

MARKETING MANAGEMENT JOURNAL

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TABLE OF CONTENTS

An Exploratory Study of the Role of Neutralization on Ethical Intentions Among Salespeople <i>Michael L. Mallin and Laura Serviere-Munoz</i>	1
The Antecedents of Satisfaction for Facebook “Likers” and Their Effect on Word-of-Mouth <i>Matthew P. Bunker, K. N. Rajendran and Steven B. Corbin</i>	21
Organizational Structure and Intra-Firm Innovation Diffusion <i>Richard L. Flight and Richard J. Palmer</i>	35
The Impact of Visual Structure Complexity on Ad Liking, Elaboration and Comprehension <i>Vivek Madupu, Sandipan Sen and Sampath Ranganathan</i>	58
Substitute of Complement? Fantasy Football and NFL Fandom <i>Brendan Dwyer, Joris Drayer, Greg Greenhalgh and Carrie W. LeCrom</i>	71
The Moderating Role of Attitude in Consumers’ Service Assessments <i>Brian L. Bourdeau, Michael K. Brady, J. Joseph Cronin, Jr., Astrid L. Keel and Clay M. Voorhees</i>	86
Current Perceptions, Prominence and Prevalence of Sustainability in the Marketing Curriculum <i>Debbie Delong and Maggie McDermott</i>	101
Searching for the Origins of Consumer Ethics: Bridging the Gap between Intuitive Values and Consumer Ethical Judgments <i>John Cherry and James Caldwell</i>	117
Consumers’ Awareness of Sustainable Fashion <i>Dong Shen, Joseph Richards and Feng Liu</i>	134

FROM THE EDITORS

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

Submissions to *Marketing Management Journal* are encouraged from those authors who possess interests in the many categories that are included in marketing management. Articles dealing with issues including, but not limited to marketing strategy, ethics, product management, communications, pricing, distribution, sales management, buyer behavior, marketing information, and international marketing will be considered for review and possible inclusion in the journal. In addition, MMJ features a special section in the fall issue each year that focuses on specific topics of interest within the marketing discipline. Empirical and theoretical submissions of high quality are encouraged. The general approach of MMJ will continue to be the publication of articles appealing to a broad range of readership interests.

The Marketing Management Association Publications Council recently approved a policy revision that removes a perceived barrier to publication. Page fees will no longer be charged for accepted papers. We are grateful to the Publications Council and the MMA Board of Directors for their commitment to expanding the appeal and reach of the journal.

This issue marks the last one published under the watch of Don Roy as Editor. The incoming editor is Gail Zank, Texas State University. We look forward to working with Gail during the transition to continue our efforts to make MMJ a desirable outlet to publish scholarly research.

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MARKETING MANAGEMENT JOURNAL

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Scope and Mission

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

Submission Guidelines

Manuscripts that do not conform to submission guidelines will not be distributed for review. Authors should submit manuscripts via email to mmjjournal@gmail.com. Each submission should consist of two files:

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2. A file containing the manuscript title, an abstract of no more than 150 words, keywords, and manuscript. Author identification or affiliation should not appear anywhere in this file.

Manuscripts should be submitted using 12-point Times Roman font and should not exceed 30 typewritten pages inclusive of body, tables and figures, and references. Margins must be one inch. Preparation of the manuscript should follow style guidelines in the most recent *Publication Manual of the American Psychological Association*, 6th edition. Tables and figures used in the manuscript should be included on a separate page and placed at the end of the manuscript. Authors should insert a location note within the body of the manuscript to identify appropriate placement. Tables and figures should be constructed in table mode of Microsoft Word.

The MMJ editorial board interprets the submission of a manuscript as a commitment to publish in MMJ. Editorial policy prohibits publication of a manuscript that has already been published in whole or in substantial part by another journal. Each manuscript is first assessed by the editor to determine its potential for successful completion of the review process. A manuscript that goes beyond the initial review goes through a double-blind review conducted by members of MMJ's review board. Feedback from reviewers and the editor team's evaluation are used to make a decision on whether a manuscript will be accepted for publication in MMJ.

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AN EXPLORATORY STUDY OF THE ROLE OF NEUTRALIZATION ON ETHICAL INTENTIONS AMONG SALESPEOPLE

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The purpose of this study is to propose and test a model suggesting that the relationship between antecedent variables (role ambiguity, organizational commitment, relationship orientation) and salesperson ethical intentions will be mediated by a “neutralization” construct. Neutralization techniques are defined as a means for individuals to justify potential behavior that is incongruent with (their own and society’s) moral and ethical code. A sample of 157 industrial salespeople was obtained and the results were analyzed by a structural equation path model. The results suggest that salespeople will use neutralization techniques to justify their ethical intention when they exhibit lower levels of organizational commitment, higher levels of role ambiguity, and lower levels of relationship orientation. These results were more prominent in a business-to-consumer selling environment. This research contributes to the sales literature since exploring ethical neutralizations as a mediator between situational/personal antecedents and salesperson ethical intention as an outcome has yet to be studied in the professional sales domain. Implications for both sales research and sales managers are discussed.

INTRODUCTION

Salesperson ethical decision making is an important issue because of the far reaching impact to both the customer and selling organization. Uncertainty about what to do in situations involving ethical scenarios may result in potentially harmful economic effects on customers; mental and physical effects on salespeople; and reputation or image effects on the selling organization. Within the domain of professional sales, salespeople are particularly vulnerable to engage in activities that are unethical mainly because of their boundary spanning role (Ferrell & Gresham, 1985). This role is unlike any other within the firm because sales reps are responsible for understanding and responding to the needs of customers, accountable for meeting profitability goals of the firm, and motivated toward accomplishing personal goals related to their job performance. Given these (sometimes competing) demands, salespeople may feel pressure to profitably balance customer and organizational demands in firms that are increasingly constrained of resources. Such pressure may lead to job burnout and questionable ethical practices

among other negative outcomes (Hansen & Riggle, 2009; Ingram, LaForge, & Schwepker, 2007; Hollet-Haudebert, Mulki, & Fournier, 2011). Furthermore, ethical problems are heightened because salespeople tend to work in isolation, with minimum supervision, and under intense pressure to perform. As described by Hollet-Haudebert, Mulki, and Fournier (2011), most salespeople rely on being autonomous as they work closer to customers and farther from supervisors. While such autonomy allows them the latitude to not clear every decision with their supervisor it also requires that they use their best judgment on their own (Hollet-Haudebert, Mulki, and Fournier 2011). Such stressors may lead to questionable selling practices and the potential need for firms to re-evaluate their own ethical sales codes. Thus, studying salesperson ethical behavior is paramount for both sales research and practice.

To advance knowledge in this area, researchers suggest more is needed to better understand how employee ethical values/behaviors and their commitment to the organization influence ethical decision making (Valentine & Rittenburg, 2007). This is relevant from the standpoint that research has confirmed a salesperson’s ethical behavior is linked to how he/she views their role and his/her degree of commitment to the organization (Amyx,

Bhuiyan, Sharma, & Loveland, 2008; Schwepker, 1999; Valentine & Barnett, 2003). Of equal emphasis is the growing focus on relationship building with customers. Studies have shown that a salesperson's customer orientation based on relationship building is necessary for client retention, long-term customer relationships, and developing a motivated sales force (Mallin & Pullins, 2009). Each of these issues may shape salesperson ethical intention toward dealing with their customers.

Although some work has been done in this area, the existing sales ethics literature falls short of fully explaining what drives the ethical intention of salespeople. Some studies confirm a direct relationship between some personal/situational/organizational factors and salesperson ethical intentions while others do not. Questions still remain. For example, to what extent does salesperson role definition and commitment to the organization have on ethical intention? For relationship oriented salespeople - does their approach to dealing with customers make them more likely to uphold higher ethical standards? Reinforcing that there are more questions than answers, Valentine and Rittenburg (2007) have called for further study of potential mediated relationships to better understand sales ethical behavior.

An area of research that begins to answer this call suggests that when unethical courses of action are chosen, individuals will attempt to justify their behavior and alleviate any guilt that might be experienced (Sykes & Matza, 1957; Vitell & Grove, 1987). When this occurs, the techniques of neutralization have been shown to play a key role in diminishing the importance of social norms (Sykes & Matza, 1957) in a wide range of behaviors ranging from juvenile delinquency to adult issues as well as personal and organizational situations. Techniques such as: *denial of responsibility* (e.g., "it is not my fault"), *denial of injury* (e.g., "nobody was really hurt"), *denial of victim* ("they had it coming to them"), *condemning the condemners* (e.g., "they deserved it"), and *appeal to higher loyalties* (e.g., "I didn't do it for myself") have been studied as means for people to explain their incongruent or illegal behavior (Chatzidakis, Hibbert, and Smith 2007; Vitell & Grove, 1987). However, few studies exist to

explain how these techniques interact in the professional sales work environment (Holland, Meertens, & Van Vugt, 2002).

Given this, the purpose of our study is to explore the role of neutralization that we propose mediates the relationship between several salesperson personal and situational factors and their ethical intentions. Neutralization describes the feelings to which salespeople attempt to justify ethical/unethical behavioral intentions. We develop and test a model that shows the relationship between three sales personal/situational antecedent variables (organizational commitment, role ambiguity, relationship orientation) and the outcome of ethical intention is mediated by the construct of neutralization. Our research contributes to the sales literature since exploring neutralizations in this context has yet to be studied in the professional sales domain. A discussion of research implications will be presented relative to further exploring this in the context of B2C versus B2B sales. Managerial implications will center on the training and mentoring role that managers can provide to ensure salespeople understand and execute ethical selling practice.

LITERATURE REVIEW

Marketing Ethics

Hunt and Vitell's (1986) ethical decision-making theory pinpoints elements in the decision-making process where an individual encounters an ethical issue, perceives the ethical problem, engages first in a deontological evaluation to assess perceived alternatives, and subsequently conducts a teleological evaluation of perceived consequences. Ultimately, moral behavior is a result of the ethical intention, defined as the probability or likelihood that a particular alternative will be chosen, given the situational constraints (Hunt & Vitell 1986). In the personal selling and sales management literature, ethics is exceptionally important not only because of the many and varied ethical challenges that salespeople face, but, also because many of these challenges are often addressed in a questionable fashion (Ingram, LaForge, & Schwepker, 2007). In addition, studying ethical intentions among salespeople is relevant due to the boundary spanning role of the salesperson, who continually is tasked with

needing to meet the expectations of both external (e.g. customers) and internal (e.g. managers) constituents.

Studies of situational factors and individual differences in ethical decision-making were two of the original research streams conveyed through sales ethics research (Ferrell, Johnston, & Ferrell, 2007). Situational factors focused on organizational climate and culture, managerial decision style, and the use of reward vs. punishment, among other issues (Dubinsky & Loken, 1989; Ferrell, Johnston, & Ferrell 2007; Hunt & Vasquez-Parraga, 1993; Lee and Cadogan, 2009). Individual factors such as age, job tenure and background, gender, education, and ethical values are but a few studied in sales ethics research (For a detailed review see Dubinsky et al., 1992; Ferrell, Johnston, & Ferrell, 2007; Futrell and Sager 1982). Currently, the study of ethics among salespeople has evolved to address how ethics can influence corporate practices. Ethics has been found to lead to higher levels of organizational commitment among employees, especially if the company's code matches the employee's personal code (Schwepker, 1999; Valentine & Barnett, 2003). Furthermore, research results have supported that substantial communication of the company's codes of ethics impacts the employee's perceptions of – and commitment to the organization. Employees who are knowledgeable about their organization's ethical codes perceived the organization as having higher ethical values than those who were not aware of such codes (Valentine & Barnett, 2003). Ethics also influences the supervisor-employee relationship, suggesting that an ethical climate can serve as a predictor of trust in supervisors, which, subsequently has a favorable impact on job satisfaction, organizational commitment, and levels of turnover intentions (Mulki, Jaramillo, & Locander, 2006; Vlachos, Theotokis, and Panagopoulos, 2010).

In the domain of professional sales, researchers conclude that truly ethical salesperson behavior emphasizes the interests and welfare of the customer. Salespeople who behave ethically will be able to build and sustain strong customer relationships as well as enjoy higher satisfaction, trust, and commitment levels from their customers (Roman & Ruiz, 2005). Some

of the ethical activities that focus on the customer wellbeing are collaborating with customers in a truthful and accurate manner, presenting products and services that will truly benefit the customer, keeping customer information confidential, and promising only what can be truly delivered (Hansen & Riggle, 2009). An ethical salesperson positions the firm in a better place to increase market share via committed customers who are more likely to buy additional or complimentary company products to help them address business challenges and opportunities.

The Role of Neutralization Techniques on Ethical Decision Making

Sykes and Matza's (1957) seminal work on neutralization techniques (henceforth neutralizations) found that individuals who engage in delinquent behaviors turned to neutralizations as a means to protect, shield, mute, and in some extreme cases disregard any negative outcomes of their norm-violating behavior and actions. Later research found that individuals do not use a single neutralization to eliminate negative feelings or consequences on their social and professional relations. People considering unethical and/delinquent acts actually depend on several neutralizations as a means of unspoken but, in their view, widely adopted practices to justify publicly unacceptable acts (Vitell & Grove, 1987). In addition, neutralizations have been found to be socially learned and have become the framework to diminishing the importance of values, attitudes and norms held by society-at-large (Sykes & Matza, 1957; Vitell & Grove, 1987).

Neutralizations are formed by five different justification categories. *In Denial of Responsibility*, The individual denies responsibility for his or her actions by using negations of personal accountability that deflect blame such as claiming that: it was an "accident." Behaving in such an unethical and/or deviant way can be perceived as the result of outside forces or elements that were beyond the individual's control. Examples are feeling of having unloving parents, bad friends, or bad colleagues/mentors. The link or association between the individual and the act is broken, leading to a denial of responsibility about

deviant acts (Sykes & Matza, 1957). *Denial of Injury* focuses on the damage involved in the delinquent act. The question here is whether anyone was hurt or injured by the behavior because frequently and in an unclear way, individuals do not think their behavior caused any damage (Sykes & Matza, 1957). For example, some might see auto theft as “borrowing” and vandalism as simply mischief of no concern since no one is hurt. The link between the act and injury is broken and rationalizations such as “What’s the big deal; No one was hurt?” are prevalent (Vitell & Grove, 1987, p. 434). *Denial of Victim* occurs when the individual states that there was no victim as a result of their act. The individual does accept responsibility for his or her actions and the injury that it caused (Sykes & Matza, 1957), yet any possible “moral indignation” is muted by stating that there was no victim. The key issue here is that the wrongdoer sees the issue as a matter of retribution or rightful retaliation where the victim deserved the injury; the person then acts as an avenger and the victim becomes a wrong-doer. Statements like “it’s their own fault they were taken advantage of” are common (Vitell & Grove, 1987, p.434). *Condemning the Condemners* involves the censure of others and the center of attention is shifted towards those who condemn or are in charge of enforcing or conveying societal norms (Sykes & Matza, 1957). Those who judge are considered to be moved by personal malice or spite and are either hypocrites or crooks in disguise (Sykes & Matza, 1957). By attacking others, the delinquent represses the wrongfulness of the behavior. For example, a salesperson might rationalize that “I was only doing what others do all the time” or “they had it coming” (Vitell & Grove, 1987, p.434). Lastly, *Appeal to Higher Loyalties* involves an individual excusing his or her behavior by granting more preference to the demands of social group (e.g., family, friends, etc.) to which the he or she belongs (Sykes & Matza, 1957). For salespeople, it might be more appealing to choose family or colleagues over the customer because he or she feels more loyal to them and their well-being. For a summary of the neutralization techniques and examples please refer to Table 1.

Few marketing studies have used neutralizations to explain ethical breaches in the

way consumers behave in the marketplace. This is despite the number of opportunities for unethical behavior in areas such as personal selling, advertising, marketing research, and international marketing (Vitell & Grove, 1987). Only a few studies were found in the domain of sales. Strutton, Pelton, and Ferrell (1997) conducted a study that centered on neutralization techniques and how consumers use them to justify unethical behavior in retail settings. Mallin and Serviere-Munoz (2012) explored the role of neutralizations among salespeople in areas such as sales and sales promotions. Chatzikadis, Hibbert, and Smith (2007) proposed the techniques as key links to explain the attitude-behavior discrepancies in fair trade purchase behavior between buyer and seller. The scant research in this area poses opportunities to advance the notion that salespeople utilize neutralizations in their decision process whether or not to behave ethically. In the section to follow, we develop a set of hypotheses suggesting a relationship between several situational/personal factors and ethical intention among salespeople. We also develop an argument to suggest that neutralization will mediate these relationships as salespeople seek to restore emotional balance when considering ethical behaviors.

HYPOTHESES DEVELOPMENT

Organizational Commitment

Organizational commitment is defined as an individual’s strong identification with his or her firm and its values (Mowday, Steers, & Porter, 1979). Such commitment towards the organization calls for a robust belief and acceptance of the organization’s goals, a disposition to work on its behalf, and a strong motivation to be a member of it. Organizational commitment is a bond that is born out of the employee’s attitudes about his/her work and the organization (Mowday, Steers, & Porter, 1979.) This commitment is composed of three dimensions: affective, normative, and continuance commitment (Meyer & Allen, 1991). In general, organizational commitment has been associated to many organizational variables in over 200 studies such as job scope, job satisfaction, and autonomy (See Mathieu & Zajac’s 1990 meta-analysis).

