lowe's customers can now explore over 100 million precise, in-store products and store services via interactive maps displayed on their smart phones. All in-stock items' bay locations are represented as pins on an interior map of the specific Lowe's store. The Lowe's app also delivers store-specific product searches, prices, inventory levels, detailed product information, customer ratings and reviews, and weekly ads. In addition, customers can create and manage personalized shopping lists the same way they would on a piece of paper using natural language terms (Lowe's Press Room, 2013).

The U.S. and many Western markets already have high levels of smart phone users. At 163.9 million smart phone users, smart phone penetration rate in America is above 70%. China will have a majority of the population using smart phones by Year 2018. The increasing penetration rates of smart phones in major markets is likely to spread to many other countries. In 2014, the number of smart phone users around the globe was estimated at 1.76 billion people. By 2015, it is estimated that 15 countries worldwide will have seen more than half of their populations adopt smart phones. Consumers' adoption of mobile technology approaches 500 million people in these countries, impacting media usage, e-commerce and marketing strategies. By 2017, it is estimated that more than one-third of all people around the globe will be smart phone users (Goldstein, 2014). As the number of cell phone users is rising, recent research from the Interactive Advertising Bureau found that 73% of consumers say they have used their mobile phone while shopping (Tode, 2013). For smart phone users in particular, 8 out of 10 reported being assisted by their mobile phones while shopping (Aisle411, 2014). As people become more reliant on technology, companies that choose to implement in-store maps to their online presence gain an advantage because they empower shoppers with a smart phone app that offers retailer-initiated information and guidance. Accordingly, mobile recognition instruments will be a mainstay for marketers in the upcoming decade.

LITERATURE REVIEW

Consumer orientation is one of the major factors influencing buyer behavior at the point-of-sale. Several studies in retailing show evidence of a significant correlation between existence of physical maps of shops in store environments (knowledge of product location, assortments, service points, escalators, etc.) and sentiments about the convenience of shopping (Groeppel-

Klein and Bartmann, 2008). The literature to date indicates that retailing management decisions regarding location, design, layout and in-store displays could be greatly enhanced by improved comprehension of consumer-environment relationships (Eroglu and Harrell, 1986; Donovan and Rossiter, 1982). Theoretical background to consumer orientation is inextricably linked to the literature in environmental psychology and neuropsychology.

The cognitive approach to environmental psychology tries to determine how individuals perceive and remember environments (Groeppel-Klein and Bartmann, 2008). The grounding for this capacity is cognitive or mental store maps in consumers' memories. The concept of cognitive maps is concerned with how people internally represent large scale environments, and it has been an enduring theoretical stream derived from the earliest contributions of Gulliver (1908) and Trowbridge (1913). Later, the concept of cognitive maps or spatial imaging emerged under the rubric of environmental cognition (Downs and Stea, 1973; Ittelson, 1973). There are several notable findings from this research stream. One of the important findings is that there is a maximum amount of mileage and time which consumers will invest in travel for a particular product. Likewise, consumers generally purchase goods and services from the closest place that offer these services. The distance:time ratio is an important consumer metric of convenience and ensuing retail patronage intentions. Consumers prefer to combine purchases on a single trip and may even go past a store offering a desired product if they can purchase several products at one stop where there is a greater variety of merchandise (Mazze, 1974). Overall, when mental maps are improved, the ease of shoppers' orientation can be enhanced (Groeppel-Klein, Bartmann, 2008).

Although mental maps are useful for locating individual stores, far less research attention has been afforded to consumers' mental maps inside the store and other large-scale indoor environments such as arenas and campuses. A notable exception is Sommer and Aitkens' (1982) study where they studied mental maps for store interiors in order to measure the level of mental map detail and its relationship to perceived ease of orientation. In addition, Groeppel-Klein and Bartmann's (2008) found that embedding in-store spatial information in the shopper's mind is a key factor for retailing success (Groeppel-Klein, and Bartmann, 2008).

In fact, past studies on mental maps were done before electronic maps were even introduced in mobile devices. Marketing research is slow in coping with the breath of quick changes in mobile retailing technology. Retail systems exploited virtual and augmented reality, virtual salespersons, innovative decision support systems, interactive kiosks and displays, and RFID systems in connecting with customers (Pantano and Naccaratto, 2010; Pantano, 2010). However, the number of studies in the marketing literature that studied the impact of technology in the retail landscape is limited, especially from the customer's perspective. The main characteristics of these technologies are their ability to increase consumers' visual attention at the point of sale by underlying product features and improving the store layouts with tempting elements. Furthermore, these technologies provide detailed and customizable information from a customers' point of view. From a marketing manager's stand-point, they yield constantly updated information on product movements, consumers' purchases and retail performance metrics.

Overall, there is an increasing interest in developing new tools for making the points-of-sale more attractive, in terms of store appeal, product displays, and consumer facilities. They also offer insights on innovative retail atmospherics and merchandising portfolios to update traditional and outdated stores. This is amplified by the fact that multichannel retailing has grown tremendously during the past decade. Today, customers are accustomed to using several channels when making purchases. Due to these prominent trends in retail practice and theory, simultaneous use of multiple channels has attracted more and more attention (Schramm-Klein et al., 2011). Also, it is widely believed that consumer interest is an influencing factor in innovation process, (Lubeck, Wittmann, and Battistella, 2012) and this is linked to consumer preferences (Olsen and Welo, 2011). Although it is well understood that new product development is compulsory for business profitability, there exists a lack on innovation regarding consumers' successful involvement in the processes of point- of-sale retailing. Nevertheless, firms are forced to innovate in retail landscape in order to maintain existing customers and attract new ones (Pantano and Laria, 2012). With an increasing consumers' interest toward the online channel, the introduction of novel technologies in the traditional point of sale is becoming a key factor to maintain existing clients and attract new ones (Giuseppe and Pantano, 2012).

The increasing smart phone diffusion rates in the U.S. characterizes a transforming market for mobile devices. The impact of new technologies to create enhanced applications is another factor that complicates the marketing environment. Therefore, consumer motivations for technology usage are never the same over time, and there is a need for augmenting the findings of existing innovative technology studies. To what extent newly developed virtual representation technologies can be positively introduced and accepted by consumers in retailing is still underdeveloped in the marketing literature (Laria and Pantano, 2012).

Overall, there are no exploratory studies that examine American consumers' attitudes toward in-store map applications. As mobile devices are by definition portable, users now have access to timely and location bound retail information (Ghose, Goldfarb and Han, 2013). Also, technology products have very short life cycles and fast diffusion rates. Therefore, there is an urgent need for studies that reflect changes in the contemporary marketing environment. Recent studies also show that U.S. consumers are more familiar with mobile technology than many other countries (eMarketer, 2013). Given the practical importance of this research challenge, we explore U.S. consumers' attitudes towards in-store map applications.

Specific Goals

Generation X, Generation Y and Baby Boomer consumers are known to be technology-savvy and well-educated. They are also resourceful and potentially very profitable market segments for expanding technology products, services and sectors. Therefore, our study focuses on analyzing the cognitive and behavioral dimensions of these demographic segments' attitudes toward in-store mapping applications.

METHODOLOGY

Given the exploratory nature of the research domain, a qualitative research approach is adopted. The choice of qualitative research for our research question is desirable because existing theories are not directly applicable to the rapid changes imposed by mobile technology diffusion. Also, there is a wide range of variance not just in terms of technology penetration rates but also product attributes and functionalities that result in major shifts in consumer motivations and lifestyles.

Our study is composed of four focus group sessions that was arranged and conducted by trained moderators in a mid-size city in the Midwest U.S. during a period ranging from June

2014 to August 2014. Participants were not compensated by any means and they were voluntarily present in the sessions. We developed an identical underlying list of 25 open-ended questions. The moderators were instructed to direct probing questions whenever they notice a need to go deeper into understanding the rationale behind the responses. Probing questions were used only when a consensus or disagreement by the majority of respondents were observed on a particular question. In this way, some commonality in discussion platforms could be gleaned during independent focus group sessions.

Our analysis spanned several aspects of consumer attitudes. Firstly, we looked at consumer perceptions of group influences (G1, G1p1, G1p2, G2). Secondly we aimed at exploring consumer behavioral attitudes in terms of frequency of usage (BA1), general usage (BA2, BA3, BA5, BA7), affect of ability to use in-store map applications on product purchase (BA4), and future usage intentions (BA6).

As a final dimension of attitudes, we examined consumer general cognitive attitudes (CAG1, CAG1p, CAG2), cognitive attitudes about usefulness (CA1, CA4, CA5, CA6, CA7), attitudes toward information security (CA2), and ease of use (CA3). We also asked respondents for their suggestions for product improvement. Finally, we had two introductory questions (I1, I2, I2p) and three questions for consumer suggestions for product improvement with probing questions utilized as necessary (SFI1, SFI2, SFI3, SFI3p).

The identical questions set was used in Session A with BA1 and CA7 skipped as these were discussed in previous questions. In Session B, some questions are added as probing questions (BA4p, BA3p) (Table 1). On Session C, again the same set was used except CA4 was combined with BA4 due the question being discussed ahead of time by respondents and a probing question added (BA5p). On Session D, four questions were omitted based on existing answers (SIT1, CA6, SFI2, BA5) and to keep the session duration under check (less than an hour) and enhance flow of communication (Table 2). We covered the underlying list of 25 questions and kept the order of questions identical over all four sessions. We had a variation in the size of each session that allows for an examination of social group influences at different group size levels. There were seven respondents in Session A, six respondents in Session B, six respondents in Session C and four respondents in Session D. The moderators audiotaped and transcribed the sessions (the session transcripts are available upon request).

ANALYSIS AND RESULTS

The final sample of this study consisted of 23 respondents that are representative of the target demographic (Table 3). All respondents owned a device that can run in-store map applications. Almost all respondents used a street-by-street electronic map application before and 30% of the participants used specifically an in-store map application. The remaining respondents learned more about them during the sessions.

Consumers who have used in-store map applications commonly agreed that it is easy to use. In session B, Heather indicated that “it was useful to maneuver the store I was in, to find the product I was looking for.” Meghan concurred stating that “it was helpful.” Lucas in Session C also agreed that “It did its job, I mean, it didn’t steer me wrong.” Although Brook hasn’t used it before, she stated that “it’s probably easy to use. Because I am very good at technology, so it must be pretty simple to figure out if I can do it” (CAG1). Matt in Session A similarly made an inference from his experience using a smart phone app to locate his car when he was back from a trip.

Table 1 SESSIONS A AND B QUESTIONS LIST		
Questionnaire Items	# of Respondents	Average Age
Session A	7	50.7
Session B	6	35.2
I1: Do you have a smart phone that has a map application? I2: Have you ever used a map application before? CAG1: If so what did you think of it? I2p: Have you ever zoomed into a store with a map application before? CAG1p: If so what did you think of it? CA3: How easy or difficult do you think it is to use in-store map applications? CA1: How would you estimate the usefulness of in-store map applications? CA5: What do you think in particular that is most useful about in-store map applications? G1: Who do you think is the typical user of in-store map applications? G1p1: Do you think people who shop with shopping lists would be more likely to use in-store map applications G1p2: Do you think people who are time-crunched would be more likely to use in-store map applications SIT1: Where would you most likely use in-store map applications? CA4: Do you find the stores available for in-store map applications (large malls and big box hardware stores) worth zooming into? BA4: Are you more likely to purchase a product from a store if you can zoom in it with an in-store map application? BA4p**: Why not? CA6: What is the most important problem about in-store map applications? BA5: How would in-store map applications change consumer behavior for the future? SFI1: Do you have any suggestions of improvement for future in-store map applications? G2: How do in-store map applications fit into American culture? CA2: Is security a concern of yours when dealing with in-store map applications? BA1*: How often are you likely to use in-store map applications? CAG2: Overall, what attracts you to the use of in-store map applications? BA2: Do you think you are more likely to use in-store map applications for personal or business use? BA3: Are you always on the lookout for an in-store map application that can zoom into a store whenever you see a store? BA3p**: Why not? SIT2: In which situations is an in-store map application particularly useful? CA7*: What attributes of in-store map applications matter to you most? SFI2: If you were to come up with your own in-store map application, how would it be like (what features would you like to see in it)? SFI3: If you were to create your own in-store map application what stores would it be for? SFI3p: Overall, do you think in-store map applications are going to be more popular or less popular BA6: Would you use in-store map applications in the future? BA7: Is there an alternative to using in-store map applications?		

**BA1 and CA7 skipped in Session A*
***Probing questions BA3p and BA4p asked in Session B only*

Table 2
SESSIONS C AND D QUESTIONS LIST

Questionnaire Items	# of Respondents	Average Age
Session C	6	28.3
Session D	4	38.3
I1: Do you have a smart phone that has a map application? I2: Have you ever used a map application before? CAG1: If so what did you think of it? I2p: Have you ever zoomed into a store with a map application before? CAG1p: If so what did you think of it? CA3: How easy or difficult do you think it is to use in-store map applications? CA1: How would you estimate the usefulness of in-store map applications? CA5: What do you think in particular that is most useful about in-store map applications? G1: Who do you think is the typical user of in-store map applications? G1p1: Do you think people who shop with shopping lists would be more likely to use in-store map applications G1p2: Do you think people who are time-crunched would be more likely to use in-store map applications SIT1**: Where would you most likely use in-store map applications? CA4*: Do you find the stores available for in-store map applications (large malls and big box hardware stores) worth zooming into? BA4: Are you more likely to purchase a product from a store if you can zoom in it with an in-store map application? CA6**: What is the most important problem about in-store map applications? BA5**: How would in-store map applications change consumer behavior for the future? BA5p***: If you went to a store using an in-store map application, and a product appeared that was a suggested product that was in a way related to that product [that you are looking for], would you take a look at it? SFI1: Do you have any suggestions of improvement for future in-store map applications? G2: How do in-store map applications fit into American culture? CA2: Is security a concern of yours when dealing with in-store map applications? BA1: How often are you likely to use in-store map applications? CAG2: Overall, what attracts you to the use of in-store map applications? BA2: Do you think you are more likely to use in-store map applications for personal or business use? BA3: Are you always on the lookout for an in-store map application that can zoom into a store whenever you see a store? SIT2: In which situations is an in-store map application particularly useful? CA7: What attributes of in-store map applications matter to you most? SFI2**: If you were to come up with your own in-store map application, how would it be like (what features would you like to see in it)? SFI3: If you were to create your own in-store map application what stores would it be for? SFI3p: Overall, do you think in-store map applications are going to be more popular or less popular BA6: Would you use in-store map applications in the future? BA7: Is there an alternative to using in-store map applications?		

**CA4 combined with BA4 on Session C*
***CA6, BA5, SIT1 and SFI2 skipped in Session D*
***Probing question BA5p asked in Session C only*

Consumers indicated that they are more likely to use in-store map applications if they are new to a store, and if they are looking for a particular product. Tammy in Session D said "I would like it better if I was looking for something and I wasn't familiar with the store" (CA1). Katie agreed that if she is travelling and goes to a new place on some trip, it would be easier to use it rather than store directories or physical maps that are cumbersome and not interactive. Angela in Session A thought that in store employees sometimes seem to lack product location knowledge and this instrument would help alleviate the strain on the shopper. She said "I mean, you ask people where such and such is and they say oh I don't know, let me find somebody." Respondents agreed that the convenience of saving time by being able to find something more quickly and eliminating the need to ask store employees or using signposts attracts them to in-store map applications (CAG2; BA7). Heather on Session B indicated that she is attracted to in-store maps because it is "something new, fun, gadgety" (CAG2). Jake agreed that in-store map applications also provide entertainment.

Consumers mentioned that they are most likely to use in-store map applications when they are in out of town, new or unfamiliar stores, stores that are under remodeling, large malls or shopping centers. In terms situational influences, they mentioned that they are more likely to use them when they are in a hurry or with a set appointment (SIT2). Angela brought up the influence of urgency of healthcare. She stated that if it was a situation where it is one o'clock in the morning and she has a sick child and they are out of medicine, then it is better to go to a store's app and see that the medicine is there versus searching different stores physically. Consumers on all sessions agreed that they are not always on the lookout for an in-store map application although they can understand its utility (BA3).

Most consumers on all sessions indicated that they are not more likely to purchase a product merely based on whether an individual store has an in-store map or not (BA4: 77% agreement). On Session A, Jon indicated that price, quality and customer service all come ahead in purchase intentions rather than if a store has an in-store app or not. However he also stated that if two stores are identical on those dimensions, then he would choose a store that has an in-store map application. Rick added that if price information is provided by the in-store map application, it would influence his purchase intentions for one store over another. Jim brought up the issue of the necessity of third party apps in regards to price, which would allow price comparisons and hence affect purchase intentions.

All consumers indicated that security of their personal information is not a concern to them due to a general sentiment that keeping their data confidential is not possible. They indicated that the terms and conditions already require that their data will be used anyway. Also, concern for viruses on phones was deemed minor as that wasn't commonly experienced as a problem before (CA2).

The respondents indicated that there are some problems with the information provided by in-store map applications. Firstly, comparison pricing is currently not given and this can be handled by third party apps. Secondly, the accuracy of in-store map applications was a concern on most sessions especially in terms of inventory, location shifting and store remodeling. Consumers stated that apps need to be frequently updated to make them more accurate (CA6). On Session C, all respondents agreed that addition of product recommendations such as 'other customers who purchased this product also purchased these other products' would be useful. The issue of sales promotions was also discussed on Session B with the recommendation of attaching coupons to the items and information on specials or offers in the area around the user. Kari brought up that Google introduced street view which allows users to see the actual point of view

Table 3
PARTICIPANT PROFILES

Session	Moderator	Respondent Name	Occupation	Income Range	Education Level	Age	Marital Status
A	E. Deatrick						
		Penny	Full-time	Above $100,000	Master's Degree	51	Never Married
		Angela	Full-time	Above $100,000	Master's Degree	40	Married
		Jim	Full-time	$81,000-100,000	Doctoral degree	67	Married
		Rick	Full-time	Above $100,000	Master's Degree	53	Married
		Matthew	Full-time	$41,000-60,000	Bachelor's Degree	39	Married
		Jon	Full-time	Above $100,000	Master's Degree	51	Married
		David	Full-time	Above $100,000	Master's Degree	54	Married
Session	**Moderator**	**Respondent Name**	**Occupation**	**Income Range**	**Education Level**	**Age**	**Marital Status**
B	T. Langley						
		Ryan	Part-time	$21,000-40,000	High School	21	Never Married
		Tom	Full-time	$41,000-60,000	Bachelor's Degree	43	Divorced
		Tiffany	Part-time	$61,000-80,000	Master's Degree	33	Married
		Meghan	Full-time	Below $20,000	High School	20	Never Married
		Heather	Full-time	$81,000-100,000	Bachelor's Degree	35	Married
		David	Full-time	$61,000-80,000	High School	59	Married
Session	**Moderator**	**Respondent Name**	**Occupation**	**Income Range**	**Education Level**	**Age**	**Marital Status**
C	E. Deatrick						
		Lucas	Part-time	Below $20,000	High School	22	Never Married
		Andrew	Full-time	Below $20,000	High School	24	Never Married
		Brook	Part-time	$41,000-60,000	High School	32	Married
		Curt	Full-time	$41,000-60,000	Associate Degree	35	Married
		Jake	Unemployed	Below $20,000	High School	22	Never Married
		Katie	Full-time	$61,000-80,000	Bachelor's Degree	35	Never Married
Session	**Moderator**	**Respondent Name**	**Occupation**	**Income Range**	**Education Level**	**Age**	**Marital Status**
D	K. Miller						
		Mike	Unemployed	Below $20,000	High School	48	Married
		Kari	Full-time	$21,000-40,000	Associate Degree	25	Never Married
		Tammy	Full-time	$21,000-40,000	High School	53	Married
		Jesse	Full-time	$21,000-40,000	Bachelor's Degree	27	Never Married

rather than just a bird's eye view. Hence, addition of 3-D functionality to in-store maps was advised. Overall, on all sessions, being up to date with stores that change frequently was most important. Being easy to use and simple, with the opportunity to get more advanced by user choice was also recommended. Voice to text functionality was a final suggestion for improvement.

Consumers highlighted several points about how in-store maps could affect consumer behavior. In Session B, Heather suggested that using in-store map applications would reduce the number of impulse purchases. This issue was also brought up in Session C by Brook. Katie in Session C disagreed and stated that businesses would still benefit from it because they are giving their customers a more efficient shopping experience which would attract more customers and businesses can also save from staffing costs.

The typical user of in-store map applications was listed as; people who are busy with a time schedule (G1p2), people looking for discounts and good prices, people new to a store, tech savvy youngsters aged 18 to 25, introverts, males who don't like to ask directions, moms with children, and other general shoppers (G1). The respondents on Sessions A, B and C had a consensus that people who shop with shopping lists would not be more likely to use in-store map applications because they would typically know where the items they are looking for are and prepare their shopping lists with that information in mind. However, it was stated that whenever in-store map applications allow uploading shopping lists with the ability to locate products in the store, then people using shopping lists would also use in-store map applications (G1p1).

The respondents had an agreement that in-store map applications fit into American culture very well. Andrew stated that "everyone in America wants it now, they want it better, faster and more. I think it (in-store maps) helps to streamline everything, helps them to get what they want quicker." Heather concurred that American culture is essentially in a speed race and people are always in a hurry, so it's going to help them get in and out of a store quickly. Curt stated that most people have a smart phone and they have an application for everything, so it makes sense that they have in-store map applications. On Session D, Jesse said, "Everything is getting more automated, so now you wouldn't have to ask a service desk..." Also on Session D, it was argued that people are more accepting of being lead around by an electronic map rather than talking to people and finding directions. On a final note on culture, Kari on Session D brought up the issue of diversity and mentioned that "you can switch it to different settings, to (Spanish) if you speak Spanish."

The respondents indicated that if they were to create their own in-store map application, it would be for shopping centers and malls, home improvement/hardware stores such as Lowes, Menards, Home Depot, and IKEA, sporting goods stores such as Dick's, grocery stores such as Hy-Vee and Price Chopper, furniture stores such as Nebraska Furniture Mart, drug stores and pharmacies such as CVS, large stores such as Target and Sam's Club, and arts and crafts stores. Respondents also indicated that the stores currently available for in-store map applications are worth zooming into because they offer a diverse selection of goods (full consensus on CA4). Finally, respondents stated that they would use in-store map applications for both business and personal use (BA2).

Overall, the attributes that are most important to the consumers about in-store map application were: current inventory reflected well, price comparisons, easy to use store lay-outs tied to grocery lists, sales promotions (but no pop-up ads or sign-up requirement) with entertaining elements such as games or sweepstakes (CA7; SFI2). There was a consensus on Sessions A, B and D and a near consensus on Session C that in-store map applications will become more popular. The respondents also stated that they will use them in the future (BA6; SFI3p).

DISCUSSION

Our qualitative analysis of American consumers' attitudes towards in-store map applications yielded important findings. It is important for qualitative researchers to capture the richness of data by avoiding over-simplification or subjective selection. As qualitative researchers, we attempted to ascribe to the principles proffered by Leedy and Ormrod (2013): recording and evaluating multiple dimensions and layers of data to provide a multifaceted depiction of conclusions. We found that convenience of in-store map applications was a ubiquitous attribution across all of the focus group participants. The majority of participants liked the detailed real-time information provided by these applications. They also mentioned that increased access to entertaining promotions are especially desirable. Finally, there was widespread consensus that these in-store map applications fit well into American culture and lifestyle.

The findings of this study lay the foundation for the development of empirical measures that may investigate these consumers' attribution toward mapping applications with retail patronage intentions. As this study revealed, the environmental and neuro psychology theories provide suitable grounding for further research. Greater attention should be afforded to many of the factors identified in this study, including consumer motivations, promotional engagement, attitudes toward information security relative to adoption of in-store and retail mapping applications.

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AN EXPLORATORY INVESTIGATION OF DEAL PRONENESS AT THE BOTTOM OF THE PYRAMID

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ABSTRACT

Research in the area of sales promotion has shown that a combination of tactics are effective in driving consumer action such as purchase, new product trial and brand switching among others. Odd as it may sound, the bulk of research in deal proneness has been conducted within the context of the developed, western societies. Despite this lack of information, consumer marketers in low income markets continue to spend increasing amounts of funds in promotional offers in the fast moving consumer good (FMCG) category. A growing stream of research under the labels of bottom of pyramid (BoP) and subsistence consumers has increasingly pointed out the market attractiveness of this low income population to multinational companies especially in the FMCG sector. These poor consumers are individuals who earn approximately $2 per day. In this paper, we identify the level of deal proneness amongst the BoP consumer, promotional offers that are successful in the BoP segment and the reasons "why" the poor don't respond favorably towards promotional offers. The findings point to significant insights for marketing managers that propose that deal proneness might not transfer universally across all cultural and/or socio-economic groups. The data for this paper comes from a qualitative study conducted with 58 urban poor consumers in India. Findings show two dominant patterns in deal proneness amongst the BoP consumer: First, a low level of deal proneness and second, a presence of deal specificity, when deal prone. Four reasons are offered each to explain why BoP consumers are deal insensitive at a generalized level and why two promotional offers – price and volume discount along with a product premium offer are well received and signal the presence of deal specificity amongst the consumers. Finally, implications of the above findings for marketers and public policy makers are offered to address the needs of the subsistence marketplace.ach paper must start off with an abstract (with the exception of case studies).

INTRODUCTION

Research in the area of sales promotion has shown that a combination of tactics are effective in driving consumer action such as purchase, new product trial and brand switching among others. Odd as it may sound, the bulk of research in deal proneness has been conducted within the context of the developed, western societies. Despite this lack of information, consumer marketers in low income markets continue to spend increasing amounts of funds in promotional offers in the fast moving consumer good (FMCG) category. A growing stream of research under the labels of bottom of pyramid (BoP) and subsistence consumers has increasingly pointed out the market attractiveness of this low income population to multinational companies especially in the FMCG sector. These poor consumers are individuals who earn approximately $2 per day. In this paper, we identify the level of deal proneness amongst the BoP consumer, promotional offers that are successful in the BoP segment and the reasons "why" the poor don't respond favorably towards promotional offers. The findings point to significant insights for marketing managers that propose that deal proneness might not transfer universally across all cultural and/or socio-economic groups. The data for this paper comes from a qualitative study conducted with 58 urban poor consumers in India. Findings show two dominant patterns in deal proneness amongst the BoP consumer: First, a low level of deal proneness and second, a presence of deal specificity, when deal prone. Four reasons are offered each to explain why BoP consumers are deal insensitive at a generalized level and why two promotional offers – price and volume discount along with a product premium offer are well received and signal the presence of deal specificity amongst the consumers. Finally, implications of the above findings for marketers and public policy makers are offered to address the needs of the subsistence marketplace.

CONCEPTUAL BACKGROUND

Meaning and Profile of a Deal prone consumer

Research in the area of deal proneness falls has followed two streams. The first stream is interested in identifying the deal prone consumer. Research in this area describes the deal prone consumer by drawing correlation with demographic and psychographic traits. The second stream of research investigates the value component that customers derive from a deal.

Researchers have defined deal-proneness as "a function of both the consumer's buying behavior and the frequency with which a given brand is sold on a deal basis", p. 186 (Webster, 1965); as "the propensity of some consumers to purchase products when they are offered on a 'deal' basis", p. 333 (Hackleman & Duker, 1980); and as "a general proneness to respond to promotions because they are in deal form" p. 55, (Lichtenstein, Netemeyer, & Burton, 1990). Important in all of the above definitions is that deal proneness signals the psychological propensity to buy and doesn't stress on the actual purchase of goods on promotion. In addition, a deal-prone consumer responds to monetary benefits because it is in the form of a deal rather than a lower price. Thus, deal-prone consumers place value on the transaction utility rather than, or in addition to, the acquisition utility associated with buying on deal (i.e., buying on deal has psychological benefits irrespective of the financial consequences) (Lichtenstein, et al., 1990; Ramaswamy & Srinivasan, 1998).

Deal Proneness maybe subdivided into three categories (Lichtenstein, G., & Burton, 1995): First, is the generalized level, which is the broadest and encompasses a variety of promotional deals. The second level is deal-specific, where deal-proneness is specific to a domain (i.e. coupon, rebate, or a price discount). Last is the intermediate level which assumes that deal-proneness is specific to monetary and nonmonetary deals with an active and passive orientation. In a separate study, (Burton, Lichtenstein, & Netemeyer, 1997), extend the above findings of deal-proneness at differing levels to argue that deal-proneness may be used as a segmentation base by marketers. In their research, they discovered two deal-prone segments: the general deal-prone segment and the "deal-insensitive" segment.

Research in the area of deal-proneness has found mixed results to support any correlation with demographic variables. In a seminal paper, (Blattberg, Buesing, Peacock, & Sen, 1978) suggest that household income, car ownership, home ownership, size of family, and available time for shopping would determine deal-proneness. They concluded that the typical deal-prone consumer was an unemployed housewife with no small children, who owned a home and car. Homeownership indicated that consumers were able to stock up, especially in the case of deals based on quantity. Car ownership meant that the consumer had easy and frequent access to the store, while lack of young children and employment allowed the consumers to spend more time on shopping for household items. Income is also strongly associated with deal-proneness, but confounding effects of car and home ownership make the correlation of income and deal-proneness unclear. Webster (1965) argued that the following four demographic variables were indicative of deal-proneness: age of the primary shopper, the ratio of the most frequently purchased items to total units purchased, the variety of brands purchased, and the overall amount of units purchased. In short, while one study found that the typical deal-prone consumer was most likely "an older housewife who purchases fewer units, but buys more brands and does not concentrate purchases on one brand" (p.188, Webster 1965), others found that a coupon-prone consumer is young with a higher income than non-prone, or insensitive, consumers (Teel, Williams, & Bearden, 1980). Burton et al. (1997) found that younger, less educated consumers are more deal-prone.