Organizational commitment has also been linked to organizational and personal ethics. Trevino, Butterfield, and McCabe (1998) reported firms that pursue the interests of employees, customers, and the public tend to experience higher levels of organizational commitment and lower levels of unethical behaviors. More recently, Chavez, Wiggins and Yolas (2001) found that a firm's commitment to ethical behavior was signaled by membership in organizations and associations committed to good ethical practices. Additional research (Mencl & May, 2009) confirmed that the affective dimension of organizational commitment, involving an emotional attachment, is more likely to influence individual recognition of an ethical act and the intention to act ethically. On the contrary, lower levels of organizational identification have been shown to result in lower levels of ethical recognition and ethical intention (Mencl & May, 2009). Within the sales domain, organizational commitment has been linked to ethical recognition and ethical intention (Hollet-Haudebert, Mulki & Fornier, 2011) and identified as an integral part to accurately capture salesperson corporate ethical values which in turn leads to job satisfaction and performance (Amyx et al., 2008). When a salesperson is very committed to his or her organization he or she will also be very likely to act in an ethical manner due to the mutual agreement notion (Cox, 1987). This suggests that when the salesperson has expressed his or her commitment to the organization, he or she will be more inclined to behave ethically towards the organization, manager, and customers (Cox, 1987). In sum, a salesperson who exhibits a strong pledge towards his or her organization will be more likely to exhibit ethical values regarding the organization and its customers (Amyx et al., 2008). Thus we propose:

H₁: Salesperson Organizational Commitment will be positively related to Salesperson Ethical Intention

Role Ambiguity

Role ambiguity has been defined as an uncertainty about job responsibilities and expectations (Rizzo, House, & Lirtzman, 1970). Lacking such clarity may cause salespeople to experience increased levels of stress and an

inability to be effective in their role (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Rizzo, House, & Lirtzman, 1970). Role ambiguity has been linked to detrimental effects on an individual's ethical behaviors and a firm's ethical climate. For example, Kidwell, Kellermanns, and Eddleston (2012) reported that role ambiguity was positively related to an increase in employees' opportunistic behaviors and unethical actions that ultimately lead to the demise of the firm. In addition, Schwepker and Hartline (2005) pointed that the absence of clear roles can lead to a negative ethical climate in service firms which also negatively impacts customer-contact service employees' satisfaction, role conflict, and commitment to service quality. Such ambiguity may lead to questionable ethical intentions because there is no clear delineation between right and wrong or ethical and unethical practices. More recent studies further support this notion. For example, Maas and Matejka (2009) report that role ambiguity among controllers was associated with data misreporting at the business unit level and Kidwell, Kellermanns, and Eddleston (2012) found that by minimizing role conflict and ambiguity among their employees, the firm's ethical climate could be enhanced. A salesperson's role perception is one of several key attributes that impact selling behaviors. Clear and unambiguous expectations are needed for salespeople to effectively execute the role of selling (Kahn et al., 1964; Walker, Churchill, & Ford, 1975). Based on these arguments, we propose:

H₂: Salesperson Role Ambiguity will be negatively related to Salesperson Ethical Intention

Relationship Orientation

Personal selling has evolved from early-days peddling to today's fully consultative relationship selling approach. As such, selling relationship orientation continues to receive attention due the positive impact and consequences on the buyer-seller interaction (Weitz, Castleberry, & Tanner, 2007). A selling relationship orientation involves a consultative approach to assist customers in growing and sustaining their business. However, equally important is the fact that these customer relationships can be damaged when salespeople behave in unethical ways, which in turn

TABLE 1:
The Techniques of Neutralization

Technique	Definition	Examples
Denial of responsibility	The individual focuses on negating that any wrongdoing was his or her fault. The argument used to negate personal accountability is that behaving in an unethical was simply beyond someone's control.	<p>“It is not my fault that this happened” “I was drawn into the situation” “I had nothing to do with it.”</p> <p>Salespeople's behavior will reflect the fact that they believe the situation was beyond their control and that they are not responsible for any misconduct.</p>
Denial of injury	Focuses on the damage involved in the delinquent act. The question here is whether anyone was hurt or injured by the behavior because individuals do not think their behavior caused any damage	<p>“There was no wrong doing here” “The customer account was not damaged” “It (the action) was harmless”</p> <p>Salespeople perceive no harm was caused and might perceive their actions to be practical jokes or accepted practices - especially if their peers or society accept such practices.</p>
Denial of victim	The individual states that there was no victim as a result of their act. The individual does accept responsibility for his or her actions and the injury that it caused but states there was no one was injured.	<p>“I did not hurt him/her” “They deserved it” “They should have known better”</p> <p>There is no victim in the salesperson's mind as they perceive “they had it coming.” The salesperson might see their acts as fair retaliation and thus no victim exists.</p>
Condemning the condemners	The center of attention is shifted towards those who condemn or are in charge of enforcing or conveying societal norms. By attacking others, the individual blocks the wrongfulness of the behavior.	<p>“I think that the company (account or person) had it coming” “They were asking for it”</p> <p>Salespeople will not deny their actions were wrong or that there was no injury. They will focus on blaming “the others” and thus this will block any guilt or feeling of wrongdoing.</p>
Appeal to higher loyalties	The individual focuses on excusing the behavior because his or her loyalty lies with a close social group such as family, friends, or even an organization.	<p>“I did it for the team” “My family is more important”</p> <p>Justification for unethical acts are sought as the salesperson may view others (e.g., family, significant other, or those in social groups) as being more important to serve than the customer or company.</p>

(Sykes & Matza, 1957)

negatively impacts trust, repeat business, and positive word of mouth (Mallin & Serviere-Munoz, 2012). Thus, a selling relationship orientation based on strong ethical values is paramount (Kaynak & Sert, 2012).

Researchers have concluded that a reciprocal correlation exists between a relationship orientation and ethical behavior. Colwell, Zyphur and Schminke (2011) confirmed the connection between ethical code enforcement and continuance commitment, a component of customer orientation, in the relationships between suppliers and buyers. They confirmed that buyers are more likely to continue their relationship with suppliers who signal enforcement of ethical codes (Colwell, Zyphur, & Schminke, 2011). Also within the context of the buyer-supplier relationship, Kaynak and Sert (2012) reported that safeguarding relationships via salespersons' ethical behaviors can lead to increased economic and social buyer satisfaction and Caldwell, Hayes, Bernal and Karri (2008) found that salespeople who behaved in a manner congruent with ethical organizational values built relationships much easier with their customers than their counterparts. Furthermore, Amyx et al. (2008) proposed that salesperson corporate ethical values focus mainly on customer relationships. When salespeople seek and nurture established relationships with their customers, firms are in a better position to fully implement the marketing concept (Amyx et al., 2008). As an outcome of a selling relationship orientation, Hansen and Riggle (2009) assert that companies can expect increased levels of buyer commitment and trust which ultimately will lead to improved share of customer, quality of customer communications, and positive word of mouth. Based on this discussion, we propose:

H₃: Salesperson Relationship Orientation will be positively related to Salesperson Ethical Intention

The Mediating Role of Neutralizations

Neutralization techniques are the means individuals employ to soften or completely eliminate guilt deriving from unethical and/or deviant behavior (Sykes & Matza, 1957). As noted by Hunt and Vitell (1986), while using neutralizations, people still respect societal norms, however they still opt for behaviors that

can lead them to experience guilt especially when their own ethical judgment does not match their intentions or behaviors. The role that neutralizations play between ethical judgment and intentions has been supported in studies that can be related to a professional sales domain. For example, Rosecrance (1988) studied how public defenders accommodate negative client perceptions by reporting that these defenders turned to all five neutralizations to cope with negative evaluations of their clients. Evans and Porche (2005) supported the notion that speech therapists who, just like salespeople, maintain close relationships with their clients, turned to denial of responsibility and denial of injury to justify charging higher prices to some clients. Gauthier (2001) recognized that professional veterinarians employed denial of injury and denial of victim when they engaged in questionable activities but still wanted to maintain the relationship with their customer base. Within the marketing literature, Vitell and Grove (1987) suggest that denial of responsibility and denial of injury can be "tempting" neutralization techniques used when faced with cut-throat competition. They argue that by engaging in questionable practices, salespeople may report feeling "acted upon" or that "they had to do it" to remain competitive. Moreover, when justifying sales and promotional activities related to a hypothetical drug that was about to be pulled off the market, Piquero, Tibbets and Blankenship (2005) found that denial of responsibility, denial of injury, and appeal to higher loyalties were neutralizations used to justify proceeding with "planned" original activities of selling the drug.

Additional research in marketing has confirmed the relevance of neutralizations specifically in consumer and retail settings. For example, Chatzikadis, Hibbert, Mittusis, and Smith (2004) explored the discrepancy between the way consumers behave and their professed ethical concerns. Their results suggest that consumers apply the techniques in a variety of fields such as: shoplifting, clothing made in sweat shops, and buying pirated goods, such as CDs and movies. Cromwell and Thurman (2003) concluded that shoplifters use neutralizations to justify their behavior and suggested that neutralizations might supply these thieves with a convincing defense for

their crimes. Strutton, Pelton, and Ferrel (1997) found that young consumers used neutralization techniques to justify unethical behavior in retail settings with *denial of victim* and *condemning the condemners* being the most likely techniques used. The study also suggested that consumers employ the techniques *before* committing unethical behaviors because the techniques help them to mitigate any possible self-blame that they might experience.

Moreover, marketing ethics researchers have confirmed both the mediating and moderating impact of various forms of cognitive processing when linking both organizational and personal factors to ethical behavior. For example, Foo Nin, Vitell, Barnes, and Desborde (1997) studied the role of cognitive moral development (CMD) as a mediating construct for ethical behaviors in marketing. They showed that CMD mediated the relationship between role conflict/ambiguity and ethical behavior. Other researchers have found mixed results noting that more work is needed to fully understand role ambiguity and its impact on ethical behavior – suggesting a potential mediator or moderator to fully explain this relationship (Holle-Haudebert, Mulki, & Fournier, 2012). Kaynak and Sert (2012) also found that the quality of communications mediated the relationship between suppliers and salesperson's actions/behaviors and buyers' satisfaction. When originally proposed, neutralization techniques were positioned as the missing bridge to explain incongruent deviant behavior. Sykes and Matza (1957) argued that these techniques could intervene either before or after committing deviant acts via either moderation (Chatzikadis, Hibbert, & Smith, 2007) or mediation. Based on this research, we hypothesize that a neutralization construct is needed to fully explain (via mediation) the relationship between the four situational/personal antecedent variables proposed thus far (i.e., organizational commitment, role ambiguity, and relationship orientation) and ethical intention among salespeople. These hypotheses can be summarized as:

H₄: Neutralizations will negatively mediate the relationship between Salesperson:

- a) Organizational Commitment and Salesperson Ethical Intention

- b) Role Ambiguity and Salesperson Ethical Intention
- c) Relationship Orientation and Salesperson Ethical Intention

METHOD

Survey, Procedure, and Sample

A cross-industry sample of 157 salespeople was used to test the study hypotheses. Data was collected by recruiting salespeople to fill out an online survey. Undergraduate students (from three sections of professional sales at two different universities) were given the opportunity to earn extra credit by locating salespeople to participate in the study. Students were instructed in writing to ensure that the subjects met the data collection criteria (e.g., B2B or B2C in a non-retail setting). Subjects were asked to provide contact information, company name, and job function title as a means for the research team to verify and validate subjects' participation via phone calls and email. To substantiate our data collection method, we drew from recent sales studies that deployed a similar technique (see Mayo et al. 2013; Gammoh et al. 2013; Serviere-Munoz et al. 2013) which consists of built in controls as the researchers ensure valid responses by verifying the subjects' sales credentials and actual participation in the survey through direct contact. Sample demographics revealed the average respondent was male (63.4%) and 36.9 years old. On average, subjects had 12.8 years of total sales experience of which 7.3 years were selling within their current industry and 3.1 years of tenure selling for their current organization. On average, they earned about 62% of compensation from salary. The top five industries represented in the sample included: publishing/printing (18%), manufacturing (15%), financial services (13%), automotive (7%), and real estate (7%).

Study Variables

The mediating variable, *neutralization (NEUT)* was measured using adaptations of scales developed by Strutton, Pelton, and Ferrell (1997). Following this methodology, respondents were asked to rate their agreement with each of five neutralization scales in response to a sales scenario. A scenario based

approach was chosen since it has been shown to improve the chances of obtaining higher quality of data (Fraedrich & Ferrell, 1992) while improving measurement accuracy in situations containing an ethical component (Hunt & Vitell, 1986). In our case, the scenario described a salesperson who just sold 20 units at full price in order to maximize his/her commissions. Subjects were then asked to respond on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree) the degree to which they feel the salesperson's actions were justified. A list of sample items for each type of five neutralizations appears in the paper's appendix. To obtain an overall composite score for the *NEUT* variable, all items for each of the five specific neutralizations were averaged. To measure the dependent variable, *ethical intention (EI)*, the same scenario was used and subjects were asked to indicate their level of disagreement/agreement on a 7-point Likert scale with statements indicating how they would act in that particular situation (e.g., if this were me, I would have automatically applied the volume discount to the customer's purchase of computers knowing that I did not have to).

Situational/personal variables of our model consisted of *organizational commitment (OC)*, *role ambiguity (RA)*, and *relationship orientation (RO)*. Organizational commitment (*OC*) was measured using seven items adapted from the Mowday, Steers, and Porter (1979) scale and *RA* was computed using three (7-point Likert scale) items from the scale originally developed and validated by Howell, Wilcox, Bellenger and Chonko (1988) and later refined by Shepherd and Fine (1994). To isolate *RO*, we used a measure of customer relationship orientation developed by Mallin and Pullins (2009). Using this measure subjects were asked to rate themselves on a continuum relative to nine dimensions pertaining to how they approach their sales job to promote productive customer relationship building (e.g., *transaction* versus *relationship* focus, *tell* versus *ask* customers about needs, *push* products/services versus *help* solve problems, etc.).

Three control variables were included in the model. *Career stage (CS)* was measured using a self-selection measure recently adapted and

tested by Pappas and Flaherty (2006). Subjects were instructed to select the one stage that best represented their current career concerns. Career stages were coded where lower numbers indicated early career stages and higher numbers were indicative of later stages. *CS* was chosen as a control variable (versus age) based on the notion that salesperson work values and ethical perceptions vary over time (Futrell and Sager 1982) and *CS* was a more contemporary means to account for career changers and individuals returning to the workplace after a life event (e.g., divorce, raising children, etc.). *Percent of Salary (PS)* was a direct measure of the proportion of total compensation paid through a fixed and consistent dollar value. Controlling for *PS* was necessary to account for any potential ethical sales decision bias due to the pressures of making a sale in the short run versus balancing the need to build long term relationships. Lastly we controlled for salesperson *gender* via a direct measure.

Analysis Techniques and Measurement Validation

SmartPLS (Ringle, Wende, & Will, 2005) was used to estimate the measurement model and test the hypothesized path relationships using a (partial least squares) structural model (Anderson & Gerbing, 1988; Joreskog & Sorbom, 1984). Partial least squares were used due to its ability to model latent constructs under conditions of non normality in small to medium sample sizes (Chin, 1998). Being a components-based structural equations modeling technique, PLS is similar to regression, but simultaneously models the structural and measurement paths (Chin, Marcollin, & Newstead, 2003). Table 1 shows the correlations, means, standard deviation, reliability and convergent validity estimates, of model variables. To ensure the reliability of our measures, all values for Cronbach's alpha exceeded the acceptable recommended threshold of 0.7 (Nunnally, 1978). Composite reliability values for all variables were above the recommended 0.6 level (Chin, 1998). Convergent validity of each construct was assessed by examining average variance extracted (AVE) values. All of the values exceeded the 0.5 level considered to be acceptable in exploratory studies (Chin, 1998; Chin, Marcollin, & Newstead, 2003).

Discriminant validity was assessed by comparing the inter-item correlations of each variable to ensure that it did not exceed the value of the item correlation to its own construct. Common method variance was assessed using Harman’s single factor test and based on the result was deemed inconsequential. The model fit and test of individual hypotheses was then assessed by examining the magnitude (beta coefficient) and statistical significance (t-value) of the path estimates.

RESULTS

The individual hypotheses of the model in figure 1 were evaluated based on the beta and t-values of the path coefficients. Support was found for H₁ as the relationship between *organizational commitment (OC)* and *EI* was positive and significant (b = .19, t = 1.69). The findings for H₂ were not significant (b = -.04) and thus the negative relationship between *role ambiguity (RA)* and *EI* could not be confirmed. The hypothesized positive path between

FIGURE 1:

The Mediation Effect of Neutralization on Salesperson Ethical Intentions

(*** p < .01; ** p < .05; * p < .10)

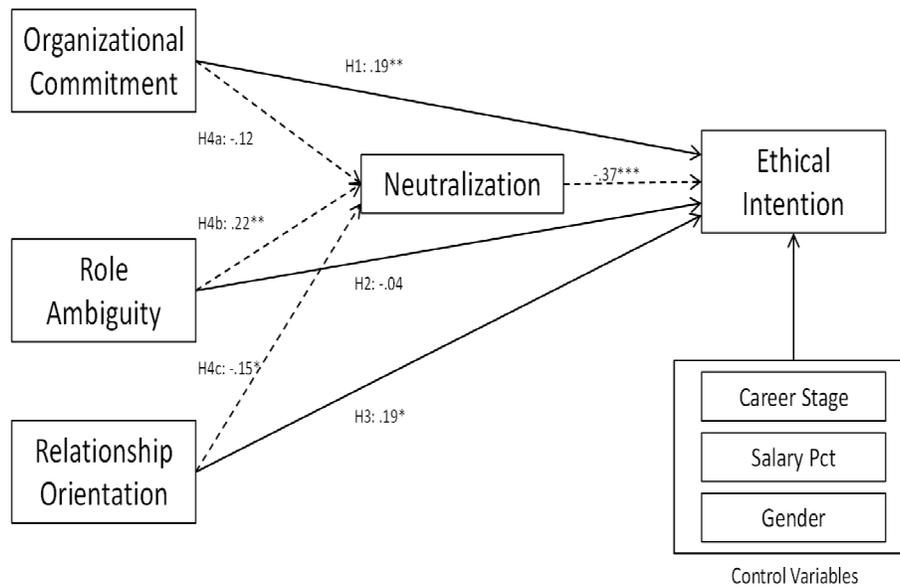


TABLE 2:
Correlations Among Variables, Descriptive Statistics, and Psychometric Properties

	EI	NEUT	OC	RA	RO	CS	PS	GEN
EI	(.86)							
NEUT	-.26	(.93)						
OC	.20	-.21	(.94)					
RA	-.11	.26	-.51	(.84)				
RO	.14	-.25	.47	-.41	(.82)			
CS	.01	-.17	.34	-.21	.23	(1.00)		
PS	.13	.01	-.05	.08	-.12	-.01	(1.00)	
GEN	.03	.01	.03	-.08	.04	-.12	-.01	(1.00)
Mean	5.19	2.80	5.52	2.30	5.82	1.90	62.02	1.44
Std Dev	1.49	1.29	1.20	1.11	0.95	0.83	33.59	0.49
AVE	.79	.53	.80	.55	.52			
CR	.92	.94	.95	.88	.87			

Cronbach's Alpha is in parentheses along the diagonal.

Key: EI = Ethical Intention, NEUT = Neutralization, OC = Organizational Commitment, RA = Role Ambiguity, RO = Customer Relationship Orientation, CS = Career Stage, PS = Percent of compensation from salary, GEN = Gender, AVE = Average Variance Extracted, CR = Composite Reliability.

TABLE 3a:
Path Analysis Results from Structural Model

Hypothesis	Path	beta (t-value)	Comments
H ₁₊ √	OC à EI	.19 (1.69) **	Supported
H ₂₋	RA à EI	-.04 (0.14)	Not Supported
H ₃₊ √	RO à EI	.19 (1.32) *	Marginally Supported
	NEUT à EI	-.43 (3.92) ***	Necessary for mediation effects
H _{4a}	OC à NEUT	-.12 (0.71)	Not supported
H _{4b} √	RA à NEUT	.22 (1.95) **	Limited support via partial mediation
H _{4c} √	RO à NEUT	-.15 (1.29) *	Marginal support via full mediation
	CS à EI	-.08 (0.92)	
	PS à EI	0.12 (1.20)	
	Gender à EI	.02 (0.23)	

Key: EI = Ethical Intention, OC = Organizational Commitment, RA = Role Ambiguity, RO = Relationship Orientation, NEUT = Neutralization, CS = Career Stage, PS = Percent Compensation from Salary.