Research by (Schneider, 1991) examine whether behavioral and cognitive traits might be better correlated with deal proneness than demographic factors. As a result, they differentiate between active and passive deal proneness, where each subtype is mutually exclusive. Active deal-proneness is defined as "the relatively intensive search required" to find promotions. Passive deal-proneness is defined as a "sensitivity to in-store displays", limiting the consumer's search for promotion outside of the store environment. In addition, the above showed that deal-prone consumers buy a wider variety of brands, have a greater interest in coupons, and purchase a higher quantity of items than deal-insensitive consumers. Based on their findings, the authors recommend that marketers should launch short-term promotions for active deal-prone consumers to support variety seeking behavior.

Regardless of the deal offered, high deal-prone consumers are more likely to engage in word of mouth communication to spread information about a product or deal with others, since they are less likely to be brand loyal with a higher propensity to engage in variety seeking behavior (Wirtz & Chew, 2002). Another correlation to identify the deal proneness has been made with the usage rate of consumption. Hackleman and Duker (1980) found that "…the heavy user is a deal prone consumer on the basis of how often the consumer goes to the market, how much is spent on the product, and the physical quantity carried from the store" (p. 339). Deal proneness has also been correlated with buyers of generic or private label brands (Kono, 1985). However, "economy-minded" consumers tend to either use coupons or purchase generic products, but not both. Therefore, although deal prone and buyers of generic brands may seem similar, their attitudes towards brands, brand loyalty, and purchase motivates are what set them apart.

The Value of Sales Promotions for the Consumer

The research above presents a profile of a deal prone consumer for marketers. But, it is also important to understand the nature of value associated with promotional offers. Research in this area suggests that deal-prone consumers value limited involvement that comes with deal shopping. According to Delvecchio (2005), deal-prone consumers limit information processing by choosing the promotional product rather than the best value. A deal-prone consumer is more likely to “blindly” choose a product offered on a promotion, which is indicative of heuristic processing. This is what differentiates them from the value-conscious consumers. For marketers, the above finding suggests that deal-prone consumers are more likely to participate in low-priced product promotions more frequently than high-priced item promotions, due to their willingness and attraction to items on promotion.

In addition, to the monetary value of promotional offers, Chandon, Wansick, and Laurent (2000) argue that promotional purchases also provide hedonic and utilitarian benefits to the customer. In their study, the above authors concluded that in addition to monetary savings, customers also accrue several other benefits such as the ability to upgrade to a better brand and relaxed budget constraints, convenience, value expression of being a value-seeker or responsible buyer, fulfilling needs of exploration, variety, and information, and the overall enjoyment of receiving a deal. Hedonic values with the most influence included: value expression, entertainment, and exploration. Not surprisingly, the study also found that monetary promotions are most effective for utilitarian products while nonmonetary promotions fit best with hedonic products. Overall, (Chandon, Wansink, & Laurent, 2000) concluded that using promotional offers enhances social prestige of the consumer and gives him a feeling of being a smart shopper.

Bottom of the Pyramid Consumer and Marketplace

The bottom of the pyramid or base of pyramid marketplace is also commonly referred to as subsistence markets in literature (Elaydi & Harrison, 2010; Madhubalan Viswanathan, 2007; Madhu Viswanathan & Rosa, 2010; M. Viswanathan, J. A. Rosa, & J. A. Ruth, 2010; Weidner, Rosa, & Viswanathan, 2010). Viswanathan and Rosa (2010) define the term subsistence as “barely having sufficient resources for day-to-day living, yet allowing for the possibility of abundance in other life dimensions – such as familial and community networks of relationships” (p.535). According to the Merriam-Webster dictionary, subsistence means “a: the minimum (as of food and shelter) necessary to support life, and; b : a source or means of obtaining the necessities of life.” These definitions clearly indicate that the state of subsistence points to the state of existence that seeks to support life by meeting the most basic and essential needs.

The importance of the subsistence marketplaces draws from its size – aggregated purchasing power in excess of $5 trillion; and an additional 1 billion customers from developing economies are expected to enter the global market for discretionary spending by 2020 (Hammond, Kramer, Katz, Tran, & Walker, 2007). Approximately 4 billion people (about two-thirds of the world population) with the projection to grow to 6 billion over the next 40 years make up the BoP segment (Prahalad & Hammond, 2002; Prahalad & Hart, 2002). Companies who choose to market to this segment are expected to be rewarded by "…growth, profits, and incalculable contributions to the humankind" and a better life to the poor (Prahalad and Hart 2002, p. 2). The overarching implication of this paradigm is that when companies target the BOP segment, it reduces the cost to the consumers to use goods and services and in turn helps improve their standard of living (Prahalad and Hammond 2002). The literature is full of suggestions that stress on the growth of consumption in subsistence marketplaces and the expansion of products and services being successfully marketed. These findings contradict the common viewpoint that the poor are not interested in sophisticated products and/or cannot afford to purchase them.

People who live in subsistence conditions have been identified as individuals who earn less than $2 per day, lack access to food, education and healthcare (all basic necessities), live under conditions of extreme deprivation, live in substandard housing, have limited or no education and lack access to reliable transportation, potable water and sanitation (Sridharan & Viswanathan, 2008; Madhu Viswanathan & Rosa, 2010; Madhu Viswanathan, et al., 2010; Weidner, et al., 2010). Because of the extreme conditions under which subsistence consumers survive, basic needs are often unmet and companies that have been successful in these marketplaces are the ones that have "..displayed the vision to identify and address some of the critical needs that face subsistence consumers" (p. 563, Weidner et al. 2010). In addition, the low level of literacy that characterizes subsistence consumers translates into poor marketplace skills. The poor struggle with reading product labels, store signs or product use instructions and subtracting purchase price from cash on hand, all that restrict their ability to best utilize their limited funds (M. Viswanathan, J. A. R. Rosa, & J. R. Ruth, 2010). Another ramification of low literacy and numerical skills is the short-term planning horizons (1-2 days) for these consumers. These short term horizons become a bigger problem because of the uncertainty in the external environment along with the absence of any law enforcement or protection (Viswanathan 2007). Finally, a daily income of less than $2 per day has become the universal metric to define the world's poor (Collins et al. 2009). But, the most differentiating characteristic of this income metric that shapes the definition of poverty is the irregularity and uncertainty of the daily income.

Despite severe physical and financial constraints, the poor also have an abundance of resources that include labor, human capital (health that determines the ability to work and skills and education that determine the return on labor), housing (or productive asset), household relations (that allow the poor to pool resources and share consumption) and social capital (the relationship ties between members of the household and communities) (Moser, 1998). Therefore, the poor manage complex asset portfolios and it's this asset management that may influence their vulnerability in the marketplace.

Viswanathan and Rosa (2010) justify the use of the term "subsistence marketplaces" to be descriptive and not patronizing, to draw the need and attention of researchers and practitioners to understand the dynamics of these marketplaces in their own right. The authors stress that these markets are comprised of individual consumers and their families, entrepreneurs, communities and markets that make them different from any other type of marketplace. Hence, they stress the need for research that reveals the nature of such marketplaces and creates knowledge for marketers and public policy makers.

METHODOLOGY

We used a long interview based approach of qualitative research for this study that allows the researcher to capture consumers' beliefs, feelings and motivations in their own words and to obtain a 'thick' description of phenomena under investigation (McCracken, 1988). This method also enables a closer examination of the data to extract rich explanations of observations and relationships, and offers considerable flexibility in understanding the complexities of consumer behavior (Carson, Gilmore, Perry, & Gronhaug, 2001). The choice of methodology was especially suitable to research in the BoP area. This area is a newer and emerging stream of research with a paucity of scholarly studies and therefore, qualitative research can be useful in the early stages of theory building. Additionally, the BoP consumers are often illiterate or less educated and subsequently unable to indicate their thoughts and opinions on a more quantitative measurement scale. Additionally, the choice of the method is also consistent with other studies in the BoP area (Viswanathan et al. 2010; Viswanathan et al. 2009).

The research was conducted in India for two reasons. First, the country has occupied center stage in BoP literature with a large number of success stories (Prahalad 2004; Prahalad and Hammond 2002). Second, India has a BoP population (those with annual incomes below US$3,000 in local purchasing power) of nearly 925 million, the largest in the world (Hammond, et al., 2007). Therefore, with the large size of the BoP population, India carries the potential to become one of the most profitable BoP markets in the world, thereby making a compelling case for companies interested in tapping the market potential.

For the study, interviews were conducted in the cities of Mumbai and Kolkata. This geographical location was selected for three specific reasons. First, both cities attract a significant portion of rural consumers from the country in search of employment, thereby providing access to both types of BOP consumers - urban and rural. Second, both cities are one of the largest in its state and the country and therefore, it is not uncommon to find people living in poverty but at the same time exposed to modern media, newer technologies, urban lifestyles and consumption trends. Third, both authors are proficient in Hindi (the national language in India) which is widely spoken and understood in both cities. Since BoP consumers typically have low literacy levels, proficiency in the language understood by them was essential for data collection.

Informants were recruited through the housekeeping staff at an academic organization in Mumbai and at a non-governmental organization (NGO) in Kolkata. In addition, a snowball sampling method also allowed the researchers to recruit additional participants for the study by asking the previous informants to recommend others who met the eligibility criterion - personal income of approximately US$2-4day (which converted to approximately Rupees 3000-6000 per month). This sampling method allowed one study participant to recommend others from her social network who met the sample selection criterion. One of the co-authors and a trained research assistant (also fluent in Hindi) conducted the interviews. The co-author responsible for data collection personally trained the research assistant in the interviewing process and data collection. In addition, both authors reviewed the translation and back translation of the interview guide for the study. Finally, both authors who are proficient in Hindi heard the audio recordings of all interviews and reviewed the English transcriptions to ensure accuracy and attention to detail.

Sample

Out of the 58 study participants, 26 were men and 32 were women. The female participants were between the ages of 23 – 58 years, mostly employed in housekeeping work, most of them married and with a personal income that ranged between Rupees 2800-4500 per month. Most of them indicated that were responsible for their household purchases. The male participants were between the ages of 25 – 56 years, mostly employed in housekeeping work, married and with a personal income between Rupees 3500-5000 per month. Almost all informants had a minimum of 1-5 years of education though there were five informants who were completely illiterate.

Procedure

An interview guide was used to explore and understand consumers' marketplace experience at the bottom of the pyramid. During the interview, initial conversation starters were often followed with several "how" and "why" questions to probe the answers further. The following questions provided a general template to understand the nature of deal-proneness:

1. How do you feel when you go shopping?
2. Is the feeling different for different types of shopping trips? For example, do you feel different when you go to buy daily food items versus another type? If yes, describe different types of shopping trips (basic versus discretionary products: food shopping, medicine shopping, clothing shopping, beauty products shopping, utensils shopping, jewelry, others)
3. How do you know which product you need to buy? Use brand names, color scheme on product package?
4. Have you bought products because of the promotional offers? Describe the experience.
5. How do you feel about the promotional offers like free product with purchase, free earrings with beauty cream?
6. How do you feel about advertisements on billboards, TV and its impact on your purchase decisions, if any?

Both interviewers agreed that after a brief warm-up, all informants were comfortable in the interview and proactively shared their thoughts and responses to the probe questions. The interviews began with a conversation to elicit general and background information on the informant, such as age, marital and family status, educational level, employment status and household composition. All responses pertaining to the socio-demographic profile of the informant were manually recorded by the researchers. The in-depth investigations involved an unstructured approach of asking questions in a conversational style. These interviews lasted about 30-50 minutes and were recorded. Each participant was compensated with a monetary award of Rupees 300 (approximately $5).

RESULTS

Findings show two dominant patterns in deal proneness amongst the BoP consumer: First, a low level of deal proneness and second, a presence of deal specificity, when deal prone. In the section below we elaborate on the above two themes and provide an explanation for each. Four reasons are offered each to explain why BoP consumers are deal insensitive at a generalized level and why two promotional offers – price and volume discount along with a product premium offer are well received – signal the presence of deal specificity amongst the consumers.

Low level of Deal Proneness

Data analysis shows an overall low level of deal proneness amongst BoP consumers. Most informants indicated that their purchase decision was not driven or motivated by a promotional offer. For example according to Gita (female, 20 years), *"Yes , I did once buy a soap with an item free with it. But I do not remember it. (Confused) I usually do not go to shop keeping freebies or offers on mind."* Similarly, Valli (female, 30 years), *"No, I do not buy such items but my friends buy it. I asked my friend but later forgot what it was."*

Further data analysis also revealed no correlation of deal insensitivity with any of the socio-demographic variables such as age, gender, education, household size, income or occupation. This finding is consistent with the research in the area of BoP that suggests that poor consumers don't purchase in larger quantities in order conserve limited funds for an unforeseen emergency in the future (Viswanathan et al. 2009). In this, the findings from this study fail to support the research cited above that has shown mixed results with socio-demographic variables. We suggest four reasons for this pattern – low level of marketplace literacy, low awareness of current promotional campaigns, withholding of the promotional offer by the "kirana" store keeper and deep rooted brand loyalty.

Low level of marketplace literacy. Most informants had less than 5 years of education and clearly stated a low level of confidence in a marketplace setting. For most, shopping was limited to basic and essential products almost always exclusive to the food and personal hygiene categories and therefore, there was a high tendency to engage in routine response behavior. A low level of education resulted in a low level of marketplace literacy where most informants indicated that they didn't actively seek information about product attributes such as price, brand or promotional offers from the retailer, members of the social network or mass media sources. Most participants in the study made purchase decisions for packaged products in the FMCG category by relying on package color, symbol and font recognition and the celebrity endorser instead of the actual brand name. Some were able to pronounce the brand name, but, unable to read it on the package. When asked by the interviewer, most study informants indicated that they didn't check for the suggested retail price, product expiration date and any promotional offers being offered by the manufacturer. Most had no access to television and lacked the education to read any outdoor advertisement or in-store banner displays for products. Almost all entirely relied on the store keeper to provide product related information. A few informants who did indicate that they had redeemed a promotional offer in the past cited two reasons: first, they had learnt of the promotional offer from another member of the social network and second, the promotional offer had been indicated to them by a school age child in the household who cited the printed information on the package after the purchase. In the case of the latter, the purchaser would then have to reach out to the store keeper after the purchase trip, to redeem the offer.

Low awareness of current promotional offers. Related to the low level of marketplace literacy, most study informants also exhibited a low level of current promotional offers. When prompted by the interviewer to check awareness of a few current promotional offers in the FMCG category, several informants indicated no knowledge of any of the offers. Interestingly, almost all participants understood the concept of the various promotional offers popular in the FMCG category. Since most individuals didn't own a television at home, there was no access and subsequent knowledge of any sales promotional offers via this media channel. Outdoor advertising and in-store display were equally ineffective since most informants were unable to read it. For some informants who had made a product purchase motivated by a promotional offer it was because the information had been provided by a member of the social network or for most, by the store owner. Overwhelmingly, most study participants indicated that the store owner was the sole provider of any information regarding a promotional offer in the past. In showing sensitivity to in-store display which subsequently limits the consumers' search for promotion outside of the store environment, BoP consumers exhibit passive deal proneness as explained by Schneider (1991).

Deep rooted brand loyalty. All study participants overwhelmingly exhibited a strong sense of brand loyalty. When asked to name the brand in selective FMCG categories such as bar soap, hair shampoo, toothpaste etc., almost all interviewees identified a single brand that they purchased on a continuous and loyal basis. Most interviewees stated that they didn't seek variety in these products and repurchased the same brand with a deep sense of commitment denying a substitute when the brand of choice was not available in the store. Almost all study participants explained their brand loyalty as one that was grounded in the purchase behavior of the family and members of the social network.

Several of them recounted that their family and friends had introduced them and purchased the brand for years and it wouldn't be appropriate to change that, where defecting or changing to a brand would be perceived by the self as a deceitful act. This form of loyalty that is tied to the family influence or lineage has been studied in the context of brand loyalty (Olsen, 1993). The role of family influence in consumer decision making lies in the concept of consumer socialization which explains how young individuals develop consumer related skills, knowledge and attitudes (Moschis & Churchill Jr., 1978; Ward, 1974). However, though consumer socialization has the biggest impact in the childhood years, the process does continue during the adult life cycle (Brim, 1968; Moschis, 1987) and into the elderly years (Smith & Moschis, 1984) as grown-ups adults make changes to current consumption preferences and behaviors and adopt new ones in the marketplace. The same is the case for BoP consumers who might be migrants from the rural areas to the city and learn consumer related skills and attitudes akin to a child.

Withhold promotional offer by the kirana store keeper. All study participants shopped at the local neighborhood independent retailer for all non-durable products for both personal and household needs. These retailers are frequently referred to as "kirana" in Mumbai and "modi" in Kolkata. The "kirana" retail sector in India is quite fragmented and estimated at

US$437 billion in retail value in 2011(Boston Consulting Group 2012). "Kirana" stores are characterized by a low cost structure, presence in residential areas, consumer familiarity and are family owned and operated (Pratibandla, 2012). These stores are built on a relatively small area and offer a limited range of products that include packaged unbranded commodities like rice, flour, salt, spices etc. along with branded and packaged fast moving consumer goods (Pratibandla, 2012; Singh, 2012). This store format thrives on the socio- economic model of repeated interactions with customers in a close geographical proximity – this resulting in trust arising through repeated interactions (Pratibandla 2012).

Several informants in the study shared during the interview that the "kirana" store keeper would withhold the product premium that was offered with the purchased product. For example, if the toothpaste had a promotion to get a tooth brush for free, the store keeper would not pass the promotion with the purchase of the toothpaste. The following sample verbatims provide additional evidence of the above:

Abeda (female, approximately 50-56 years*), "Yes, it has happened. Sometimes, at home our children notice it but when we return to the shop then he does not give the offer product. There is nothing that we can do about it."*

Savitri (female, 55 years), *"Otherwise, I go to my son and if I get to know that the free items have not been given to me then I fight with the shopkeeper and get it for myself. Earlier, we got a jug free on a bottle of Horlicks. Then I also got a toy car on offer with it once but next time the shopkeeper did not give it because the offer had ended."*

Shamsun (female, 46 years), *"yes, one day I bought 1 kilo Surf pack and it had head & shoulder shampoo free, but I did not get."*

One might speculate that the store keepers would then sell the promotional items (here, tooth brush) separately to a different consumer for additional revenue. Only study participants that had a literate household member (mostly a child in school), if asked, would notice that a promotional offer was available with the product based on the information printed on the product package. Several informants indicated that they often did not ask the literate household member to check on all purchases and therefore, it is likely that this practice had a much higher incidence rate than what was reported in the interviews. Interestingly, if and when the study participants learned of the withheld promotional offer, they would immediately contact the "kirana" store keeper to ask for it. The first response from the store keeper would be to reply that the promotional offer was not valid and demand evidence in the form of product package. Several study informants indicated that they would not receive the offer because the product package had been disposed. In the event when the product package was available and presented as evidence, the "kirana" store keeper was prompt to frame it as an oversight and offered the promotional offer to the buyer.

Low Incidence of Deal Specificity

Study results show a low level of incidence of deal specificity, when deal prone, to selective domains. Results show that three promotional offers are most well received by the BoP consumer – price discount (for example, 25% off), volume discount (A four pack for the price of three) and a product premium (get earrings with the purchase of a fairness cream). We explain the presence of deal specificity by attributing it the concept of value – hedonic and utilitarian to the consumer. Both price and volume discount provide monetary value in addition to utilitarian benefits to the consumer. In this, such promotional offers allow the BoP consumer to upgrade to a better brand with relaxed budget constraints, value expression of being a value-seeker or responsible buyer and the overall enjoyment of receiving a deal (Chandon et al. 2000). Consistent with the research by the above authors, our study also found that monetary promotions are most effective for utilitarian products while nonmonetary promotions fit best with hedonic products. Therefore, the product premium offer was most popular in the personal hygiene category particularly cosmetics for the female population. We believe that redeeming a product premium was tied to the hedonic value of fulfilling needs related to exploration, variety, and information (Chandon et al. 2000) which fit best with the cosmetics and personal hygiene categories amongst females. Interestingly, our study revealed that product premiums had the highest level of awareness amongst the young, female participants who had redeemed the offer for purchase of discretionary and hedonic products such as fairness cream or another facial product.

DISCUSSION AND CONTRIBUTION

This study carries significant implications for both domestic and multinational companies that market fast moving consumer goods in the BoP market. Important steps need to be taken by companies in revising their promotional strategy, especially to recognize the low level of deal proneness and in customizing the promotional materials to fit the level of marketplace literacy prevalent in the BoP segment. This study holds significant implications for FMCG marketers in India who have increased promotional spending without tangible evidence of its efficacy amongst the BoP segment. A revised marketing communication strategy that integrates the knowledge from this research should inform and empower the BoP consumer. Given that BoP consumers are brand loyal, we recommend that companies should divert funds from sales promotional offers that are ineffective with the BoP segment and channel it towards creating loyalty programs that reward them. Though loyalty programs are prevalent and widespread in the Indian marketplace, most of them are modeled on their counterparts from the western world and assume a level of marketplace literacy that is uncommon to the BoP segment. Therefore, marketing funds for companies that target the BoP would be more effective if they are invested in rewarding loyal behavior than ones that provide short term incentives to purchase and are designed to stimulate switching behaviors.

This research raises the need for marketers to recognize the heterogeneity of BoP consumers when compared to western counterparts and the different nature of decision making and responsiveness to promotional offers. The findings here suggest that marketers of consumer non-durable products, mostly large multinational companies, need to customize marketing strategies to acknowledge the impact of resource constraints and abundance common to BoP consumers. One area in which marketers can benefit from this research is marketing communication. Given that the social network and kirana owner influence product purchase, companies might want to deliver product knowledge in a way that uses the above channels to disseminate information instead of media channels to reach the BoP consumer. The distribution strategy of consumer marketers might also benefit from this research. Given the reliance on the social networks of BoP consumers' market information, companies might choose to introduce a direct distribution system where consumers purchase products from a member of their community who also serves as the distributor for the company, instead of purchasing through the kirana store. This member of the social network would then be more sensitive to the economic constraints of BoP households and would strive to make the product available at the lowest price possible. Companies can also revise the product strategy to ensure that product quality is a dependable attribute for BoP consumers. This may be achieved by executing marketplace literacy education program to empower the BoP consumer with a better understanding of marketplace exchanges and allow them to gain control over their role as a consumer by becoming more informed of the marketplace environment. Research by Viswanathan et al. (2009) reveals that the benefit of providing information and education to the poor lies in their empowerment and not in protection from exploitation or harm.

This study brings to the forefront the ongoing concern amongst marketing researchers and practitioners of the widespread exploitation that the poor face. It has been established that the poor are vulnerable and constrained by their lack of education, income, opportunity and access of markets (Santos & Laczniak, 2009). Though most of the above concerns surrounding the issue with exploitation has been directed at multinationals in the literature, this study draws attention to small scale domestic retailers who also exploit vulnerable BoP consumers. Therefore, two key questions arise that will need further attention and research: first, is it the responsibility of the multinationals and large domestic organizations who rely on the "kirana" store network to market and distribute their products to the BoP to address exploitation and curb the unethical practices? Second, do public policy makers have a role to play in this situation?

Therefore, the findings from this study carry significant implications for both domestic and multinational companies that market fast moving consumer goods (FMCG) in the BoP market. First, important steps need to be taken by companies in revising their distribution strategy, especially in training and selection of regional distributors who might make the decision to allow or reject "kirana" stores when found engaging in unethical practices. We propose that companies might want to institute a system of unannounced inspection for license renewals of "kirana" stores. However, we offer this suggestion clouded with a deep sense of skepticism since widespread corruption and the lack of a legal enforcement infrastructure would make any such regulatory measure unviable. An alternative to a punitive strategy (as suggested above) might also lie in increasing awareness amongst the "kirana" store owners of a company's ethical policy and ramifications of its violation. Second, companies might also need to revise its marketing communication strategy to inform and empower the BoP consumer in marketplace literacy as a mechanism to prevent consumer exploitation (Viswanathan et al. 2009). A marketplace literacy education program will empower the BoP with a better understanding of marketplace exchanges and allow them to gain control over their role as a consumer by becoming more informed of the marketplace environment. This is opposed to the long term view in consumer policy in less developed countries that advocates consumer protection, followed by information and education (Kaynak, 1982; Thorelli, 1981). They offer three reasons for the opposed point of view: first, information and education will empower the poor to become aware and comprehend different realities which becomes inhibited due to the prolonged subsistence way of life. Second, in contrast to Thorelli's (1981) "seller chicanery and buyer poverty" syndrome, subsistence marketplaces are characterized by "buyer-seller poverty and interdependence." An information and education approach to consumer policy will then address the interdependent consumer-entrepreneur empowerment duo. Third, corrective and protective measures designed to protect the consumer mostly works in organized business sectors and markets. In subsistence markets, such regulatory initiatives might be less effective where dishonest and unethical market practices are sporadic and random, such as adjusting the weight or exchanging an incomplete product in response to a lower than acceptable negotiated price.

Additionally, others argue that businesses that are successful in subsistence marketplaces are ones that adopt a strategic intent versus a market expansion motivation(Elaydi & Harrison, 2010). Research by Bang and Joshi (2008) in the area of BoP defines market expansion as an extension of a product category by converting non users into users along with an increase in the usage rate of the product. The authors use the example of FMCGs in India as an example of companies that have adopted a market expansion strategy. Companies with a market expansion motivation are focused on increasing sales revenue and market share for which subsistence markets present tremendous potential. The same authors also argue that the success of companies with a market expansion strategy is moderated by consumer ability which is determined by customer competence, knowledge and skill, all correlated with literacy levels. However, low levels of literacy amongst subsistence consumers reduce the ability to interpret new product information, and therefore might restrict the firm's ability to penetrate and be successful in these markets. Drawing on the work of Hamel and Prahalad (1989) on strategic intent that focuses on a long term "what is possible" strategic view, Elaydi and Harrison (2010) describe the strategic intent motivation in terms of "…attempts to empower firms with limited resources or in a limited resource environment to think beyond limitations and approach the environment from a 'what we can create' perspective" (p. 653). They argue that firms that are motivated by strategic intent will be successful because under this approach firms with a long term orientation choose to work with the poor with limited resources and choose to grow with them. According to Elaydi and Harrison (2010), firms motivated by a market expansion strategy "…may exploit consumers with low consumption ability and have little or negative impact on poverty alleviation" (p. 655). They suggest that firms that want to enter subsistence markets should ask the following questions of themselves: "why are we entering this market, what do we hope to accomplish, and what will be the long term impact of our presence" (p. 655).

Finally, this research makes a contribution to the call for research using the transformative consumer research (TCR) perspective which seeks to enhance "life in relation to the myriad conditions, demands, potentialities, and effects of consumption" p. 6 (Mick, 2006). The purpose of the TCR agenda is to generate insights into poverty alleviation by understanding consumption by the poor. In the area of consumer decision making, the TCR approach advocates to help the poor become better decision makers by customizing market information to fit their cognitive and emotional abilities (Blocker, Ruth, Sridharan, Beckwith, & Ekici, 2011). This is important since though the poor are subject to the same set of factors in decision making as their affluent counterparts, a bad decision carries far greater impact for the former, thus exacerbating their vulnerability in the marketplace. We hope that the findings of this study and suggested implications for marketing practice will have help improve the well-being of the poor, reduce their vulnerability through innovative marketplace interventions which in turn will empower the poor consumers.

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A MULTI-OBJECTIVE OPTIMIZATION APPROACH USING THE RFM MODEL IN DIRECT MARKETING

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ABSTRACT

Given the vast amount of data generated by customers' online and offline purchases, many organizations today are turning to data analytics to help design their direct marketing campaigns and introduce personalized promotions for customers. Data analytics allows companies to implement more effective market segmentation strategies, customize promotional offers, allocate marketing resources efficiently, and improve customer relationship management. The implementation of such strategies is often hampered by limited budgets and the ever-changing priorities and goals of marketing campaigns. This paper suggests and demonstrates the use of a goal programming approach to determine which customer segments should be targeted to achieve profit maximization given various priorities and budget constraints for a hypothetical direct marketing campaign. Using historical data, the proposed model identifies customer segments based on the classic RFM model—i.e., recency, frequency, and monetary value profiles. Then, considering different marketing priorities, the goal programming model helps identify the profile segments most worthy of pursuit. Real marketing data are used to illustrate the proposed approach.

Keywords: Multi-Objective Programming, RFM, Direct Marketing, Data Analytics

INTRODUCTION

Direct marketing is all about customer data: their characteristics, their buying habits, and their buying potential. Data is obtained from many sources, including internally generated data, public databases, and third party list vendors. The widespread use of data analytics by many direct marketing firms allows them to use this customer data to fine-tune their marketing strategies with precision and accuracy. Data analytics involves the strategic and extensive use of data and quantitative analysis to improve business decision making (Davenport and Harris, 2007, 2010). Customer data and data analytics are especially important in direct marketing because they are used to help firms improve response rates, conversion rates, and campaign profitability (Davenport and Harris, 2007; Dyer, 2003; Hambleton, 2013).

One particular analytical tool used frequently in direct marketing is the RFM model. The recency-frequency-monetary value (RFM) framework leads to highly effective direct marketing campaigns by enabling companies to categorize customers into homogenous segments based on their previous purchasing behavior and then design highly customized promotional campaigns to reach those customers. According to this approach, customer data on the recency of purchase (R), frequency of purchase (F), and monetary value of purchase (M) are captured and stored for each customer. Then, customers with similar values are grouped together, and targeted promotional offers are created to reach them. For example, if a given customer segment shows a low value for recency and relatively high values for frequency and monetary value, these customers are typically approached with a “we want you back” marketing strategy. If a given customer segment shows a low monetary value and high values for frequency and recency, a more relevant “up-selling” marketing strategy could be designed to generate additional sales revenue.

The RFM model typically assumes unlimited marketing resources, however, and suggests that a company can reach all its customers, even customers with less than optimal RFM scores. Clearly, most organizations operate under yearly budget constraints, and therefore such assumptions are impractical. Adding optimization to the well-known RFM approach to help allocate resources most effectively was recommended by Fader et al. (2005b) as an important next step for future research.

In addition, the importance of the R, F, and M components in the RFM approach for a given marketing campaign might not be the same. For example, a company trying to improve its customer retention rate might be interested primarily in recency, i.e., prioritizing the return of lost customers who may have defected to the competition. For the same campaign, frequency and monetary values might be second and third priorities, respectively. When confronted with both spending limits and differing goals, marketing managers should allocate marketing resources toward those customers with the greatest long-term profit potential.

This research proposes a multi-objective optimization methodology based on a goal programming (GP) approach to profit maximization for direct marketers using RFM data. One unique characteristic of this (GP) model is the inclusion of varying direct marketing objectives as well as corresponding budget constraints.

In addition to balancing marketing priorities with marketing budgets, companies must also strive to achieve a balance between two types of errors for any given campaign: Type I and Type II. A Type I error would occur when organizations ignore customers (mistakenly) who could have returned and repurchased, thereby providing the firm with additional revenue and profit. Type II errors occur when companies (unknowingly) target customers with their marketing campaigns who are not ready to purchase (Venkatesan & Kumar, 2004). The model proposed in this research creates a balance between a Type I and a Type II error by identifying the proper RFM segments to target. It also identifies the RFM segments which should not be pursued because they are: a) not profitable; b) do not align with marketing priorities; or c) strain the marketing budget. That is, the model can help direct marketing firms maximize profitability by determining whether they should continue spending on (or curtail their relationships with) given RFM customer segments. A unique contribution of this research is that RFM data are incorporated into a GP approach that includes both marketing goals and budgets to determine the most profitable customer segments to target.

The research paper is organized in the following manner. First, a brief overview of data analytics in direct marketing is provided, along with the RFM framework. The next section discusses the GP formulation to customer profitability utilizing RFM data and provides the GP mathematical formulation of the model. Variations of the model are shown through the use of purchasing data from a CDNOW dataset[1] containing almost 7,000 records. Research conclusions are then presented, and implications of the goal programming approach to profit maximization are discussed

DIRECT MARKETING AND DATA ANALYTICS

Overview of Data Analytics

Using data to make decisions is critical to superior business performance. Yet, another 2.5 quintillion bytes are added to the data universe every day (Edala, 2012). This includes over 350 billion corporate emails, 400 million tweets, and one billion Facebook posts (Hambelton, 2013). The era of big data is here.

Despite vast quantities of data, however, a survey of 254 U.S. business managers found that 40 percent of major business decisions are made according to managers' gut or intuition, not on the basis of fact (Accenture, 2008). Data analytics refers to the strategic and extensive use of data, quantitative analysis, and explanatory and predictive models to make better decisions and take right actions (Davenport and Harris, 2007, 2010). Stated another way, data analytics refers to the use of analysis, data, and systematic reasoning to make decisions (Davenport et al., 2010). It is considered a subset of business intelligence which is the set of "technologies and processes that use data to understand and analyze business performance" (Davenport and Harris, 2007, p. 7). Business intelligence includes data access and reporting as well as data analytics.

The critical point is that data alone is insufficient. The true value of data analytics is the analysis of that data to improve business decisions and the subsequent actions an organization takes as a result of that analysis. Used properly, data analytics can help firms anticipate and respond quickly to changes in the marketplace, improve their competitive standing, and achieve important goals such as profit maximization (Franks, 2012). More specifically, it can help firms optimize prices (Advertising Age, 2013), reduce costs, improve efficiency, manage risk, and in the long run, dramatically improve a company's decision-making process and outcomes (Davenport et al., 2010).

Data Analytics and Direct Marketing

Direct marketing firms collect huge quantities of customer data such as contact information, demographics, geographic data, lifestyle data, financial data, purchase history,

[1] Source: http://www.brucehardie.com/datasets/

preferences, media usage, and more. Today's digital world has opened up new marketing channels to direct marketers (e.g., social, mobile, email, and location-based marketing), but that also means more data coming from more sources—internal and external, online and off-line. Yet integrating customer data from across marketing channels is the number one challenge for customer intelligence professionals (Sridharan, Frankland and Smith, 2011). Even with enterprise resource planning (ERP) systems to help integrate data across business functions, companies still need to access and analyze data from a variety of systems to make better decisions (Davenport et al., 2010,).

Thus, successful direct marketing requires a substantial investment in big data and data analytics. In fact, marketers' external costs of data intelligence and software in the U.S. were around $60 billion in 2011 (Brinker, 2012). Notably, this does not include in-house expenses of marketing intelligence such as IT departments, data analysts, or CIOs. Big customer data and data analytics are especially important to direct marketers because they help increase response rates, conversion rates, total sales, and the ROI of marketing campaigns (Davenport and Harris, 2007; Dyer, 2003; Hambleton, 2013). And when data from loyalty programs is mined, analytics can be used to increase customer loyalty and retention (Hambleton, 2013; Sridharan et al., 2012).

To do so, however, direct marketers need flexibility when designing promotional campaigns. Flexibility in campaign management allows for more targeted, specific, customized, and personalized marketing offers, all of which lead to higher response rates (Franks, 2012). The ability to customize offers and messages depends on having customer data that is accurate, accessible, timely, relevant, and fully integrated with other marketing and operational data. Data analytics can then help the creation of many different marketing campaigns, utilizing variables such as customers' demographic characteristics, credit scores, or previous purchases (Martinez, 2011). Campaign results are collected and stored, then used to fuel the next analysis and the next customized marketing campaign.

To enable such customization, direct marketing managers need customer data to create sets of potential buyers, i.e., to generate a list for its promotions. One way to generate a customer list is to use a scoring model. Scoring models rank customers according to a set of predetermined criteria, assign a score to each customer, and then group customers with the same or similar scores so as to send them a specific type of promotion. Some scoring models are quite simple; others involve complex statistical analysis. A well-known and popular scoring model used in direct marketing is the RFM model.

Direct Marketing and the RFM Model

As noted earlier, using RFM involves choosing customers based on when they last purchased (recency), how often they purchased (frequency), and how much they spent (monetary value) on past purchases (Blattberg et al., 2009; Fader et al., 2005a; Rhee & McIntyre, 2009). The RFM criteria are used frequently because, as measures of customers' prior behavior, they are key predictors of their future purchase behavior (Berry and Linoff, 2004; Bolton, 1998; Fader et al., 2005b; Malthouse and Blattberg, 2005; Sridharan et al., 2012).

Many firms consider recency especially important because a long period of purchase inactivity can be a signal that a customer has permanently ended his/her relationship with the firm (Dwyer, 1989). Accordingly, many companies will assign maximum value to recency, with lesser importance attached to monetary value and frequency (Reinartz & Kumar, 2000; Venkatesan et al., 2007). Regarding the monetary value of customer purchases, sometimes the average purchase amount per customer transaction is used rather than a total (e.g., Fader et al., 2005b). Customers are then categorized by their RFM probabilities to indicate their profitability potential. They are subsequently selected (or not selected) for the next direct marketing campaign based on this profit profile. Thus, RFM analysis helps guide marketing resource allocation in a way that maximizes profitability (Venkatesan et al., 2007).

The RFM model has been used for many years as an analytical technique, even though more sophisticated methods have been developed recently. It has the advantage of simplicity (McCarty & Hastak, 2007), and many data mining algorithms are based on the RFM framework. The research described here combines RFM data with marketing budget constraints, and then uses a goal programming approach to evaluate a direct marketing campaign. The analytic model can be used to guide marketing spending vis-à-vis various customer segments, i.e., either continue investing in or scaling back investments in any given RFM segment. A novel characteristic of this approach is the combination of marketing priorities and preferences for given customer segments while recognizing the reality of annual spending limits on direct marketing programs. In addition, in the complex area of data analytics, the RFM framework offers even small firms with limited resources the opportunity to use data analytics fairly easily and capably.

Another contribution of this research is that RFM data is incorporated into a GP approach into a single model for all customers who are potential targets of a direct marketing campaign. A previous approach (e.g., Bhaskar et al., 2009) utilized mathematical programming (MP) and RFM analysis in a study of personalized promotions for multiplex customers in a customer loyalty program, incorporating business constraints. However, the algorithm in the Bhaskar et al. research separated RFM analysis from mathematical programming. RFM was used for non-recent customers, and MP was used for current customers. This research incorporates everything into a single model.

GOAL PROGRAMMING FORMULATION

The GP Approach

Goal programming is a multi-objective mathematical programming approach in which there are a number of objectives, and some of them are treated as constraints instead of objectives. When developing a specific direct marketing campaign, managers must determine their cutoff points for recency (R), frequency (F), and monetary values (M) with the goal of maximizing customer profitability within a limited budget. If a manager is not concerned about F and M, then a simple linear program to determine the cutoff point for R can be generated. This solution will generate a maximum profitability of, let's say V_R.

Similar calculations show that the maximum profit for the cutoff value of F is V_F, and the maximum profit for the M cutoff point is V_M. The modeler could take each of the values V_R, V_F, and V_M as marketing "goals" and try to find a solution that comes closest to all of the goals. Since it may not be possible to reach all goals simultaneously, the modeler should create a set of penalties for not reaching each goal. This penalty would depend on the importance of reaching a particular segment. If the modeler values R more than F, and then F more than M, the penalties could be P1, P2, and P3 respectively, where P1>P2>P3>0. The modeler then creates a new set of variables s_1, s_2, and s_3. The problem can then be formulated as:

$$\text{Minimize } Z = P1s_1 + P2s_2 + P3s_3$$

subject to:

$$\{\textit{objective function of the R model}\} + s_1 = V_R$$
$$\{\textit{objective function of the F model}\} + s_2 = V_F$$
$$\{\textit{objective function of the M model}\} + s_3 = V_M$$
$$+ \textit{ all constraints in the original LPs (including budget constraints)}$$

In order to illustrate the GP model, a sample of a CDNOW dataset, as used in Fader et al. (2005a), is utilized. The sample consists of historical buying data for 2,357 customers. It contains 6,696 records. Each individual record contains a customer ID, a transaction date, and a dollar value for each transaction. This data set was previously used to show how Excel could be employed to automate calculation processes when grouping customers into various RFM segments (Fader et al., 2005a).

Notations Used for the Optimization Models

i = *1... 5* index used to identify the group of customers in a given recency category;
j = *1…5* index used to identify the group of customers in a given frequency category;
k = *1…5* index used to identify the group of customers in a given monetary category;
V = expected revenue from a returned customer;
p_i = probability that a customer of recency i makes a purchase;
p_j = probability that a customer of frequency j makes a purchase;
p_k = probability that a customer of monetary group k makes a purchase;
N_i = number of customers who are presently in recency i;
N_j = number of customers who are presently in frequency j;
N_k = number of customers who are presently in monetary group k;
C = average cost to reach a customer during the direct marketing campaign;
B = budget available for the direct marketing campaign.

Model Formulation for the Recency Case

Let the decision variable for this case be a 0-1 unknown variable as follows:

x_i = 1 if customers in recency i are reached through the direct marketing campaign;
0, otherwise.

Using the above notations, a 0-1 mixed integer GP formulation is presented:

Maximize:

$$Z_r = \sum_{i=1}^{R} N_i (p_i V - C) x_i \qquad (1)$$

subject to:

$$\sum_{i=1}^{R} N_i C x_i \le B \qquad (2)$$

$$x_i = \{0,1\} \qquad i = 1 \ldots R \qquad (3)$$

Equation (1) is the objective function. It maximizes the expected profit (Z_r) of the direct marketing campaign. As noted earlier, a customer in a state of recency i has a p_i chance of purchasing and a $(1- p_i)$ chance of not purchasing. The profit from a customer who purchases is calculated as $(V - C)$. When a customer does not purchase, the expected profit is simply $(-C)$. Therefore, the expected value of the profit from a single customer in state i is:

$$p_i (V - C) + (1 - p_i)(-C) \qquad (4)$$

This can be simplified to:

$$p_i V - C \qquad (5)$$

Since there are N_i customers in the recency i, the expected profit from this group of customers is:

$$N_i (p_i V - C) \qquad (6)$$

Thus, (1) indicates the sum of profits for all groups of customers for which a marketing decision to advertise to them ($x_i=1$) is made. Equation (2) assures that the available budget for the campaign (B) is not exceeded. The actual cost of the marketing campaign is represented on the left side of the equation, which is calculated as the sum of campaign costs for each group *i* of customers. Equation (3) represents the binary constraints for the decision variables x_i.

Solving the Model for the Recency Case

The model is applied as follows. Customers are first placed into five groups in which group one represents those customers with the *least* recent purchases, and group five consists of those customers who have purchased *most* recently. Then, the total number of customers belonging to each group can be determined using a pivot table. Pivot tables can also be used to calculate the probability (p_i) that a customer in group *i* will make a purchase.

Appendix A shows that, given a campaign budget of B= \$12,500, a cost to reach a customer of C= \$7.50, and the average revenue from the purchasing customer of V= \$35, the company should only select customers of recency 3, 4, and 5 for future promotional efforts. This solution will generate a total profit of \$24,851 (see Appendix A).

Model Formulation for the Frequency Case

In this section, *frequency* is considered as a dimension in our 0-1 GP model. Again, the goal is to stay within the marketing budget constraints while maximizing the profits from potential customer purchases.

Let the decision variable for this case be a 0-1 unknown variable as follows:

x_j = 1 if customers in frequency *j* are reached in the promotional campaign;
0 otherwise.

The 0-1 mixed integer GP formulation is presented for the Frequency Case:

Maximize:

$$Z_f = \sum_{j=1}^{F} N_j (p_j jV - C) x_j \qquad (7)$$

subject to:

$$\sum_{j=1}^{F} N_j C x_j \le B \qquad (8)$$

$$x_j = \{0,1\} \qquad j=1 \ldots F \qquad (9)$$

The objective function which maximizes the expected profit (Z_f) of the marketing campaign is shown in Equation (7). Equation (8) assures that the available marketing budget *B* for this campaign is not exceeded. The left side of the equation represents the actual cost of the campaign, which is calculated as the sum of campaign costs for each group *i* of customers. Equation (9) represents the binary constraints for the decision variables x_j.

Solving the Model for the Frequency Case

This case is, of course, applicable to firms where frequency and recency are the only significant values in their marketing campaigns. In these cases, customers are organized first into five groups. Each group G_j contains customers who belong to frequency value *j* (1, 2…, 5). Like the previous example, pivot tables can be used to calculate the probability of purchase (p_j) by a customer in group *j*. The results indicate that customers in the frequency 3, 4, and 5 must be reached. This solution will generate a total profit of \$41,876 (see Appendix B).

Model Formulation for the Monetary Value Case

In this section, the model considers *monetary value*. As in the previous cases, the objective remains the same: maximize profits from potential customer purchases while staying with the annual budget constraint.

Let the decision variable for this case be a 0-1 unknown variable as follows:

x_k = 1 if customers in monetary group *k* are reached;

0, otherwise.

Maximize:

$$Z_m = \sum_{k=1}^{M} N_k (p_k kV - C) x_k \qquad (10)$$

subject to:

$$\sum_{k=1}^{M} N_k C x_k \leq B \qquad (11)$$

$$x_k = \{0,1\} \qquad k=1 \ldots M \qquad (12)$$

Equation (10) is the objective function for the model which maximizes the expected profit (Z_m) of the marketing campaign. As stated earlier, a customer in a state monetary k has a p_k chance of purchasing and a $(1- p_k)$ chance of not purchasing. Equation (11) assures that the available budget for the campaign (B) is not exceeded. The left side of Equation (11) represents the campaign's actual cost, which is calculated as the sum of campaign costs for each group i of customers. Equation (12) represents the binary constraints for the decision variables x_k.

Solving the Model for the Monetary Value Case

Appendix C provides a summary of the optimal solution for the monetary model. This figure shows the profitable segments for the firm. The results indicate that any future direct marketing campaign must exclude the customer segments with monetary values of M=1, M=2, and M=3 as they are clearly unprofitable. This solution will generate a total profit of $51,858 (see Appendix C).

Incorporating Priorities into the Model

The above three models indicate that M is the most important variable of the RFM framework as the total profit generated is the highest at $51,858. However, the marketing department is interested in investigating the impact of setting the following priorities:

- Priority 1 (P1 = 200): Recency
- Priority 2 (P2 = 100): Frequency
- Priority 3 (P3 = 50): Monetary Value

The following is the GP formulation which minimizes the penalties of not reaching the marketing goals.

Minimize $Z = 200s_1 + 100s_2 + 50s_3$ (13)

subject to:

$$\sum_{i=1}^{R} N_i (p_i V - C) x_i + s_1 = V_R \qquad (14)$$

$$\sum_{j=1}^{F} N_j (p_j jV - C) x_j + s_2 = V_F \qquad (15)$$

$$\sum_{k=1}^{M} N_k (p_k kV - C) x_k + s_3 = V_M \qquad (16)$$

$$\sum_{i=1}^{R} N_i C x_i + \sum_{f=1}^{F} N_f C x_f + \sum_{k=1}^{M} N_k C x_k \leq B \qquad (17)$$

$x_i = \{0,1\}$ $\quad i = 1 \ldots R$ $\qquad$ (18)

$x_f = \{0,1\}$ $\quad f = 1 \ldots F$ $\qquad$ (19)

$x_k = \{0,1\}$ $\quad k = 1 \ldots M$ $\qquad$ (20)

In the above formulation, (13) represents the objective function. Minimization of *s1* has priority over minimization of *s2* since *s1* has a larger contribution coefficent (200>100). Similarly, minimizing *s3* has the lowest priority. (14), (15), and (16) represent the new set of constraints added to the model to ensure that previous achievement of profit goals from each respective model (VR= $24,851, VF= $41,876, and VM= $51,858) still need to be achieved. (17) assures that the overall budget (B=$12,500) is not exceeded. Finally, (18), (19), and (20) ensure binary solution values for the decision variables.

Solving the Overall Model

Appendix D shows the optimal solution to the goal programming approach. As seen, the total profit for the solution is $42,274, and the solution suggests that the direct marketing campaign must reach customers with a recency value of 5 and frequency values of 4 and 5. Because priority was given primarily to recency, then to frequency, with the lowest priority given to monetary value, the solution suggests no promotional offers should be based on monetary value.

SUMMARY OF RESULTS

The optimal solutions for four variations of the RFM model proposed here are provided in the data analysis and iullustrated in Appendices A-D: a recency model, a frequency model, a monetary value model, and a full RFM model. The Excel templates for each model are available upon request by contacting the first author.

The optimal solution for the recency model suggests that only customers with recency values of 3, 4, and 5 should be targeted for future promotional efforts. This solution will generate a total profit of $24,851. In the frequency model, the results indicate that any future marketing campaign should be focused on those customers with frequency values of 3, 4, and 5. This solution generates a profit of $41,876. The results for the monetary value model show that additional marketing resources should *not be allocated* toward the customer segments with monetary values of M=1, M=2, and M=3 as they are clearly unprofitable. That is, these segments should not be targeted in a future direct marketing campaign. The monetary value solution will generate a total profit of $51,858.

The optimal solution to the goal programming approach indicates that only customers with a recency value of 5 and frequency values of 4 and 5 should be selected by the firm for future promotional efforts, i.e., additional marketing investment should be made. Customers with recency values of 1, 2, 3, and 4, as well as customers with frequency values of 1, 2, and 3, would be excluded as targets of future campaigns. The total profit for the goal programming solution is $42,274. No priority should be placed on the monetary value data; therefore no differential marketing action should be based on monetary value. Excluding certain customer segments from direct marketing efforts should provide managers with greater ROI for a given marketing investment as greater resources will be available to spend on the most lucrative segments.

CONCLUSIONS AND DISCUSSION

Pressure to maximize marketing return on investment is increasing, and chief marketing officers (CMOs) everywhere have been forced to reduce budgets in recent years (e.g., Wong, 2009). At the same time, the direct marketing industry is currently outpacing the overall economy (DMA, 2013), representing almost 53 percent of all U.S. advertising expenditures in 2012, spending over $168 billion (accounting for 8.7 percent of GDP) and generating a ROI of over $12 for every dollar spent (Direct Marketing Association, 2012). The top five direct marketing agencies earned over $3.5 billion in 2011, and that represented only their U.S. revenue. Thus, direct marketing continues to play an effective and growing role in the overall marketing arsenal of many organizations.

As CMOs are increasingly forced to achieve superior results with inferior budgets, analyzing marketing data and prioritizing marketing spending become even more crucial. Low response rates in direct marketing make budget constraints an even greater challenge for the direct response firm (e.g., 1-4 percent average response for direct mail to outbound telemarketing). Investing scarce resources on customers who are not yet willing to buy (a Type II error) is not only inefficient, but could represent a possible threat to a firm's long-term financial viability (Ferrante, 2009; Venkatesan & Kumar, 2004). The multi-objective optimization approach used in this research achieves a balance between Type I (missing profitable customers) and Type II errors. It helps identify both appropriate and inappropriate RFM segments based on three core characteristics: profitability, marketing objectives, and budget constraints. By finding the most profitable customer segments (given various marketing objectives and spending limits), a GP approach applied to RFM data can provide a firm with optimal solutions to and flexibility in marketing spending decisions—in a single model. Depending upon a given RFM segment's profit potential, a marketing firm can determine whether to continue targeting that segment in efforts to generate even more sales, or whether it should spend its scarce resources on alternative (i.e., more profitable) groups.

This research can therefore be used as a type of scoring model for practitioners to enable the transformation of purchasing history data, i.e., RFM data, into a useful decision model which can be applied to many marketing situations and to any imposed budget limitation. Because this research factors in budget constraints and different marketing priorities, the decision model demonstrated here has considerable long-term utility for maximizing the profitability of customer segments.

This study has limitations, but these can provide avenues for future research in the area. For example, because RFM frameworks represent historical behavior, their ability to accurately capture and predict future behavior and profit potential has been questioned (Blattberg et al., 2009; Rhee & McIntyre, 2009). While predicting any consumer behavior, using any type of model, is inherently uncertain (and this GP model is no exception), accuracy is always a potential limitation when forecasting is based on historical data. As the current model addresses only a six month time period, and Venkatesan et al. (2007) argue that up to three years is considered an acceptable horizon for estimates in customer selection models, this may perhaps mitigate forecasting accuracy concerns. In other words, the shorter the time horizon considered, the less variation there is likely to be between past and future purchasing behavior (i.e., there is less time and opportunity for intervening exogenous variables to disrupt behavioral patterns). As noted by Davenport et al. (2010, p. 159), however, a company must still constantly review and manage its analytical models, be alert to "model decay," monitor relevant external events, and keep track of all competing models.

Ideally, firms will eventually integrate additional customer data with RFM data as RFM focuses on customer purchasing behavior, not necessarily customer *search* behavior. That is, it doesn't consider the value of customer information when no purchase is made. With respect to future data collection, direct marketing managers should consider capturing web browsing data as well as transactional data, e.g., "X percent of customers clicking on Link Y ultimately visited Site Z and purchased Brand A." This helps identify customers' search behaviors, choice criteria, and decision-making paths, all of which help us understand customer behavior better, and therefore predict it more accurately. One European retailer identified products that customers browsed on the company website but did not purchase. Follow up emails were then sent to customers with personalized messages that encouraged purchase and included promotional offers for products viewed but not bought (Franks, 2012, p. 17).

In addition to website browsing, other customer contact points can be valuable as well. For example, customer emails, social networking messages (e.g., Facebook "likes"), and customer phone calls can all indicate customer interest and propensity to buy in the future, thus generating sales and profits for the firm. At the very least, these data could provide a greater understanding of customer behavior which can lead to more effective marketing offers and messages.

Data analytics is a future goal that does not represent present reality for many U.S. firms (Accenture, 2008). Yet sound managerial decision-making relies on effective data analytics. The value of any customer data is in how it's analyzed and then used to inform managers and help them make better business decisions (Franks, 2012). The GP approach used in this RFM analysis offers several advantages to direct marketers. It's simple, easy to use, and can account for a large number of variables, constraints, and objectives.

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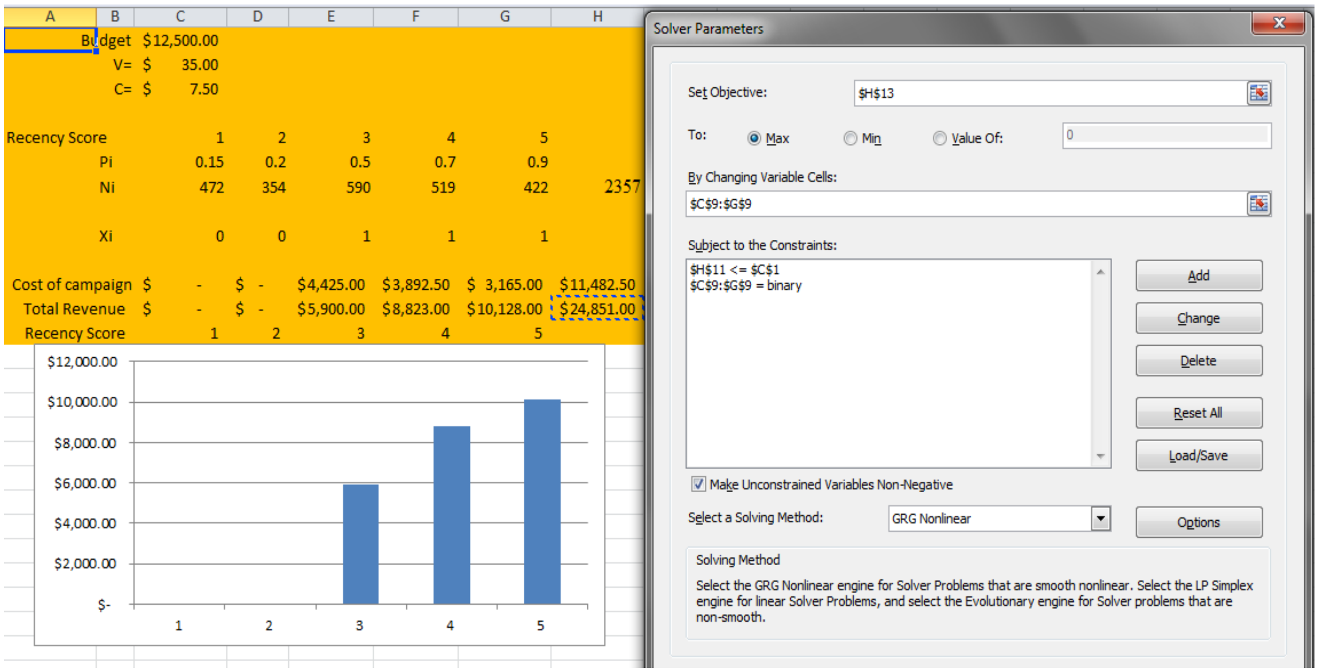
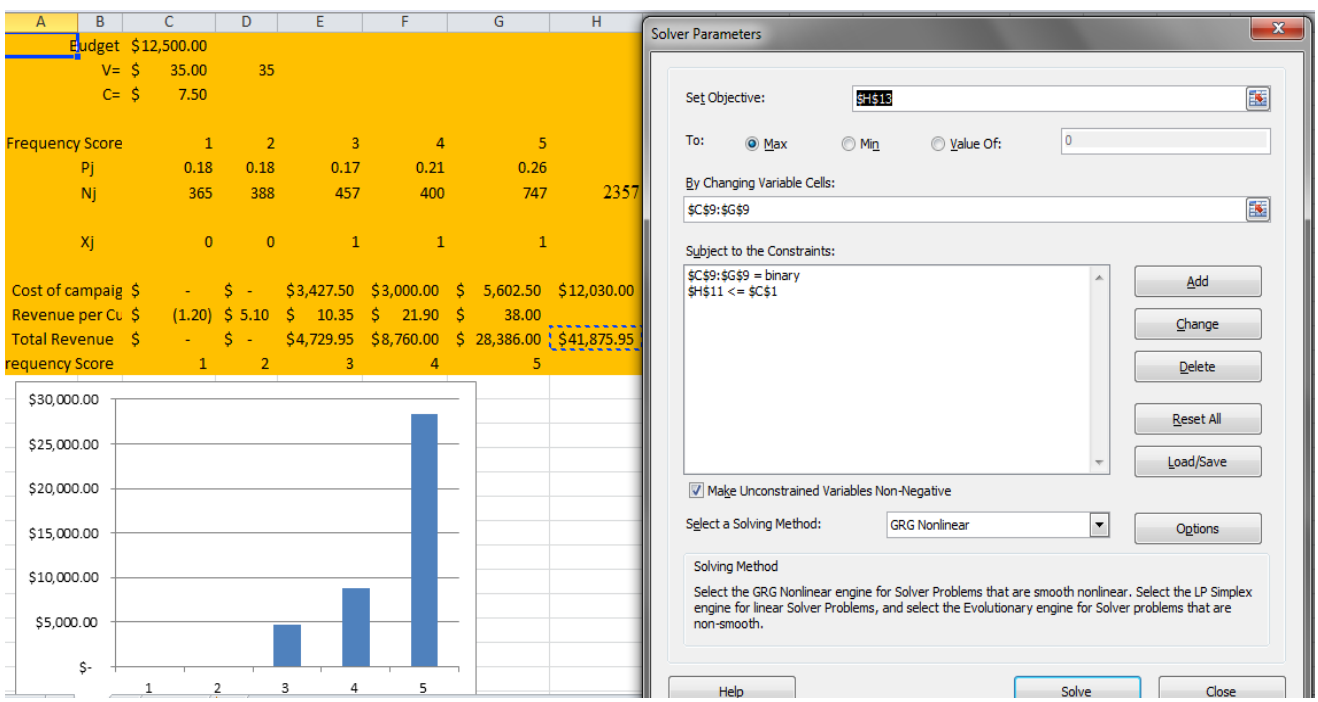
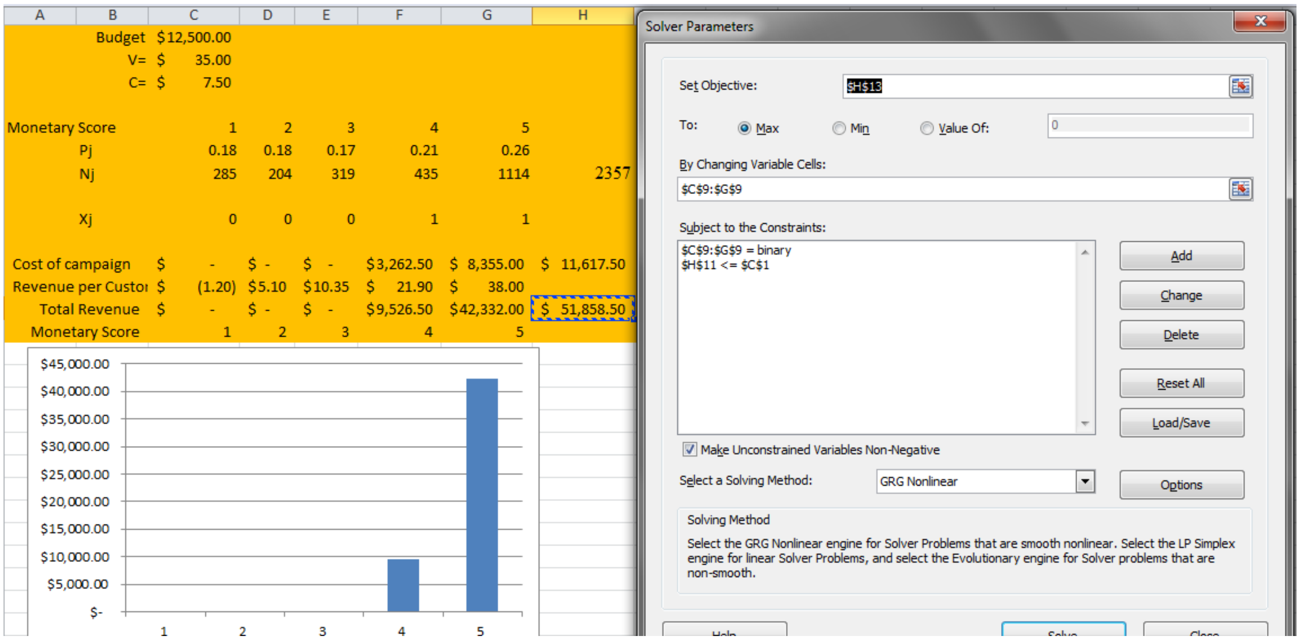
Appendix A: Optimal Solution for the Recency Model