N = 157; path is significant at: *p < .10; ** p < .05; *** p < .01; √ = hypothesis supported.

relationship orientation (RO) and *EI* was marginally supported in H₃ as this result was significant at the $p < .10$ level ($b = .19$, $t = 1.32$). To test the mediating role of *neutralization* on our study relationships, we used Baron and Kenny's (1986) method of evaluating mediation effects. This method requires a four step test. First, each of our independent variables (IVs) must have a significant effect on the dependent variable (DV) for full mediation. Second, each IV must be significantly related to the mediator variable (MV). Third, the MV must be significantly related to the DV. Finally, when controlling for the effect of the MV on the DV, each IV's effect on the DV should become non-significant.

Based on these rules, we were able to find limited support showing that *neutralization (NEUT)* mediates the relationships between our IVs and *ethical intention (EI)*. Specially, we were able to confirm a significant (negative) relationship between our mediator variable (*NEUT*) and *EI* ($b = -.43$, $t = 3.92$) – a full mediation requirement for supporting each of H_{4a-c}. Based on this, we were able to continue testing for mediation effects. H_{4a} was not supported. This was due to the non-significant relationship of *OC* to *NEUT* ($b = -.12$, $t = 0.71$). H_{4b} shows limited mediation support. Although the hypothesized direct relationship of *RA* to *EI* was not supported (via H₂), the *RA* to *NEUT* relationship was significant ($b = .22$, $t = 1.95$) while the (after controlling for *NEUT*), the original *RA* to *EI* direct relationship remained non-significant. Finally, H_{4c} can be marginally supported as we found the *RO* to *NEUT* path to be significant at the $p < .10$ level ($b = -.15$, $t = 1.29$) while (after controlling for *NEUT*) the direct *RO* to *EI* relationship was no longer significant ($b = .13$, $t = 0.94$). Table 3 reports all of these model statistics and summarizes our findings.

DISCUSSION

A review of the marketing literature will illustrate the importance of ethics as a key component to implementing the marketing concept. At an individual level, it has been widely supported that ethical practices contribute to sales success as it serves as a means for trust between seller and buyer. Our

findings show that organizational commitment seems to motivate salespeople to have stronger ethical intentions. This is evident by a positive and significant relationship. This is a key finding as organizational commitment, to the best of our knowledge, had not been previously confirmed as antecedent to individual ethical intention. We speculate that the reason for our finding lies in the dimensionality (affective, normative, and continuance) of the organizational commitment variable (Meyer & Allen, 1991). It would seem that once a salesperson develops an emotional attachment (affective), a sense of obligation (normative), and a desire to stay with the organization (continuance), they are strongly motivated to exhibit ethical behaviors as these are in line with the organizational values that the salesperson has internalized. Once internalized, an additional reason that compliments such organizational commitment resides in the long term orientation that might be developed. The salesperson is strongly committed and thus adopts a long term orientation that will preserve both his/her as well as the company's well-being.

Our results did not support a direct negative relationship between role ambiguity and ethical intentions as originally predicted. Salespeople do not find that having unclear roles are related to ethical intention. It seems that in their minds, they might understand that although a great deal of role ambiguity might be experienced at some points in their careers it is not an excuse or motive to act unethically. Although this finding might alleviate pressures on sales managers to reduce role ambiguity within the sales force, the result also eludes to the notion that minimizing role ambiguity does not necessarily promote ethical intention. However, our result here is somewhat consistent with other studies relating role ambiguity to sales outcomes. For example, previous studies found no significant relationship between role ambiguity and job burnout dimensions, such as depersonalization and personal non-accomplishment (Hollet-Haudebert, Mulki, & Fournier, 2011), emotional exhaustion (Boles, Johnston, & Hair, 1997), and stress (Jackson & Schuler, 1985). Furthermore, role ambiguity has been typically found to have a significant impact on outcomes where the job is more complex or when related activities lack

formalization (Tubre & Collins, 2000). It is also quite possible that the nature of our sample lacked the organizational context (e.g., complexity and formalization) required to significantly relate role ambiguity to ethical intention. Therefore, we cannot discount job ambiguity as an important variable as it has shown significant negative effects on job commitment, job satisfaction, job performance, and ethical climate in other sales study contexts (MacKenzie, Podsakoff & Ahearne, 1998; Tubre & Collins, 2000; Schwepker & Hartline, 2005).

An unexpected result was the marginal contribution of relationship orientation on ethical intention. A relational approach to selling has been cited as one that fosters increased economic and social satisfaction in the buyer-seller relationship, improved quality of customer communication, and increased rate of customer retention. Such long term and ongoing commitment calls for a consultative approach where trust from both parties is required to succeed and thus salespeople could be more prone to protect such commitment with a higher orientation for ethical practices. It is possible that in salespeople's minds a relationship orientation is not directly related to ethical intention, rather a mediating factor exists that gives them reason to make ethical decisions. This notion is consistent with the assertions suggested by Wachner, Plouffe, and Gregoire (2009) who argue that the linkage between relationship orientation and performance outcomes is a mediated one.

The results of our study suggest that neutralizations play a limited role in mediating the relationships between personal/organizational factors and ethical intention. Specifically, the relationship between role ambiguity and ethical intentions was negatively mediated by neutralizations only to a limited degree. The limitation is due to the lack of support for H_2 (RA – EI path was not significant) which would be necessary for full mediation to occur. One possible reason for may be due to the related literature suggesting that the role ambiguity variable is often confounded with role conflict, thus producing mixed results as it relates to sales outcome variables (Holle-Haudebert, Mulki, & Fournier, 2011; Boles, Johnston, & Hair, 1997;

Jackson & Schuler, 1985; Mackenzie, Podsakoff, and Ahearne 1998). Measuring and testing role conflict as a distinct construct may have helped to discern if discriminant validity was, in part, an explanation for our result here. Our result of H_{4c} suggested that neutralization negatively mediates the path between relationship orientation and ethical intention. Translating this result to sales behavior eludes to the notion that that less relationship oriented salespeople are at risk of behaving in a questionably ethical manner given their propensity to use neutralizations to justify unethical intention.

Since the results for our general model were mixed, we decided to conduct a post-hoc analysis to see if the context in which a salesperson is conducting business has any effect on our model and results (i.e., selling in a Business-to-Consumer [B2C] versus Business-to-Business [B2B] environment). To do this, we split our sample based on the whether the customer was a consumer (B2C) or another business (B2B). From here, we ran concurrent models testing the original hypotheses. The results are illustrated in Tables 3b and 3c. Overall, the B2C subsample performed better relative to the hypotheses. Specifically, marginal support was found for each of the direct relationships to ethical intention (H_1 , H_2 , and H_3). Furthermore, full mediation support was found for H_{4b} and H_{4c} indicating that neutralization plays a key role in the linkage between salesperson situational/personal variables and their intent to act ethically. In all, five of the six hypotheses were supported in the B2C context, compared to two of the five in the B2B sample.

So, why is our model more responsive in an environment where the selling is direct to consumers versus selling to a business entity? Maybe, because the seller recognizes his/her ethical behavior is impacting an individual, the likelihood of rationalizing a potentially unethical act is greater (i.e., using neutralization). Possibly there is a sense of personal identification or self-projection of an ethical action (e.g., "this customer could be me ... or a member of my family") thus the need to use neutralization becomes relevant. Unlike selling to a business where the recipient of ethical behavior is a faceless entity, our

TABLE 3b:
Path Analysis Results from Structural Model – B2C Subsample

Hypothesis	Path	beta (t-value)	Comments
H ₁₊ √	OC à EI	.22 (1.32) *	Marginally Supported
H ₂₋ √	RA à EI	-.24 (1.48) *	Marginally Supported
H ₃₊ √	RO à EI	.21 (1.27) *	Marginally Supported
	NEUT à EI	-.27 (1.70) **	Necessary for mediation effects
H _{4a}	OC à NEUT	-.03 (0.18)	Not supported
H _{4b} √	RA à NEUT	.26 (1.72) **	Supported via full mediation
H _{4c} √	RO à NEUT	-.27 (1.90) *	Supported via full mediation
	CS à EI	-.13 (1.64) **	
	PS à EI	0.04 (0.42)	
	Gender à EI	-.04 (0.40)	

Key: EI = Ethical Intention, OC = Organizational Commitment, RA = Role Ambiguity, RO = Relationship Orientation, NEUT = Neutralization, CS = Career Stage, PS = Percent Compensation from Salary.

N = 157; path is significant at: *p<.10; ** p < .05; *** p < .01; √ = hypothesis supported.

TABLE 3c:
Path Analysis Results from Structural Model – B2B Subsample

Hypothesis	Path	beta (t-value)	Comments
H ₁₊	OC à EI	-.01 (0.05)	Not Supported
H ₂₋	RA à EI	.01 (0.06)	Not Supported
H ₃₊	RO à EI	.14 (0.91)	Not Supported
	NEUT à EI	-.45 (4.69) ***	Necessary for mediation effects
H _{4a} √	OC à NEUT	-.23 (1.70) **	Supported via partial mediation
H _{4b} √	RA à NEUT	.25 (2.87) **	Supported via partial mediation
H _{4c}	RO à NEUT	.03 (0.26)	Not Supported
	CS à EI	.08 (0.82)	
	PS à EI	.17 (1.42) *	
	Gender à EI	.09 (0.89)	

Key: EI = Ethical Intention, OC = Organizational Commitment, RA = Role Ambiguity, RO = Relationship Orientation, NEUT = Neutralization, CS = Career Stage, PS = Percent Compensation from Salary.

N = 157; path is significant at: *p<.10; ** p < .05; *** p < .01; √ = hypothesis supported.

proposed model is more responsive in a context of selling direct to consumers. In the B2B context, a major difference was the mediation support for H_{4a} (OC → NEUT → EI) relationship. This makes sense in that organizational commitment is a company level construct and organizational identification within the salesperson's own company may transcend into the customers organization/company. Overall, our model and results favor a context of B2C selling.

Practically speaking, our study suggests that managers have to remain attentive as to whether salespeople use neutralizations and the circumstances under which this occurs. To better illustrate how sales managers might know when salespeople are using neutralizations, we added examples of specific statements and behaviors to the Table 1 for each of the five types of neutralizations. It is also important to emphasize and remind that the neutralizations represented in this study are learned responses that tend to be socially reinforced to protect an individual from self-blame. Given this, it is quite possible for managers to err towards tolerating certain questionable behaviors among salespeople in favor of better sales performance. As such, many sales intensive industries such as pharmaceuticals and banking have been under scrutiny resulting in increased regulations due to, among other factors, a manager's role on ethical behaviors. Therefore, sales managers must remain vigilant and involved with their teams to prevent such justifications. Occasionally monitoring a salesperson response to a situation involving judgment (e.g., a customer request for price concessions, reporting an expense for a business lunch, responding to a competitor claim, etc.) may be advised. Especially for newer sales reps, who may not yet fully understand the ethical landscape, managerial coaching and training on acceptable ethical practice is important. Managers should be on alert for employees using phrases like, "I did it because it was better for all concerned," "I did it for myself," "I didn't mean it," or "they asked for it." This could be a signal that the employee is utilizing a neutralization technique to justify an unethical act. Finally, as a proactive measure, sales managers could engage Human Resources to help implement a training program with

"refresher" sessions to make the sales force aware of acts that might constitute unethical behavior. Awareness of how neutralizations tend to be used should be a part of such training. Human Resources could also support managers in reviewing job descriptions as clearly defining the roles and responsibilities of the sales person should serve to minimize role ambiguity - a significant factor identified in our study as contributing to unethical intention.

CONCLUSION, LIMITATIONS AND FURTHER RESEARCH

The purpose of our study was to explore the tendencies for sales people to use neutralizations to justify their (un)ethical intention. We did this by testing a model centered on predicting a salesperson's tendency to justify (or neutralize) ethical sales intention. Doing this was necessary to fully understand the relationships between some personal/situational factors (salesperson organizational commitment, salesperson role ambiguity, and salesperson relationship orientation) and the salesperson's ethical intentions via a negatively mediated relationship. Our research contributes to the sales literature since exploring this topic has received limited attention in the sales area. Furthermore, practical implications from our research can be used to help sales managers and sales trainers reinforce ethical selling practices within their sales organization.

Certain limitations must be taken into consideration when considering the findings of this study. Social desirability bias is a limitation that could have implications for our results as no measure was included to control for the respondents' tendency to under or over report unethical behaviors. Our rationale for using a scenario-based approach was to improve the likelihood of obtaining higher quality data and measurement accuracy as cited in similar type studies designed to capture ethical/unethical tendencies (Fraedrich & Ferrell, 1992; Hunt & Vitell, 1986). Nonetheless, we recognize the importance of accounting for social desirability bias in future studies on this topic. Furthermore, we did not account for certain personality traits that may have a bearing on our results (e.g., conscientiousness, achievement orientation, etc.) and individual differences (optimism, self-efficacy, and locus of control, etc.). Adding

personal characteristics as well as individual differences would help to further specify our model. The study is also limited by having employed only one scenario to test the hypotheses. Using multiple scenarios in subsequent research may strengthen the results by taking into account the variability introduced based on a different set of sales circumstances (e.g., product/service/offering, ethical dilemma, and personal relevance).

An area for further research stems from exploring how the age of the sales person has any bearing on how salespeople use neutralizations and/or the specific type of neutralizations (e.g., denial of responsibility, denial of injury, etc.) that are most prevalent. Since it is well established that life and work views differ between the various generations, studying younger sales people (i.e., the millennials) might provide additional insight as to how this demographic uses neutralizations to justify unethical behavior. Additional organizational variables can be incorporated for future study. This is especially important as many neutralization studies have overlooked factors such as perceived distributional fairness, organizational climate, supervisory style, and the sales rewards systems (Ferrell, Johnston, & Ferrell, 2007).

¹Five neutralization techniques were included in a composite measure of the *neutralization* variable used for the study. These techniques included *denial of responsibility*, *denial of injury*, *denial of victim*, *appeal to higher loyalties*, and *condemning the condemners*. Sample items from these measures are included in the paper's appendix.

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APPENDIX:
Sample Survey Items

Scenario: *Chris sells computers for a living. He just sold 20 computers (units) to a local company at full price. His company allows for a discount on volume sold over 10 units. Chris did not mention this because the customer did not ask for a discount – plus a discount would reduce his/her commission.*

Ethical Intention (referring to the scenario, indicate degree of agreement to the following statements):

If this were me, I would have automatically applied the volume discount to the customer's purchase of computers knowing that I did not have to.

If this were me, I would have explained to the customer that they are eligible for a volume discount knowing that I did not have to.

If this were me, I would think about how my actions would benefit the customer first and me second.

Neutralization (referring to the scenario, indicate degree of agreement to the following statements):

Denial of Responsibility

The computer company makes a profit whether or not discounts are given.

If he/she needed the extra money (commission), he/she had no choice.

Given the typical markup, computer companies can barely make any profits on their products.

Denial of Injury

The customer still benefits because he/she is acquiring brand new equipment.

Given the low markups, customers these days can afford to buy computers more often.

It's no big deal - the customer had the money.

Denial of Victim

- If his/her company paid better, he/she would not have to withhold information from the customer.
- If customers do not think of asking for discounts, they deserve what they get.
- No one was really hurt.

Appeal to Higher Loyalties

- Sales reps have to do whatever they can to improve their personal situation.
- His/her child may have needed new clothes because of peer pressure at school.
- If he/she would become unemployed, his/her family will need the extra commission.

Condemning the condemners

- It is likely that the customer has done such things before.
- Customers deserve what they get.
- The customer probably had it coming.

Organization Commitment: (7-point Likert scale 1 = "strongly disagree" to 7 = "strongly agree")

- I am willing to put in a great deal of effort beyond that normally expected in order to help my organization be successful.
- I talk up my organization to my friends as a great organization to work for.
- I would accept almost any type of job assignment in order to keep working for this organization.

Role Ambiguity: (7-point Likert scale 1="strongly disagree" to 7 = "strongly agree")

- I feel uncertain about how much authority I have in my selling position.
- Clear, planned goals and objectives do not exist for my selling position.
- I know I have divided my time properly while performing the tasks connected with my selling (reversed).

Customer Relationship Orientation (select the number more closely describes how you approach your sales job.

Order taker	1	2	3	4	Order getter
	5	6	7		
Transaction focused	1	2	3	4	Relationship focused
	5	6	7		
Create customer needs	1	2	3	4	Uncover customer needs
	5	6	7		
Tell customers what they need	1	2	3	4	Ask customers what they need
	5	6	7		
Push products/services	1	2	3	4	Help customers solve problems
	5	6	7		
Sell products/services	1	2	3	4	Sell solutions
	5	6	7		
Short term focused	1	2	3	4	Long term focused
	5	6	7		
Provide no after sales support	1	2	3	4	Emphasize service after the sale
	5	6	7		
Product focused	1	2	3	4	Customer focused
	5	6	7		

THE ANTECEDENTS OF SATISFACTION FOR FACEBOOK “LIKERS” AND THEIR EFFECT ON WORD-OF-MOUTH

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Facebook allows consumers to indicate their associations with individuals, companies, and institutions through the “like” feature. Companies are attempting to utilize this feature to develop relationships with consumers. This paper examines the inter-relationships among constructs such as identity, involvement, satisfaction, and consumer-firm relationships for those who have chosen the Facebook “like” feature. Based upon an internet survey a model of satisfaction for “likers” on Facebook is tested. The results indicate that the proposed model is a good fit for the data, and that merely motivating consumers to “like” a company may not be sufficient, involvement is the key. Additionally, the results show that both satisfaction and involvement positively impact word-of-mouth.

INTRODUCTION

The literature regarding social media use by businesses suggests that social networking sites are about the facilitation of relationships between consumers and business through the use of technology (Li & Bernoff, 2008). A key aspect of what makes social media marketing different from other forms of traditional advertising is that social media marketing has greater potential to build strong relationships (Weinberg, 2009) and is primarily in control of the consumer (Cheung & Lee, 2010). Social media has matured to the point that the question, “should a company use social media or not” does not apply as the financial and relationship benefits are becoming apparent (Nadeem, 2012). The days of “social media is cute” are over (Rishika, Kumar, Janakiraman, & Bezawada, 2013) and important issues such as the effectiveness of social media on return on investment are becoming more important as companies struggle to measure social media effectiveness, beyond just how many people are following a particular company (Rishika et al. 2013). For example, a company can easily measure how many people “like” them on the social media platform “Facebook,” by counting the number of people that click the “like”

feature on the company’s homepage. When this paper refers to “likers,” it is referring to consumers who clicked on the “like” feature, and not necessarily to any affect on their part.

The question remains, what is the bottom line effect of the “like” feature for the company? Before we can assess for effectiveness in terms of the bottom line, we need to develop models of consumer behavior on the social networks. This paper is a first step in that process. We develop a model that explores relationship marketing constructs such as identity, involvement, satisfaction and word-of-mouth behavior among people who clicked the “like” feature for companies on Facebook. The purpose of this paper is to bridge a gap in the social media literature by developing and testing a model of the inter-relationships among the antecedents of satisfaction for customers that “like” a company on Facebook, and extending the model to word-of-mouth behavior.

The “Like” Option

The “like” option allows consumers to broadcast their interests and preferences on their Facebook homepage, thus letting their friends know who they support and/or follow. In other words, ‘liking’ is a way to affirm a relationship in a public way. The “like” activity has become so popular that close to 140

million brands created a presence on Facebook with Coca-Cola and Starbucks showing 21 and 18 million fan “likes” respectively (Hardey, 2011).

Although the number of customers who “like” a company on Facebook is a plausible measure of company popularity with customers, it does not equate to strength of relationship between them. Success in social media platforms, specifically Facebook, relies on people’s desire to let others know about their association with a company. It is already established in the literature that customers show their connection with companies and organizations by broadcasting it on their social media sites, such as using the “like” option to show their association with that company (Turner & Shah, 2011). In other words, a person “likes” a company on Facebook because of their *desire* to advertise an association with this company to their friends.

Some companies offer financial rewards in order to entice people to “like” them on Facebook. Although financial incentives do have their place in creating and maintaining relationships by forming a financial bond between a customer and a company (Chiu, Hsieh, Li, & Lee, 2005), in online relationships, social and structural bonds also play a role in maintaining these relationships (Liang & Chen, 2009). Our viewpoint is that relationships develop over time and experience, with more factors involved than just financial incentives (Dagger & O’Brien 2010).

One factor that affects relationships, and is explored in this paper, is satisfaction. Unfortunately the relationships among various constructs representing antecedents of satisfaction, in the social media context, have not been explored in the academic marketing literature, especially as it relates to Facebook ‘likers.’ It has been suggested (Hoffman & Novak, 2011) that it is difficult to distinguish the difference between people who click the ‘like’ icon in Facebook for a product out of genuine preference for it and those who may be externally motivated to ‘like’ a product as a result of seeing others perform the action. Further, it is argued, that clicking ‘like’ does not necessarily represent a commitment reflecting purchase intent, one may ‘wish’ to buy a product rather than ‘plan’ to buy a

product. But it has also been suggested that networking is strongly associated with behavioral intention (Kim, Shim, & Ahn, 2011). In other words, being involved on a social networking service, such as Facebook, may increase the intention to engage in other behaviors such as word-of-mouth. This is important because eighty-one percent of participants in an online survey said their perceptions are influenced substantially by word-of-mouth (Simmons, Conlon, Mukhopadhyay, & Yang, 2011).

Hypothesis development

Identity and involvement. Consumer identification with a company is defined as an active, selective, and volitional act in which a customer is motivated by the fulfillment of self definitional needs (Bhattacharya & Sen, 2003). Customers portray a certain image to themselves as well as to others by affiliation with companies in some way. In other words, customers identify themselves by the companies they choose to associate with by wearing apparel (Nike clothing), sporting window stickers (universities), or choosing to “like” a company on Facebook. Social identities are chosen on the basis of self-categorization and not necessarily by actual membership with a company or organization (Brewer, 1991).

Self identification with another entity can occur because of several different reasons. First, a company carries the same belief system and values of a customer. For example, people may identify with “Ben and Jerry’s” ice cream because they both value the environment. Secondly, people may identify with a company due to affiliation needs. In other words, people may identify with a church, sports team, or fan club for the assurance that they belong to a group (Pratt, 1998). Third, people can clarify their self-concept and gain a positive self-appraisal through their association with the company (Homburg, Wieseke, & Hoyer, 2009). For example, a person may identify with “In and Out,” a hamburger chain that originated in California, in order to show that their own roots originated from California.

However, research has shown that social identity can also lead to more involvement with

a brand. For example, Harley Davidson group members that strongly associated themselves with the brand also were more involved with their respective brand communities (Bagozzi & Dholakia, 2006). Social identity also was a factor in driving people’s decisions to participate in virtual communities (Bagozzi & Dholakia, 2002). So if a company or brand reflects a consumer’s social identity, they are more likely to be involved with that company by not only choosing to “like” the company, but also to participate in events/activities when they occur.

H₁: For Facebook “likers,” identity has a positive impact on involvement.

Relationships and involvement. A consumer-firm relationship is created when a history develops between a consumer and a firm. For this history to evolve into a relationship, a series of interactions between the consumer and the firm must occur, thus eventually forming a bond between the consumer and the target firm (Coulter & Ligas, 2004). As the relationship history develops over time, benefits such as reduced uncertainty and social satisfaction from the association encourage the customer to maintain the relationship with the firm (Dwyer, Schurr, & Oh, 1987). A customer-firm relationship is vital to long-term profitability, and does not come easily; it must be earned (Gronroos, 1990). The benefits the customer receives from these relationships must go above and beyond what the core product has to offer the customer (Gwinner, Gremler, & Bitner, 1998).

Understanding the role of relationships in the social media context is important because the goal of an online social media campaign is to create sustained engagement with the consumer (Harris & Rae, 2009). Due to the newness of the popularity of social networking sites, it is only within the past few years that businesses began to realize the relationship opportunities social networks provide. Online relationships must be carefully managed because of the viral nature of these networks. Mismanagement with even one consumer relationship may damage the relationship between the company and many other customers as well (Kozinets, de Valck, Wojnicki, & Wilner, 2010).

A common variable associated with relationships is involvement. Involvement is conceptualized as actions by a consumer that has perceived personal relevance (Gordon, Mckeage, & Fox, 1998). Furthermore, the personal relevance of the object can be based on inherent needs, values, and interests of the consumer (Zaichkowsky, 1985). In a Facebook setting, people are involved with companies when they choose to receive updates on their message board, referred to as a “wall.” The idea is that as consumers receive these updates, they engage in more elaborate, extensive thoughts about that particular company (Puccinelli, Goodstein, Grewal, Price, Raghubir, & Stewart, 2009). So the effect of involvement is to enhance the relationship between the firm and the consumer (Gruen, Summers, & Acito, 2000). If customers have a relationship with a company, such as when they “like” a company on Facebook, they are more likely to look forward to updates from that company and consequently become more involved.

H₂: Relationship with a company has a positive impact on involvement for customers who “like” that company on Facebook.

Involvement and satisfaction. Satisfaction is defined as a psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer’s prior feelings about the consumption experience (Oliver, 1981). Literature shows that satisfaction is a complex construct that can be conceptualized by personal characteristics, evaluations of a product, evaluation of a service process, or evaluation of service personnel (Singh, 1991). Satisfaction has also been measured as an overall positive feeling with a firm (Macintosh, 2007).

Consumers’ commitment to a relationship with a firm is reflected in how satisfied they are with that firm (Tax, Brown, & Chandrashekar, 1998). It appears that customers weigh satisfaction more the longer they have a relationship with a company, as shown with the cellular phone service industry (Bolton, 1998). Similarly, in the banking industry, results showed that the most satisfied customers were those who had been with the bank the longest (Barnes, 1997). Satisfied customers generally

have a positive history with the company (Curasi & Kennedy 2002). Since customers are advertising a relationship and positive history with a company when they “like” that company on their Facebook homepage, these customers would be expected to have some degree of satisfaction with that company.

Moreover, not only does involvement influence the strength of relationship between the consumer and the company, it also influences evaluations of experiences with that company (Gordon et al., 1998). For example, consumers who are highly involved with the Internet or with a particular website tend to be more satisfied with that site than those who are less involved (San Martín, Camarero, & San José, 2011). Additionally, the more involved a customer is in regards to product or company, the less the perceived risk when purchasing from that company, and theoretically the more satisfied the customer is with a company or product (Kovacs, Farias, Moura, & Souza, 2011). Although this chain of reasoning has not been tested, it does show recognition of the correlation that exists between involvement and satisfaction.

H₃: For Facebook “likers,” involvement has a positive impact on satisfaction.

Coupon proneness and satisfaction. Historically, coupons have played an important role in the way that products are both promoted and purchased (Blattberg & Deighton, 1991). When used as external stimulation to encourage purchasing, coupons have been proven to positively affect the short-term sales of a product or brand (Graham, 1994). Further, coupons are more likely to incite purchases from consumers who are coupon prone, than comparable price reductions (Babakus, Tat, & Cunningham, 1988).

Along with technology advances, the distribution of coupons is expanding and many coupons are being offered online through various websites. The process of distributing coupons on the Internet is more efficient (less cost to marketer) than distributing print coupons. Besides, individual consumers have access to exponentially greater online coupon resources (Oliver & Shor 2003). Coupons distributed online engage consumers in a

unique way because the consumer must seek out the marketer specifically, rather than the other way around (Berthon, Pitt, & Watson, 1996).

Coupon prone consumers enjoy using coupons and play what they perceive as a coupon game (Roehm & Roehm, 2007). These coupons lower their search and decision costs and provide justification to buy the promoted products (Chandon, Wansink, & Laurent, 2000). Those consumers who use e-coupons shift from being passive to active searchers of coupons. These consumers can request email alerts which notify them whenever coupons become available.

Coupons received by consumers through Facebook from “liked” companies, may enhance consumer satisfaction; as there is a sense of entitlement that comes with those coupons. This is particularly true for those who are coupon prone. For example, customers who have coupon codes when redeeming coupons at the end of a purchase tend to be more satisfied than those who do not have a coupon code. The coupon code not only result in higher satisfaction among the consumers, but also a higher sense of equity as well (Oliver & Shor, 2003; Oliver, Shor, & Tidd, 2004). Other research has found that the pride and satisfaction of obtaining savings through the use of coupons was found to be an important determinant of coupon usage (Babakus et al., 1988). So coupon prone consumers may report higher levels of satisfaction towards companies that offer them coupons due to their Facebook connections.

H₄: Coupon proneness has a positive impact on satisfaction for Facebook “likers.”

Impact on word-of-mouth. Word-of-mouth communication in a marketing context is conceptualized as interpersonal communications in which none of the participants are marketing sources (Bone, 1995). Past research has shown that word-of-mouth communication is more influential than marketer based communication (Gilly, Graham, Wolfenbarger, & Yale, 1998). With the advent of the Internet, it has been easier for companies to spread word-of-mouth through customers by associating the brand name with customers’

communications (Carl, 2006). For example, a person may read the statement “this email was sent from my Blackberry” at the end of a customer’s email. Or as in the case of Facebook, customers may now choose to “like” a company thus associating themselves with that company for all of their “friends” to view. Customers are increasingly paying more attention to postings and reviews of products by other customers while making their purchase decisions.

Although Internet word-of-mouth can be effective, face-to-face word-of-mouth behavior still remains important because of its large impact on repurchase intentions (Davidow, 2003). Although our research does not test for repurchase intentions or increase in sales, it is testing the effect on word of mouth behavior with the assumption that it can lead to repurchase intentions or referral sales by the consumers who engage in such behavior. Word-of-mouth behavior is an interesting variable because of its nature as an involvement response, which is defined as behavior that is motivated by involvement. Literature has shown that word-of-mouth is a common example of an involvement response (Dwyer, 2007). Furthermore people in online communities who are more involved with the product tend to engage in more word-of-mouth behaviors than those who are not involved (Gummerus, Liljander, Weman, & Pihlstrom, 2012).

H_{5a}: For Facebook “likers,” involvement has a positive impact on Word-of-Mouth

Past research between satisfaction and word-of-mouth is robust and shows that a high level of satisfaction leads people to engage in positive word-of-mouth (Royo-Vela & Casamassima, 2011). Satisfied customers who spread positive word-of-mouth about companies are more believable than company initiated marketing communication because their satisfaction and consequent word-of-mouth behavior are perceived by other customers as genuine and not manipulative (Macintosh, 2007).

H_{5b}: For Facebook “likers,” satisfaction has a positive impact on Word-of-Mouth

The conceptual model illustrating the above hypotheses are shown in figure 1

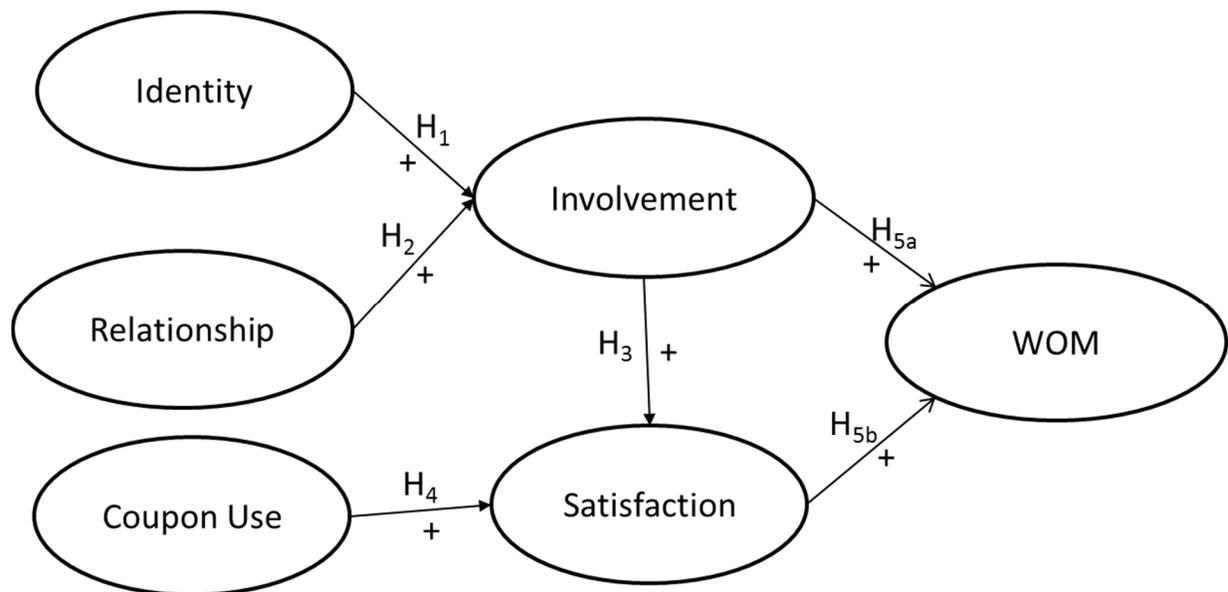
Methodology

Sample. The sample was obtained using an Internet data collection firm (*Research Now*) whose panel includes worldwide consumers. As the sample chosen would already be familiar with the Internet and web-based marketing, using an electronic data collection firm is appropriate for this study. There were two initial screening criteria used in developing the sample; one, respondents had to be 18 years or older, and two, they needed to have Facebook accounts. Further screening was provided so that the sample was comprised of only customers who “liked” a company on Facebook. The respondents were then instructed to write the name of a company they “liked” on Facebook and to answer all of the questions in the survey for that specific company. We do not know if the company chosen by the respondent was their favorite company or just one that came to mind during the survey. We assume at minimum, that since the respondents “like” a company on Facebook and chose to use that company in their responses, that they must have positive feelings in some degree towards that company. The total sample size for this research is 401 useable surveys. The median number of months that people say they “like” a company is six months.

The respondent sample was not too distorted as compared to population distributions of Facebook users. For example, online social media monitoring sources, such as the Pew Internet Report, showed in 2012 that approximately 50% of Facebook users are 36 years of age or older and a little over half of the users are female (Hampton, Sessions-Goulet, Rainie, L., & Purcell, 2011). These statistics are similar to our sample demographic in which 48% were age 35 or older and 51% were female.

Measurement Scale Development. To determine appropriate constructs for this study, a thought-listing exercise was conducted with fifty students from a mid-size university in the mid-west. Each student was required to write up three reasons they chose to “like” a company on Facebook. This was an open

FIGURE 1:
Proposed model of antecedents to Word-of-Mouth behavior among customers who “like” a company or organization on Facebook



ended question in which the respondents wrote their reasons for the first company that came to mind, which is indicative of top of mind recall. A total of 150 responses were recorded. These responses were then categorized into major constructs and coded for tabulation. The results of this exercise are displayed in table 1.

The scale items used for the measurement of each construct were adapted from the current marketing literature and applied for this research. The construct items used in this study were measured with a 7-point Likert-type scale and are shown with the original references in the appendix.

Construct validity. Discriminant validity among the constructs was demonstrated because the squared correlation between a pair of constructs was less than the average variance extracted (AVE) of each construct. Additionally convergent validity was demonstrated because the AVE for each construct ranged from .620 to .795, all of which were greater than the recommended minimum AVE of .5 (Fornell & Larcker, 1981). Construct reliability was tested using Chronbach’s alpha. The reliability scores for the constructs ranged from .812 to .907, which was greater than the minimum of .70 suggested by Nunnally (1978). Table 2 shows the results

of the tests conducted for construct reliability and validity

Results

The means and standard deviations of perceived importance obtained from the survey data for each of the constructs are shown in Table 3. The results confirm that the constructs included in the study are important to people who “like” companies on Facebook.

The measurement model has an acceptable fit to the data for people who “like” a company on Facebook ($\chi^2 = 211.37_{df95, p < .01}$; RMSEA = .056; CFI = .98; NFI = .97; GFI = .94). The results of the model test as well as all of the hypothesized paths are summarized in table 4 and graphically represented in figure 2.