Appendix B: Optimal Solution for the Frequency Model

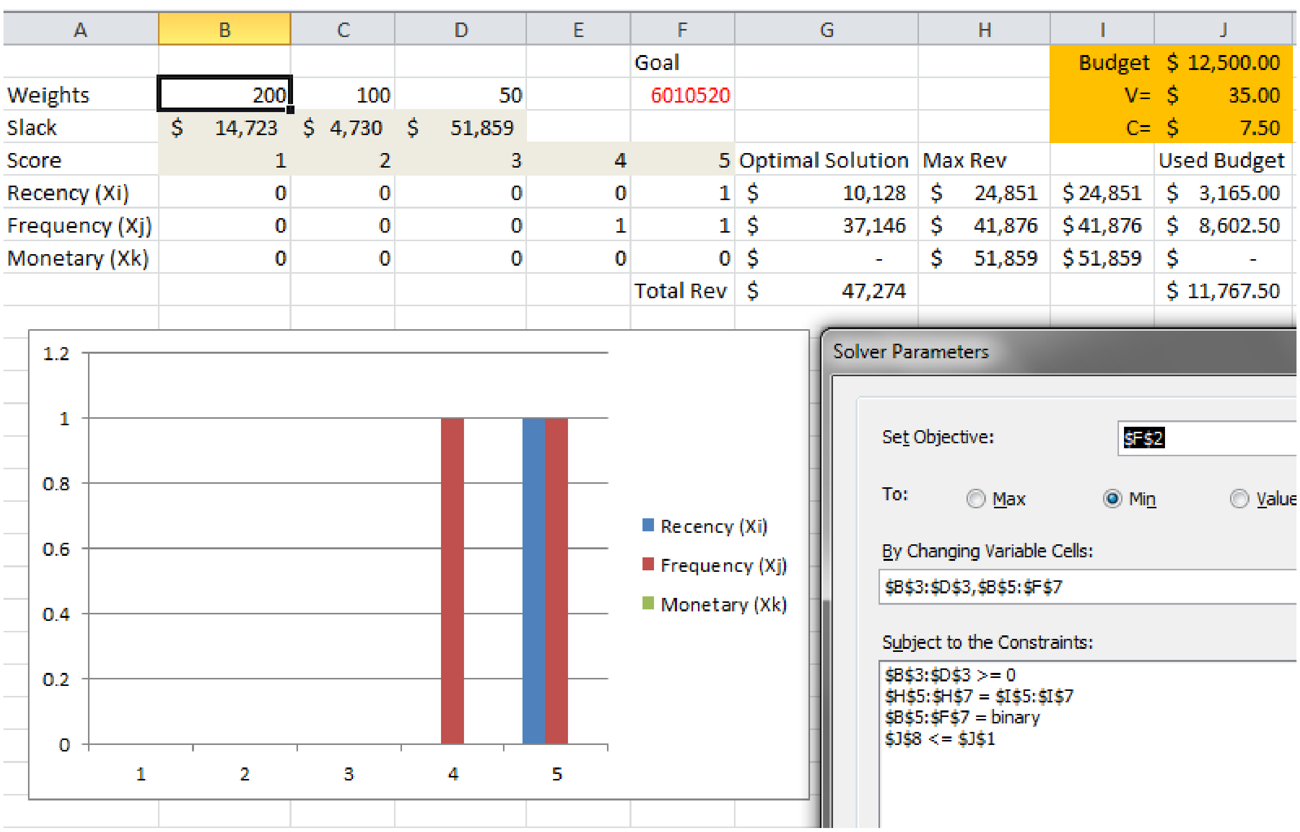


Appendix C: Optimal Solution for the Monetary Model



A	B	C	D	E	F	G	H
	Budget	$12,500.00					
	V=	$ 35.00					
	C=	$ 7.50					
Monetary Score		1	2	3	4	5	
	Pj	0.18	0.18	0.17	0.21	0.26	
	Nj	285	204	319	435	1114	2357
	Xj	0	0	0	1	1	
Cost of campaign	$	-	$ -	$ -	$3,262.50	$ 8,355.00	$ 11,617.50
Revenue per Custo	$	(1.20)	$5.10	$10.35	$ 21.90	$ 38.00	
Total Revenue	$	-	$ -	$ -	$9,526.50	$42,332.00	$ 51,858.50
Monetary Score		1	2	3	4	5	

Appendix D: Optimal Goal Programming Solution



A	B	C	D	E	F	G	H	I	J
					Goal			Budget	$ 12,500.00
Weights	200	100	50		6010520			V=	$ 35.00
Slack	$ 14,723	$ 4,730	$ 51,859					C=	$ 7.50
Score	1	2	3	4	5	Optimal Solution	Max Rev		Used Budget
Recency (Xi)	0	0	0	0	1	$ 10,128	$ 24,851	$ 24,851	$ 3,165.00
Frequency (Xj)	0	0	0	1	1	$ 37,146	$ 41,876	$ 41,876	$ 8,602.50
Monetary (Xk)	0	0	0	0	0	$ -	$ 51,859	$ 51,859	$ -
					Total Rev	$ 47,274			$ 11,767.50

THE IMPACT OF BIG DATA ON YOUR FIRMS MARKETING COMMUNICATIONS: A FRAMEWORK FOR UNDERSTANDING THE EMERGING MARKETING ANALYTICS INDUSTRY

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Steven M. Aukers, DeSales University
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ABSTRACT

This paper studies how the emergence of big data is driving the adoption of broader and increasingly sophisticated quantitative analysis techniques across media channels by large, medium and even smaller sized firms. A new ecosystem of marketing and advertising service firms is emerging. This ecosystem provides information processing services which impact marketing organization spending patterns in much faster time intervals than ever seen in the history of modern marketing. The findings of this study are a direct result of semi-structured interviews of stakeholders in the advertising analytics and related industries during the summer of 2014. This paper is the first paper of a two part series; it provides a consolidated framework and typology intended to help companies and researchers understand the structure of this ecosystem. The second paper will provide detailed quantitative information related to the performance of these marketing information processing services and the required marketing budget to participate. It will also provide insights into qualitative opportunities and challenges that marketing organizations face operating in a big data world.

INTRODUCTION

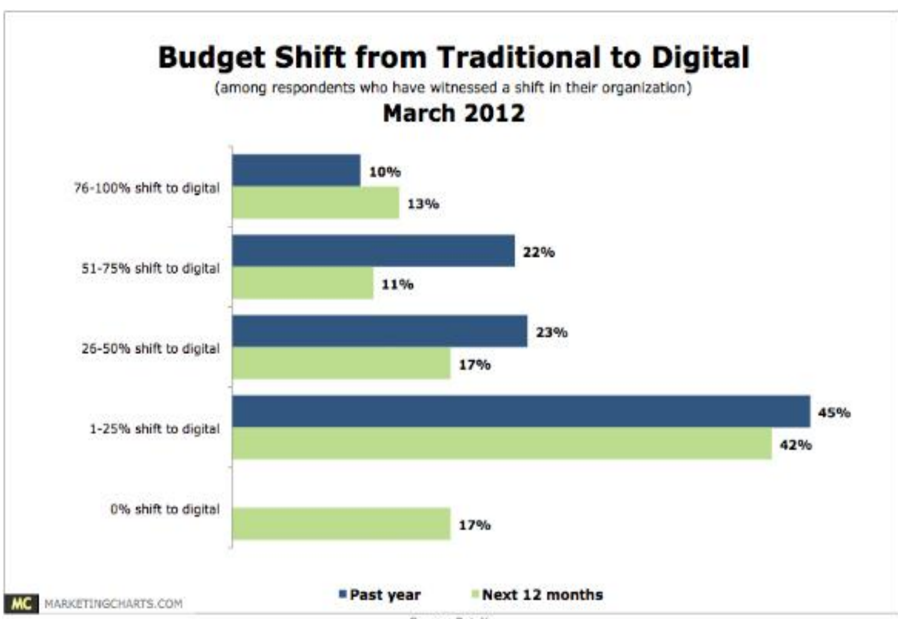
This paper studies how the emergence of *big data* is driving the adoption of broader and more sophisticated quantitative analysis techniques across media channels by large, medium and even smaller sized firms. A new *ecosystem* of marketing and advertising service firms is emerging. This ecosystem provides information processing services which impact marketing organization spending patterns in much faster time intervals than ever seen in the history of modern marketing. The findings of this study are a direct result of semi-structured interviews of stakeholders in the advertising analytics and related industries during the summer of 2014. This paper is the first paper of a two part series; it provides a consolidated framework and typology intended to help companies and researchers understand the structure of this *ecosystem*. The second paper will provide detailed quantitative information related to the performance of these marketing information processing services and the required marketing budget to participate. It will also provide insights into qualitative opportunities and challenges that marketing organizations face operating in a *big data* world.

The emergence of *big data* has produced massive amounts of information related to all kinds of business activity. In January of 2014 the Ellen MacArthur Foundation, in collaboration with McKinsey & Company, had the following to say at the World Economic Forum: “Information technologies (IT) play a key role in enabling the transition towards circular business models. This role ranges from tracing materials and products, organizing reverse logistics and accelerating innovation (with crowdsourcing and information sharing) to mining *big data* (for mapping resource and value flows and tracking indicators to measure progress) (WEF, 2013).

Additionally, the worldwide web consortium (W3C) has been facilitating the evolution of the internet from a so-called web 2.0 world (characterized by interaction and collaboration) to a semantic web or so-called web 3.0. The W3C is the international standards body of the World Wide Web. According to the W3C, "The semantic web provides a common framework that allows data to be shared and reused across application, enterprise, and community boundaries." The term was developed by Tim Berners-Lee for a web of data that can be processed by machines. (Berners-Lee, T. et-al, 2001) Berners-Lee is often referred to as the inventor of the worldwide web and is the currently the overall Director of the W3C.

This semantic web evolution to web 3.0 is well in progress, and as a result, various entities are collecting and using knowledge about network users - ostensibly for the users' convenience and benefit. This networked data collection is often referred to as *big data* (Lohr, 2012; Manyika et al, 2011; McAffee and Brynjolfsson, 2012) and is readily available to marketers and advertisers. Progressive marketing companies are obtaining access to this data and focusing their attention on individual and collective consumer habits and preferences. Those same progressive organizations are also shifting more of their advertising budgets to online marketing (Nielsen/IAB, 2012; Moorman, 2014; SoDA Report, 2014). The shift is happening because online advertising can be more cost effective and consumers are spending more of their time consuming media in online vs. traditional (i.e. TV, terrestrial radio, print) venues. See Figure 1 below.

Figure 1: Budget Shift from Traditional to Digital



The top storyline from 2012 in Advertising Age is simply titled *Data Dominates*. It is summarized as follows:

"Not since the phrase "social media" have two words so overtaken our industry. From the Barack Obama re-election campaign to Unilever to Sony, everyone is panning the data rivers for marketing gold. And unlike other "ad land" trends, the consensus seems that this one is relevant to the bottom line. You can't get by with a guru for big data. You need an actual scientist -- and those are some of the most sought-after pros in the land." (Advertising Age, 2012)

Who are these most sought-after pros' in the land? What do they do? These are important questions. The combination of social media and big data advances, along with the shift in advertising budgets from traditional to online media channels makes this line of research important. These are the questions this paper explores and attempts to answer.

LITERATURE REVIEW

Big Data

The era of *big data* is underway. Computer scientists, physicists, economists, mathematicians, political scientists, bio-informaticists, sociologists, and other scholars are clamoring for access to the massive quantities of information produced by, and about people, things, and their interactions (Boyd and Crawford, 2012).

Big data has no absolute definition. Lev Manovich, in a recent article, states that *big data* has been used in the sciences to refer to data sets large enough to require supercomputers, but what once required such machines can now be analyzed on desktop computers with standard software. There is little doubt that the quantities of data now available are often quite large, but that is not the defining characteristic of this new data *ecosystem* (Manovich, 2011).

Paul Zikopoulos and his team of IBM writers state the following in their book titled *Understanding big data*. "*Big data* is somewhat of a misnomer since it implies that pre-existing data is somehow small (it isn't) or that the challenge is sheer size (size is one of them but there are often more). In short the term *big data* applies to information that can't be processed or analyzed using traditional processes or tools." (Zikopoulos, et al, 2011).

The most comprehensive academic definition we prefer is the one posited by Danah Boyd and Kate Crawford. They define *big data* as a cultural, technological, and scholarly phenomenon that rests on the interplay of 3 factors as follows:

1. ***Technology:*** *maximizing computation power and algorithmic accuracy to gather, analyze, link and compare large data sets.*
2. ***Analysis:*** *drawing on large data sets to identify patterns in support of economic, social, technical and legal claims.*
3. ***Mythology****: the widespread belief that large data sets offer a higher form of intelligence and knowledge that can generate insights that was previously impossible with the aura of truth, objectivity, and accuracy* (Boyd & Crawford, 2012).

Creating the availability of *big data* is a trend which has been officially supported by the W3C for many years through its support of the semantic web.

"The Semantic Web is a collaborative movement led by the international standards body of the World Wide Web Consortium (W3C). The standard promotes common data formats on the World Wide Web. By encouraging the inclusion of semantic content in web pages, the Semantic Web aims at converting the current web, dominated by unstructured and semi-structured documents into a "web of data". The Semantic Web stack builds on the W3C's Resource Description Framework (RDF)" (W3C, 2011).

There has been some confusion about the terms "semantic web" and "web 3.0". According to prominent technology blogger Akhilesh Sharma, the "semantic web" is sometimes appropriately used as a synonym for "Web 3.0", although each term's definition varies (Sharma, 2011). Regardless of what definition is most suitable to the reader, the importance of the semantic web and/or web 3.0 in the growth of *big data* is hard to deny. It should be noted that Tim Berners-Lee and Tim O'Reilly (a prominent media and internet publicist) had a very public dispute over the meaning of web 2.0 for many years before finally settling on the term and concept. In the modern era, technology appears to progress faster than clear definitions of current phenomenon such as *big data* and its applications to business and society.

The implications of *big data* go much further than the PC or even the mobile phone. Paul Zikopoulos and his team of writers for IBM state the following:

> *"Quite simply, the Big Data era is in full force today because the world is changing. Through instrumentation we're able to sense more things, and if we sense it we tend to store it (or at least some of it). Through advances in technology, people and things are becoming increasingly interconnected – and not just some of the time, but all of the time. The interconnectivity rate is a runaway train"* (Zikopoulos et al, 2011).

With *big data* increasingly growing in importance, the challenge to organizations is to learn how to use it to improve marketing performance. The answer, in part, lies in predictive analytics. Predictive analytics are not new as they have been used in the public health, environmental and national security surveillance industries to name a few (Maged et al, 2010). Predictive analytics are now being applied to integrated marketing communications (IMC) and this is driving more media online. According to recent reports from Duke University and the Society of Digital Agencies (SoDA), advertisers are shifting significant budgets away from traditional media advertisers to a variety of online media channels (Moorman, 2014; SoDA Report, 2014).

Advertising Analytics

Corporate sponsors are demanding more accountability and measurement of the impact of their advertising campaigns regardless of the form they take. Historically, online advertising has primarily been used as a vehicle to generate a direct response transaction and less as a tool for building brand equity. This trend is changing and the movement to using online advertising for brand purposes will shift a higher percentage of advertising budgets to online venues. The Nielsen 2013 Online Advertising Performance Outlook Report validates this view about digital media as a brand development channel:

> *"Digital media continues to develop as a branding medium, growing beyond its roots as a channel of interest solely to direct response marketers. Today, it appears that branding in the online medium appears to have come of age, as spending for online brand advertising in 2013 is projected to rival that of direct response advertising. What's more, growth projections for branding exceed those of its performance-based sibling" (Nielsen, 2013).*

Advertisers, for the most part, are still operating in a "swim lane" mode of evaluating advertising campaign performance. This means that each media channel's performance is evaluated more or less as an independent silo or "swim lane". With the advent of powerful, enabling *big data* technology, the concept of measuring one media channels' "assist power" to another media channel (i.e. TV's assist in bolstering social media' effectiveness) is becoming more practical. As online becomes a critical brand vehicle integrated performance measurement intuitively becomes more important (Nichols, 2013).

Note that there is also data readily available for analyzing traditional media performance such as TV in an integrated manner with online channel performance. An excellent example is the Nielsen Cross Platform Ratings Service which was released in the USA in October of 2012 (Nielsen, 2013). Additionally, increased computing power and continuing standardization of data formatting online via semantic web conventions is making it easier to derive data related to traditional usage (Blomqvest, 2014).

The above trends in the competitive marketing environment are leading to an emerging advertising strategy called Advertising Analytics 2.0. Wes Nichols, co-founder and CEO of MarketShare a Los Angeles based global predictive analytics company, posits:

> *"The days of correlating sales data with a few dozen discrete advertising variables are over. Many of the world's biggest companies are now deploying analytics 2.0, a set of capabilities that can chew through terabytes of data and hundreds of variables, in real time, to reveal how advertising touch points interact dynamically. The results: 10% to 30% improvements in marketing performance"* (Nichols, 2013).

METHODS

Based on the above literature review, and the impending significant rise of interest in big data and advertising analytics, the current paper attempts to discover and analyze more about this emerging market space. In particular, it attempts to unveil specifics about the *ecosystem* of firms in the *big data* arena as it relates to marketing communications and advertising. The study approach was to identify companies that were operating in this space and conduct primary exploratory research in the form of semi-structured interviews with ranking officers and "subject matter expert" employees representing these firms.

The following three criteria were used to select companies to contact for an interview:

1. Companies that appeared on a Google search with the following keyword combinations on May 15, 2014:

    "Advertising Analytics Companies",
    "Interactive Attribution Vendors"
    "Predictive Analytics" + Advertising
    "Data Management Platform"
    "Demand Side Platform"
    "Real Time Bidding" + Advertising

2. Companies that appeared in the Forrester Wave™ Reports dealing with external *big data* and Analytics. Forrester Wave™ companies in segments with a primary focus on internal data analytics, internal data mining, and warehousing were excluded.
3. Partners appearing on websites of the firms identified in selection methods 1 & 2 above.

ANALYSIS

Researchers were successful in completing 24 interviews, obtaining at least 3 interviews from each segment identified. Using this information, a consolidated framework for understanding the emerging *ecosystem* of players in the IMC *big data* space was developed. It should be noted that much of this data is available in expensive private industry reports which are generally at a very granular level and need to be consolidated. Private industry data depicting organizational interaction (with each industry subsector), although it may exist, was not found. It should be clear that the framework for this study is a snapshot of a rapidly evolving *ecosystem* which may look much different in 3-5 years. Findings from the research are segmented and presented below as five typologies:

1. Big Data Investors
2. Demand Side Platforms (DSP) and Real Time Bidders (RTB) Providers
3. Data Management Platforms (DMP)
4. Media Mix Modelers (MMM)
5. Digital and Full-Service Agencies

Typology 1 - Big Data Investors

The first finding uncovered in this study is that large investments have been made in *big data* start-ups in the past 3 years. Many researched target companies were acquired in either 2013 or 2014. This prompted a search for recent merger and acquisition news to supplement this study. More than 16 acquisitions of privately financed start-ups that have taken place in the past 4 years with 10 acquisitions (62.5%) occurring in 2014. Clearly, investment activity is active and picking up speed, as seen in Table 1. The term *big data investor* seems appropriate for firms in this first typology. These firms are investing billions of dollars in *big data*.

Table 1
TYPOLOGY 1 – BIG DATA INVESTORS

BIG DATA INVESTOR	ACQUIRED COMPANY	ACQUISITION DATE	DEAL VALUE
Adobe	Demdex (DSP) Omniture (MMM)	1/18/11 11/27/09	$58,000,000 $1,800,000,000
AOL	Convertro (MMM)	5/6/14	$101,000,000
Centro	SiteScout (DSP)	11/5/13	$40,000,000
DataXu	JasperLabs	4/24/14	Undisclosed
Ebay	ClearSaleing (MMM)	3/28/11	$2,400,000,000
Ensighten	TagMan	3/18/14	Undisclosed
Google	Invite Media (DSP) Adometry (MMM)	6/3/10 5/6/14	$81,000,000 Undisclosed
IgnitionOne	Knotice (DMP)	3/19/14	Undisclosed
IBM	Coremetrics (MMM)	6/15/10	Undisclosed
Lotame	AdMobius (DMP)	3/18/14	Undisclosed
Neurostar	Aggregate Knowledge (DMP)	3/19/14	$119,000,000
Oracle	Blue Kai (DMP)	2/24/14	$350,000,000
Rakuten	DC-Storm (MMM)	5/29/14	Undisclosed
Rocket Fuel	X + 1 (DMP)	8/5/14	$230,000,000

Big data investors come in many forms. The larger ones are typically from the high tech or media sectors. One example of a high tech big data investor is Google. Google is into products and services that drive internet traffic and internet ad revenue. Other high tech investors include Adobe - an innovator in content enabling software, Oracle - a leader in customer relationship management (CRM) systems, and Ebay - a pioneer in online buying and selling of products. A notable media conglomerate is Time-Warner Inc. which recently acquired Convertro and Nielsen. Nielsen operates Catalina Services - a firm specializing in media mix modeling.

Typology 2 - Demand-Side Platform (DSP) and Real Time Bidding (RTB)

During the interviews, and particularly with the agencies, it became clear that the methods by which advertising services are being bought and sold are changing. So-called demand-side platforms (DSP's) are a major force in driving that change. A DSP is used to purchase advertising in an automated fashion. DSP's are most often used by advertisers and agencies to help them buy display, video, mobile and search ads. A second typology for our classification system emerged - the DSP that facilitates the buying and selling of the media.

DSP's are highly contentious in the advertising community because they are disruptive. Advertising traditionally has been exchanged by human buyers and sellers in a manual process which is costly and subject to human error. DSP's help make that process cheaper and more efficient by removing humans from parts of the process, eliminating the need, for example, to negotiate ad rates and manually process orders. DSP's claim significantly lower costs for ad buys.

According to survey respondents, almost all ad networks now offer some sort of DSP-like product or real-time bidding (RTB) capability. There is also a shift in the industry where DSP's are beginning to look a lot like ad networks - buying up inventory, repackaging it, and reselling it to advertisers at a premium. DSP's may simply be the next generation of ad networks. Table 2 shows key players in the DSP space along with the companies (in parenthesis) which are acquiring them.

Table 2
TYPOLOGY 2 – DEMAND-SIDE PLATFORMS (DSP) AND REAL TIME BIDDING (RTB)

Indicative Demand-Side Platforms
Accordant
Centro
DataXu
Invite Media (Google)
Demdex (Adobe)
MediaMath
Rocket Fuel (listed on NASDAQ)
SiteScout (Centro Acquired 11/13)
Turn

Typology 3 - Data Management Platforms (DMP)

During the interview process the sheer volume of data the analytics firms and agencies had available to them from 3rd parties was quite noticeable. One interviewee claimed to hold above 85% of the active cookies in the USA at any given time! DMP's integrate customer CRM data and any of the following: large public databases, broadcast feeds from Nielsen or Rentrack, economic data, public competitor data and more. These 3rd party inputs to the analytics models provided our next typology the *Data Management Platform or DMP*.

Progressive marketers want to merge their own customer data with that of third parties to better segment and target audiences. DMP's typically rely on third-party cookies to help target segments and link third-party behavioral data to first-party data and personal information. There are privacy concerns and the industry segment is evolving in the function it provides. These firms currently look like data warehouses in the sense that they are collecting more data than they are delivering. However, they also appear poised to continue to push more value added data out as the industry evolves. At that point they may more closely resemble data factories. There also seems to be some consolidation of DMP's with DSP's. Some DMP's are also launching DSP services and visa-versa. Table 3 below identifies indicative DMP's with the acquiring companies in parenthesis.

Table 3 TYPOLOGY 3 – DATA MANAGEMENT PLATFORMS (DMP) Indicative Data Management Platforms
Audience Optics (Accordant)
Media Optimizer (Adobe)
Aggregate Knowledge
Blue Kai (Oracle)
CoreAudience
eXelate
nPario
Turn
X+1 (Rocket Fuel)

Typology 4 - Media Mix Modelers (MMM)

For purposes of this study, the broadcast centric media mix modeling (or so-called top down media mix) companies were intentionally excluded because most of their customers spend large amounts of money on television. A key interest of the research team was to find out what was available for small and medium sized firms and for online analysis.

It was discovered that about 50% of the online-focused attribution and predictive analytics service companies also integrate traditional (specifically broadcast) data into their analyses. They use what is called a bottom-up approach where they build their models around the online media mix of the client. This is done in an effort to meet their marketing goals which are typically measured by cost per acquisition (CPA) or click through rates (CTR). They are, however, able to overlay feeds from traditional media to establish the impact of broadcast on the online media performance and visa-versa.

Findings from the current research also showed that the firms excluded from the study are currently linking more aggressively to the online world. These top-down media mix modelers are from TV audience measurement systems such as Nielsen or TiVo (TRA Inc.). With this information, another typology was identified as *media mix modeling* with an extension of two sub-classifications. The first sub-classification is *bottom-up* media mix modeling which emphasizes online data first or in some cases only works with online data. The second group is *top-down* media mix modeling companies with their roots in TV. We expect these sub-categories to become blurry over time as the importance of online increases. Table 4 below identifies indicative media mix modelers (MMM's) with the acquiring companies in parenthesis.