In examining the hypothesized model in more detail, all of the hypothesized paths were positive and significant with the exception of H4, which stated coupon proneness has a positive impact on satisfaction. The low correlation between coupon proneness and satisfaction for Facebook “likers” may be attributed to the idea that people who “like” a company on Facebook are already satisfied customers and their attitude towards coupons does little to change their satisfaction towards

TABLE 1:
Results of thought listing exercise in which respondents explained why they
lick the “like” icon for a company on their Facebook page

Construct	Percent Reported
Involvement	21.3%
Satisfaction	31.3%
Coupons	13.0%
Identity	20.7%
Relationships	10.7%

TABLE 2:
Cronbach’s alpha (α), average variance extracted (AVE),
and squared correlations between construct

Item	α	ID	SAT	INV	WOM	RM	CP
Identity (ID)	.901	.750					
Satisfaction (SAT)	.907	.089	.773				
Involvement (INV)	.868	.220	.202	.710			
WOM	.884	.137	.413	.254	.795		
Relationship	.812	.155	.120	.340	.147	.690	
Coupon Proneness (CP)	.827	.011	.014	.023	.004	.031	.620

TABLE 3:
Means and standard deviations of each construct tested in the model

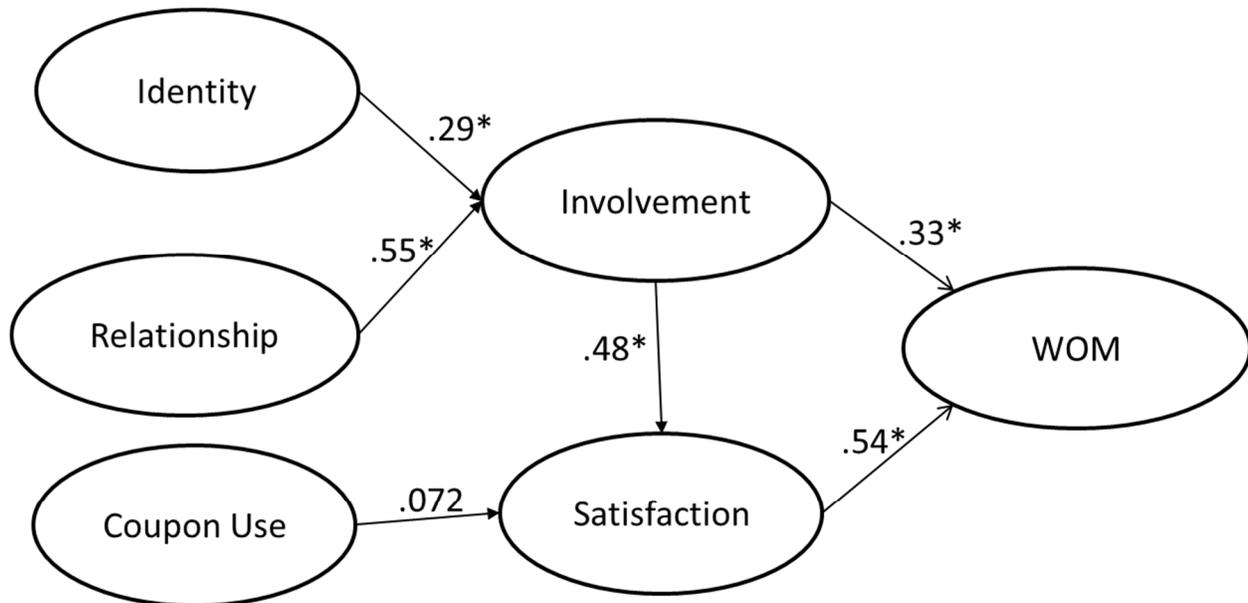
Item	\bar{x}	σ	t	p
Identity	4.327	1.454	4.463	<.001
Satisfaction	5.752	1.167	29.748	<.001
Involvement	4.618	1.133	10.822	<.001
WOM	5.087	0.920	23.425	<.001
Relationship	4.706	1.312	10.660	<.001
Coupon Proneness	4.582	1.334	8.650	<.001

TABLE 4:
Test of hypothesized relationships

Hypothesis	From	To	Path coefficient	t-value	p-value
H ₁	Relationship	Involvement	.55	9.42	<.001
H ₂	Involvement	Satisfaction	.48	8.50	<.001
H ₃	Identity	Involvement	.29	5.56	<.001
H ₄	Coupon	Satisfaction	.072	1.37	n.s.
H ₅	Involvement	WOM	.33	6.42	<.001
H ₆	Satisfaction	WOM	.54	10.09	<.001

$\chi^2 = 211.37$ (df = 95)
 RMSEA = .056
 CFI = .98
 NFI = .97
 GFI = .94

FIGURE 2:
SEM test results of the model of antecedents to Word-of-Mouth behavior among customers who “like” a company or organization on Facebook



* < .001

$\chi^2 = 211.37$ (df = 95), RMSEA = 0.056, CFI = .98, NFI = .97, GFI = .94

the company. When people become involved with a company using social media, it is partially due to long term satisfaction with that company that led to desires of further engagement between the customer and the company (Sashi, 2012).

H₁ was supported as the path coefficient between identity and involvement was positive and significant. Fan pages on social networking sites, such as the “like” feature on Facebook, become signals of a person’s self-identity (Jahn & Kunz, 2012). So if a person self-identifies with a brand they are also likely to become engaged with that particular brand (Jahn & Kunz, 2012). H₂ was supported as the path coefficient between relationship and involvement was both positive and significant. This finding is consistent with the involvement strategies managers use to maintain relationships with consumers on social media sites such as Facebook (Kiron, Palmer, Phillips, & Kruschwitz, 2012). H₃ was supported as the path coefficient between involvement and satisfaction was both positive and significant.

This finding is consistent with the literature which shows that the more customers are involved with a company the more satisfied they are with that company (Kovacs et al. 2011). H_{5a} was supported as the path coefficient between involvement and word-of-mouth was significant and positive. This is consistent with the literature which shows a positive relationship between involvement and positive word-of-mouth behavior by the customer (Vivek, Beatty, & Morgan, 2012). H_{5b} was supported as the path coefficient between satisfaction and word-of-mouth was positive and significant. This finding is supported by a large collection of research in the marketing field (for example see Mittal, Anderson, Sayrak, & Tadikamalla, 2005).

The overall model in this study was tested against two other models to determine if the fit was better than other alternative models. The first rival model added a path between identity and satisfaction and a path between relationship and satisfaction. Although the model fit was similar to the hypothesized model, the path

coefficients were not significant. In order to limit possible multicollinearity effects between relationship and identity, another model was tested in which the path from identity and satisfaction was eliminated but the path from relationship and satisfaction was retained. The overall fit indices were still good, yet there was no significant correlation between relationship and satisfaction. Apparently when people

“like” a company on Facebook, their satisfaction towards that company is highly correlated with their involvement with the company, which might indicate that active interaction between the company and customers will enhance satisfaction, especially among customers who “like” that company on their Facebook profiles.

TABLE 5a:
Test of alternative model 1 with direct paths from identity and relationship to satisfaction

From	To	Path coefficient	t-value	p-value
Relationship	Involvement	.55	9.35	<.001
Involvement	Satisfaction	.39	4.55	<.001
Identity	Involvement	.29	5.45	<.001
Coupon	Satisfaction	.064	1.21	n.s.
Involvement	WOM	.32	6.40	<.001
Satisfaction	WOM	.54	10.21	<.001
Identity	Satisfaction	.070	1.13	n.s.
Relationship	Satisfaction	.073	.91	n.s.

$\chi^2 = 210.41$ (df = 93), RMSEA = .057, CFI = .98, NFI = .97, GFI = .94

TABLE 5b:
Test of alternative model 2 with a direct path from relationship to satisfaction

From	To	Path coefficient	t-value	p-value
Relationship	Involvement	.55	9.33	<.001
Involvement	Satisfaction	.42	5.22	<.001
Identity	Involvement	.29	5.51	<.001
Coupon	Satisfaction	.064	1.21	n.s.
Involvement	WOM	.32	6.42	<.001
Satisfaction	WOM	.54	10.15	<.001
Relationship	Satisfaction	.084	1.05	n.s.

$\chi^2 = 211.02$ (df = 94), RMSEA = .056, CFI = .98, NFI = .97, GFI = .94

TABLE 5c:
Test of hypothesized relationships – current study

Hypothesis	From	To	Path coefficient	t-value	p-value
H ₁	Relationship	Involvement	.55	9.42	<.001
H ₂	Involvement	Satisfaction	.48	8.50	<.001
H ₃	Identity	Involvement	.29	5.56	<.001
H ₄	Coupon	Satisfaction	.072	1.37	n.s.
H ₅	Involvement	WOM	.33	6.42	<.001
H ₆	Satisfaction	WOM	.54	10.09	<.001

$\chi^2 = 211.37$ (df = 95), RMSEA = .056, CFI = .98, NFI = .97, GFI = .94

Managerial implications

This study on Facebook “likers” was based on empirical analysis of survey data. The hypotheses are supported by and are congruent with existing literature that relate to the constructs used in our study. However no previous study has examined the inter-relationships among these constructs, particularly in the context of “likers” on Facebook.

The constructs investigated were underlying motivations for “liking” a company on Facebook. These motivations were modeled to determine their relationships to each other as well as to determine if there is an effect on word-of-mouth behavior outside of the social media context. There is a large positive effect of these variables on customer word of mouth behavior. People who “like” a company on Facebook, are satisfied with the product, and are involved with the company are more likely to engage in positive “word of mouth” behaviors beyond the scope of social media. As the results indicate, the importance of satisfaction cannot be ignored when considering motivations to clicking the “like” feature on Facebook.

The central role of involvement is a key finding of our study. It has a major impact on both satisfaction and word-of-mouth behavior. Additionally our findings suggest that companies on Facebook need to continually engage consumers with relevant communications in order to keep them involved. In Facebook, communications from companies tend to come as updates on a person’s Facebook wall. These updates can include invitations to activities, company news, or other means to help people feel a part of the company. When people are connected to a company through the “like” feature, providing relevant updates has a large impact on strength of the relationship. Additionally in order to obtain positive customer feedback and behavior, companies must engage in activities that continue to maintain satisfaction, such as superior service quality and staff friendliness (Yip, Chan, & Poon, 2012).

Coupon proneness was not found to be significantly related to satisfaction in this study,

although coupons remain important to “likers.” We presume that this anomaly stems from the fact that coupons may be a major incentive for consumers to “like” a brand or check for updates, but does not materially affect the level of satisfaction. So coupons might have become what Kano calls “must be” attributes of a product – attributes that are expected by consumers that do not provide additional satisfaction, however their absence creates great dissatisfaction (Kano, Seraku, Takahashi, & Tsuji, 1984). Coupons might be a way to initially pique consumer interest, but other elements such as friendliness and employee attitude may contribute more to overall customer satisfaction (Yip, et al., 2012).

Even though a customer may “like” a company on Facebook, thus leading to some form of firm-created word-of-mouth (Godes & Mayzlin 2009), that does not necessarily translate to customer initiated word-of-mouth. The findings in this research suggest that continued satisfaction with the firm’s product or service offerings and involvement through the use of relevant updates contribute to the influence of customer initiated word-of-mouth behavior. Araujo & Neijens (2012) further suggest that the updates through Facebook, or social networking sites in general, should be interesting, relevant, and engaging for customers. By following this suggestion, customers are more likely to engage in positive word-of-mouth with their friends and family. Moreover, it has been suggested that customers acquired through referrals are very attractive (Wangenheim & Bayon 2004). Additionally, encouraging positive word-of-mouth behavior is important because empirical research suggests that word-of-mouth behavior is associated with overall customer lifetime value (Lee, Lee, & Feick 2006).

Limitations and future research

As in any preliminary study, there are some limitations that we must acknowledge. First, as the sample size was limited to approximately 400 respondents, the sample was probably more reflective of early responders than late responders. Since the data collection was delegated to a third-party, commercial firm, complete control over data representativeness was difficult to maintain. Further, the study

does not incorporate behavioral measures of relationships or loyalty; that would be an avenue to further develop the model. Although some demographics were collected, the impact of demographics (age and sex) on the individual constructs was not examined. These relationships could be explored in future studies. Although other constructs could potentially affect satisfaction and word-of-mouth, such as brand loyalty and brand awareness, they were not included in the current study. This study only included constructs mentioned by respondents through a thought-listing exercise as shown in table 1.

Future research could compare model differences between services and goods, or categorize companies by industry in order to determine how the type of company would affect this model. Additionally, examining the impact of length of relationship could also provide interesting insights. Furthermore, the type of relationships that consumers have with companies that they “like” on Facebook [i.e. real (actual customer) vs. vicarious (not a customer)], could also be a fruitful avenue for future research.

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ORGANIZATIONAL STRUCTURE AND INTRA-FIRM INNOVATION DIFFUSION

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This research applies innovation diffusion theory to intra-organizational innovation adoption using U.S. governmental agencies as a subject pool. Agencies that feature broad (decentralized) leadership control favor social network effects or word of mouth channels of communication whereas agencies that have a direct, top-down, chain of leadership authority rely more on leader initiated communications leading to more rapid innovation adoption. This research is significant in that it applies the popular Bass (1969) Diffusion Model to an intra-organizational context further explaining how processes and technology come to be used in organizations.

1. INTRODUCTION

There are clear benefits organizations may gain by adopting innovative practices prior to their competitors including such as first mover advantage and the establishment of a sustained competitive advantage derived from more efficient work processes and greater operational efficiency. As a result, rapid intra-organization diffusion of new work practices results in positive effects on an organization's economic performance (McKee, Varadarajan & Pride, 1989), greater efficiency (Kim & Srivastava, 1998), and according to Frambach (1993) the overall success of an organization. Levin, Levin & Meisel (1992) found that the rapid adoption of new work processes across an organization produces noticeable cost savings which lead to enhanced profitability. What is less clear is the internal procedure that takes place while the new work process or technology diffuses across an organization. Ultimately, innovations are adopted through a process where the new product, process or practice is amalgamated into the adopting organizations (Damanpour & Wischnevsky, 2006). As such, intra-organization diffusion closely resembles 'innovation implementation,' which has been studied in the innovation process literature (Zaltman, Duncan & Holbrek, 1973, Rogers, 1983, Hage & Aiken, 1970).

From an organizational perspective innovation is defined as newness or novelty in regard to

people, process or products within an organizational setting. It is something that, when implemented, brings added value to the organization (Taylor & McAdam, 2004). Damanpour (1991) identifies a typology of three forms commonly found in organizational innovations; administrative and technical, product and process, and radical versus incremental. Administrative innovation is the focus of this current research and is about organizational structure and administrative processes. Such innovations are "directly related to the basic work activities of an organization and more directly related to its management" (Damanpour, 1991, pg. 560) and, when implemented, mediate between organizational inputs and outputs (Abrahamson, 1991).

The application of diffusion theory has been of particular interest in marketing since its early applications by Fourt & Woodlock (1960), Mansfield (1961), Cox (1967), and Bass (1969). Broadly speaking, diffusion research in marketing is concerned with measuring how an innovation spreads through a market or social organization. Often research associated with the diffusion of an innovation (especially in marketing and communication fields) places strong emphasis on information transfers that lead to some adoption decision (Rogers, 2003). Following a mixed-model approach contagion theory is used to explain how information about an innovation is spread through multiple communication channels (Bass, 1969). First, non-personal communications flow from sources outside a potential adopter's social network, including media and promotional

efforts. Second, communication happens between members of a social structure such as a reference group, community or organization in the form of inter-personal communications (Lundbland, 2003).

In most cases new technology adoption decisions are made by organization leadership and then adopted by rank and file employees representing a two-step process of organizational engagement. Thus, initial adoption among leadership is essential yet it does not guarantee adoption takes place at a subservient level (Jaakkola & Renko, 2007). Once initial rank and file employees begin to use the innovation its success triggers a 'bandwagon' effect (O'Neill, Poudel & Buchholts, 1998). Therefore, the more willing a potential adopter is to receive information about an innovation the more likely they are to process that information, leading to a greater probability that they will adopt (Frambach, 1993). Given that the phenomenon of workplace diffusion provides many positive outcomes for the organization it is imperative to study the process especially for the academic and practitioner communities that focus on business-to-business interactions and sales.

To examine the intra-organization diffusion process we investigate the adoption and use of an emerging payment technology (purchase cards) among U.S. government agencies from 1997 to 2008. The technology is widely regarded as a tool to improve efficiency and reduce costs associated with organizational administrative activities (Palmer & Gupta, 2012). Unlike intra-firm diffusion literature (e.g. Fuentelsaz, Gomez & Polo, 2002; Ingham & Thompson, 1993) this data comes from organizations that demonstrate heterogeneity in structure, size, complexity and management style which provides a sample whereby organizational effects (upon the diffusion process) may be demonstrated. An additional feature of this research setting is the influence that external publics have on the sample frame. When cost-saving pressures are applied by external groups, agile organizations are expected to react quickly by adopting cost-saving practices swiftly. Therefore, those organizations where costs saving innovations manifest themselves quickly reap the benefit of positive public opinion. Likewise, when public

sentiment turns negative, nimble agencies can abandon unpopular practices promptly.

The following article proceeds with a review of relevant literature in organizational adoption and innovation diffusion, followed by the study report, discussion of results and concluding remarks which include study limitations and future research opportunities.

2. BACKGROUND AND THEORY

Innovation diffusion is thought to be aided when information is made available to potential adopters. In consumer markets product information is communicated from organizations such as the firm to a targeted consumer market using promotional and advertising tools. This information may then be further communicated within the market among market members through social and word of mouth exchanges (Katona, Zubcsek & Sarvary, 2011). Given this context, information originating from outside the target market is thought to come from external sources where market members who share information among themselves act as internal sources of innovation information. When considered together information gained from both internal and external sources provide potential adopters with enough information to make confident, informed adoption decisions. When innovation diffusion within an organization is considered our perspective shifts slightly, however the theoretical argument used to describe the diffusion process remains unchanged. Viewed as a two-step process, key decision makers and leaders first adopt an innovation then communicate this decision (acting as an external information source) to the rest of the organization (acting as the market of potential adopters) (Arakji & Lang, 2010). Therefore, the initial adoption decision by organization leaders is merely the first step in a complex adoption process. Upon making the adoption decision leaders promote the innovation to the organization's members who then communicate among themselves. In organizational parlance, the decision leader may be referred to as a "champion" of the new innovation (Rothwell & Zegveld, 1985). In such a case the champion seeks a quick adoption process leading to an immediate impact and realization of benefits

gained by its adoption (Akhavein, Frame & White, 2005).

While organizational innovation diffusion has garnered less attention in the literature than that of consumer market diffusion (Frambach, 1993) there exists a body of innovation literature at the organizational level and in business-to-business contexts (Taylor & McAdam, 2004; Gatignon & Robertson, 1989). A variety of studies have focused on the diffusion of manufacturing technologies such as computer-integrated manufacturing (Bessant, 1988), flexible manufacturing (Bessant & Haywood, 1985), computer-aided production management (Bessant & Lamming, 1987), and computer-aided design (Lamming, 1987). Additional research on organizational adoption exists such as Webster (1969), Zaltman, et al (1973), Baker and Parkinson (1977), Cooper (1979), Robertson & Gatignon (1986) and in economics (Stoneman, 2003). In some of this literature a macroscopic diffusion approach is used where innovations diffuse across entire populations of organizations (Attewell, 1992). For social scientists, research at the macroscopic level uses economic modeling technique in an effort to describe macro-level diffusion patterns over time. Early cross-industry examples are provided by Chow (1967) and Stoneman (1976) who focus on the adoption of mainframe computers.

Taking a microscopic view prior research assumes the organization to be the entire market, that is, employees represent the potential population of adopters (Kim & Srivastava, 1998). At the organizational level innovation adoption has been defined “as the development (generation) and/or use (adoption) of new ideas or behaviors” (Damanpour & Schneider, 2008, pg. 496). To operationalize intra-organizational diffusion Bretschneider & Wittmer (1990) simply use the number of employees who use a focal innovation. Meanwhile, Kim & Srivastava (1998) operationalize it as the percentage of employees who use or have ever used the innovation out of the total number of employees. They follow by defining the rate of intra-organizational diffusion based on how quickly organizational units or members adopt.