Table 4 TYPOLOGY 4 – MEDIA MIX MODELERS (MMM's)	
INDICATIVE BOTTOM-UP MEDIA MIX MODELERS	INDICATIVE TOP-DOWN MEDIA MIX MODELERS
Adaptive Audience	IRI
Adometry (Google)	Marketshare
AT Internet (Europe)	Nielsen Catalina Solutions
C3 Metrics	OMD Brand Science
Convertro (AOL)	ThinkVine
DC-Storm (Rakuten) (Europe)	TiVo (TRA Inc.)
DataSong	
Encore Metrics	
Visual IQ	

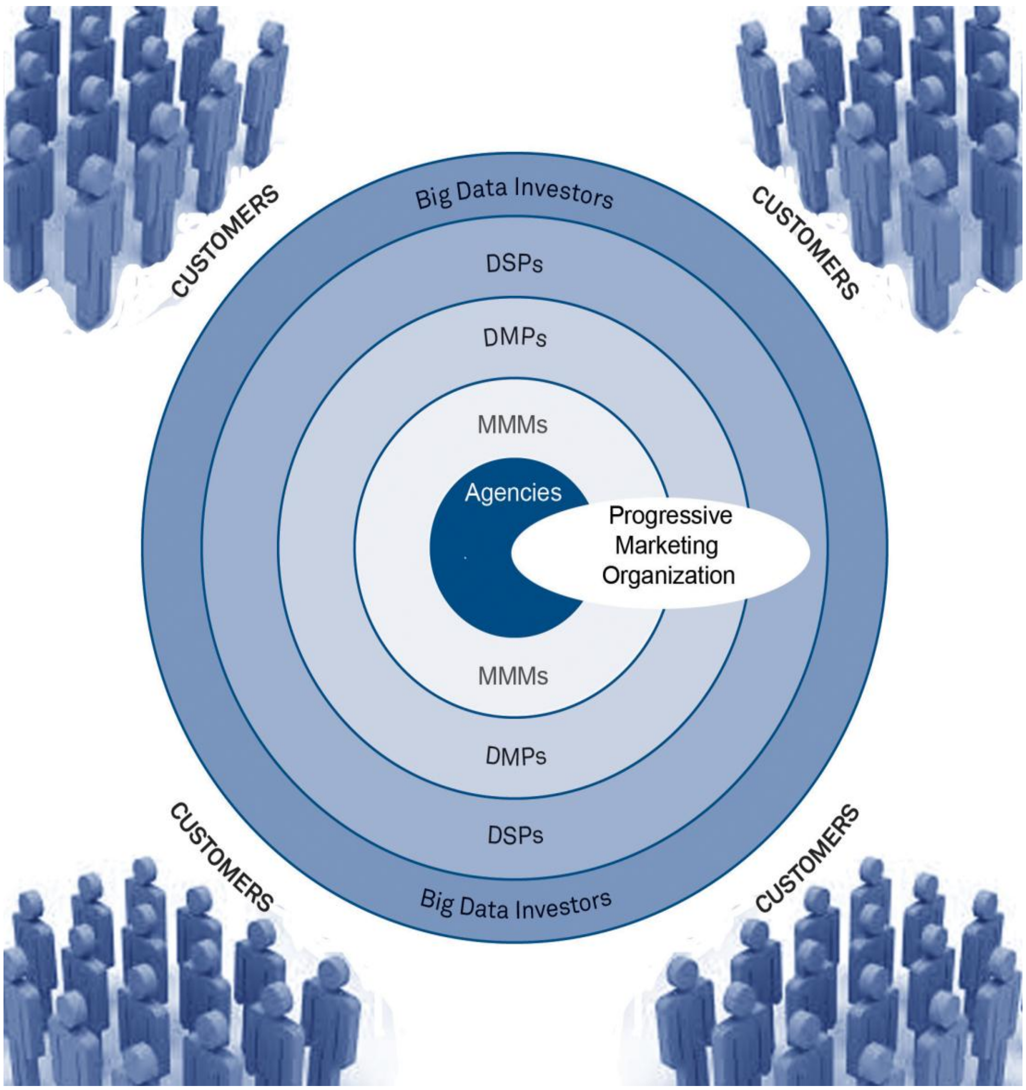
Typology 5 – Agencies (Digital and Full Service)

Agencies have always been an integral part of the marketing industry. With the rising influence of online, the model of what an advertising agency is and what it does is clearly in flux. Due to the changing online needs of the clients two predominant agency models appear to be on the rise. The first is a *digital agency* which focuses primarily or exclusively on internet advertising content creative and techniques. The second is a *full service agency* that provides creative strategy and traditional offerings; however they also maintain a digital practice with subject matter experts in a variety of online skills. *Full service* agencies may also have partnerships with the previously identified players in our posited framework. At times the full service agencies may also partner or sub-contract to the *digital agencies*. Agencies in both categories were interviewed in the current study. Indicative agencies which may or may not have been interviewed and are identified in Table 5.

Table 5 TYPOLOGY 5 – AGENCIES (DIGITAL AND FULL SERVICE)	
INDICATIVE DIGITAL AGENCIES	INDICATIVE FULL SERVICE AGENCIES
360I	22 Squared
C4-Analytics	Booyah!
Icrossings	Havas
Performics	JWT
PM Digital	Leo Burnett
Purple Rock Scissors	OMD
Resolution Media	Razorfish
Rise Interactive	Weiden and Kennedy
Sq1	Zenith Optimedia (Publicis Groupe)

In addition to the typologies, it is important to remember that all the firms in the *ecosystem* are working to better connect their progressive marketing clients to existing and potential customers. The progressive marketing organization is central to the system and may or may not have the ability to interface directly with each type of firm for purposes of marketing communications. Reaching customers to achieve the goals of the progressive marketing organization is paramount for all the players in the ecosystem. Customers are pervasive and the system manipulates the marketing messages they receive. Figure 2 provides a consolidated classification framework for understanding key players in the big data ecosystem and a graphical overview of the potential interaction touch points a progressive marketing organization should consider and when engaging this *ecosystem*.

Figure 2: Classification Framework for Big Data Ecosystem



FRAMEWORK OVERVIEW AND CONCLUSION

The order of the concentric circles of this framework is not by chance. It can be argued that *big data* investors want influence over the customers and will get it if they invest wisely. DSP's are positioned just inside of *big data* investors and are critical because ultimately the media buy dictates who sees the content and when they see it. This is probably why Google invested in the Invite platform as early as 2010. In a *big data* world, information is king and that is why the DMP's are the next concentric circle in the *ecosystem*. These firms have the data, and they effectively are the data warehouses of the external world in which the organization operates. There is also the potential that the DSP's and DMP's will merge into one circle as the *ecosystem* evolves.

Having data is important, but it is not useful unless you can make sense of it. There is clearly overlap between the analytic capabilities of the DMP's and the new age analytics firms – that may or may not change as the ecosystem evolves. That being said, these media mix modeling companies (MMM's), whether bottom-up or top-down, allow customers to make sense of *big data* and make better marketing decisions. Agencies occupy the innermost circle of the ecosystem - they are currently in flux and redefining themselves so that they can add more value to (and extract more benefit from) other players in the system.

The progressive marketing organization is depicted as an ellipse so it can touch all the players (concentric circles) except the *big data investors*. This demonstrates the potential interactions progressive marketing organizations must contemplate when developing an IMC strategy. Many firms are too small to have direct relationships and expertise in the tools used by the DMP's, DSP's and MMM's and must rely in part (or fully in some cases) on advertising agencies to fill this gap. Choosing an agency, however, has become much more complex in light of the recent developments in advertising.

In conclusion, progressive marketing organizations must now choose between a complex array of agency models and then determine to what extent they should have direct client relationships with the each set of players in the *ecosystem*. The strategies that they implement will most likely be a function of budget, internal resources, level of sophistication of the firm, and the industry sector in which they operate. The intent of this paper was, first and foremost, to review the concept of *big data* as it applies to marketing communication, and to make sense of the evolving ecosystem around big data by developing a big data analytics firm typology. Hopefully that objective was accomplished - along with a further clarification of how that ecosystem could potentially impact the way progressive marketing organizations optimize marketing communication channel performance. A follow up paper will drill down into the specific set of factors a progressive marketing organization should consider when making strategic decisions about how to engage this dynamic and growing marketing *ecosystem*.

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SHOPPING CENTER ATTITUDES: AN EMPIRICAL TEST OF PREDICTIVE ATTRIBUTES

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ABSTRACT

Though they have experience a relative decline with the advent of the internet, shopping centers and shopping malls remain a critically important retail channel for the distribution of goods and services. They consequently remain an important object of study for marketing researchers. This exploratory, empirical study identifies factors that strongly influence perceptions of shopping centers and shopping malls. Key factors include perceived management efficiency, product assortment, center maintenance and cleanliness. Other important factors are also identified along with paths of influence in a structural equation model.

INTRODUCTION

Shopping malls are major centers of retail activity in the United States and around the world. The exponential growth of the Internet notwithstanding, they remain an important channel through which goods and services flow to the public. The identification of factors that drive or discourage mall sales is, consequently, a critically important question for marketers. Indeed, as malls and shopping centers face additional competitive pressure, it becomes all the more important for them to understand what factors affect attitudes and patronage of their business.

Researchers have studied malls from a variety of points of view over the years. Exploring the old adage, "location, location, location," some researchers have developed a gravitational model that focuses on location and proximity as predictive factors in shopping mall patronage (Bucklin, 1971; Nevin and Houston, 1980). But the effects of these factors have proven to be inconsistent (Cox and Cooke, 1970). In a more recent study, Eppli and Shilling (1997) found that distance was not predictive of patronage, but the agglomeration of stores and store synergies was an important predictor. Synergies between stores have also been found such that sales for small specialty stores in a category are larger when the store is located near a bigger store selling the same merchandise (Mejia and Eppli, 1999). In this study, the finding that distance is not a predictor of preference will be supported for contemporary shoppers.

Other researchers have focused on various characteristics of shoppers that affect mall patronage. In a study that linked both personality and gravitational factors Burns and Warren (1995) found that willingness to shop at the nearest mall versus outshopping a mall further away was affected by a personality characteristic of the shopper--degree of need for uniqueness. In a study that focused exclusively on consumer attributes, Babin and Darden (1996) found that the mood of shoppers, especially negative moods, had a strong effect on satisfaction with the mall but not on spending. In a more broad based study, Swinyard (1998) found that mall patronage was driven by shopper values, with shopping incidence being high for shoppers with high need for sense of belonging, warm relationships, and security but low for those with high need for self-fulfillment, self-respect, and sense of accomplishment.

Apart from distance from the home of the shopper, past researchers have paid less attention to specific attributes of the mall itself, but Bloch, Ridgway, and Dawson (1984) using an ecological framework, studied the mall as consumer habitat and identified various habitat related activity patterns and shopping orientations that affected mall performance. More recently, one specific attribute, scent, has received attention of various researchers who have found that is has important effects on mall shopping behavior (Chebat and Michon, 2003).

But perhaps because of its relative decline compared to alternatives such as the Internet, shopping malls and shopping centers have received comparatively little attention from academic researchers in the past fifteen years, and certainly much less than they received prior to that time. And yet, space devoted to shopping mall retailing increased 12% from 2006 to 2011 to a total of more than one billion square feet of retail space (Brown and Kircher, 2011). In light of that major presence in the market and the additional five percent increase in free standing retail center space to more than 3.3 billion square feet, continued attention to the drivers of retail effectiveness in the traditional retail venues is warranted. Focusing on the young consumers whose behavior will determine the retail landscape in the future, this study examines various factors that influence shopping center patronage behaviors of millennial shoppers.

SEMANTIC DESCRIPTORS OF TRADITIONAL RETAIL LANDSCAPE

The objective of this study was to sample broadly attributes of shopping centers that may affect attitudes toward these shopping venues, then determine which attributes in fact affected consumer attitudes. To ensure a broad sampling of the domain of attributes, we review all verbal entries in a 64,000 word English dictionary to identify semantic descriptors of shopping centers and the shopping center experience. All words judged to be descriptive of shopping centers were identified and listed. Words that tapped similar attributes of shopping centers and the shopping center experience were grouped. This grouping produced fourteen broad dimensions of the shopping center or shopping center experience: personal responses to the shopping center, physical characteristics of the center, ease/difficulty of shopping, location attributes, management attributes, entertainment attributes, product mix perceptions, price perceptions, employee perceptions, promotion perceptions, customer service perceptions, social network responses, perceptions of other patrons, and perceived shopping center social responsibility. To get to a manageable list of descriptors while preserving the scope of the metric, multiple terms that were very similar semantically were reduced to one representative term. This winnowing process yielded a set of 159 semantic differential scales, an average of 11 items per dimension. Attention to maximizing the scope of each dimension meant that most of the 14 broad dimensions could be broken down into sub-dimensions, e.g., physical characteristics of the center included size, distinctiveness, attractiveness, and enclosed/open layout.

Sample

Since the focus of this study is attitudes of the emerging millennial generation of shoppers, a sample of college students from a major mid Atlantic university was judged to be appropriate. The survey was administered as a take-home exercise for class extra credit. To ensure that respondents paid attention to items in the survey, it was seeded with four items that should have been either unknown or irrelevant in evaluating a shopping center, e.g., an item anchored by *denouement* and *undenouement*. Responses were given on a 7 point semantic differential scale with the option of indicating Don't Know / No Opinion / Doesn't Apply, which was the correct answer for *denouement*/*undenouement*. Respondents who did not exclude the inappropriate items were dropped from the study. The resulting sample included 515 usable responses.

RESULTS

The purpose of this study was exploratory. The study was designed to identify factors that influence shopping center attitudes. No particular theory on which attributes of a shopping center would be most influential was propounded prior to data collection, so the focus of this section is not on specific hypothesis tests. However, a hypothesis test was implicit in the specification of each shopping center attribute which was facially judged to influence overall attitude toward the shopping center. So each of the results in the table 1 can be seen as a test of the hypothesis that the specified independent variable affects overall shopping center attitudes.

To identify which factors influenced attitudes towards a shopping center, regressions were run in which center attributes were predictor variables and overall attitude toward the mall was the dependent variable. To ensure reliability of the measures used, regressions were run and are here reported only in cases where a suitable multi-item scale was available with reliability as measured by Cronbach's alpha of .70 or greater, the minimum reliability standard specified by Fornell and Larker (1981) for exploratory research. The Cronbach's alpha for the dependent variable, shopping center attitude was .76. Cronbach's alpha for the scale and results of the regressions are reported in Table 1.

Table 1

Predictor	**α**	**β**	**t - value**	**p - value**	**R^2**
Product Assortment	.84	.506	14.243	.000	.54
Management Effectiveness	.87	.590	15.116	.000	.44
Cleanliness	.80	.510	16.425	.000	.36
Staff Diligence	.84	.438	11.072	.000	.28
Staff Attitude	.90	.417	12.093	.000	.23

Stores	.89	.456	12.248	.000	.23
Promotion	.92	.312	10.568	.000	.20
Ease of Shopping	.79	.360	10.092	.000	.17
Friends Who Shop There	.90	.352	9.088	.000	.15
Enclosed Layout	.83	.068	2.820	.005	.13
Entertainment Available	.84	.152	5.590	.000	.08
Parking Availability	.82	.142	5.584	.000	.06
Proximity	.91	.031	1.305	.190	.01
Prices	.82	-.006	.210	.834	.00

*Dependent variable for all regressions is Shopping Center Attitude

These results suggest that the perceived assortment of products and effectiveness of the center management have the biggest effect on shopping center perceptions. How clean or well maintained the center was perceived to be was also an important predictor as was the diligence of the staff. Among the various predictors considered, only proximity to home or work and prices were not significant predictors.

Systemic Relationships Among Predictors

Measurement Model. To explore the discriminant validity of the measure of shopping center attitude and the most important predictors of that attitude, confirmatory factor analysis was conducted. The analysis included shopping center attitude and the six predictors that most powerfully explained attitude toward the shopping center based on t – value and r^2: product assortment, management effectiveness, cleanliness, staff diligence, staff attitude, and stores. The items that measured each construct, with their associated Cronbach's alpha, are reported in Table 2.

Table 2

Shopping Center Attitude:			
	SC1	pleasant/unpleasant	α = .76
	SC2	appealing/unappealing	
Product:			
	P1	many product styles/few product styles	α = .84
	P2	well-known brands/little known brands	
Management:			
	M1	efficient/inefficient	α = .87
	M2	effective/ineffective	
Cleanliness:			
	C1	clean center/dirty	α = .80

C2	well maintained center/poorly maintained	
Staff Diligence:		
D1	careful/careless	α = .84
D2	hard working/lazy	
D3	honest/dishonest	
Staff Attitude:		
A1	cheerful employees/sad employees	α = .90
A2	friendly employees/unfriendly employees	
Stores:		
S1	popular stores/unpopular	α = .89
S2	well-known stores/little known store	

All relationships between constructs and semantic differential measures were significant at the .000 level. Unsurprisingly given the large number of constructs and the large sample size (N = 515), the Chi Square statistic, 137.301, df = 83, was significant at the .000 level. According to Byrne (2001), Kline (2005), Schumacher and Lomaz (2004), and Tabachnick and Fidell (2007), the Chi Square is not a good indicator of model fit when sample sizes are large. They recommend, instead, that researchers rely on the Goodness of Fit indices reported in Table 3. As the table indicates, all measures of Goodness of Fit are well within specified parameters. This suggests that the seven constructs in the measurement model are discriminantly valid. With respect to reliability, all have Cronbach's alpha values well above the standard specified by Fornell and Larker (1981). The measures, thus, appear to be well defined, distinct, and reliable.

Structural Model. To identify the causal paths among the seven variables, a structural equation model was proposed and tested. The hypothesized model suggested that attitudes toward a shopping center would be directly affected by the perceived product assortment available at the center and by how well the center was managed. Perceptions of management were expected to be influenced by how clean and well maintained the shopping center was and by attitudes and behavior of the staff. Perceptions of the product assortment were expected to be influenced by the mix of stores at the shopping center.

This analysis produced the model in Figure 1. Standardized regression coefficients are reported with the critical ratio (the ratio of the parameter estimate divided by its standard error) in parentheses.

Table 3

Goodness of Fit Indices

Index	Standard	Result
CFI	> .95	.989
NFI	> .90	.973
TLI	> .95	.982
RFI	> .90	.956
RMSEA	< .08	.036
PCFI	> .50	.604

PNFI	> .50	.594

Once again, as expected given the large sample size (N = 515), the Chi Square statistic, 151.114, df = 78, was significant at the .000 level, a negative indicator for model fit because it suggests there is a difference between the proposed model and the full model. But if the more suitable Goodness of Fit indices recommended by Byrne (2001), Kline (2005), Schumacher and Lomaz (2004), and Tabachnick and Fidell (2007) are applied, the model is well within acceptable parameters as indicated in Table 4.

Table 4

Goodness of Fit Indices

Index	Standard	Result
CFI	> .95	.984
NFI	> .90	.968
TLI	> .95	.975
RFI	> .90	.950
RMSEA	< .08	.043
PCFI	> .50	.640
PNFI	> .50	.629

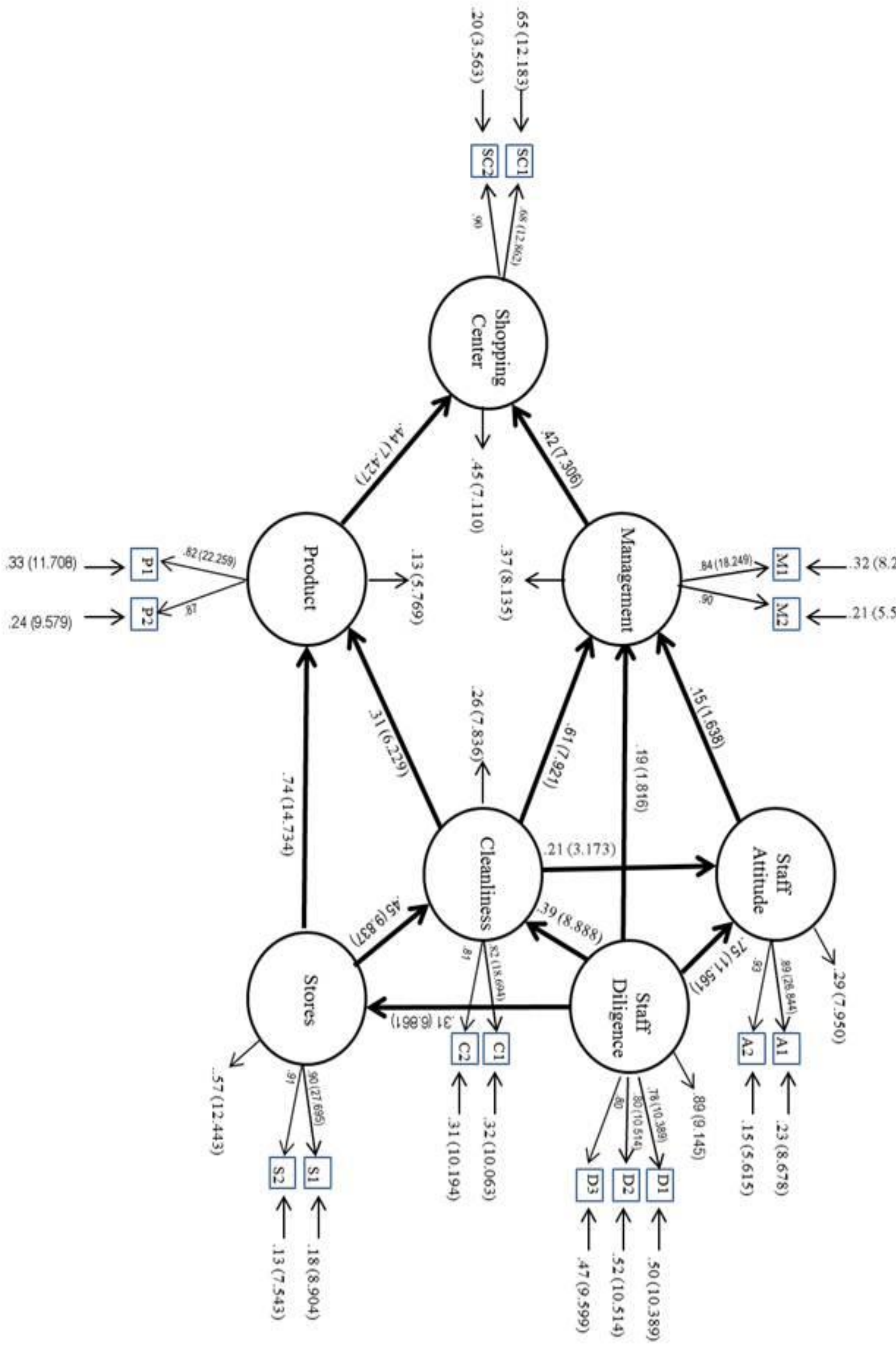

Figure 1

These indices suggest that little residual variance is explained by the saturated model in comparison with the much simplified proposed model.

DISCUSSION

Error reported for the endogenous variables suggests that a substantial proportion of the variance of all the endogenous variables is explained by the model, the best explained variable being product assortment, the worst being the popularity and familiarity of the stores. All paths within the model are significant at the .000 level as measured by the critical ratio, except for the Staff Attitude => Management path and the Staff Diligence => Management path. The latter is significant at the .10 level (p = .07) and the former approaches significance at that level (p = .12). These results suggest that perceptions of management are affected—but rather weakly affected—by characteristics of center employees. An objective characteristic of the shopping center itself—how clean and well maintained it is—much more strongly affects perceptions of center management. Those perceptions of management do, then, have a strong effect on perceptions of how pleasant and appealing the shopping center is for the consumer.

The product mix of the shopping center has almost an identical effect on shopping center perceptions as management does. The most powerful determinant of product assortment perceptions is the mix of stores at the mall or shopping center. But how clean and well maintained the center is also influences perceptions of the product mix. The cleanliness of the shopping mall appears to have a halo effect on product assortment, a facially unrelated variable. It is unsurprising that the profile of stores at the shopping center create a framework within which the maintenance and cleanliness of the center are assessed. The store brand creates priors that frame judgments of the center as a whole, and the cleanliness of the individual stores in a shopping center will naturally influence perceptions of the center as a whole.

While the diligence of the staff has only a marginally significant effect on store management, it is nevertheless an important variable in the model as a whole. It directly affects perceptions of the store brand, which is an important variable. And it also affects perceptions of how clean and well maintained a shopping center is, which then affects both management and assortment perceptions. Unlike the more objective dimensions of staff performance, staff attitudes have no collateral effects within the model. For this sample of consumers, staff attitude was clearly the least important aspect of their shopping center experience at least among the six factors considered in this model.

These results suggest that as shopping center managers face competitive pressures, it will be especially important to focus on having well known store brands and a good assortment of merchandise in the shopping center. The main focus of management should be keeping the mall clean and well maintained. Staff diligence is most important insofar as it feeds into the quality of mall or shopping center maintenance. For millennial shoppers, the attitudes of shopping center staff are less consequential.

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MBA STUDENTS' ENGAGEMENT BEHAVIOR AND ITS IMPLICATIONS ON STUDENT LOYALTY TO ALMA MATER

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ABSTRACT

Regardless of the importance of maintaining long-term relationship with alumni for MBA programs, little is known about the antecedents of student loyalty. This study proposes and empirically tests student engagement as a promising factor that would enhance MBA students' loyalty intention to the school after graduation. The study adopts a structural equation modeling approach which examines the effects caused by student satisfaction and student engagement on loyalty intention among MBA students. Data were collected at a major college in India. Two out of three research hypotheses are supported. Findings of this study are generally in line with existing literature. Yet, the study also provides a meaningful, new insight in the study of student loyalty. Managerial implications and future research directions are provided.

INTRODUCTION

Just like any business, it is imperative for higher education institutions to maintain long-term relationships with their constituents. Loyal students are important assets for higher education institutions not only during the time of their stay in the university but also after they leave the campus. A loyal student may support his/her alma mater through word-of-mouth communications, participation in activities sponsored by the school, and financial contributions (Hennig-Thurau, Langer, & Hansen, 2001). Student loyalty to a program is considered as one of major sources of competitive advantage (Lam, Shankar, Erramilli, & Murthy, 2004). Researchers and administrators alike have been eager to find out the factors that would enhance their graduates' emotional, communicative, and behavioral attachment to their alma maters.

Student loyalty, however, is an elusive concept. A number of studies have been devoted to proposing and testing factors that lead to student loyalty. Student loyalty is affected by a diversity of factors such as students' personal factors (Tinto, 1993), education service factors (Burt, 2001), and the quality of educational experiences (Elliott, 2002). Among them, perhaps the most predominantly studied factor as an antecedent of student loyalty may be student satisfaction. Many studies report that customer satisfaction serves as a founding block for establishing long-term buyer-seller relationship and loyalty (Dick & Basu, 1994; Gustaffsson, Johnson, & Roos, 2005; Oliver, 1999). Colleges regard student satisfaction as one of the most critical operating goals and urge their faculty and staff to proactively identify and meet the expectations that students bring to campus (Hill, 1995; Keegan & Davidson, 2004). Academic programs rated high on student satisfaction are expected to be the ones with high customer loyalty, healthy return on marketing investment, and long-term profitability.

Yet, an increasing number of studies have posed challenges on the strength of the relationship between student satisfaction and loyalty. That is, students' satisfaction with college services has been reported to exert statistically significant, yet only a moderate level of, impact on student loyalty (Simpson & Siguaw, 2000; Yu & Kim, 2008). Similar observations were made in business sectors (Olsen 2002; Reichheld, 2003). Business practitioners report that a significant number of customers do leave them regardless of their high level of satisfaction and suggest that customer satisfaction may be a necessary but not sufficient condition to culminate in customer loyalty (Jones & Sasser, 1995). Student satisfaction, in this context, may be viewed as enacting a critical role during the development stage of student-school relationship, yet for that relationship to move into a next, stronger level such as student loyalty, additional factors may come into play.

In the past few years, there has been an increasing interest in the concept of customer engagement. Researchers in sociology, psychology, and education have reported engagement as an important underpinning for long-term relationships between a person and an object, brand, or organization (Achterger et al., 2003; Resnick, 2001; Saks, 2006). Engaged customers are psychologically connected, emotionally involved, and highly motivated to participate in activities that are related to the brands (London, Downey, & Mace, 2007). Common forms of their contribution to the brand include spreading viral marketing communications, participating in new product/service development, and in co-creating experience and value (Hoyer et al., 2010; Nambisan & Nambisan, 2008). Customer engagement, therefore, is viewed as an important indicant of the quality of an organization's interactive network with its current and potential customers (Neff, 2007; Sedley, 2010; Voyles, 2007).

While the importance of customer engagement in buyer-seller relationships has been extensively documented elsewhere, the concept has been applied to the higher education context only on a limited basis. Existing studies involving student engagement were conducted mostly at undergraduate levels in conjunction with learning (Carini et al., 2006; Skinner & Belmont, 1993) or at on-line programs (Arbaugh, 2000; Kim et al., 2005). Even among them, most studies addressed student engagement and its consequences while students were in college, without paying adequate attention on it beyond their graduation. Our best literature review could not locate any empirical study examining the student engagement as a precursor of post-graduate student loyalty to the program. Considering the fact that the business schools are regarded as a cash cow program in many universities (Piercy, 2000; Starkey et al., 2004) and that MBA programs are proven to be one of the most lucrative programs for their alumni being the most generous group when it comes to donating to their alma mater (Okunade, 1996), there is a surprising paucity in the literature that deals with factors underlying student loyalty among MBA students.

The purpose of this study is to examine student engagement among MBA students as a promising factor that would enhance their loyalty to the school after graduation. To be specific, the study proposes and tests a model that incorporates both student satisfaction and student engagement as antecedents of post-graduate loyalty intention among MBA students. Such an endeavor in this study is expected to not only clarify the role of student satisfaction in the formation of student loyalty but also reveal the contribution of student engagement for the establishment of student loyalty among MBA students. This paper provides literature review dealing with MBA student satisfaction, loyalty and engagement; a conceptual model including hypotheses; research methods; findings from a survey; summarized and scrutinized results; and conclusions and implications of the study for higher education institutions.

LITERATURE REVIEW

MBA Student Satisfaction

Student satisfaction can be defined as a favorable cognitive state resulting from a positive evaluation of a student's educational experience (Athiyaman, 1997). Satisfaction is experienced when a college's service delivered matches well with students' expectations (Szymanski & Henard, 2001). Student satisfaction is affected by a number of factors. First, academic dimensions of a college have been found as a major factor affecting student satisfaction. Major academic dimensions affecting student satisfaction include student-to-faculty ratios, program reputation, quality of teaching, faculty credentials, quality of student-faculty relationships, and quality of academic advising and career counselling (Elliott, 2002; Kotler & Fox, 1995; Martinez, 2001). At a personal level, a student's academic performance such as grade was found to be highly correlated to his/her satisfaction with the school (Babin & Griffin, 1998). Additionally, the quality of social experience of students was also found to be an important factor affecting satisfaction with the school. Tinto et al. (1994), for example, maintained that the social aspect of college life was one of the two most important factors that determine students' satisfaction with and intention to remain in an academic program.

Student satisfaction is not a short-term evaluation but rather an enduring attitude developed through repeated experiences with campus life. For services that are provided based upon the membership or contractual arrangements like an MBA program, satisfaction is known to have unique characteristics. Compared to a discrete service encounter where the customer satisfaction is largely determined by whether the contact employee is capable of diagnosing and fulfilling customer needs (Szymanski, 1988; Spiro & Weitz, 1990), the customer satisfaction in relationship is determined by a diversity of factors. Beatty et al. (1996) noted that customers in relationship tend to experience satisfaction when they perceive, from their relationship with the service provider, empathy, understanding of the customer, interpersonal care, trustworthy behavior, in addition to the augmented personal service. Students in an MBA program are also likely to engage in a comprehensive evaluation of their relationship with school using a number of factors. Sevier (1996), for example, has observed that college students evaluate their schools in terms of academic, social, physical, and even spiritual experiences. In this context, student satisfaction can be viewed as a global index that summarizes one's general feeling toward one's educational experiences (Bolton et al., 2000).

Students in an MBA program are also likely to evaluate the program in a holistic manner. Specifically, students tend to determine the quality of an MBA program after a comprehensive evaluation of institutional and curricular factors, faculty factors, and other student factors (Grove

& Hussey, 2014). Because satisfaction in that context is a product of one's intensive evaluation of past experience, it might even direct his/her future behavior (Fazio & Zanna, 1981; Suh & Yi, 2006). That is, since satisfaction is a consequence of one's direct past experience with the MBA program, it is likely to directly influence on a student's behavioral intention such as loyalty For an MBA program aiming at delivering student satisfaction, therefore, it is imperative to identify and fulfill a diversity of expectations that the students bring into the campus (Caceres & Paparoidamis, 2007).

MBA Students' Loyalty Intention to their Alma Mater

Student loyalty can be defined as psychological attachment to their universities founded upon their feelings of identification and affiliation (Verhoef et al., 2002) and it is manifested as behavioral and attitudinal commitment toward an institution (Tinto, 1993). Student loyalty to a higher education institution is affected by a host of factors. First, individual factors of a student are known to influence one's loyalty. It includes student's individual predispositions (family background, abilities and skills, and so on), his/her commitment to the program, as well as satisfaction with the program (Tinto, 1993). Second, the service provider (i.e., the university) factor also affects student loyalty. Those factors include faculty credentials, educational service quality, prestige of the institution, availability of networking opportunities, and so on (Burt, 2001; Okunade & Berl, 1997). Finally, a group of researchers have adopted relationship marketing perspective and attempted to explain student loyalty from the relationship quality perspective. Research in this vein explains that student loyalty is largely shaped up by variables such as relationship quality with the school and its constituents (Hennig-Thurau et al., 2001), quality of college life (Yu & Kim, 2008), and educational experience (Browne et al., 1998; Elliott, 2002; Martinez, 2001).

Just like a loyal customer's relationship with a brand is not restricted to a predetermined period but is continued for a long time, an MBA student's loyalty to the program is likely to be maintained during and after his/her time at the program (Hennig-Thurau et al., 2001). School administrators would love to maintain an MBA student's loyalty not only before but also after graduation because an MBA graduates tend to have stronger alumni relationships and donate more compared with other types of graduates (Johnson, Thomas, & Peck, 2010; Okunade, 1996). Unfortunately, students' attachment to their alma mater declines rapidly after graduation (Burt, 2001). For an MBA program looking for loyalty from its alumni, it would be crucial to nurture loyalty intention among its students while they are still in the program.

Student Engagement

Customer engagement has been continuously gaining attention in marketing literature in recent years as an important customer-based metrics for measuring organizational performance. Customer engagement can be defined as "the intensity of an individual's participation in and connection with an organization's offerings or organizational activities, which either the customer or the organization initiates" (Vivek et al., 2012, p. 133). Engaged customers have a strong sense of attachment or connection with a brand/organization and are motivated to voluntarily play key roles in performing marketing activities such as word-of-mouth communications, customer-to-customer interactions, participation in new product development, and co-creation of experience and values (Brakus et al., 2009; Brodie et al., 2011; Hoyer et al., 2010).

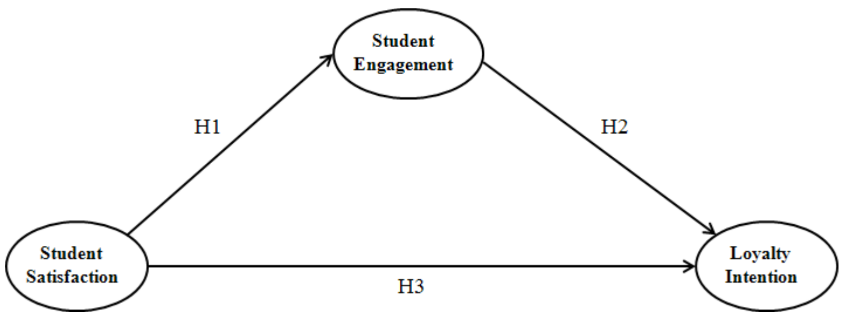
In higher education, the concept of engagement also encompasses cognitive, affective, and behavioral factors. London et al. (2007, p.456) has defined student engagement as "academic investment, motivation, and commitment that students demonstrate within their institution (both in and out of the classroom context), [as well as] the psychological connection, comfort, and sense of belonging that students feel toward their institution, their peers, professors, and administrators." Thus, objects of engagement are diverse including the institution, fellow students, professors, as well as learning and other personal factors (London et al., 2007). Student engagement may be manifested in terms of emotional attachment to the program, dissemination of positive word-of-mouth communications, and co-creation of values and experiences through participating school-sponsored activities. Once the engagement culture is established among student body, an MBA program is likely to become a genuine cash cow for universities (Piercy, 2000; Starkey et al., 2004).

Regardless of such practical implications underlying student engagement, researchers and school administrators have been somewhat passive on that matter. Most studies have been conducted at undergraduate levels and only a handful done at graduate programs. Moreover, the concept of student engagement has been narrowly described in the literature as the student's cognitive and affective attachment to the program or as involvement in the classroom, subject, learning, and so on (Carini et al., 2006; Klem & Connel, 2004; Marks, 2000). Albeit useful to some extent, such approaches fail to recognize student engagement as a part of prevailing student culture affecting many aspects including students' behaviors. A more comprehensive perspective on student engagement may be gained based upon the MSI's (2010, p.4) conceptualization which explains customer engagement is "customers' behavioral manifestation toward a brand beyond purchase." According to it, student engagement should include not only cognitive and affective attachment but also behavioral manifestation. Objects of engagement should also be expanded from learning or classroom to the MBA program or even college itself. And finally, student engagement is not likely to be truncated with graduation but can be extended beyond the level of their graduation. For example, Baruch and Sang (2012) reported that a number of MBA students maintain their involvement in the program after graduation. They further explained that MBA graduates' involvement with the program is affected by factors such as satisfaction with their school experience, prestige of institutions, networking opportunity, and some demographic factors such as age and gender. Once appropriately managed, then, student engagement may be extended beyond graduation. Such recognition is important because if left alone, the graduates' sense of attachment to the program is likely to decay rapidly with graduation (Burt, 2001). Therefore, it is imperative for any MBA program to establish student engagement as a cornerstone of their culture and instill loyalty intention while they are in the program. Practically speaking, it may be too difficult and costly for an MBA program to induce student engagement and loyalty to the program once they left the program.

MODEL DEVELOPMENT AND HYPOTHESES

The purpose of this study is to propose and empirically test student engagement as a concept that leads to student loyalty intention toward an MBA program. To maintain an objective perspective in theory testing, we developed a research model that is conducive to comparing traditional perspective to this research's point of view. Specifically, this study's research model incorporates not only student engagement but also student satisfaction, and examines their respective effect on loyalty intention. The research model is presented in Figure 1.

Figure 1
A Model of Student Satisfaction, Student Engagement, and Loyalty Intention among MBA students



First, student satisfaction with the MBA program is likely to affect student engagement. A consumer's motivation toward engagement is dependent upon the value that one is expected to receive from the experience (Holbrook, 2006). An MBA student is likely to comprehensively evaluate the benefits of attending an MBA program in conjunction with monetary and non-monetary costs incurred. Once that benefit-to-cost evaluation is deemed positive, s/he may be motivated to be engaged in the program. An alternative explanation may be made based upon the reciprocal action theory (Li & Dant, 1997). According to it, an individual reciprocates actions taken by another in a relationship because, if the norm of reciprocity is violated, s/he would feel social indebtedness and guilt. Thus, s/he will return good for good, proportionately to what s/he receives in the relationship (Bagozzi, 1995). Once an MBA student experiences satisfaction with the program, s/he may feel obliged to return a favor for the program. The favor that the student reciprocates to the program may be manifested into engagement behaviors such as emotional attachment to the program, spreading positive word-of-mouth communications, participating in school activities, even making financial contributions. Based upon these, the following hypothesis is developed.

H1 Student satisfaction with an MBA program has a positive influence on student engagement.

Second, student engagement is likely to affect student loyalty intention to the MBA program. Once a consumer is engaged in a brand, s/he tends to increase participation in activities associated with the brand. Such interaction usually is accompanied by enthusiasm, making one develop even more favorable attitudes toward the brand (Bagozzi & Dholakia, 2006). An accumulation of positive experiences through engagement is likely to motivate one to remain loyal to the brand (Vivek et al., 2012). Alternatively, Holbrook (2006, p.715) noted that engaged individuals might find intrinsic value from the engagement behavior and appreciate an engagement initiative for its own sake "as a self-justifying end in itself." For an engaged MBA student, engagement behavior itself can be intrinsically rewarding perhaps due to a heightened sense of belonging to the program. Moreover, doing activities in association with and for the program may serve as a self-justifying end in itself. Thus, an MBA student who has performed engagement behavior for the program may feel a stronger connection to the program, develop a more favorable attitude toward the program, and consequently may become more loyal to the program.

H2 Student engagement in an MBA program has a positive influence on his/her loyalty intention with to the program.

Finally, student satisfaction is hypothesized to have a positive influence on loyalty intention. This hypothesis is in line with prior marketing studies reporting the close relationship between customer satisfaction and loyalty. In an MBA program, student satisfaction is established based upon one's direct experience at the program. Since evaluations based upon one's direct experience are strong predictors of future behavior (Fazio & Zanna, 1981), an MBA student being satisfied with the program is likely to maintain good feelings towards the program in the future. Similarly, the literature dealing with attitude-behavior consistency (Mano & Oliver, 1993) posits the close relationship between experience-based attitude and behavioral intention. In this context, student satisfaction is likely to exert a positive influence on loyalty intention among MBA students.

H3 Student satisfaction with an MBA program has a positive influence on loyalty intention.

METHODOLOGY

Data for this study were collected via a self-reported questionnaire administered to 270 students enrolled in an MBA program at a major university in India. The questionnaire was composed of four sections: student satisfaction measures, student engagement measures, the dependent measures (*i.e.*, loyalty intention measures), and demographic questions. A seven-point Likert scale was adopted as a response category for both dependent and independent measures. Student satisfaction was measured by using a three-item scale, which includes the students' overall evaluation regarding the extent to which their needs are met, the extent to which their expectations are met, and overall satisfaction with the MBA program. Student engagement was incorporated into the questionnaire by using a seven-item scale that includes the student's emotional attachment, word-of-mouth communication behavior, and participation of the activities associated with the MBA program. The loyalty intention was measured by a two-item scale, addressing one's intention to continue the active relationship after graduation.

A total of 242 useable responses were collected. Demographically, 59.5 percent of the respondents were male and 40.5 percent female. All respondents were in their twenties. The school's MBA program was represented appropriately in terms of concentration areas, with 65 percent pursuing general MBA without concentration, 18 percent with finance concentration, and 8 percent with marketing concentration. Almost 95 percent of the students had cumulative GPA of 3.0 or above, and about 79 percent of them above 3.5. A review of the demographic profile of the respondents conducted by two school employees confirmed that the entire student population is appropriately represented by the sample.

RESULTS

Measurement properties of the scales developed for this study were evaluated using reliability, convergent validity, discriminant validity, and nomological validity. The three scales used in this study had acceptable reliability. The scales of satisfaction, engagement, and loyalty intention among the MBA students had reliability coefficients of .88, .89, and .92, respectively.

Table 1
Constructs and Measure Assessment

Constructs and Items	Standardized Factor Loading*	t	Cronbach's α
Student Satisfaction			.88
Meeting one's expectation	.88	-	
Overall satisfaction	.89	11.83	
Student Engagement			.89
Perceived bond with the program	.68	-	
Sense of belongingness	.81	11.31	
Mentioning the program to others	.74	10.44	
Posting messages in social media	.81	11.29	
Participation in activities for new students	.83	11.47	
Student Loyalty Intention			.92
Will actively communicate after graduation	.95	-	
Will actively participate after graduation	.89	20.09	

* Significant at .01 level.

Then, a confirmatory factor analysis using all three scales was carried out. One item dealing with satisfaction and two items measuring student engagement were removed from further analysis due to either poor factor loading or cross-loading. As shown in Table 1, all remaining items of each construct had significant factor loadings greater than .6, thus providing evidence of significant convergent validity (Anderson & Gerbing, 1988). A summary of construct correlations presented in Table 2 shows that none of the confidence intervals around the correlation estimates between the two factors (± 2 standard errors) includes 1.0, indicating the discriminant validity of measures (Anderson & Gerbing, 1988). Finally, constructs used in this study were found to behave consistently with pertinent theories in both marketing and psychology, as evidenced by the significant correlations among constructs. In summary, the measures used in this study were found to have adequate measurement properties for a theory testing.

Table 2 **Construct Inter-correlations**			
Construct	1	2	3
1. Satisfaction	1.0		
2. Engagement	.56***	1.0	
3. Loyalty Intention	.45***	.81**	1.0

*** Significant at .01

The hypotheses were tested by using structural equation modeling (SEM). We controlled measurement error by using a full SEM in which we estimated the three constructs and specified relationships among them (Figure 1) simultaneously. As Table 3 shows, the structural equation model fit the data well with satisfactory fit indices including adequate chi-square to degree of freedom ratio (2.65, p <.01), both GFI and CFI being well above .9 and RMSEA at .08 (Hair et al., 2006). The model explains 29% of the variance of MBA students' engagement behavior and 66% of the variance of students' intention to be loyal to their alma mater.

Table 3 **Hypothesis Testing Summary**		
Path Modeled (Hypothesis)	Standardized Coefficient	Result
Student Satisfaction → Engagement Behavior (H1)	.54***	Supported
Engagement Behavior → Loyalty Intention (H2)	.73***	Supported
Student Satisfaction → Loyalty Intention (H3)	.14	Not Supported
Fit Indexes: χ^2 = 63.55, $d.f.$=24, p < .01; GFI=.94; CFI=.97; SRMR=.04; RMSEA=.08		

*** Significant at .01

Hypothesis 1, which suggests a positive relationship between student satisfaction and student engagement is supported. This finding indicates the importance of satisfaction for MBA students to engage in the program. Hypothesis 2, dealing with the positive relationship between student engagement and the loyalty intention, is also supported. The finding indicates a tendency that an engaged student has a high likelihood of being loyal to the MBA program after graduation. Hypothesis 3 regarding the direct influence of student satisfaction on loyalty intention was not supported. Instead, student satisfaction was found to indirectly affect loyalty intention through the mediation of student engagement.

For a more rigorous theory testing, we compared our hypothesis-testing model with an alternative model. Specifically, this study's research model was compared with a nested model which posits student engagement as a full mediator of the relationship between student satisfaction and loyalty intention. In that alternative model, there was a significant decrease in the fit of the model (change in χ^2=5.674, p < .05). Moreover, the variance explained in loyalty intention was reduced, although all the paths in the model were statistically significant. In short, the alternative model neither had significantly increased model fit nor enhanced our understanding of loyalty intention among MBA students. Thus, the structural equation model in Figure 1 provides stable and parsimonious estimates of the multiple relationships in our data.

DISCUSSION

Although many authors support the perspective that higher education institutions are considered service organizations (Dolinsky, 1994; Zammuto, Keaveney, & O'Connor, 1996), a relational approach has only recently been applied to this specific field of services marketing. This study is in line with that perspective, yet extends the existing knowledge base by proposing and empirically demonstrating student engagement as an important construct that leads to student loyalty intention. This study, compared to existing studies, is unique because it examines student satisfaction and engagement in conjunction with MBA students' loyalty intention after graduation.

Findings of this study are generally in line with existing literature. Yet, the study also provides a meaningful, new insight into the study of student loyalty. First, student satisfaction is found to be an important factor exerting a direct influence on student engagement and an indirect influence on loyalty intention. This finding provides a meaningful clue for the controversy over the relationship between satisfaction and loyalty. According to our study, student satisfaction alone was not sufficient to exert a meaningful influence on loyalty intention. Student satisfaction may enact a critical role during the formation stage of the student-program relationship. Yet, for that relationship to be escalated into the next level such as loyalty, mere satisfaction was not enough. Additional factors need to come into play. We found that it was through student engagement that student satisfaction exerted an indirect, yet significant influence on loyalty intention. Thus, student satisfaction needs to be sublimated into student engagement for one to develop loyalty intention to his/her MBA students. Otherwise, satisfaction with the MBA program may not be transferred into future behavioral intention. Thus, the administrators need to keep in mind that satisfaction is one thing and loyalty is another. Second, student engagement was found to exert a strong, positive influence ($\beta = .73$, $p < .01$) on loyalty intention among MBA students. Simply stated, engaged MBA students are the ones who will remain loyal after graduation. The very act of being engaged seems to solidify already favorable attitudes toward the program and student engagement serves as a precursor to the loyalty toward the program (Carini et al., 2006).

CONCLUSIONS

Graduate students are viewed as customers, and the schools establish their strategic goals in terms of student satisfaction and loyalty. Accordingly, a number of research calls have been made on the psychology of MBA students (Richards-Wilson, 2002). Regardless, student loyalty is an elusive concept. Oliver (1999), after observing the mixed findings on the relationship between satisfaction and loyalty, has stated a call for research on additional factors that lead to customer loyalty. Similarly, Stewart (1997) exclaimed that a satisfied customer was not enough. This research represents a response to such demands. The significant relationship between student engagement and loyalty intention demonstrated in this study should provide meaningful implications and an impetus for future research. MBA students' loyalty to their program is found to be affected not by satisfaction alone but by engagement. Instilling MBA students with a sense of engagement in the program is a cornerstone for getting them to continue their relationship with the alma mater. School administrators need to pay attention to such psychology of students and develop culture fostering that engagement is the norm.

This study, regardless of the meaningful findings, is not without shortcomings. First, the study has limited applications due to the lack of diversity in data. Data for this study was collected at one MBA program in India. While such a data collection setting allows us to control extraneous factors for a robust theory testing, the applicability of the findings to other contexts is somewhat hampered. Before applying the findings to a broader context, it would be necessary to replicate the study at more MBA programs. Second, this study has adopted loyalty intention as a proxy for actual loyalty. Although it has a good theoretical and practical grounds to assume a close relationship between them (Chaudhuri & Holbrook, 2001; Woisetschlager, Lentz, & Evanschitzky, 2011), caution is advocated while applying the findings of this study. Finally, this study fails to incorporate other seemingly important variable that may determine the student engagement. For example, one's engagement with an MBA program may be affected by factors such as the prestige of the program, the student-faculty interaction quality, and the strength of existing alumni network. An inclusion of these attitudinal variables into the study's model would have reflected reality more precisely.

Findings of this study provide several implications for both administrators and scholars. Administrators of an MBA program looking into establishing strong alumni network need to keep in mind that delivering satisfactory education service is a necessary but not sufficient condition for the long-term relationship. A satisfied MBA student is not necessarily a loyal alumnus. Instead, engaged students are the ones who have a good chance of becoming loyal to the program. School administrators need to recognize the importance of fostering an environment which is conducive to student engagement.

For scholars, the findings of this study should suggest several research venues. First, it would be fruitful to identify strategies that effectively have MBA students engaged in the program. From a student perspective, being engaged in an MBA program requires commitment. They would have to take time in spreading word-of-mouth communications, exert effort in participating in activities sponsored by the program, and sometimes even donate their personal financial resources. Unless they find such activities to be intrinsically rewarding, their engagement may be neither strong nor lasting. In this context, identification of antecedents of student engagement among students in general, and MBA students in particular, can be a challenging, yet rewarding research topic. In addition, it would be interesting to examine student engagement in relation to other variables such as institutional, social, and individual factors. For example, there may be a particular segment of the MBA students that are more prone to getting engaged in the program than others. As Becker's (1960) side bet theory suggests, relationships are profitable only when they last long enough for the firm to recoup its costs and reap the benefits. Consequently, a firm should focus on identifying those customers who are most likely to remain in long-term relationships with the firm. In an MBA program, figuring out these individuals in terms of their demographic and psychographic backgrounds would be useful in developing strategies. Finally, the findings of this study should provide an impetus for future research in a cross-cultural context. Culture and cultural values may add interesting twists to the tendency of student engagement in an MBA program. Indeed, there are a number of future research directions in the area.

In conclusion, this article presents a perspective in enhancing student loyalty to their MBA program. Service literature has made a significant progress over the years in expanding our understanding on satisfaction, engagement, and loyalty. MBA students' loyalty to the program, however, has received limited attention. There is a high expectation that the perspective and findings introduced in this study will be applied to future studies.

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MEASURING RETAIL STORE SERVICE QUALITY: THE DISPARITY BETWEEN THE RETAIL SERVICE QUALITY SCALE (RSQS) AND COMMENT CARDS

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ABSTRACT

Comment cards are often used by retail stores to assess service quality at the point of service. This study compares the attributes and dimensions measured by retail store comment cards to the attributes, sub-dimensions and dimensions of the Retail Service Quality Scales (RSQS) recommended by Dabholkar et al. (1996). A content analysis of retail store comment cards reveals that all five of the RSQS dimensions are being measured in the retail industry, although with different attributes. Findings reveal that the comment cards do not include two RSQS sub-dimensions, convenience (physical aspect) and promises (reliability), and eighteen of the RSQS scale items. Further, comment cards measure attributes that are not captured by RSQS, including the friendliness and professionalism of the sales staff, check-out, delivery, loading and availability of service, price, selection, value, condition, usability, styling and preference of the product, and the location of the store facilities. As retail stores transition to electronic capture of service quality data, the study findings are equally relevant to electronic survey construction.

INTRODUCTION

Retail is struggling as it slowly recovers from low sales in 2013. After a disappointing year, retailers offered aggressive promotions for the 2013 holiday season in the hope of increasing sales. Sales did increase, but at the expense of their margin. A large share of sales was lost to Wal-Mart and online to Amazon.com (Wolf, 2014). Although retail sales are expected to grow 4.1 percent this year (Karr, 2014), "(r)etailers are still stressed and a long-term promotional environment may actually hurt the bottom line." (Wolf, 2014, p. 4). Continued aggressive promotion is not in the best interest of retail. Rather, the retail store must find a way to differentiate itself so it can stand apart from other retailers and drive more consumers to its store. Distinguished service quality is one way to accomplish this. Retailers need an efficient way to assess the service quality of their store. This is often accomplished with comment cards or surveys designed by or for the store. The academic literature is replete with suggestions for measuring service quality. Do retailers take advantage of this treasure trove?

RELATED LITERATURE

Service quality is an antecedent to customer satisfaction that, in turn, impacts purchase intention (Cronin and Taylor, 1996). Thus, retail store managers are keenly interested in assessing and addressing service quality issues efficiently and effectively.

Service Quality Scales

Parasuraman et al. (1988) created a multiple-item scale to measure consumer perceptions of service quality that they named SERVQUAL. This 22-item instrument is based on gap theory that measures the difference between customer expectation and their perception of actual service performance on a seven-point Likert scale ranging from strongly agree to strongly disagree. The researchers identified five dimensions of service quality, including tangibles, reliability, responsiveness, assurance and empathy. The physical attributes are captured by tangibles. Reliability is the ability to perform dependably and accurately. Responsiveness ties into willingness to help and promptness of service. Assurance is the ability of the employee to engender trust and confidence from the customer. Empathy is providing caring, individualized attention. Parasuraman et al. (1988) suggest that SERVQUAL can be used across a broad spectrum of services, but may need to be adapted to the particular organization.

Cronin and Taylor (1992) suggest that service quality should be measured as an attitude instead of using gap theory. They recommend a simple performance-only based attitudinal measure, SERVPERF, as a better fit with the literature and their empirical results. SERVPERF omits the expectation measures in SERVQUAL and uses only the performance measures. In comparing the two, using customers of fast food restaurants in Delhi, Jain and Gupta (2004) reported SERVPERF to have more convergent and discriminate validity, but SERVQUAL has higher diagnostic power to help managers with practical decision-making. They also note that the heavier data collection task related to SERVQUAL may limit its use. Angur et al. (1999) compared the scales, both weighted and non-weighted, in the Indian banking industry and also concluded SERVQUAL to be a better measure of service quality.

Industry-Specific Service Quality Scales

Researchers have investigated the adaptations to measuring service quality that may be needed depending upon the specific industries (e.g., Bowers et al. (1994) in health care, Stafford (1996) in banking, Weeks et al. (1996) for professional services, Oyewole (1999) for fast food, and Chan et al. (2011) in leisure services). Knutson et al. (1990) created LODGSERV for the lodging industry based on the five dimensions of the SERVQUAL instrument, but made up of twenty-six lodging-specific items. DINESERV was developed in the same way, but for the restaurant industry with twenty-nine restaurant industry-specific items. A performance-only version, DINESERV.PER, is similar to SERVPERF (Stevens et al., 1995) but for use in the restaurant industry.

Retail Service Quality Scales (RSQS)

Although Parasuraman et al. (1988) suggest that the SERVQUAL instrument can be adapted to the organization, Dabholkar et al. (1996) view SERVQUAL as more appropriate for "pure" service settings and not as applicable to the retail setting which they believe requires additional dimensions. The researchers site others with the same viewpoint. Carman (1990) does not view the SERVQUAL dimensions as generic and recommends additional items or factors based on the setting. Finn and Lamb (1991) also see the need for modification for SERVQUAL to be valid in a retail environment. Thus, Dabholkar et al. (1996) propose the Retail Service Quality Scale (RSQS), a 28-item scale with seventeen items from SERVQUAL and eleven items from the literature and their own qualitative research. Since customers evaluate retail quality at both the attribute and integrated level, the RSQS has five dimensions each with its own sub-dimensions (see Table 1). The five dimensions include *physical aspects*, *reliability*, *personal interaction*, *problem solving*, and *policy*. *Physical aspects* is a little broader than the SERVQUAL *tangibles* dimension, as it includes the appearance and convenience of the store's layout. *Reliability* is similar to the SERVQUAL *reliability*, but with two sub-dimensions involving keeping *promises* and *doing it right*. *Personal interaction* with employees encompasses *inspiring confidence* and *courteousness/helpfulness*. *Problem solving* handles *returns/exchanges* and *complaints*. *Policy* is related to the advantages offered to customers via the store policy (i.e., hours of operation, store credit).

Table 1
Retail Service Quality Scale Dimensions, Sub-Dimensions and Items

RETAIL SERVICE QUALITY SCALE DIMENSION	RETAIL SERVICE QUALITY SCALE SUB-DIMENSION		RETAIL SERVICE QUALITY SCALE ITEM
Physical Aspects	Appearance	P1	This store has modern-looking equipment and fixtures.
Physical Aspects	Appearance	P2	The physical facilities at this store are visually appealing.
Physical Aspects	Appearance	P3	Materials associated with this store's service (such as shopping bags, catalogs, or statements) are visually appealing.
Physical Aspects	Appearance	P4	This store has clean, attractive, and convenient public areas (restrooms, fitting rooms)
Physical Aspects	Convenience	P5	The store layout at this store makes it easy for customers to find what they need.
Physical Aspects	Convenience	P6	The store layout at this store makes it easy for customers to move around in the store.
Reliability	Promises	P7	When this store promises to do something by a certain time, it will do so.
Reliability	Promises	P8	This store provides its services at the time it promises to do so.
Reliability	Doing it Right	P9	This store performs the service right the first time.
Reliability	Doing it Right	P10	This store has merchandise available when the customers want it.
Reliability	Doing it Right	P11	This store insists on error-free sales transactions and records.
Personal Interaction	Inspiring Confidence	P12	Employees at this store have the knowledge to answer customers' questions.
Personal Interaction	Inspiring Confidence	P13	The behavior of employees in this store instill confidence in customers.
Personal Interaction	Inspiring Confidence	P14	Customers feel safe in their transactions with this store.
Personal Interaction	Courteousness/ Helpfulness	P15	Employees in this store give prompt service to customers.
Personal Interaction	Courteousness/ Helpfulness	P16	Employees in this store tell customers exactly when services will be performed.

RETAIL SERVICE QUALITY SCALE DIMENSION	RETAIL SERVICE QUALITY SCALE SUB-DIMENSION		RETAIL SERVICE QUALITY SCALE ITEM
Personal Interaction	Courteousness/ Helpfulness	P17	Employees in this store are never too busy to respond to customer's requests.
Personal Interaction	Courteousness/ Helpfulness	P18	This store gives customers individual attention.
Personal Interaction	Courteousness/ Helpfulness	P19	Employees in this store are consistently courteous with customers.
Personal Interaction	Courteousness/ Helpfulness	P20	Employees of this store treat customers courteously on the telephone.
Problem Solving	None	P21	This store willingly handles returns and exchanges.
Problem Solving	None	P22	When a customer has a problem, this store shows a sincere interest in solving it.
Problem Solving	None	P23	Employees of this store are able to handle customer complaints directly and immediately.
Policy	None	P24	This store offers high quality merchandise.
Policy	None	P25	This store provides plenty of convenient parking for its customers.
Policy	None	P26	This store has operating hours convenient to all their customers.
Policy	None	P27	This store accepts most major credit cards.
Policy	None	P28	This store offers its own credit card.

In a comparison study of SERVPERF and RSQS in the Singapore retail industry, Mehta et al. (2000) found the RSQS to be better suited to businesses in which there is a higher ratio of goods to service (i.e., a supermarket), whereas the SERVPERF scale is better suited to businesses with the opposite ratio in which service is more important (i.e., an electronic goods retailer).

HYPOTHESES

Comment cards are designed to capture the customers' evaluations of the performance of the retail store at the time of service or shortly thereafter, so it is a useful tool for measuring service quality. However, comment cards are not always used to their full potential, and often as customer appeasement or employee punishment (Wisney and Corney, 1997). There is also the challenge of comment card availability and problematic return methods that impact data collection.