2.1 Influences upon Innovation Diffusion

Rogers (2003) describes four aspects of organizational structure and design that are instrumental in innovation diffusion within an organization. The first is the centralization of power which focuses on linear vertical control of the organization. The second is organizational complexity, which relates to the layered or hierarchical organization as well as the intricate relationships required to maintain multi-tiered organizations. The third aspect of organizational structure and design is the formality or legalism imposed by rules of order. Strict rules constrict the ability for innovation adoption if it falls out of mainstream activities or processes. Finally, the degree to which an organization is socially connected fosters interpersonal communication and organizational learning. Such interconnectedness focuses on internal channels similar to networks by which information about a new innovation can be spread. Following Contagion Theory social connectedness through social and peer-group networks affects the manner in which a message spreads (e.g. product information, news, and advice) (Van Den Bulte & Stremers, 2004). Thus, the ‘spreading’ of innovation adoption information happens largely through social interactions triggering an organization bandwagon effect also altering initial adoption patterns (O’Neill, Pouders & Buchholts, 1998; Kimberly & Evanisko, 1981). The following literature review illustrates the complexity of these issues.

2.2 Influences upon Innovation Diffusion: Leadership and Network Associations

An important criterion that organizational leaders use to evaluate innovations is the adoption behavior of other organizations. Studies on adoption in industrial markets that take a macroscopic view tend to treat the firm as a unit of analysis. Given this view, pressure from competing firms is realized and drives the firm to adopt technologies in order to stay competitive (Kim & Srivastava, 1998). Through imitation, organizational leaders reduce potential uncertainty and legitimacy for a newly proposed technology (Massini, Lewin & Greve, 2005; O’Neill, Pouders & Buchholts, 1998; Kimberly, 1981). Repeated successful innovation adoptions across organizations in an

industry signal other organizations to follow especially in a competitive environment (O'Neill, Poudar & Buchholts, 1998). Such mimetic behavior has been described as a valid firm strategy (Haunschild & Miner, 1997). As more firms that have adopted an innovation come into contact with non-adopting firms, their apparent superior performance encourages the non-adopters resulting in rapid adoption (Rogers, 1983) thus illustrating the 'imitation' feature of diffusion (Mahajan, Sharma & Bettis, 1988).

Supported by Institutional Theory, organization leaders may make an adoption decision as a result of mimetic behaviors (DiMaggio & Powell, 1983; Massini, Lewin & Greve, 2005) and is an important practice found in competitive industries. In addition, the Behavioral Theory of the Firm (Cyert & March, 1963) supports this conclusion since managers look to make strategic changes when performance is seen as falling short of peer institutions. Industrial adoption began from imitation has the effect of reducing heterogeneity of organizational strategies across organizations. Institutional Theory argues that such imitation of organizational structures and procedures is driven by norms of rationality (Meyer & Rowan, 1977). Relatedly industrial isomorphism and more specifically mimetic isomorphism happens as an outcome of organic behavior conformity motivated by a desire to copy perceived behaviors that will likely lead to a successful outcome (Massini, Lewin, & Greve, 2005).

Individuals within an organization seek guidance and support for their actions from organizational leaders. Thus, when organizational leaders endorse or advocate a new technology they offer such guidance and provide incentive for its adoption (Fuentelsaz, Gomez & Polo, 2002; Stoneman, 1981). While this helps explain why individuals within the organization become motivated to adopt, it does not address the adoption choice made by organizational leaders. For leaders, the drive to adopt the technology on behalf of the organization is associated with several factors, including greater efficiencies in operation and cost savings, response to competitive pressure, and environmental uncertainty.

Following Davis (1989), the Technology Acceptance Model (TAM) suggests that organizational acceptance comes from both the perceived usefulness of a new technology and its ease-of-use influence intention to use and actual use of an innovation (Lee, 2003). This well-known model is relevant to organizational leaders who are accountable for organization performance, to wit: managers seeking to increase operational efficiency should actively promote innovations that can be rapidly employed and whose usefulness will lead to cost reductions. TAM is anchored by the Theory of Reasoned Action (Ajzen & Fishbein, 1980) and focuses on the behavior of end users in the workplace. The extended TAM2 incorporates social forces including subjective norms, voluntariness and image (Venkatesh & Davis, 2000). The model stresses that leaders must not only make the technology available, but also place emphasis on its ease of use and potential productivity gains (Agarwal & Prasad, 1997).

Network analysis is another area of research that may be used to explain how an innovation becomes diffused (Abrahamson, 1991; Rogers, 1983) and has been shown to contribute to social contagion in industrial settings (Midgley, Morrison & Roberts, 1991). Specifically, it helps define the nature of the social infrastructure which is used to describe the relationship members have with each other (Pastor & Mayo, 1994). Researchers in sociology have made extensive use of network analysis in innovation diffusion literature (Rogers, 1962; Burt, 1982; Burkhardt & Brass, 1990). Networks can have a significant impact on observed adoption patterns, even to the extent of determining the success or failure of an innovation (Gatignon & Robertson, 1985). Czepiel (1975) investigates industrial networks using a cohesion model which assumes that influence is passed directly from adopters to potential adopters during discussions on the merits of the innovation. Even the military, often considered the quintessential example of a hierarchical organization, is driven by network structure where adaptation may become slow and costly because entrenched interests seek to preserve their power (Achrol & Kotler, 1999). Such behavior resulting from competition between people of similar status and roles

within a social structure evolves into counterproductive turf wars.

Within network analysis research, the evaluation and decision to adopt an innovation is primarily the result of interpersonal communication within a system (Rogers & Shoemaker, 1971) through personal influence and transmitted within a network of peers. The composition of the network is assumed to be of similar members who share thoughts and patterns of consumption behavior (Gatignon & Robertson, 1985). However, awareness of an innovative practice or process is often accomplished initially through leadership communication. In a network context opinion leaders have been found to have significant influence in adoption (Groves, et al, 2002). Decentralized networks which feature loose degrees of leadership oversight are unlikely to function smoothly without an overarching structure and leadership at the top (Achrol & Kotler, 1999). Based on prior research, the number of users of an innovation within an organization will increase when encouraged by higher authorities (Kim & Srivastava, 1998). Burkhardt & Brass (1990) employ a social network perspective to examine organizational structure and focus on leader power as a key variable. When centralized, powerful employees who are early adopters, use existing social patterns to encourage adoption and thus reinforce a stable power structure. Conversely, if less powerful, peripheral employees are early to adopt a new innovation then centrally focused power shifts and power becomes distributed throughout the structure of the organization (Burkhardt & Brass, 1990). Therefore, leaders may feel compelled to promote adoption early as a means to maintain their existing power paradigm. Yet, in the absence of a strong centralized leadership structure the influence of a network performs the role of information dissemination and positively influences adoption.

2.3 Influences upon Innovation Diffusion: Internal Characteristics; Centralization and Structure

Internally, organizational characteristics such as size and workforce dynamics likely play a role in the adoption of new processes within an organization (Damanpour & Schneider, 2006;

Rivera, Streib & Willoughby, 2000). Organization size is commonly found to be related to the adoption of innovations (Dewar & Dutton, 1986; Damanpour, 1992; Stock, Greis & Fischer, 1996; Kessler & Chakrabarti, 1996). Large organizations adopt industrial innovations before small ones (Davies, 1979) and size is positively related to the rate of adoption of innovations (Taylor & McAdam, 2004). Size provides a critical mass of users to be reached, thus causing the acquisition and use of the innovation to be cost effective on a per-user basis. As such it may be more beneficial for larger organizations to make an initial adoption decision as opposed to smaller ones (Frambach, 1993).

Other internal influences include organizational psychographics (Robertson & Wind, 1980), decision making processes (Rogers & Shoemaker, 1971; Wind, 1978), benefits sought by the adopting organizations (Moriarty & Reibstein, 1986), diversity in the background of organizational members (Zaltman, et al., 1973; Attewell, 1992), conflict resolution mechanisms and leadership style (Evkall, 1991), hierarchy of authority (Kim, 1980), task specialization, professionalism and traditionalism (Downs & Mohr, 1976), perceived profitability (von Hippel, 1976), the presence of internal innovation champions (Rothwell & Zegveld, 1985), management's support and involvement as well as the internal allocation of resources (Lilien & Yoon, 1989), and organizational structure (Burns & Stalker, 1961; Hage & Aiken, 1970; Zaltman, et al, 1973; Kim, 1980; Jackson, John & Morgan, 1982; Rogers, 1983; Mahajan & Peterson, 1985; Damanpour, 1987; Marcoulides & Heck, 1993).

Drawing on organizational theory researchers suggest that structure has an effect on companywide and individual operating unit performance, including the rate in which technologies are adopted across the organization (Hage & Aiken, 1970; Webster & Wind, 1972; Marshall & Vendeburg, 1992; DeCania, Dibble & Amir-Atefi, 2000). Multi-divisional organizational structure (or M-form) is a type of organization in which operating authority is assigned to divisions organized along product, service, or geographic lines. Divisions are designed as profit centers organized to maximize profit or the efficient

execution of other organizational activities. The chief executive has responsibility for strategic decision making and allocates capital among divisions based on performance and need (Mahajan, Sharma & Bettis, 1988). As a result, higher degrees of complexity in an organization comprised of a high number of specialized units that focus on labor specialization “may facilitate adoption of an innovation” (Frambach, 1993, pg. 25).

Numerous studies investigate the specific influence of organizational centralization and structure on innovation diffusion (Kim, 1980; Kimberly & Evanisko, 1981; Subramanian & Nilakanta, 1996; Damanpour, 1991; Kim & Srivastava, 1998). Centralization “is a loose term for the degree to which authority and influence regarding decisions are consolidated in higher echelons rather than being spread among lower ones” (Downs & Mohr, 1976, pg. 703). Centralization is defined as the “degree to which power and control in a system are concentrated in the hands of relatively few individuals” (Rogers, 1983, p. 359; Kim & Srivastava, 1998, pg. 232). Decision centrality is the level of centralization in organizational decision making and it has been hypothesized that higher the perceived decision centrality leads to greater innovativeness (Hage & Dewar, 1973; Moch & Morse, 1977; Zaltman, et al, 1973; Robertson & Wind, 1980). The conclusions are that high-levels of centralization facilitate initiation (building awareness) of the innovation and low-levels expedite implementation (Zaltman, et al, 1973; Sapolsky, 1967).

2.4 Influences upon Innovation Diffusion: Formalization

Identified by Downs & Mohr (1976) and later by Frambach (1993), formalization places emphasis on rules and procedures. Formalization is the “degree to which an organization emphasizes following rules and procedures in the role performance of its members,” (Rogers, 1983, pg. 359) and like centralization low-levels of formalization enable better awareness and expedite implementation (Zaltman, et al, 1973; Sapolsky, 1967). A high level of formalization is desirable at implementation, because role ambiguity and conflict are reduced (Kim &

Srivastava, 1998). Top-down change from senior executives is generally coercive while implementation of an innovation is the work of middle managers who are responsible for the detailed coordination of the anticipated change. Top down change is thought to be needed if the change is dramatic or radical (Ryan, Williams, Charles & Waterhouse, 2008; Hammer & Champy, 2003). Generally though, less emphasis on hierarchical structure encourages a broader voice from more people, thus greater participation and enhanced information accessibility (Zaltman, et al, 1973). Yet, strict “channels of authority (high centralization) can reduce potential ambiguity and conflict in innovation implementation” (Kim & Srivastava, 1998, pg. 233-234).

3. CONCEPTUALIZING INTRA-ORGANIZATION INNOVATION ADOPTION

Adoption and diffusion of business practice innovations is conceptualized as a dynamic process where practices propagate vertically then, as a result of successive user experiences, horizontally across organizational units as a result of imitation and replication.

Jensen (2001) found that adoption of innovations in the intra-organization context follows an S-shaped or concave diffusion pattern with greater emphasis on an S-shaped curve if the implementation occurred over a long period of time. In fact he suggests that new technology may be managed to diffuse slowly if a cost savings can be prolonged through the adoption process. Additional support that suggests cost savings is an important motivator (particularly in resource starved organization) is provided in the literature (Fliegel & Kivlin, 1966; Tornatzky & Klein, 1982; Bessant, 1982; Damanpour & Schneider, 2008). Conversely, innovation complexity (i.e., with concomitant increased cost) inhibits adoption. Innovations which are more difficult to implement require greater resources and less trialable are less likely to be adopted by the organization because of higher uncertainty of their success (Gopalakrishnan & Damanpour, 1994).

The Bass (1969) Model is a commonly used hazard model that assumes potential adopters of an innovation are influenced by external and

internal communication channels. Individuals adopting an innovation do so because of simultaneous internal and external pressures. However, over time internal influence plays an increasingly important role due to increased word-of-mouth activity. The effect of which is a bell-shaped distribution and an S-shaped cumulative distribution of new-product diffusion (Rogers, 2003). To forecast intra-organizational diffusion, Randles (1983) used a logistical internal influence model applied to the diffusion of computer terminals within a firm. In a later study, Brancheau & Wetherby (1990) studied spreadsheet software adoption, adding social interaction variables such as communication channels and mass media as explanators. Adding model variables extends basic diffusion models much the way Bass, Krishnan & Jain (1994) include price and advertising to the Generalized Bass Model, thereby extending the original Bass model to incorporate the effects of market variables.

The original Bass Model is a mixed-model that combines Fourt & Woodlock's (1960) model of external influence represented by the parameter p with Mansfield's (1961) model of internal influence represented by the parameter q . Lekvall & Wahlbin (1973) were the first to interpret the Bass model parameters as coefficients of external (p) and internal (q) influence as it is interpreted in the context of this current research; however it should be noted that this interpretation is not universally agreed upon. The Bass Model may be written as: $N_t = p(m - Y_{t-1}) + q(Y_{t-1}/m)(m - Y_{t-1})$, where, N represents the number of adopters in the current time period, Y is the cumulative number of adopters up to the current time period, m is total anticipated number of adopters over time (or market size), q is a parameter representing the rate of adoption due to internal influence, and p is the rate of adoption due to external influence (Bass, 1969).

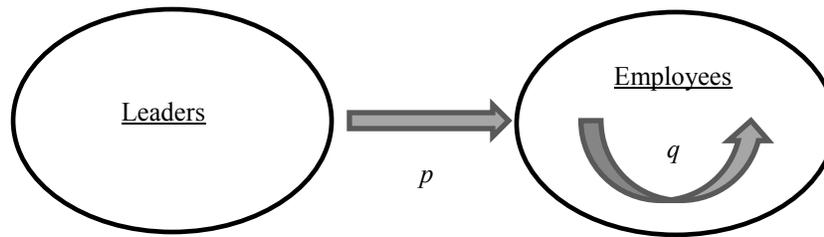
The convenience of the Bass model is seen when either p or q approaches zero. In either case the model reduces to one of either pure internal influence (when $p \rightarrow 0$) or external influence (when $q \rightarrow 0$). As such the model can result in either an exponential or logistical pattern of adoption. The relevance of this is not trivial. It is suggested that as leadership strength and its ability to communicate effectively

increases so should parameter q . As leadership communication strength declines so does the relative importance of p upon the empirical model of diffusion. Likewise regarding q , if the organization's social structure is loosely formed, without strong inter-connected ties (as in network ties), then the relative impact q diminishes giving external information sources (i.e. leadership) an opportunity for stronger control of the diffusion process. In addition to measuring the effect of internal and external communication channels model parameters may be used to estimate the time period when peak usage of an innovation will occur; $1 / (p+q) * \ln(q/p)$, and the peak usage rate at that time equal to; $m*(p+q)^2 / (4*q)$.

Gopalakrishnan & Damanpour (1997) identify these two stages in the adoption process as initiation and implementation. Initiation is subdivided into awareness of the innovation, formation of an attitude towards it and its evaluation from an organizational standpoint. Implementation includes the decision to adopt, trial implementation and sustained implementation. Hence a two-level model is developed that represents the organization and its adoption of newly innovated processes and practices and how these innovations diffuse across organizations. The two levels are linked through a selection mechanism that determines how practices replicate within an organization (Arakji & Lang, 2010). The two-level model is composed of an initiation and an implementation stage (Zaltman, et al, 1973, Damanpour & Schneider, 2008). During initiation the user becomes aware of the innovation and considers their use of it concluding with an eventual decision to use it on a trial basis. During the implementation stage the user makes the innovation part of their permanent routine, leading to full institutionalization (Chow, Hutchins, & Sikorski, 1973).

Therefore, we propose that (1) the influence organizational leaders have to initiate adoption may be represented by the Bass model p (external influence) parameter, and (2) the influence employees have on implementation is appropriately represented by the Bass model q (internal influence) parameter.

FIGURE. 1:
Intra-Firm Innovation Model of Adoption



' p ' represents the impact external (leadership provided) communication has during intra-organization diffusion.

' q ' represents the impact internal (employee networking) communication has during intra-organization diffusion.

3.1. Research Hypotheses

As a study of communication, Diffusion Theory's special focus is on interpersonal communications within social systems, where the process of personal influence is seen to mediate information flow. In this context, adoption becomes a function of how individuals come across innovation information. Some rely on information primarily from external sources, while others rely more on internal information sources, such as word of mouth. All adopters within the organization rely on a blend of external and internal sources for information, early adopters rely more heavily on external sources and those that adopt later rely more heavily on internal sources (Mahajan, Muller & Srivastava, 1990). As such, the relative influence of external sources of information is stronger during early stages of diffusion until a critical mass of adopters can transmit innovation information to the rest of the organization that has not yet adopted. To incorporate both external and internal communication channels the proposed theoretical model suggests that leader supplied information acts as an external information source and has greater influence during early diffusion, while interactions among employees provides internal channels of information flow that is more relevant during late diffusion.

A central question posed by this research asks what influence leadership and organizational

structure has on the rate of innovation diffusion? While it is assumed that larger organizations benefit from greater access to scarce resources (financial, physical, technological, etc.) counterarguments have been made suggesting that larger organizations are more likely to be susceptible to the loss of managerial control (Cohen & Levin, 1989) as well as strategic inertia (Crozier, 1964). To this point organizations that possess highly decentralized organizational structure are less able to adapt rapidly enough to gain a competitive advantage when adopting a new technology. Illustrated in the context of information systems (IS), "A central IS staff with a broad overview of the company's information needs can champion [process] integration far more effectively than decentralized IS units (Simson, 1990)." Following Siggelkow & Levinthal (2003 p. 651) we define a decentralized structure "when decision making has been disaggregated into a number of subunits, or divisions, each making its own decisions." As a result of this structure, decentralized organizations are slower than others to adopt an innovation, thus eliminating any first-mover advantage that may have existed prior to making an early technology adoption (Fuentelsaz, Gomez & Polo, 2002; Romeo, 1975). Meanwhile, when leadership is centralized, limited and concentrated within fewer subunits, or divisions organizations are more likely to be early adopters of a technology innovation (Akhavein, Frame & White, 2005).

Therefore, when leadership power is concentrated among few leaders (analogous to market share concentration among a product's leadership firms) it represents a centralized organizational form and the following hypotheses are predicted.

Hypothesis 1a: Leader concentration/centralization and the degree to which external influence affects diffusion are positively related.

Conversely, when leadership positions are spread out (de-centralized) we anticipate the diffusion of an innovation to be influenced more by subordinates who are given greater autonomy and adoption authority, thus,

Hypothesis 1b: Leader concentration/centralization and the degree to which internal influence affects diffusion are negatively related.