Managers have many service quality instruments at their disposal. Specifically, managers in a retail setting have the RSQS available to them. However, managers do not always use the established scales or only use a portion of the items recommended by the academic literature. In comparing comment cards to the LODGSERV instrument, Keith and Simmers (2013) found that all dimensions were included by at least one measure, however some items were not included and others were added in the comment cards. The DINESERV and comment card comparison faired the same, by including all five DINESERV dimensions with at least one measure, but including additional tangible attributes and omitting items that may suggest a negative experience (Keith and Simmers, 2011).

Therefore it is hypothesized, that all five of the RSQS dimensions will be represented. However, not all prescribed items will be utilized and there may be some additional items included by the comment cards.

H1 *Retail store comment cards assess all five Retail Service Quality Scale dimensions.*

H2 *Retail store comment cards do not assess service quality using the same items as those of the Retail Service Quality Scale.*

METHODOLOGY

A sample of sixty comment cards was collected from diverse retail stores throughout the United States over a four-year time period. The individual comment card items were sorted by similarities and differences, then categorized into meaningful dimensions. The comment card items and identified dimensions were compared to the items, sub-dimensions and dimensions of the Retail Service Quality Scale (RSQS) scale developed by Dabholkar, Thorpe and Rentz (1996). Two coders separately categorized the data then compared their results. Inter-coder reliability was found to be 99 percent, with coders resolving the differences found.

RESULTS

The types of questions found in the sample comment cards included Likert scale, categorical, binomial and open-ended questions. The average length of the comment cards was ten questions with a median of nine and a range from three to forty-eight questions. Most surveys (n = 45, 75%) were postage-paid by the retail store. In eighteen percent of the surveys (n = 11), the respondent could check for a possible reply to a complaint. Almost all of the surveys had a place for additional comments. The demographic characteristics requested included name (n = 54, 90%), address (n = 48, 80%) and telephone number (n = 44, 73%). Only a couple of surveys (3%) asked for more detailed information. An overall experience question was asked in 47 percent of the surveys using a 4- or 5-point Likert scale.

Retail Store Comment Card Analysis

A total of four meaningful dimensions were identified with the comment cards. These four dimensions assessed the *sales staff*, *service*, *product* and *store facilities* (See Table 2). Distinguishable attributes were identified for each dimension. The most frequently used assessment was a 4- or 5-point Likert scale.

The attributes used to assess the *sales staff* included *helpfulness*, *friendliness*, *promptness*, *knowledge*, *courtesy*, *efficiency*, *appearance*, *accuracy* and *professionalism*. The most frequently addressed attributes were *helpfulness*, *friendliness*, *promptness*, *knowledge* and *courtesy*, each found in more than 30 percent of the surveys. Attributes used to rate the *service* received at a particular retail store included *checkout*, *delivery*, *loading*, *refund/exchange* and *availability of service*. *Checkout* was in 30 percent of the surveys. The other attributes were in 8-10 percent of the surveys. Nine attributes were used to measure the retail *product(s)* sold, including *price*, *selection*, *quality*, *in/out of stock*, *value*, *condition*, *usability*, *styling* and *preference*. *Price*, *selection* and *quality* assessments were each found in approximately one-third of the surveys. The *store facilities* were judged based on *cleanliness* (27%), *attractiveness* (17%) and *store location* (8%).

Table 2 Retail Store Comment Card Content Analysis vs. Retail Service Quality Scale						
COMMENT CARDS				RETAIL SERVICE QUALITY SCALE		
Dimension	Attribute	Frequency (n=60)	Percent	Dimension	Sub-Dimension	Item #
Sales Staff	Helpfulness	38	63%	Personal Interaction	Courteousness/ Helpfulness	None
	Friendliness	30	50%	None	None	None
	Promptness	26	43%	Personal Interaction	Courteousness/ Helpfulness	P15
	Knowledge	24	40%	Personal Interaction	Inspiring Confidence	P12
	Courtesy	19	32%	Personal Interaction	Courteousness/ Helpfulness	P19, P20
	Efficiency	12	20%	Reliability Problem Solving	Doing It Right None	None None
	Appearance	8	13%	Physical Aspects	Appearance	None
	Accuracy	6	10%	Reliability	Doing It Right	P11
	Professionalism	4	7%	None	None	None
Service	Check-out	18	30%	None	None	None
	Delivery	6	10%	None	None	None
	Loading	5	8%	None	None	None
	Refund/Exchange	5	8%	Problem Solving	None	P21
	Availability	5	8%	None	None	None
Product	Price	22	37%	None	None	None
	Selection	21	35%	None	None	None
	Quality	20	33%	Policy	None	P24
	In/Out of Stock	15	25%	Reliability	Doing It Right	P10
	Value	9	15%	None	None	None
	Condition	6	10%	None	None	None
	Usability	5	8%	None	None	None
	Styling	4	7%	None	None	None
	Preference	4	7%	None	None	None
Store Facilities	Cleanliness	16	27%	Physical Aspects	Appearance	P4
	Attractiveness	10	17%	Physical Aspects	Appearance	P2
	Location	5	8%	None	None	None

Retail Store Comment Card Content vs. RSQS Dimensions

The dimensions and attributes of the comment cards were compared to the dimensions, sub-dimensions and items of the RSQS. The comment cards included each RSQS dimension with one or more RSQS item(s) in support of H1, but did not include two of the sub-dimensions (*convenience* and *promises*). Only ten of the twenty-eight RSQS items were directly related to the comment cards.

The comment card dimension of *sales staff* was captured in the RSQS *personal interaction* dimension, *courteousness/helpfulness* sub-dimension, but no specific RSQS items corresponded. *Promptness* corresponded to the RSQS *personal interaction* dimension, *courteousness/helpfulness* sub-dimension, with item P15. Item P12 in the *personal interaction* dimension, *inspiring confidence* sub-dimension captured *knowledge*. *Courtesy* was measured using two of the *personal interaction* dimension, *courteousness/helpfulness* sub-dimension items P19 and P20. *Efficiency* corresponded to both the *reliability* dimension, *doing it right* sub-dimension, and the *problem solving* dimension, although not with a specific RSQS item.

Appearance corresponds directly to the *physical aspects* dimension, *appearance* sub-dimension, though not with a specific item. The *reliability* dimension, *doing it right* sub-dimension, item P11 captures *accuracy*. *Sales staff friendliness* and *professionalism* was not captured by RSQS.

The only comment card attribute under the dimension of *service* that RSQS captured was *refund/exchange* with the *problem solving* dimension, item P21. *Check-out*, *delivery*, *loading*, and *availability* were not captured by RSQS.

Two RSQS items measured the comment card *product* dimension. The comment card attribute *quality* was measured by the *policy* dimension, item P24. *In/out of stock* was measured by the *reliability* dimension, *doing it right* sub-dimension, with item P10. The attributes of *price*, *selection*, *value*, *condition*, *usability*, *styling* and *preference* were not captured by RSQS.

Two attributes of the comment card *store facilities* dimension were captured by RSQS. *Cleanliness* and *attractiveness* were captured by the *physical aspects* dimension, *appearance* sub-dimension, with items P4 and P2, respectively. The *location* attribute was not captured by RSQS. These results support H2.

CONCLUSIONS AND RECOMMENDATIONS

The RSQS is specifically designed to measure service quality in a retail setting. As hypothesized, all five RSQS dimensions were represented. However while the comment cards do touch on each of the identified dimensions, they do not include all of the RSQS sub-dimensions or scale items. In addition, they include many attributes that are not captured by the RSQS instrument, specifically those related to the product itself and the handling of the product. This is similar to the findings of Keith and Simmers (2011, 2013) in the restaurant and lodging industries.

Comment cards have the advantage of being standardized and able to capture information at the time of service. Over time responses can be compared and appropriate remedies can be taken when necessary (Sampson, 1996). However, comment cards have the disadvantage of having a limited space, so retailers must be selective with the types of information they collect. Including open-ended questions allows the respondent to provide a deeper understanding of customer expectations (Pullman et al., 2005). Just having customers complete a comment card shows retailer concern and generates customer elaboration so as to have a positive effect on customer behavior, such as purchase frequency and the amount of money spent at a visit to the store (Borle et al., 2007). The feedback received from comment cards help to improve service quality, customer satisfaction and purchase intention (Cronin and Taylor, 1992).

The recent trend is for companies to transition to electronic means of collecting service quality information. Findings from this study are also applicable in this medium as the same data will need to be collected regardless of the collection methodology. Researchers need to be cognizant of the dimensions and items that are included beyond those recommended by the RSQS academic literature. Future research may examine if researchers are designing their electronic surveys to be similar to their former comment cards. Of further interest may be to examine if researchers are able to capture service quality data closer to the time of service, if there is a difference in the response rate and if there is a divergence among the people who respond to paper versus electronic survey formats.

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SOCIAL MEDIA ADOPTION BY CORPORATIONS: AN EXAMINATION BY PLATFORM, INDUSTRY, SIZE, AND FINANCIAL PERFORMANCE

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ABSTRACT

More than ever, companies are tweeting, posting, blogging, and generally using social media networks to communicate with their consumers, employees, and other stakeholders. With the emergence of new social networks, companies are in the process of testing which network works best for them. Since consumers have different preferences and needs that make one social media platform more desirable than another, many companies use multiple platforms. This study empirically charts the current adoption of social media by Fortune 500 companies. The purpose of this study is to analyze which social media platforms are being used by major corporations and whether adoption differs by industry, firm size, and growth opportunity. Company financial information is examined to determine if there is a relationship between higher use of social media and superior financial performance.

Key words: social media, marketing strategy, marketing mix, digital marketing, customer relationship management

INTRODUCTION

Today's marketplace is experiencing a torrent of online communications being transmitted through social media. Business managers are adapting to the reality that consumers are using social media platforms to spread information concerning companies and products. More than ever, companies are joining in on tweeting, posting, blogging, and generally using social networks to communicate with their consumers, employees, and other stakeholders. According to one study, over three-fourths of businesses are using social media to accomplish their business objectives (Alexander, 2011, September). Researchers predict that this trend of increasing social media adoption will continue (Barnes, 2010; Harris & Rae, 2009; Weinberg &

Pehlivan, 2011). For some companies, social media may become the primary communication channel to connect with customers (Baird & Parasnis, 2011).

While firms cannot control the information that consumers disseminate through social media, it is essential for businesses to have a presence in the social media arena. Many researchers support the idea that social media should be part of a firm's marketing mix and included in standard marketing management practices (Li & Bernoff, 2008; Mangold & Faulds, 2009). Many corporations are following this advice by increasingly using social media as a marketing tool. In 2010, 69% of Fortune 2000 companies were using social media (McCorkindale, 2010). A study of Inc. 500 and Fortune 500 companies that same year showed that social media was becoming a vital part of a company's marketing strategy. With the emergence of new social networking sites, this study found a shift in which social media platforms are preferred by businesses (Barnes, 2010). Public relations practitioners considered Facebook to be the most important new communications venue in 2010. Next in line were Twitter, LinkedIn, and YouTube (Wright & Hinson, 2010).

In a study of Fortune 50 companies, most companies were utilizing social media, but not to its full extent. Some companies were not on Facebook, being uncertain how this platform fits into the marketing strategy. Companies were incorporating customer relationship management into their Web sites and blogs, but neglected the social networking sites (McCorkindale, 2010).

Measuring the effectiveness or return on investment (ROI) of social media remains a challenge. There is not an industry standard for measuring the value of social media. Public relations experts are making recommendations on how to measure to the effectiveness of social media campaigns, but studies indicate that practitioners are not actively tracking social media ROI (Briones, Kucha, Liua, & Jinb, 2011; Fisher, 2009; Solis & Breakenridge, 2009; Taylor & Kent, 2010). Many marketers do not measure social media campaigns because they do not have the personnel or financial resources to track and analyze coverage. Some marketers say that social media has value by simply engaging the public and providing the company with an online presence (Fitch, 2009, p. 11). Many researchers agree that businesses are still in the process of determining the best way to utilize social media (Fitch, 2009; Stelzner, 2010; Taylor & Kent, 2010).

Even though research suggests that large companies use mainstream social media channels, the adoption of social media is not universal. Further, there is little evidence about the extent to which social media has been adopted by business-to-business firms (Brennan & Croft, 2012). The purpose of this study is to empirically examine which social media platforms are being used by the Fortune 500 and to determine if there is a significant relationship between higher use of social media and superior financial performance. This study also examines differences in social media adoption by industry type and firm size.

WHO'S USING SOCIAL MEDIA?

Every day billions of people are engaged with social media, creating trillions of connections (Hansen, Shneiderman, & Smith, 2011). Social media is not only a tool for the exchange of information; it can be an influential component of the consumer's decision making process. Online messages from peers have become influential in shaping various aspects of consumer behavior such as awareness, attitudes, and purchasing (Mangold & Faulds, 2009; Mangold & Smith, 2011). According to one survey, sixty percent of people on social networks either write a review or share an existing review with friends (Johnson, 2011). Consumers are using reviews on social media sites to reduce their cognitive costs in purchasing decisions. In this way, social media is providing product and company information that helps make the purchasing decision easier (Liu, Karahanna, & Watson, 2011). Social media has expanded the Internet not only to be a source of information, but also a source of influence (Hanna, Rohma, & Crittendenb, 2011).

There are literally hundreds of different social media platforms available, these include social networking, wikis, podcasts, shared photos and videos, and discussion groups. Social networks, including blogs, have grown in usage by people and companies. Whereas, message boards, wikis, and podcasting have leveled off or declined in usage (Barnes, 2010). Research suggests that 80 percent of active Internet users visit either social networks or blogs (Johnson, 2011).

Facebook has the largest user base of any social media platform in the world, with over 700 million users (Alexander, 2011, November). More than 700,000 businesses have active pages on Facebook (Briones et al., 2011). Companies can create "business pages" on Facebook with which to promote their brands. Some business-to-business (B2B) firms are endeavoring to use social media, thus positioning themselves as pioneers in being market-driven and building relationships with stakeholders (Brennan & Croft, 2012).

Of all the sites on the World Wide Web, social media networks are among the most popular. Facebook is ranked as the second most popular website, YouTube ranks third, Twitter is tenth, and LinkedIn is number thirteen. What is the most popular website? That spot is held by the Web's highly regarded search engine, Google (Alexa, 2012).

Marketers have begun using social media 'mission control' centers for monitoring and responding to social media activity in real time (Weinberg & Pehlivan, 2011). Some companies call this their 'war room.' Some of these war rooms are generated for special events, such as the Super Bowl. Several advertisers of Super Bowl 2013, such as Coke and Oreo, had mission control centers operating during the game in order to engage in real time game-related conversations through social media. A team of company marketers along with ad agency personnel monitored conversations, analyzed them, and crafted responses in the matter of minutes. Oreo even made use of the power outage experienced in the middle of the Super Bowl by tweeting that you can still "dunk in the dark."

However, not all companies are welcoming the use of social media. According to Barnes (2010), the most cited reasons for not using any form of social media were limited resources and legal restrictions. Some companies may choose to avoid social media because they cannot control the content and they do not want to risk ethical or legal repercussions for publicly made statements. Social media may not be compatible with the marketing strategy of some companies. For companies whose revenues come from just a few customers, personal selling is a better communication tool than social media. Another reason for not using social media may be a combative working environment wherein employees use the platform to lambast management (Barnes, 2010).

PURPOSE OF SOCIAL MEDIA

Besides dialogue and interaction with consumers, the array of social media venues can be used to meet specific needs and purposes. Companies have incorporated social media into their marketing mix in order to accomplish an array of goals including communicating with stakeholders and marketing their brands. Some companies use social media internally to facilitate an open and collaborative style of management (Harris & Rae, 2009). Approximately 80% of companies are using social media to recruit employees (Alexander, 2011, September; Barnes, 2010). Other possible purposes for using social media include engaging consumers, creating brand awareness, adding value to a brand, and staying abreast of consumer opinions. Social media can also be used to influence consumer attitude about a brand or company (Weinberg & Pehlivan, 2011).

Since there is an abundance of social media available, marketers are testing out several major social networking sites (Crittenden, Peterson, & Albaum, 2010). Many companies use multiple forms of social media. This is because consumers use and respond to these media in different ways. Consumers have personal preferences and different needs that make one platform more desirable than another. The platforms also vary in terms of functionality, for instance, Twitter posts are not longer than 140 characters, whereas blogs tend to be up to a page in length (Bernoff & Li, 2008).

Weinberg and Pehlivan (2011) identify two factors for classifying social media: depth of information and half-life of information. A company may choose a social media platform depending on how well these two factors comply with their marketing objectives. Information depth refers to rich content along with the amount and diversity of perspectives. Social networks like Facebook provide depth of information due to many users providing an array of information and opinions. The second factor, half-life of information, refers to the longevity of the information online. For example, blogs have a long life, whereas tweets are short-lived. A company may choose to use Twitter if its objective is to increase brand awareness or stay top-of-mind through short conversations. On the other hand, a company will choose a social network like Facebook if the objective is to convey a significant amount of information, pictures, or product reviews.

VALUE OF SOCIAL MEDIA

According to one study, the number-one benefit of using social media is that it helps the company stand out in a noisy world. A significant 88% of marketers indicated that their social media efforts have generated more exposure for their businesses. Nearly two-thirds of marketers indicated a rise in search engine rankings as a benefit of social media marketing. As search engine rankings improve, so will business exposure (Stelzner, 2011). Consumers perceive social media as a trustworthy source of product information, more trustworthy than corporate-sponsored marketing messages via the traditional venues (Foux, 2006).

Some think that it is a proven fact that social media returns a positive ROI for businesses (Alexander, 2011, September). However, other researchers say there is too much ambiguity in measuring the effectiveness of social media to give any absolutes. In one study, a third of the respondents felt they were still waiting on their social media efforts to provide any measureable benefits (Culnan, McHugh, & Zubillaga, 2010). Some of the discrepancy here can be attributed to how the user is measuring value. There is growing corporate interest in using social media to create online customer communities. Value is derived from online customer communities who are so engaged with the company that they become loyal customers and even champions for the brand. These types of customers are instrumental in facilitating viral marketing and driving traffic to the company site.

Due to consumers creating and sharing product and company information via social media, they have more muscle in the marketplace. This “groundswell” (Li & Bernhoff, 2008) is impacting consumer perception of a company. Consumers have the ability to reposition companies and products (Fournier & Avery, 2011; Gerzema & D’Antonio, 2011). In other words, consumers can alter the image of a brand by creating and sharing information amongst themselves. This alteration may be positive or negative. Regardless, consumers are increasing brand awareness. Brand research acknowledges the active role that consumers play in defining the meaning of a brand (Vallaster & von Wallpach, 2013). Companies who do not have a presence in social networking may be at a disadvantage in competing for the consumer’s attention.

Besides using social media to engage with the consumer, companies may benefit from the mere exposure effect, where consumers prefer a company or product to which they have already been exposed. This familiarity with the brand that comes through social media can influence the consumer’s purchase decision (Mangold & Smith, 2011). Social media facilitates online word-of-mouth, or viral marketing. Information related to a company or product can be transmitted in an exponentially growing way (Kaplan & Haelein, 2011). According to Keller (2007), word-of-mouth has become the most influential communication channel.

According to Baird and Parasnis (2011), IBM consultants, companies need to integrate social media and customer relationship management into a new paradigm – Social Customer Relationship Management (Social CRM). Under Social CRM, the firm facilitates collaborative social experiences and dialogues through which the customer can find value. Social media is most effective when aligned with traditional marketing activities that encourage an open relationship with customers (Wymer, 2010). Relying on the traditional promotional mix to create integrated marketing communications is giving way to this new paradigm that includes multiple social media platforms as tools in designing and implementing marketing strategies. Marketers cannot ignore social media because it is becoming the de facto modus operandi for disseminating product information (Mangold and Faulds, 2009).

Value can also be derived through additional sales and consumer-generated ideas for product development (Culnan, McHugh, & Zubillaga, 2010). Within this search for information, consumers are also providing their ideas for products and services. Companies that are receptive to consumer comments can gain insight into consumer preferences and, perhaps, innovative ideas for new products (Mangold & Smith, 2011). Interactive social media platforms have contributed to a 24/7 collaborative marketplace that have fundamentally changed the way marketers engage with their consumers (Hanna, Rohma, & Crittendenb, 2011). Since the benefits and value derived from using social media remains unclear, measuring the payback is also ambiguous. There are multiple potential benefits from using social media, and the value derived may be seen in the long-term rather than short-term.

METHODOLOGY AND RESEARCH QUESTIONS

This paper examines social networking platforms used by Fortune 500 companies. A sample of 250 companies was randomly selected in February 2013 from CNN's list of these largest American corporations (CNN, 2011). Any social media platform, including company blogs, was eligible for inclusion in the study. If the company website had a link to the social networking site, then it was included in the analysis.

The Fortune 500 is composed of leading companies that drive the American economy and, to a large extent, the world economy. Research has shown a continued steady adoption of social media by the Fortune 500; this reveals the mounting importance of social media in the world of business (Barnes, 2010; McCorkindale, 2010). With the emergence of additional social media platforms and companies still exploring which platforms work best for them, the ranking of preferred social media continues to shift for corporate usage. Many companies use multiple forms of social media since consumers utilize various platforms for different purposes. Determining the current status of corporate social media adoption is the motivation behind the first two research questions:

RQ1 W*hich social media platforms are being used by corporations?*

RQ2 *Are there differences in social media adoption by (a) industry type, (b) firm size (i.e., total assets, total sales, and market value of equity), or (c) growth opportunity (i.e., market to book ratio)?*

Since the benefits and value derived from using social media remains unclear, measuring the payback is also ambiguous. However, it is worth investigating whether social media adoption is linked to corporate financial performance, thus the third research question follows:

RQ3 Is social media adoption by companies connected to superior financial performance?

For the second and third research questions, financial and industry data supplement the social media outlet data. These supplemental data were obtained from the Compustat North America Fundamental Annual database (Compustat, 2013) for each of the Fortune 500 firms included in the sample (Fortune, 2011). Compustat data are routinely used for financial analysis in finance and accounting research. The Compustat database contains more than 300 financial statement data items for each of the publicly held companies in the United States and Canada.

The following variables were collected: standard industry classification code, total assets, total sales revenue, fiscal-yearend common stock price, number of common shares outstanding, and total liabilities. Assets and sales revenue were selected because they are indicators of firm size (Reineking, Chamberlain, Rudolph, & Smith, 2012). The amount of total assets shows the total economic resources of the company. The amount of total sales revenue indicates the total value of goods or services sold by the company to its customers. Fiscal-yearend common stock price and the number of common shares outstanding were selected to compute market value of equity. Market value of equity, computed as fiscal-yearend common stock price multiplied by the number of common shares outstanding, is also generally regarded as an indicator of firm size and it is a key measure of a firm's financial performance (Blazovich, Smith, & Smith, 2013; Smith, Huang, & Smith, 2012).

Variables fiscal-yearend common stock price, number of common shares outstanding, total assets, and total liabilities were used to compute the market-to-book ratio (MTB), a common indicator of company growth opportunities (Huang, Pereira, & Zhang, 2011). MTB is computed as market value of equity (i.e., fiscal-year-end common stock price multiplied by the number of common shares outstanding) divided by total stockholders' equity (i.e., total assets less total liabilities). In addition to market value of equity, several financial performance measures are examined, including sales divided by total assets, return on total assets (computed as net income divided by total assets), and return on equity (computed as net income divided by total equity) (Blazovich & Smith, 2011).

Two industry classification systems are used in this study. The first broadly categorizes companies as manufacturing, retail or service. The second industry classification system groups companies by more specific industry classifications, specifically their two digit standard industry classification (SIC) code.

Listed below are descriptions of the social media platforms that were found in this study's sample of company websites.

1. *Facebook*: an online social networking service. Users may create a personal profile, add other users as friends, and exchange messages, including automatic notifications when they update their profile. Additionally, users may join common-interest user groups, organized by workplace, school or college, or other characteristics (Facebook, 2013).

2. *Twitter:* an online social networking service and microblogging service that enables its users to send and read text-based messages of up to 140 characters (Twitter, 2013).
3. *YouTube*: a video-sharing website where users can upload and view videos (YouTube, 2013).
4. *LinkedIn*: a social networking website for people in professional occupations (LinkedIn, 2013).
5. *Instagram*: an online photo-sharing and social networking service that enables its users to take pictures and share them on a variety of social networking services, including Facebook or Twitter (Instagram, 2013).
6. *Google+*: a social networking service. Unlike other social networks which are generally accessed through a single website, Google has described Google+ as a "social layer" consisting of not just a single site, but rather an overarching "layer" which covers many of its online properties (Google+, 2013).
7. *Foursquare*: a social networking website for mobile devices. Users can interact with their environment by "check in" at venues using a mobile website, text messaging or a device-specific application by selecting from a list of venues the application locates nearby (Foursquare, 2013).
8. *Pinterest*: a photo sharing website that allows users to create and manage theme-based image collections such as events, interests, hobbies, and more. Users can browse other people's pinboards (Pinterest, 2013).
9. *Tumblr*: a microblogging platform and social networking website. The service allows users to post multimedia and other content to a short-form blog. Users can follow other users' blogs (Tumblr, 2013).
10. *Company Blog*: a discussion or informational site. Blogging is a form of social networking because it is interactive, allowing visitors to leave comments. Companies may use it for online brand advertising (Blog, 2013).

FINDINGS

This study finds that over 80% of Fortune 500 firms use social media. The average firm uses nearly three (mean = 2.9) social media platforms, as shown in Table 1. However, this average includes all the firms who do not use social media. Nearly 20% of the sample (49 firms) use no social media. If these firms are excluded from the computation, then the average firm that actively engages with social media uses 3.6 different platforms.

Table 1
MEAN NUMBER OF SOCIAL MEDIA PLATFORMS USED BY A FIRM

Mean	2.92
Maximum	9
Minimum	0
Standard Deviation	1.96
N	250

The number of social media platforms used by a firm ranged from 0 to 9. The one firm using the largest number of social media platforms is AT&T with 9 different social networks. Only 6 percent of firms use a singular form of social media. Almost 43 percent of the firms use either 3 or 4 social media platforms. The percentage of firms using various numbers of social media platforms are shown in Table 2.

Table 2
NUMBER OF SOCIAL MEDIA PLATFORMS USED BY FIRMS

Number of Platforms	Used by % of Firms
0	19.6%
1	6.4%
2	11.2%
3	20.4%
4	22.4%
5	12.4%
6	5.2%
7	2.0%
8	0.0%
9	0.4%

Test of Research Question 1

Research Question 1 asks which social media platforms are being adopted by corporations. Over 70% of firms are using Twitter and Facebook, as shown in Table 3. YouTube is the next most commonly adopted social media, with almost 60% of firms using it. The interesting point about these findings is that they may show a shift from former social media rankings cited in the literature review. Public relations practitioners considered Facebook to be the most important communications venue in 2010. Next in line was Twitter, LinkedIn, and YouTube (Wright & Hinson, 2010). Our current study found that Twitter is equal to Facebook in terms of corporate adoption. Firms may be using Twitter's format of ongoing short conversations to increase brand awareness and keep their brands uppermost on consumer's minds.

Table 3
SPECIFIC SOCIAL MEDIA PLATFORMS USED BY FIRMS

Social Media	Used by % of Firms
Twitter	73.2%
Facebook	72.0%
YouTube	58.8%
LinkedIn	28.8%
Company Blog	27.2%
Google+	15.2%
Pinterest	10.8%
FourSquare	2.0%
Instagram	3.6%
Tumblr	0.4%

An interesting finding is that YouTube is in third place in corporate adoption. YouTube's immense popularity as a search engine may be a factor. Some may be surprised that LinkedIn is a distant fourth with less than 30% of firms using it.

Test of Research Question 2

Research Question 2 asks if there are differences in social media adoption by industry type, firm size, or growth opportunity. Firms were categorized into manufacturing, retail, and service. There is not a significant difference in the mean adoption of social media among industry types, with the firms in each industry using nearly three social media platforms. However, there are differences in which platforms are being used, as shown in Table 4. For manufacturing firms, Facebook and Twitter are tied as the most used platforms, with YouTube in second place. For retail firms, Facebook has a commanding lead as the most used platform, while Twitter and YouTube are in second and third place respectively. With about one-fourth of retail firms using Pinterest, this industry is the heaviest user of that platform. However, relatively few retailers use LinkedIn, while a third of manufacturing and service firms use that platform.

Table 4
FIRM USE OF SOCIAL MEDIA BY INDUSTRY TYPE

Industry	N	Mean Outlets	Twitter	Facebook	You Tube	Linked In	Blogs	Google+	Pinterest	Four Square	Instagram	Tumblr
Manufacturing	117	2.73	**68.4%**	**68.4%**	58.1%	31.6%	23.9%	12.8%	6.8%	-	2.6%	-
Retail	49	3.08	75.5%	**85.7%**	63.3%	16.3%	16.3%	10.2%	**26.5%**	4.1%	8.2%	2.0%
Service	84	3.10	**78.6%**	69.0%	57.1%	32.1%	**38.1%**	21.4%	7.1%	3.6%	2.4%	-
Total Number of Sample Firms	250	2.92	73.2%	72.0%	58.8%	28.8%	27.2%	15.2%	10.8%	2.0%	3.6%	0.4%

For service firms, Twitter has a commanding lead as the most used platform. Facebook and YouTube are in second and third place respectively. The service industry is the heaviest user of company blogs. Almost 40% of service firms have a blog.

Table 5 provides details regarding the number of social media platforms used according to firm size, as measured by total assets, total sales, and market value of equity. Firms were categorized into four quartiles with each quartile containing approximately sixty companies. For each measure, the quartile with the largest firms (Q4) used the most social media platforms; the mean number of platforms used ranged from 3.5 to 3.7. The mean number of platforms used the smallest firms (Q1) ranged from 2.2 to 2.7. In general, larger firms, as measured by total assets, sales, and market value of equity, use more social media platforms than do smaller firms. To determine whether significant differences in use of social media platforms among firms categorized by total assets, sales, and market value of equity, ANOVA was used. In all three measures of size, total assets sales, and MVE, a significant difference was found ($p<.05$).