Finally, because leadership concentration positively influences the early initiation stages of adoption (HO_{1a}) then we expect the entire diffusion process to happen faster when leadership's strength is concentrated.

Hypothesis 1c: Leader concentration/centralization and the rate of organizational adoption are positively related.

In addition to the structure of the organization, the nature of the relationship between leaders and subordinates has influence on the rate of innovation diffusion. After organizational leaders choose to adopt an innovation they must then convince the rest of the organization (presumably rank and file subordinates) to also adopt the innovation. Therefore, the power of external communication to influence the rate of adoption varies by leadership structure and style. A key aspect in the relationship between leaders and subordinates is voluntariness in the workplace, which relates to the degree to which adoption of an innovation is perceived as being a result of one's free will (Van Slyke, Lou & Day, 2002; Agarwal & Prasad, 1997; Moore & Benbasat, 1991). If an employee feels compelled to adopt a new process or procedure inasmuch as it is a requirement of their job then diffusion is all but assured within an organization. Therefore, we use the phrase 'command-oriented leadership' to imply a strong, top-down, management style, whereby

subordinates perceive legitimate coercive power. Coercive power is "based on a subordinate's perception that a superior has the ability to punish him or her for failure to conform to the superior's influence attempt" (Rahim, 1989, p. 545; French & Raven, 1959). Thus,

Hypothesis 2a: Leadership focused on a command-oriented style and the degree to which external influence affects diffusion are positively related.

Hypothesis 2b: Leadership focused on a command-oriented style and the degree to which internal influence affects diffusion are negatively related.

Hypothesis 2c: Leadership focused on a command-oriented style and the rate of organizational adoption are positively related.

4. RESEARCH STUDY

4.1 Data Sample

The U.S. Government recognized the potential benefit of purchase card use as far back as, 1982 and has reaffirmed its value to operations through many administrations (see a brief history of government purchase cards contained in Palmer & Gupta (2007)). In, 1993, the Vice President's National Performance Review recommended that U.S. Government agencies increase their use of purchase cards for high volume, small dollar purchases to cut the red tape normally associated with the federal procurement process (U.S. GAO, 1996). The benefits of purchase card use are several, including the reduction and elimination of the paperwork associated with requisitions, purchase orders, invoices, and payments. Additionally, purchase cards have been found to reduce the time required to process paperwork transactions, enhance control over and visibility into spending patterns, and generate "cash back" card issuer incentives for their use (Federal Reserve Bank of Philadelphia, 2011; U.S. GSA, 2006). These benefits combine for an estimated cost savings ranging from \$54 to \$92 per transaction (U.S. GAO, 1996; Cohen, 1998). Operational efficiencies are created as a result of these cost savings and are an important force behind the

usage of the purchase card, making purchase card adoption an ideal application for diffusion research.

The data related to the growth of spending, transactions, and cardholders of government purchase cards have been retrieved from the General Services Administration (GSA); specifically, the GSA SmartPay 2 Program. The SmartPay 2 Program provides the aforementioned purchase cards to the government agencies through contracts negotiated with major national banks, including Citibank, JPMorgan Chase, and U.S. Bank. The database used in this research is extensive, containing information related to each individual governmental agency from, 1997 through 2008.

Employed in this study 40 U.S. Federal agencies provide a broad spectrum of organizational structure. Sixteen of the agencies are under the direct oversight of the executive of the government including direct executive (Presidential) oversight while twenty-four are overseen by the U.S. Congress. Although each agency is responsible for the creation of policies and procedures to implement and control their own purchase card program (Office of Management & Budget, 2009) including but not limited to card distribution and spending, the Office of Management and Budget oversees card usage (see Table 1). Data relating to organizational size and structure including number of leadership divisions and oversight responsibilities has been retrieved from publically accessible government agency web-sites. It should be noted that agencies which were added or have experienced significant change over the study period (i.e. the Department of Homeland Security) were not included in the data set.

The use of this data source and subject choice for analysis is unique. First, few studies focus on government institutions. Within the context of public organizations innovation adoption has been investigated by Ryan, et al (2008) in their work with new public management initiatives in Australia. Second, government spending and the transparency of government operations are of particular interest to the general public. Third, access to data from a broad collection of

large, autonomous organizations is difficult to obtain.

4.2 Measures

Diffusion models provide an appropriate vehicle to examine organization-level diffusion since both external and internal effects may be represented parsimoniously by a parameter representing the influence organizational leadership have on adoption and a measure of internal influence representing influence of inter-personal communications among organization members. The sample units used in this research are agencies and the key measure of innovation diffusion is the number of purchase-card holders within each agency by year following Bretschneider & Wittmer's (1990) operationalization of organizational adopters. Within each agency, employees (or their supervisors) must request that a card be issued. Thus, as in product diffusion, individual managers and employees act as discrete units that make a decision to adopt the card technology to support "electronic" purchase activity. Each agency provides 11 years of data regarding distribution and purchase card use. In typical agencies the number of card users grows slowly over time until it peaks after which the rate of card distribution diminishes. From these agency-level data a hazard model is estimated for each agency providing the Bass Model parameters for external (p) and internal (q) influence, and total employee size (m). Simultaneously, the time of peak distribution (in years) measures how quickly the innovation is adopted, thus it is used to operationalize the rate of adoption (Kim & Srivastava, 1998). The underlying assumption is that organizations which reach their peak adoption quickest are those that implement the innovation fastest. Thus, organizations that reach peak card distribution earlier than others demonstrate a more efficient adoption process.

To measure organizational structure three variables are used; average number of employees, organizational divisions, and the primary source of oversight. It should be noted that average employee size over time is remarkably stable across most agencies. As such, no agency experiences sharp increases or decreases in size relative to other agencies during the study period. To measure

**TABLE 1:
Model Parameter Estimates by Agency**

Agency	p	q	m	Time To Peak Card Use (yrs.)	Over-sight*
Agency for International Development	0.0546	0.2598	2851	5.0	C
Consumer Product Safety Committee	0.0400	0.3740	1709	5.4	C
Corporation for National and Community Service	0.0208	0.4419	2121	6.6	C
Defense- Administration	0.0564	0.3402	93773	4.5	E
Defense- Air Force	0.0615	0.2860	635021	4.4	E
Defense- Army	0.0668	0.2944	867591	4.1	E
Defense- Navy	0.0825	0.3537	292430	3.3	E
Department of Agriculture	0.0557	0.1731	323394	5.0	E
Department of Commerce	0.0616	0.1539	96249	4.2	E
Department of Education	0.0928	0.1838	2779	2.5	E
Department of Energy	0.0884	0.3031	56990	3.1	E
Department of Health and Human Services	0.0497	0.1929	95856	5.6	E
Department of Housing and Urban Development	0.0852	0.1251	4634	1.8	E
Department of Justice	0.0592	0.2575	160635	4.6	E
Department of Labor	0.0797	0.4148	15045	3.3	E
Department of State	0.0425	0.5197	12067	4.5	E
Department of Transportation	0.0826	0.3782	197017	3.3	E
Department of Treasury	0.0828	0.2415	105111	3.3	E
Department of Veterans Administration	0.0654	0.1442	512724	3.8	E
Environmental Protection Agency	0.0702	0.2340	21620	4.0	E
Equal Opportunity Commission	0.0522	0.3414	2063	4.8	C
Export-Import Bank	0.0528	0.6219	330	3.7	C
Farm Credit Administration	0.0552	0.4066	420	4.3	C
Federal Communications Commission	0.0456	0.1176	3960	5.8	C
Federal Deposit Insurance Corp	0.0600	0.2303	5727	4.6	C
Federal Labor Relations	0.0633	0.1845	227	4.3	C
Federal Mediation and Conciliation	0.0645	0.9113	235	2.7	C
Federal Trade Commission	0.0622	0.1557	1062	4.2	C
Government Printing Office	0.0370	0.2392	1307	6.8	C
NASA	0.0757	0.3399	46313	3.6	C
National Archives Records	0.0511	0.1791	3372	5.4	C
National Credit Union	0.0126	0.1314	1631	16.3	C
Nuclear Regulatory Commission	0.0577	0.312	2442	4.6	C
Office of Personnel Management	0.0584	0.4958	1947	3.9	C
Overseas Private Investment	0.0446	0.2784	301	5.7	C
Railroad Retirement	0.0451	0.2613	1103	5.7	C
Securities and Exchange Commission	0.0288	0.3358	776	6.7	C
Small Business Administration	0.0653	0.2866	3267	4.2	C
Smithsonian Institute	0.0165	0.6392	5253	5.6	C
Social Security Administration	0.0533	0.1505	49492	5.1	C

* C = Congressional; E = Executive

organizational leadership structure the number of major functional units or divisions was counted directly from agency organizational charts. By considering the number of functional units within an agency one can get an understanding of its scope of dispersion. Coupled with organizational size the ratio of employees to leadership divisions is calculated in order to provide a measure of leadership presence while controlling for the size of the agency. Finally, the data is categorized by the authoritative body charged with oversight of each agency. Agencies are generally accountable to either the congressional or executive branches of the Federal government. Agencies operating under Executive branch oversight (e.g., branches of the military, Department of Education, Department of Health and Human Services, etc.) tend to be more centralized and subject to greater top-down authority, whereas agencies operating under congressional oversight (EEOC, FCC, FDIC, etc.) are viewed as less centralized given their broader chain of command which may be spread through multiple committees, sub-committees and Congressional leadership boards.

5. RESULTS

5.1 Model Estimation

Bass model parameter estimates for each agency are made using the SAS statistical software package's Proc NLIN statement for non-linear least squares (SAS Institute, 2010, pg. 2373). This procedure allows for the estimation of non-linear distributions and follows the research tradition of Srinivasan & Mason (1986) followed by Jain & Rao (1990). This estimation technique can handle non-linear data patterns and overcomes potential time-interval bias to which least squares estimation is subject.

In addition, using non-linear least squares provides estimated standard errors and T-ratios (Chandrasekaran & Tellis, 2007). A factor limiting the use of non-linear least squares estimation is the tendency to overestimate m and p , especially when limited data are available. However, given that eleven (1997-2008) years of data is provided this presents a minor concern. Other estimation techniques

have been developed to estimate model parameters such as maximum likelihood estimation (Schmittlein & Mahajan, 1982), hierarchical Bayesian methods (Lenk & Rao, 1990; Talukadar, Sudhir, & Ainslie, 2002), adaptive techniques such as the feedback filters (Bretschneider & Mahajan, 1980; Xie, Song, & Wang, 1997) and genetic algorithms (Venkatesan, Krishnan & Kumar, 2004). However, each of these techniques have some trade-off value and while modest improvements in estimation can be made the straight-forward method of non-linear least squares is often just as robust as other more elaborate methods (Chandrasekaran & Tellis, 2007).

To execute the research plan a separate model was estimated for each agency. Based on the data provided, model parameters for p , q and m are reported for all 40 agencies. Prior research in marketing has found the mean value of p for new products to lie between .00007 and .03, while for q the mean value is between .38 and .53 (Sultan, Farley, & Lehmann, 1990; 1996; Talukadar, Sudhir, & Ainslie, 2002; Van Den Bulte & Stremers, 2004). In this current research the mean agency parameter estimate for p is .0575 and the mean of q is .31 (see, Table 1). As model parameters from intra-organization diffusion studies are absent it is unclear whether this data is consistent with data relative to other organizational forms. However, given the influence leaders have on subordinates in a typical employment scenario it is not unexpected for external influence to be higher and internal influence lower than in an open market scenario, thus providing initial face validity check of the study's key measures.

5.2 Hypothesis Assessment

Using estimated p , q parameters the time to peak-use is calculated for each agency. Using these variables and the ratio of employees to leadership division, a linear model (OLS) is estimated and reported in Table 2 which corresponds to Hypothesis 1_{a-c}. The results of the estimated model indicate strong fit with significant relationships among hypothesized variables. The model demonstrates fit by a robust r^2 of .63 and significant F statistic (22.34, $p < .001$).

The ratio of employees to organizational division measures centralization or leader concentration. If the number of employees goes down or the number of divisions goes up then centralization of leadership is diminished inasmuch as there will be fewer employees per division or more divisions act to spread employees out. In such a case innovation diffusion must rely more heavily on internal methods of communication such as interpersonal communications which are enhanced through a networked organization. Additionally, leaders may exert less influence on their employees.

Contrariwise, if the number of employees per division goes up or divisions are consolidated then each division leader will be responsible for more employees and the organization will demonstrate a stronger vertical chain of command. Table 2 shows that we find parameter *p*, the measure of external influence, is positively associated with the ratio of employees to organizational divisions. That is, as the number of employees per division goes up (indicating stronger vertical linkages) the relative size of *p* goes up significantly. This result supports hypothesis 1a that leadership concentration, which illustrates organizational centralization, and model parameter *p* are positively related.

We also find that the model estimate for *q*, the measure of internal influence, is negatively associated with the employee-division ratio. In this case we expect that as divisions are added

relative to employee size, leadership power is at greater risk of becoming decentralized and greater need for internal information exchange is required for innovation adoption, confirming hypothesis 1b.

Finally, we measure the relationship between leadership concentration and the rate in which the innovation is adopted. To measure the rate of adoption we use model parameters to estimate when (in years) peak adoption will occur. We theorize that organizations with centralized leadership structures will reach peak adoption faster than decentralized counterparts. Observing the data we find this to be true supporting hypothesis 1c. When the ratio of employees to divisional leaders goes up, so does the rate of innovation adoption as it becomes fully implemented sooner.

-Hypotheses 2_{a-c} use averaged data across agencies that are overseen by either congressional or executive bodies (reported in Table 3). This reflects leadership style as it may be command-oriented (executive) or non-command-oriented (congressional). Additionally, the impact that agency oversight has on diffusion is illustrated in Figure 2 (panels A, B and C). The results in Table 3 report ANOVA comparisons (and supportive t-statistic and significance levels) between both executive and congressional agencies for model parameter estimates *p* and *q* as well as the computed time each agency takes to reach peak adoption. This straightforward comparison compares estimated *p* and *q* parameters by

TABLE 2:
Employee-to-Division Ratio Model, operationalized to measure Leader Concentration

	Estimated Co-efficient	Sign. (p)
Constant	-1045.10	< 0.001
H _{1a} : External Influence	193214.06	< 0.001
H _{1b} : Internal Influence	-5243.32	< 0.001
H _{1c} : Rate of Adoption*	101.83	< 0.001

* Rate of adoption is measured by the time it takes a firm to reach peak card distribution; therefore the measure is reverse coded.

agency oversight. Testing hypothesis 2a we find that the estimated effect of internal influence is stronger (though not significantly) in agencies that have executive oversight. Supporting hypothesis 2b, the effect internal influence is found to be significantly stronger in agencies with congressional oversight. Finally, when the rate of adoption is compared between agencies it is found that those with executive oversight adopt a full 29.6% faster.

It appears that agencies subject to executive oversight have a greater number of adopters over time from external influence (Panel A), while those under congressional oversight demonstrate greater adoption from employee-to-employee internal communication (Panel B). Meanwhile, when computed together, executive branch oversight which is used to denote stronger command-oriented leadership structure reaches peak usage faster (Panel C).

6. DISCUSSION

Though much research exists in the diffusion literature, Kim & Srivastava (1998) contest that existing studies don't pay adequate attention to diffusion within organizations and its importance is subsequently under-researched. Research in intra-organizational diffusion has emerged from the marketing literature in a few early studies concerning organizational implementation of new products from an informational technology perspective (Zmud, 1982; Brancheau & Wetherby 1990) and even today this research stream is limited when compared to consumer market diffusion.

Based on the results of this study it appears that organizational structure and leadership ethos

play significant roles during the innovation process. There could be several reasons that explain these results beginning with the theoretical positions made earlier in this article as well as direct pressure from tax-paying public that demand greater accountability from their elected officials. Top-down change has been advocated where there is external pressure to effect change (Ryan, et al, 2008). Executive pressure to adapt and use efficient practices is encouraged from an informed public.

The associations that are predicted and supported by data show a strong positive relationship between leader-initiated communication and leadership centralization during the adoption process. It is shown that when fewer leaders exists under a narrow hierarchy of divisions, their voice and unfiltered message is not diluted, but rather, amplified and acted upon by others. The data also suggest that organizations which have broad (horizontally focused) lines of authority rely less on leader initiated communication and more on adopter communications. We contend that in this case more divisions provide more lower-level managers who act not only as divisional leader, but also internal communicator to those individuals that they manage. The result of these two findings (H_{1a-b}) combine to show that centralized structure and it subsequent leader initiated communications contribute a greater overall effect which leads to a more rapid adoption of the innovation (H_{1c}). That is, organizations reach peak adoption faster when greater leader initiated communication is present represented by p in the diffusion model.