Table 5 MEAN FIRM USE OF SOCIAL MEDIA BY VARIOUS MEASURES OF FIRM SIZE						
Quartile	**Mean Total Assets (in thousands)**	**Mean Platforms**	**Mean Total Sales (in thousands)**	**Mean Platforms**	**Mean Market Value of Equity (MVE)**	**Mean Platforms**
Q1	4,218.46	2.7	5,128.49	2.6	2,759.32	2.2
Q2	10,913.94	2.5	9,057.03	2.6	8,095.38	3.2
Q3	25,046.77	2.9	17,189.14	2.9	17,901.79	2.7
Q4	211,511.37	3.5	71,803.27	3.6	79,471.34	3.7

Quartile categories are defined as follows:

Q1 represents the smallest firms in our sample. Q1 includes firms with the lowest quartile as defined by mean total assets (sales, MVE) ratio; firms with mean total assets (sales, MVE) ratios less than or equal to 6,839.91 (7,066.00, 4,872.68).

Q2 includes firms within the 2nd quartile as defined by mean total assets (sales, MVE) ratio; firms with mean total assets (sales, MVE) ratios greater than 6,839.91 (7,066.00, 4,872.68) and less than or equal to 16,111.63 (11,202.00, 11,512.30).

Q3 includes firms within the 3nd quartile as defined by mean total assets (sales, MVE) ratio; firms with mean total assets (sales, MVE) ratios greater than 16,111.63 (11,202.00, 11,512.30) and less than or equal to 35,067.00 (26,662.00, 28,321.80).

Q4 represents the largest firms in our sample. Q4 includes firms within the highest quartile as defined by mean total assets (sales, MVE) ratio; firms with mean total assets (sales, MVE) ratios higher than 35,067.00 (26,662.00, 28,321.80).

Firms were categorized according to growth opportunity, as measured by market-to-book ratio. Again, four quartiles were used with each quartile containing approximately sixty companies. Quartile 4 (Q4) represents the highest growth firms in the sample, while quartile 1 (Q1) represents the lowest growth firms. There was no notable difference in social media adoption among the market-to-book quartiles, as shown in Table 6.

Table 6 MEAN FIRM USE OF SOCIAL MEDIA BY GROWTH OPPORTUNITY, AS MEASURED BY MARKET-TO-BOOK RATIO QUARTILES		
Quartile	**Mean Market-to-Book**	**Mean Platforms**
Q1	(1.0)	2.6
Q2	1.6	2.8
Q3	2.4	3.2
Q4	23.9	3.1

Quartile categories are defined as follows:

Q1 represents the lowest growth firms in our sample. Q1 includes firms with the lowest quartile as defined by mean market-to-book ratio; firms with mean market-to-book ratios less than or equal to 1.2833899.

Q2 includes firms within the 2nd quartile as defined by mean market-to-book ratio; firms with mean market-to-book ratios higher than 1.2833899 and less than or equal to 1.924420

Q3 includes firms within the 3nd quartile as defined by mean market-to-book ratio; firms with mean market-to-book ratios higher than 1.9244209 and less than or equal to 3.179605

Q4 represents the highest growth firms in our sample. Q4 includes firms within the highest quartile as defined by mean market-to-book ratio; firms with mean market-to-book ratios higher than 3.1796055.

Test of Research Question 3

Research Question 3 asks if social media adoption is connected to superior financial performance. To answer this question, a composite of variables commonly used to measure financial performance are examined; specifically return on assets, return on equity, sales to assets, and market value of equity are tested. For the analysis, firms are classified into one of three categories: no social media outlets used, one to three different outlets, or four or more social media outlets used. One-way ANOVAs (Kruskal-Wallis one-way ANOVAs) are conducted to test for an association between the mean (median) financial performance measure (i.e., return on assets, return on equity, sales to assets, market value of equity) and the number of social media outlets used. All four (three of the four) parametric ANOVA (Kruskal-Wallis one-way ANOVA) tests resulted in a failure to reject the null hypothesis, as shown in Table 7. Thus, for this sample, increased adoption of social media platforms is not related to differences in financial performance overall. This corresponds to the earlier study by Culnan, McHugh, and Zubillaga (2010). At the same time, there may be benefits other than these specific financial performance indicators, and there may even by financial performance benefits that are observable over the long-term. Further, the current study does not distinguish quality of social media platforms. For example, a well-maintained Facebook page might have a financial impact, whereas a poorly-maintained Facebook page would not.

Table 7
MEAN FIRM FINANCIAL PERFORMANCE BY SOCIAL MEDIA USE

Measure of Financial Performance	Firms use of Social Media Outlets	N	Mean [a]	Standard Deviation	Median [b]
Return on Assets	0 outlets	49	0.043	0.045	0.044
	1 - 3 outlets	94	0.062	0.054	0.056
	4 or more	107	0.058	0.058	0.051
Return on Equity	0 outlets	49	0.984	4.937	0.191
	1 - 3 outlets	94	0.427	2.381	0.153
	4 or more	107	(0.057)	1.395	0.144
Sales to Asssets	0 outlets	49	1.293	1.415	0.884
	1 - 3 outlets	94	1.349	1.147	1.058
	4 or more	107	1.000	0.738	0.783
Market Value of Equity	0 outlets	47	20,476.740	46,346.700	5,182.480 †
	1 - 3 outlets	90	25,387.750	48,793.260	11,194.690 †
	4 or more	104	31,335.880	42,421.860	14,138.460 †

Variables are defined as follows :
All financial variables are obtained from Compustat North America Fundamental Annual database
Return on assets = Net income / Total assets
Return on equtiy = Net Income / Total equity
Sales to assets = Sales / Total assets
Market value of equity = Price per share x Shares outstanding

† The non-parametric Kruskal-Wallis test results indicate that the null hypothesis should be rejected ($p = 0.0066$) for MVE. Thus the conclusion is that MVE is associated with the number of social media outlets.

[a] For each measure of financial performance analysis of variance results indicate that the null hypothesis cannot be rejected ($F > 0.05$). Thus the conclusion is that financial performance is not associated with the number of social media outlets.

[b] The non-parametric Kruskal-Wallis test results indicate that the null hypotheses cannot be rejected ($p > 0.05$) for ROA, ROE and Sales/Assets. Thus the conclusion is that ROA, ROE, and Sales/Assets are not associated with the number of social media outlets.The Kruskal-Wallis test results require we reject the null hypothesis for MVE.

CONCLUSIONS, LIMITATIONS, AND FUTURE RESEARCH

Businesses are increasingly using social media to communicate with consumers and stakeholders. Social media has expanded the Internet not only to be a source of information, but also a source of influence. There is growing corporate interest in using social media to create online customer communities. Value is derived from online customer communities who are so engaged with the company that they become loyal customers and even champions for the brand. There are multiple potential benefits from using social media, and the value derived may be seen in the long-term rather than short-term.

Dialogue and interaction with consumers is what social media is all about, however, different platforms can be used to accomplish specific purposes. With an abundance of social media platforms available, marketers are using multiple social networking sites to reach their constituents. The purpose of this study is to analyze which social media platforms are being adopted by the Fortune 500 and whether there is a significant relationship between higher adoption of social media and superior financial performance. This study also examines differences in social media adoption by industry type, firm size, and firm growth potential.

Over 80% of Fortune 500 firms use social media, with the average firm using nearly three (mean = 2.9) social media platforms. Over 70% of firms are using Twitter and Facebook. Almost 60% of firms use YouTube. LinkedIn is a distant fourth with less than 30% of firms using it.

There is not a significant difference in the mean adoption of social media between industry types; however, there are differences in which platforms are being used. For manufacturing firms, Facebook and Twitter are tied as the most used platforms, with YouTube in second place. For retail firms, Facebook has a commanding lead as the most used platform, while Twitter and YouTube are in second and third place respectively. With one fourth of retail firms using Pinterest, this industry is the heaviest user of that platform. Relatively few retailers use LinkedIn, while a third of manufacturing and service firms use that platform. For service firms, Twitter has a commanding lead as the most used platform. Facebook and YouTube are in second and third place respectively. The service industry is the heaviest user of company blogs and Google+.

The findings of the financial performance analysis revealed no significant benefit related to greater adoption of social media platforms. This corresponds to earlier research. However, the current study was limited to just one year of data. There may be long-term benefits that would be observable in a future longitudinal study. In addition, future studies might investigate how quality of social media sites affects financial performance. Quality could be measured in various ways, such as the number of times the site is updated, the number of followers, or the type of content that is contained on the site.

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THE DEVELOPMENT OF A SCALE FOR THE MEASUREMENT OF INTERNAL MARKETING IN SERVICE FIRMS

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ABSTRACT

This study focuses on the process of internal marketing within the context of relationship marketing as it applies to the services industries. The specific context of the present study is centered on the banking industry. A majority of studies have focused on the customer perspective, but have neglected to obtain managerial input. Thus, a scale was developed and tested which represented issues from the managerial perspective. Scale development was based on a two step process. First, four focus groups were conducted. The results of which were utilized in the development of a scale. The scale was tested via a survey sent to more than 5000 bank managers. The scale represents those elements comprising managerial input. These processes (i.e. planning, hiring, training, salaries, equipment, etc.) are typically done out of the sight of customers, but are crucial to the effective delivery of promises. The results of the study provide empirical support for the proposed scale, and provide the basis for measuring managerial input and perceptions. The scale suggests there are two dimensions for enabling promises which include the management-employee and the employee-customer interaction. The end result can have managerial implications in regards to resource allocation.

INTRODUCTION

Over the last thirty years, the concept of relationship marketing has managed to bridge the gap between academicians and managers. Bagozzi maintained that while marketing relationships are central to developing marketing theory, relationship marketing is the basis for marketing strategy (Gounaris et al., 2007; Bagozzi, 1995; Bagozzi, 1974). Research indicates the concept may be a win-win situation since long term customer relationships are not only beneficial for the firm but also for the customer (Gounaris, 2005; Gwinner et al., 1998; Sheth and Parvatiyar, 1995; Reichheld and Sasser, 1990). Indeed, devoting organizational resources to sustain relationships is one key to comparative advantage in the marketplace (Hunt and Morgan, 1995).

Taking a broad perspective, most examinations of relationship development issues tend to focus on the external customer. This study represents the first step in developing a scale that examines the internal customer perspective, in terms of the organizational inputs that support the efforts of personnel to obtain long term customer relationships. The results provide a measurement scale, directions for further research, and managerial implications for developing effective strategies that enable the internal customer. The research begins with a review and integration of the relationship literature.

CONCEPTUAL BACKGROUND

Relationship marketing has at its roots in the concept of relational, on-going exchanges as opposed to discrete, one-time exchanges (Bagozzi, 1974). For services, relationship marketing has been a naturally evolving strategy due to the customer involvement in the performance of the service and the direct interaction between customer and service provider/firm (Bloemer and Odekerden-Schroder, 2007).

Service firms typically use a combination of external, interactive and internal strategies to communicate with various constituents. The external marketing strategies are obviously directed at the customer. Gronroos (1983) describes the external marketing strategies as essentially the four Ps (service design, pricing, distribution and promotion). The communication of these strategies has been characterized as promises of service delivery outcomes, with the intention to change or encourage specific behaviors in current or potential customers. General concepts derived from the norms of reciprocity would suggest that promises generally represent specific rewards which are expected in return for patronage behavior (Bloemer and Odekerden-Schroder, 2007). Promises have been found to be particularly effective in influencing future patronage when the prospective customer has had little or no prior experience with the organization (Gounaris, 2005). Thus, the customer becomes dependent on the information provided in the promise in order to make their initial evaluations of the organization. Yet, customers that are currently patronizing a service entity will also utilize promises as a standard for developing expectations regarding ongoing service delivery (Smith, 2011, and San Martin and Camarero, 2005). Thus, for current customers, the longevity of the relationship will impact their reliance on promises, and their interpretation of those promises (Henneberg, 2005). Thus, the traditional marketing activities that set the initial stage of the relationship by getting the attention of the customer, setting an image of the company and setting customer expectations (Nasr et al., 2012).

Interactive marketing takes place between the customer and the employee(s) of the service firm (Gronroos, 1983). The strategies take place simultaneously with the delivery of the service. It is the point at which, not only is the service exchanged, but also value delivered. The "art of relationship marketing" takes place during the value delivery (Eid, 2007), which is key to effecting customer loyalty and increased profits (Jones and Taylor, 2007). Gronroos (1983) explained that during the interaction there are two products delivered upon which customers can judge quality - the functional service and the technical service. The technical service is comprised of the actual service process. During this process service employees may use systems or other resources to deliver the service.

Functional service is comprised of employees' appearance and manners, their routines and their interaction techniques. It is the functional service that the service firm can use as a competitive advantage by building customer dependence (Snell and White, 2009). For example, if a bank teller is not only able to efficiently and reliably handle a customer's transaction, but also answers questions about other services, or call the customer by name, or help the customer to complete a form, these behaviors tend to make the customer more dependent on the service provider, thus increasing the switching costs for the customer (Jones and Farquhar, 2007).

Internal marketing strategies occur between the company and the employees and help enable the interactive marketing strategies. The internal marketing strategies have been referred to as the process of enabling promises. The enabling of promises requires that the service system and employees have the skills, abilities, tools, and motivation to deliver the promise (Bitner, 1995). Many of the components to enabling promises are derived from employees' innate abilities. Yet, most skills are developed through appropriate training programs, and functionalized through the allocation of tools (equipment) which most efficiently support their job tasks. To be most effective, these innate and learned abilities must be utilized and focused (Nguyen and Leclerc, 2011). This can often be accomplished through the implementation of a service mission which drives the offering and steers the organization. The mission can empower and guide employees within the organization, and can provide the belief that employees can achieve personal and organizational goals (Ueno, 2013).

This can be accomplished through empowerment, which can be defined as the practice of giving employees expanded authority to solve customer problems as they arise (Gill et al., 2006). To effectively utilize the strategy of empowerment, it must be incorporated in training programs. While quality skill training is necessary, it is not sufficient to ensure customer satisfaction. Thus, empowerment training will prepare employees to recognize and understand customer needs, and develop skills that are necessary to solve common customer problems (Ueno, 2103). Empowerment can then improve customer service because the employee will be able to display empathy and increase their responsiveness to the customer. When problems arise with a customer relationship, employees should be empowered to make immediate decisions and take prompt actions (Narayandeas and Rangan, 2004). By delegating such decision making power, management signals its' understanding that salespeople have the ability to solve customer problems and to create solutions that are satisfactory to both the customer and the organization (Odekerken-Schroder and Bloemer, 2004). This overall empowerment process can be accomplished by providing appropriate training programs and support equipment, and then by stressing employee personal involvement, instituting a state of mind yielding control, awareness, accountability and shared responsibility (Keith et al., 2004).

Management should also be concerned with the employee motivation, which can be directed by modeling their behaviors (Chenet et a., 2010). Specifically, management should promote an attitude that represents a love for the business, and empathy towards the customer (Birgit, 2009). Management must also promote cooperation and trust among employees to facilitate teamwork. Finally, it is important to incorporate an ethical environment which encourages integrity, fairness, and consistency (Bejou et al., 1998). The products of internal marketing are part of the work environment (Frimpong, 2014). Internal marketing is a top-down strategy beginning with management and the philosophy employed to develop a service environment that supports the interactive strategies (Roberts and Campbell, 2007). Wetsch (2005) suggests that the strategy is directed at the human resources of the firm with the purposes of making sure all employees are knowledgeable about the business, customers, and competition, and prepares and motivates employees to exhibit service oriented behaviors.

The product of internal marketing (the service environment), should in and of itself be a strong motivator for service oriented behaviors and quality interactive marketing (Symonds et al., 2007). As well, the environment should support the creation and delivery of value. It is through supporting quality interactive marketing and the creation and delivery of value that customer relationships are managed (Roig et al., 2006).

The following study examines the process associated with one of the three strategies as a factor of customer relationship commitment within a single service context. By using a single context, one could examine the perspective of managers on the internal marketing strategies that influence their motivation to maintain customer relationships with the firm. The following methodology explains the process for measuring and analyzing this association.

METHODOLOGY

In order to develop operational definitions of internal marketing, a series of focus groups and a survey were utilized. Focus groups are a very useful means of obtaining general background information about a topic of interest, and learning how respondents talk about phenomena of interest (Hair et al. 2010). This in turn may facilitate the design of survey instruments or other research tools that might be employed in quantitative research (Hair et al. 2010). The survey is also important because it can provide an objective evaluation of the categories and definitions that are derived from a focus group analysis. This helps to insure that the descriptors for each construct are logical and appropriate.

Focus Groups

In this study, we conducted 4 focus groups with 28 bank managers with an average of 7 participants per group. The participants were recruited over a four week period, and the session was coordinated for the 4 separate groups over a weekend. The incentive used was a twenty-five dollar certificate to a local restaurant, in exchange for one hour of their time. The focus group was conducted in a conference facility provided by the university. The average age of the participants was 37 years, and the average length of banking experience was 9.1 years. In terms of gender, there were 12 males and 16 females in attendance.

The sessions were transcribed and audio recorded, while the moderator facilitated the discussions. The discussions explored the idea of enabling promises, and focused on the participant's interpretation of the various promises that the bank facilitates. After the focus groups were conducted, the transcriptions and audio recordings were cross referenced in order to develop a complete picture of the results. The transcripts were then reviewed in order to determine what types of themes, issues, and items might exist in regards to the idea of promises.

Several themes were readily evident upon this initial analysis. For instance, it was evident that the managers felt that issues involving hiring, training, salaries, and equipment were critical elements to delivering services. In fact, the participants readily provided information regarding their interpretations of these events. The following discussion outlines the major influences and attributes that were derived from the focus group discussions. The attributes were the specific events or actions that the respondents identified as being the actual components for the facilitation of promises.

Results

Internal marketing can generally be described as processes that stops and starts with mid-level managers, so it seemed viable to ask their perceptions of these enabling processes. In fact, the participants proved to be very astute in their ability to analyze and describe these processes. They often admitted that while they may not directly participate in every process of enabling promises, they did in fact know what processes were necessary to facilitate this action. In other words, the participants stated that they could judge how each employee was motivated, and they could evaluate whether those employees were in fact motivated. For instance, the participants were aware of how the organization motivated the employees, and they suggested that the employees were motivated if they had a commitment to quality, they were willing to go the extra mile, they enjoyed their job, etc. This is important because motivated employees are indeed a component contributing to the process of enabling promises, and it was fascinating that the bank employees had such insight and ability to interpret this type of process. Other influences that the participants mentioned included employee selection, training, teamwork, tools, strategies, and recovery training. One participant described this as being the overall environment in which the employee worked, which could positively or negatively contribute to their (the employee) service performance. Other participants suggested that they regularly evaluated this environment, and that this evaluation influenced their overall evaluation of their superior.

Table 1
Enabling Promises

Influences	**Attributes**
Selection	Skilled/qualified
Training/skills	Knowledge Ability Courtesy Informative Accurate service Responsiveness Friendliness Technology
Teamwork	Respect for others
Tools	Up-to-date equipment Reliable tools Accessible
Motivation	Empowerment Commitment to quality Willing to go the extra mile Enjoys job Proud of affiliation with bank Engenders trust Sociable Accessible
Strategy	Takes time to educate customer Exceeds promises Attends to details Fairness, Ethical Indicates quality is central Clearly know role
Recovery Training	Ability Empowerment Knowledge

These types of interpretations and descriptions are important for service organizations because the service personnel represent the organization, and consumers will make judgments regarding the organization based on their experiences with the personnel. Thus, the organization will be viewed positively when the service personnel perform well, but the organization will be judged poorly when the service personnel perform poorly (Unfortunately, customers tend to remember the service failures much more readily than they remember the service successes).

Table 1 illustrates the general results regarding the different influences or processes that contribute to enabling promises, and the specific attributes which contribute to each influence.

Survey

The next step in the study was to develop a scale that can extend our understanding of customer relationship commitment by examining those managerial inputs to the work environment that might support internal marketing strategies within a banking context. In order to facilitate our understanding of these managerial inputs, bank marketing managers nationwide were surveyed. For the survey instrument, we used the results of the focus groups and descriptions of internal marketing offered by Gronroos (1990), George (1990) and Berry and Parasuraman (1991) and Sharma (2007), which helped to generate twelve items that might reflect managements' beliefs about internal marketing strategy. The items reflected many of themes from the focus groups such as actively recruiting and training personnel, motivation, creating the appropriate environment for nurturing and motivating personnel, measuring performance and rewarding personnel. The items were attached to a 7 point Likert scale anchored by 1 = strongly disagree and 7 = strongly agree. The items were reviewed by ten bank marketing managers (not included in the previous focus groups or subsequent survey) for wording, clarification and logic with suggestions incorporated in the final survey. Bank marketing managers were chosen because of the nature of their role within the bank. Although a quasi-member of management (often not directly involved with financial strategy), they are close to management and often are responsible for the internal marketing strategies. As well, they are the recipients of internal marketing strategies. Based on their unique boundary spanning position, they should be able to bridge the company and employee perspectives. The survey began with the following paragraph.

> "Banking often uses its' front line personnel as a positioning tool to achieve competitive advantage. This may be done by recruiting the best available people and providing appropriate training. The training may be operational so your personnel can efficiently and reliably serve customers. The training may also be motivational so your personnel can convey an essence of quality service. The bank may monitor personnel to not only indicate problem service areas but also reward service excellence. Below is a list of statements regarding various managerial inputs. Next to each statement please indicate your agreement with the statement as it applies to your bank and its management by circling the appropriate number from "1" for strongly disagree to "7" for strongly agree."

Twelve statements regarding management's beliefs about internal marketing activities followed the description. The survey also included demographic questions.

Sample and Data Collection

The survey was conducted via Survey Monkey, and email invitation was sent to a stratified sample of 5000 bank managers across the country. There was no advance notice, but there were two email follow-ups to encourage participation. The survey procedure resulted in 1002 responses with 870 usable for analysis. The response rate was respectable (20.4 percent return, 17.4 percent usable), and it is indicative of other survey results when the sample is comprised of professionals (Sharma 2007).

The characteristics of respondents indicated the bank marketers had an average of 16.2 years in the banking industry and 10.6 years in charge of bank marketing. Most (54.0 percent) were in charge of not only advertising but also public relations for the bank. A number (23.0 percent) were also responsible for the sales of financial services made by front-line personnel. The sample represented banks that were quite varied in size ($88 million in assets to $25 billion in assets) with a median asset value of $353 million.

Results

Following the procedure used by Gwinner, Gremier and Bitner (1998) in their examination of customer benefits resulting from a service relationship, the items were factor analyzed using a common factor analysis with varimax rotation to determine not only the underlying structure but also the dimensionality. The exploratory factor analysis, using a varimax rotation and Cronbach alpha analysis, sought items that met the criteria of a) loading more than .50 on a factor, b) not loading more than .50 on two factors, c) having a communality of .50 or more, and d) having an item-to-total correlation of more than .40 (Hair et al. 2010). Factors were then labeled based on the items they contained.

The twelve original items were reduced to ten based on the analysis criteria, as such, two of the items had a loading of less than .50. These two items are listed at the bottom of Table 2. The two-factor solution is illustrated in Table 2, with the first factor containing seven items, labeled "Management-Employee Environment," resulting in an eigenvalue of 5.85, variance explained of .58, and a Cronbach α reliability of .92. The second factor contained three items and was labeled "Employee-Customer Environment." This factor had an eigenvalue of 1.09, variance explained of .11, and Cronbach α reliability of .81. A 2-tailed t-test found the mean for the two factors to be significantly different (t 5.77, $p<.000$: 1,86df). The two-factor solution tends to indicate that there are two distinct parts to the internal marketing product of the work environment. The first factor focuses on the management and employee relationship characteristics. The items that loaded on this factor involve developing the employee through effective hiring, training, empowerment, and reward. The second factor represents the employee-customer environment in terms of the expectations that management has regarding the customer interaction.

DISCUSSION

To explore the internal marketing product of the work environment, bank managers were surveyed regarding the managerial activities that support interactive marketing strategies. Findings indicated that the work environment is comprised of two distinct and significantly different parts. The first part is an environment where the focus is on the management-employee, and the second part is an environment where the focus is on the employee-customer with a greater managerial emphasis on the employee-customer part.

The management-employee dimension can be described as the processes of hiring, training, and empowering the employees. In order to facilitate these aspects, it is important to have the appropriate resources in place such as networks, facilities, equipment and procedures. It may seem obvious, but it was interesting to note management's interpretation and commitment to well qualified and prepared employees.

Table 2
Descriptives and Factor Analysis Results

Scale Items	Mean	SD	Mgt-Emp[a]	Emp-Cust[b]
Our management believes in training personnel so they have the skills to provide quality customer service.	4.84	1.58	0.89	0.26
Our management believes in nurturing service leadership.	4.69	1.42	0.85	0.26
Our management believes in empowering personnel to best serve our customers.	4.90	1.53	0.82	0.25
Our management believes in rewarding excellent customer service.	4.86	1.87	0.77	0.35
Our management believes in developing an environment for teamwork.	5.01	1.60	0.74	0.34
Our management believes in measuring performance of our service personnel.	4.90	1.59	0.69	0.40
Our management believes in competing for the best available talent.	4.68	1.48	0.60	0.23
Our management believes our personnel should exceed customer expectations in service.	5.61	1.71	0.22	0.82
Our management believes in standing behind the service our personnel provide customers.	5.56	1.37	0.34	0.80
Our management believes it is important for personnel to emphasize trust when dealing with customers.	5.63	1.45	0.27	0.78
[a] eigenvalue 0.85 variance = 0.584 Cronbach α = 0.918 mean = 4.84		[b] eigenvalue = 1.09 variance = 0.109 Cronbach α = 0.808 mean = 5.60		
Our management communicates a customer oriented philosophy to the employees as a mode of direction.	3.89	1.43	0.21 Removed	0.14
Our management team expresses their enjoyment of their job as a motivation factor for employees.	3.76	1.40	0.19 Removed	0.13

The employee-customer dimension is more focused on managerial expectations of service delivery characteristics. There was an emphasis on communicating trust, exceeding expectations, and delivering superior customer service. This dimension of employee-customer appeared to be of significance importance with higher means than that of the management-employee dimension.

Based on the results, enabling promises was interpreted from the manager's point of view as a commitment from the organization to provide the employees with training programs and appropriate equipment. Management must instill an environment within the organization that motivates and inspires the employees. This environment should empower the employee so they have the ability and authority to help the customer with a majority of their needs. This overall process would then produce employees that could facilitate the delivery of the service, because they had the appropriate environment in which to work.

CONCLUSIONS

The challenge for service firms might be to identify the strategies and their products that would most influence a customer's commitment to a relationship. The research indicates that the interactive product of functional service delivery is a critical influence on the customers' commitment to a service relationship. The service management prescriptive indicated by the research would therefore involve developing quality functional service delivery and support for this through the work environment. Specifically, management could aggressively recruit service providers that genuinely enjoy customer interaction. Recruitment should be followed by not only the standard technical training but also motivational training to ensure responsiveness, and attention to detail so the customer gets the impression that quality is a central concern on the part of the provider. Further, managers could include setting clear performance standards and reward service providers that meet or exceed these standards. It would also seem prudent for marketing managers to periodically survey their internal customers to see if the beliefs of management are being translated into observable actions by those on the front lines. The results of this study has yielded a ten item scale, which is presented in Table 3, that can be used to measure internal marketing in service firms.

Limitations and Future Research

Although the research has found that the functional service delivery product of interactive marketing demands a service manager's attention and support via internal marketing, the study has certain limitations. One limitation of the research was that the research was conducted in one service context - banking. Although this allowed for a managerial perspectives without the possible confound of various contexts, this causes a problem with generalizability across service contexts. The response rate was fairly normal for a survey of professionals (Hair et al. 2010). A limitation worth noting was that a large percentage of participants were involved in marketing activities, possibly skewing the results due to greater knowledge and understanding of the concepts. Since the research was exploratory in nature, future research should expand and refine the measures used in the study to permit full validation of the constructs. The scale should also be tested and modified for additional participants, such as front line employees. Once the measures of internal marketing are validated, a predictive study might be possible where the measures for internal marketing are connected to actual customer loyalty/retention rates.

Table 3: Final Scale

Banking often uses its' front line personnel as a positioning tool to achieve competitive advantage. This may be done by recruiting the best available people and providing appropriate training. The training may be operational so your personnel can efficiently and reliably serve customers. The training may also be motivational so your personnel can convey an essence of quality service. The bank may monitor personnel to not only indicate problem service areas but also reward service excellence. Below is a list of statements regarding various managerial inputs. Next to each statement please indicate your agreement with the statement as it applies to your bank and its management by circling the appropriate number from "1" for strongly disagree to "7" for strongly agree.

Scale Items	**Strongly Disagree**	**Disagree**	**Somewhat Disagree**	**Neutral**	**Somewhat Agree**	**Agree**	**Strongly Agree**
Our management believes in training personnel so they have the skills to provide quality customer service.	1	2	3	4	5	6	7
Our management believes in nurturing service leadership.	1	2	3	4	5	6	7
Our management believes in empowering personnel to best serve our customers.	1	2	3	4	5	6	7
Our management believes in rewarding excellent customer service.	1	2	3	4	5	6	7
Our management believes in developing an environment for teamwork.	1	2	3	4	5	6	7
Our management believes in measuring performance of our service personnel.	1	2	3	4	5	6	7
Our management believes in competing for the best available talent.	1	2	3	4	5	6	7
Our management believes our personnel should exceed customer expectations in service.	1	2	3	4	5	6	7
Our management believes in standing behind the service our personnel provide customers.	1	2	3	4	5	6	7
Our management believes it is important for personnel to emphasize trust when dealing with customers.	1	2	3	4	5	6	7

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