TABLE 3:
Variable Comparison by Oversight Structure ANOVA

Variable	Executive Oversight (n=16)	Congressional Oversight (n=24)	Significance t-stat. (p)
H _{2a} : Estimated External Influence (p)	0.07	0.05	3.87 (.000)
H _{2b} : Estimated Internal Influence (q)	0.27	0.33	1.11 (.273)
H _{2c} : Average Time to Peak Card Use	3.8 years	5.4 years	2.31 (.027)

FIGURE. 2:
Panel A, Average Agency Adopters over Time Due to External Influence by Oversight

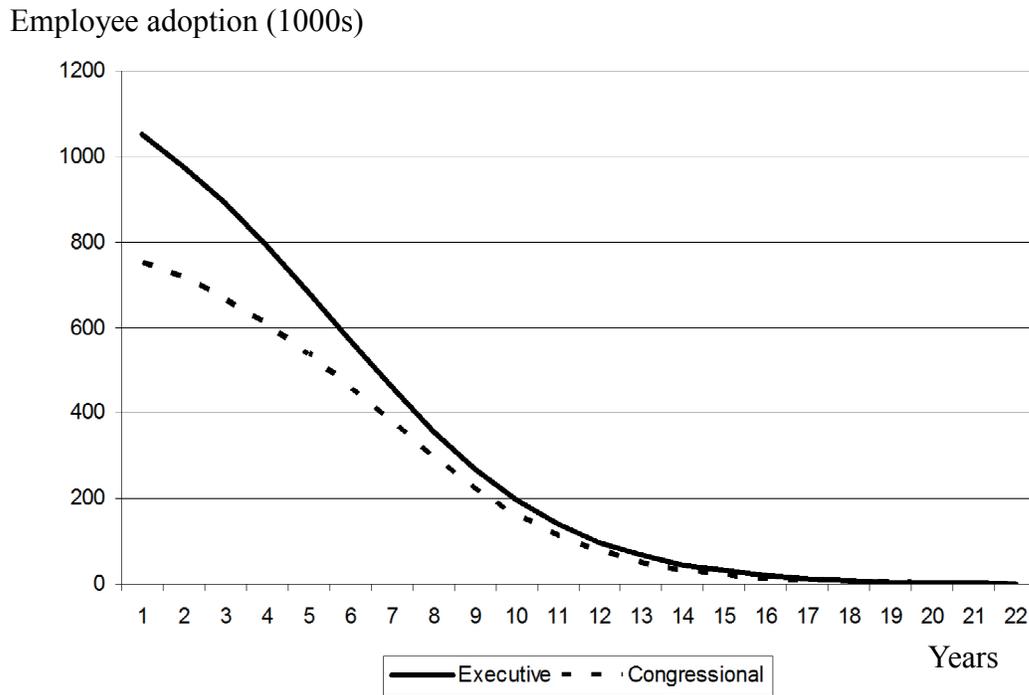


FIGURE. 2:
Panel B, Average Agency Adopters over Time Due to Internal Influence by Oversight

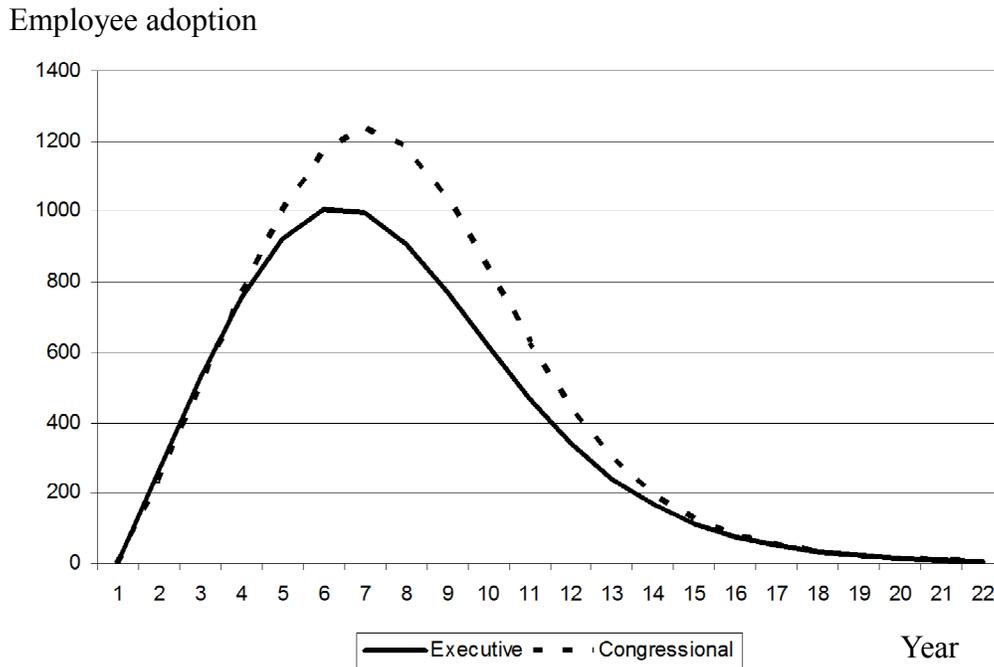
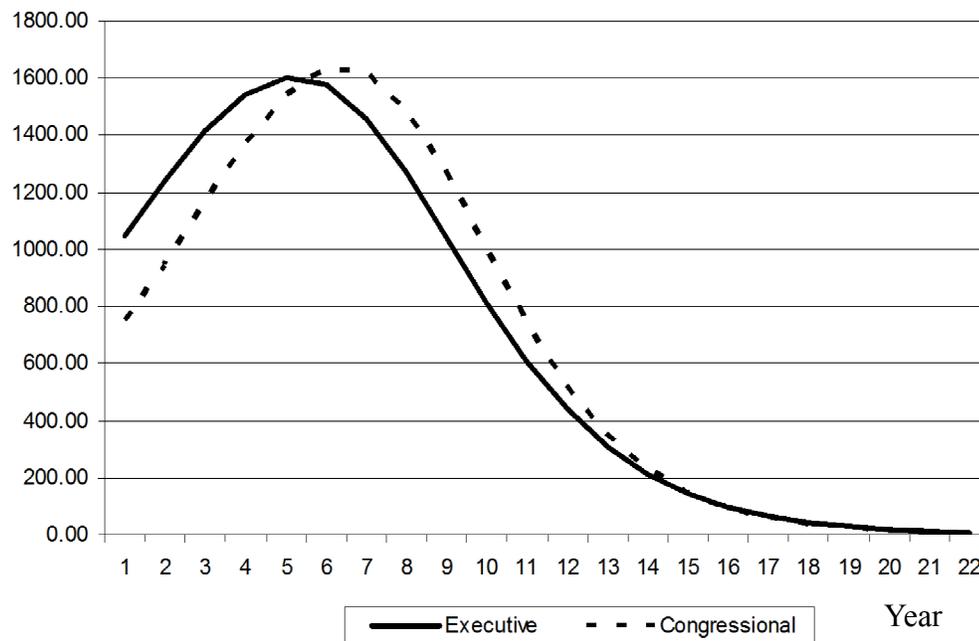


FIGURE. 2:
Panel C, Average Agency Total Adopters over Time by Oversight

Employee adoption



The second set of hypotheses (H_{2-a-c}) broadly predicts that organizational culture plays a role in the dissemination of information which leads to innovation adoption. Though the measures are not conventional we contend that in the case of the U.S. Federal Government there is sufficient dissimilarity between agencies run by the executive and congressional branches of government. These two branches differ in two very significant ways. First, the Congressional body (both Senate and Congress) have layers of operational committees and sub-committees that review performance and as such move slower to act. In the case of gross negligence or malpractice within an agency it may take several committee hearings for action to take place. In addition, the nature of congressional committees is that of a deliberate actions where provides due process precedes action. By contrast the executive branch is traditionally much more agile and flexible through executive order privileges afforded the President. In many cases, if action is required then an agency leader may act (up to even the President) unilaterally.

Second, public media and opposing party politics is increasing focused on the performance of incumbent politicians. In congress a direct link between an agency and an elected official is very hard to make. Again, due to committee oversight a failing agency may not be the result of a single politician, thus the political assault from the public media or opposing party is dampened. Executive branch oversight however is always in the crosshairs of ambitious sycophants.

The results of the data analysis show a significant difference in model parameters and the rate of adoption is compared by agency oversight. As predicted, agencies overseen by executive officials show a greater degree of adoption as a result of leader initiated communication. As a result these agencies reach peak innovation usage faster than agencies under congressional oversight.

7. CONCLUSION

A major contribution of this research is the application of a traditional marketing model,

the Bass model, to diffusion within an organization. The impact of this is significant for Business-to-Business researchers and practitioners including those focused on sales, purchase agents, and buying centers. Our research setting is unique, but the application may be replicated across many organizational forms. Innovation of the kind that improves responsiveness and efficiency is a core task of public organizations (Mulgan & Albury, 2003; Walker, 2006). Some public organizations may adopt innovations to deliver better services to users, others for to remain responsive and relevant in the eyes of the public who draw from their services and fund their existence (Walker, 2006). Yet, public institutions are thought to have several barriers restricting their ability to adopt new technologies. Included are lack of incentives, insufficient funding, short-term pressure associated with political cycles and the need for public support. Helping to successfully implement innovation adoption are managers who lend their support which may be influenced by their attitudes and value system (Damanpour & Schneider, 2008).

The literature on strategic marketing management has emphasized the importance of considering technology in the strategic posture of the firm. The firm should identify a technology strategy that addresses its policy and procedure for gaining knowledge including the ability to manage technology while exploiting it for profit or gain (Frambach, 1993).

This research provides insight regarding the role firm leadership structure and culture plays on innovation diffusion. While command-oriented leadership presented in a highly centralized form may overshadow employee autonomy and freedom it plays an important role in employee technology acceptance as it provides a key external communication source. Therefore, organizations that are not strongly linked through a clear and direct leadership hierarchy may experience longer adoption times and fewer overall employee adopters.

The major contribution of this research is the unique application of a hazard model (the Bass Model) to measure technology diffusion driven by communication source and channel within an organization. This research relies heavily on

the interpretation of key model variables including p as the influence leaders (conceptually viewed as outside the social mass of the firm) and q as the influence of rank and order firm employees upon each other. This application, while novel, appears to support the notion that product diffusion research techniques may be applicable to innovation adoption within a firm.

This research and the interpretations of the results are constricted by several specific limitations. First, the meager sample size provides just 40 observations. These data are further split by oversight responsibility (24 congressional and 16 executive). As such, the statistical power needed to uncover significant relationships is muted. A second limitation is the reliance on secondary data as the sole form of supportive evidence. While secondary data does provide a historical account of events it (by its nature) is dated and is subject to time dependent constraints. In addition, the secondary data is collected for purposes other than the current research study; therefore the variables are not always ideal. A third limitation to this research includes the potential lack of generalizability to the assertions and conclusions made as a result of data drawn from one unique set of organizations and one diffused innovation. Given this limit we assume but cannot be certain that the influence organizational structure has on the rate of adoption is as we suggest. As such, more research is called for including a) research with extended diffusion model versions that allow for repeated adoption, b) the inclusion of other model influences such as adopter cost or innovation characteristics, and c) varied innovation types such as high and low technology offerings or product versus service offerings.

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THE IMPACT OF VISUAL STRUCTURE COMPLEXITY ON AD LIKING, ELABORATION AND COMPREHENSION

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The use of visual rhetorical figures in advertisements has been steadily increasing over the years. The purpose of this study was to empirically test a portion of Phillips and McQuarrie (2004) typology of visual rhetoric. A group of 185 students from a mid-western university participated in a three-group (juxtaposition, fusion, and replacement visual structure) between - subject experimental design. The results provide partial support for the typology. Contrary to the prediction of the typology, juxtaposition structure elicited more cognitive elaboration than fusion and replacement structures. Fusion structure was more difficult to comprehend than either juxtaposition or replacement structure. Visual metaphor ads with juxtaposition and replacement visual structures were liked more when compared to fusion structure.

INTRODUCTION

The use of visuals in advertisements has been steadily increasing over the years (Phillips & McQuarrie, 2004). More weight is being given to visual elements and less to verbal elements in advertisements (Gisbergen, Ketelaar & Beentjes, 2004; McQuarrie & Phillips, 2008). In fact, consumers are increasingly considering magazine ads as pictures to view rather than documents to read (McQuarrie & Phillips, 2008). The use of figurative pictures in ads has also been increasing (Phillips & McQuarrie, 2003). There is even a trend towards less verbal anchoring of rhetorical pictures, which indicates that advertisers have been moving away from telling consumers how to interpret their ads and are leaving the interpretation open to each individual (Phillips & McQuarrie, 2003). Overall, there is a general decline in verbal references to products, as well as verbal anchoring and guiding consumers towards interpretation, while there is an increase in unrealistic visuals in ads. The increasing popularity of using visual rhetorical figures in advertisements may be because of empirical evidence that suggests these ads produce more elaboration, more favorable attitudes towards the ads, result in superior recall and superior persuasion compared to advertisements that do not use rhetorical figures (McQuarrie & Mick,

1999; Tom & Eves, 1999). Further, the incongruity associated with the visual rhetoric enables the message to carry additional meanings and, as a result, increases the persuasive effect of the advertising message (Tom & Eves, 1999).

Although, the use of visual rhetoric in advertisements is on the rise and research on visual rhetoric has gained importance in advertising (McQuarrie & Mick, 2003a), for a long time there was no theory or typology to help practitioners differentiate or organize the visual elements in advertisements into meaningful categories (Malkewitz, Wright, & Friestad, 2003). However, in the last decade and a half, Forceville (1996, 2005), Phillips and McQuarrie (2004), and Gkiouzepas and Hogg (2011) proposed different typologies of visual rhetoric. The purpose of this study is to empirically test a part of Phillips and McQuarrie's typology. Due to its complex nature, it is difficult to test the entire typology in a single study. Hence, this study investigated only a portion of the typology. Specifically, it investigated the impact of visual structure on consumers' ad liking, ad comprehension, and ad elaboration.

The rest of the paper is organized as follows. First, three typologies of visual rhetoric are briefly described followed by the development of hypotheses based on Phillips and McQuarrie's (2004) typology. Next, research methodology is described, and analysis and

results are presented. Then discussion is initiated and implications of the findings are presented. Finally, limitations of the study are presented, and suggestions for future research are proposed.

TYOLOGIES OF VISUAL RHETORICAL FIGURES

A rhetorical figure is an expression that artfully deviates from the familiar expectation but is not rejected as nonsensical or faulty due to the deviation (McQuarrie & Mick, 1996). There are varieties of rhetorical figures such as rhymes, ironies, puns or metaphors. Broadly, all rhetorical figures can take either verbal or visual form (Scott, 1994). As stated earlier, the focus of the present study is visual rhetorical figures, specifically visual metaphors. Given their increasing popularity, scholars have attempted to develop typologies in order to effectively classify various types of visual rhetorical figures into meaningful categories. The following typologies are the three important ones to classify one type of visual rhetorical figures, namely visual metaphors. A summary of the three typologies including the definitions of various terms is presented in Table 1.

Gkiouzepas and Hogg (2011)'s Framework: This typology consists of two dimensions. The first dimension is the object's mode of representation - whether the two metaphorical objects in the ads are separated (juxtapositioned) or fused together (synthesis). The second dimension is the visual scenarios and addresses how the two metaphorical objects are constructed in order to be related to each other. There are three types of visual scenarios: Realistic symbiosis, replacement, and artificial symbiosis.

This framework proposes six possibilities of creating visual rhetorical figures. The framework was tested and it was found that ad visuals synthesizing conceptually similar metaphorical objects led to greater elaboration and elicited more favorable attitude towards the ad compared to ad visuals simply juxtaposing metaphorical objects (Gkiouzepas & Hogg, 2011).

Forceville (1996, 2005)'s Typology: This typology distinguishes three types of visual metaphors— Simile, Hybrid metaphor and Context metaphor. Simile is a visual metaphor in which the source and target domains are presented separately while Hybrid Metaphor is one in which source and target domains are fused. Context Metaphor is a visual metaphor in which only one domain (target/source) is present and the other domain is absent and is only suggested by the pictorial context. The reader has to decipher the absent domain based on the domain present in the visual metaphor.

The Forceville typology was tested by Van Mulken, Le Pair, & Forceville (2010), who examined consumers' reactions to the deviations from expectations and complexity across three European countries and found that the hybrid metaphor was the most preferred type of visual metaphor. It was also found that the deviation from expectation and comprehension positively impacted appreciation of the advertising messages while perceived complexity had a negative correlation with message appreciation.

Phillips and McQuarrie (2004) Typology: The primary argument of Phillips and McQuarrie (2004) is that advertisers select visual elements from a palette which has an internal structure. Although this typology is derived in part from previous taxonomies, such as Forceville (1996), unlike them, this typology predicts several cognitive and emotional responses of consumers to various types of visual rhetorical figures that can be empirically tested (Phillips & McQuarrie 2004). This typology differentiates visual rhetorical figures along two dimensions as shown in Figure 1.

The first dimension is the 'visual structure' which refers to "the way the two elements that comprise the visual rhetorical figure are physically pictured in the ad" (p.116). There are three possibilities of visual structure— juxtaposition, fusion, and replacement. Juxtaposition structure refers to presenting two elements separately side by side. Fusion structure is a combination of two elements that are fused together. In replacement structure one element is present while the other element is absent. The element present in the ad calls to mind the element that is absent. Phillips and

TABLE 1:
Summary of Three Typologies of Visual Rhetorical Figures

Typology	Description
Forceville (1996, 2005)	This typology distinguishes three types of visual metaphors
Simile	A visual metaphor in which source and target domains are presented separately
Hybrid metaphor	A visual metaphor in which source and target domains are fused
Context metaphor	A visual metaphor in which only one domain (target/source) is present and the other domain is absent but is suggested by the pictorial context
Gkiouzepas and Hogg (2011)	This typology consists of two dimensions-- object's <i>mode of representation</i> and <i>visual scenarios</i> resulting in six (2 X 3) different types of visual rhetorical figures
<i>Mode of Representation</i>	Refers to how the two metaphorical objects are arranged
Juxtaposition	The two metaphorical objects are separated from each other
Synthesis	The two metaphorical objects are fused together
<i>Visual Scenarios</i>	Refers to how the two metaphorical objects are constructed in order to be related to each other
Realistic symbiosis	The two metaphorical objects represent real-life events and are linked showing unexpected similarities in terms of color, position, or angle of view
Replacement	One of the metaphorical objects is replaced by an object foreign to the schema. Both metaphorical objects are present in their entirety
Artificial symbiosis	The two metaphorical objects are artificially placed together; visual space lacking realistic visual background, and other elements, such as the lack of perspective, differences in position, and size
Phillips and McQuarrie (2004)	This typology consists of two dimensions-- <i>meaning operation</i> and <i>visual structure</i> resulting in nine (3 X 3) different types of visual rhetorical figures
<i>Meaning Operation</i>	Refers to the target or focus of the cognitive processing required to comprehend the picture
Connection	The two metaphorical elements are associated with each other in some way (A is associated with B)
Comparison for similarity	The two metaphorical elements are similar in some way (A is like B)
Comparison for opposition	The two elements are featured in such a way that one is <i>not</i> like the other (A is not like B)
<i>Visual Structure</i>	Refers to how the two metaphorical objects are physically arranged
Juxtaposition	The two metaphorical elements are presented side by side separately
Fusion	The two metaphorical elements are fused together
Replacement	Of the two metaphorical elements, only one element is present while the other element is absent

FIGURE 1:
Typology of Visual Rhetoric

Visual Structure		RICHNESS		
		Less	—————>	More
		Connection (A is associated with B)	Similarity (A is like B)	Opposition (A is not like B)
C O M P L E X I T Y	Less			
	↓	Juxtaposition (Two side-by-images)		
	More	Fusion (Two combined images)		
		Replacement (Image present points to an image absent image)		

Source. Phillips and McQuarrie (2004); Shaded portion is tested in this study.

McQuarrie (2004) suggest that the complexity increases from juxtaposition to fusion to replacement structure. In other words, the processing demands on consumers increases from juxtaposition to fusion to replacement, and this differential demand contributes to differences in their responses to advertisements.

The second dimension is ‘meaning operation’, which “refers to the target or focus of the cognitive processing required to comprehend the picture” (p.116). The typology distinguishes three meaning operations: Connection, Comparison for similarity and Comparison for opposition.

In connection, the two elements are associated with each other in some way (A is associated with B). Consumers’ response involves detecting how the two elements are associated. In comparison for similarity operation, the two elements are similar in some way (A is like B). The elements are either similar in form or appearance or they share similar structural features. Consumers are expected to compare

the elements and infer the similar features between them. Finally, in the comparison aimed at identifying differences, two elements are featured in such a way that one is *not* like the other (A is not like B). Consumers are expected to compare the elements and infer in what way (s) the elements are similar as well as different from each other. Phillips and McQuarrie (2004) propose that the degree of ambiguity, or richness of reference increases from connection operation to comparison of similarities and to comparison of differences. In other words, consumers are expected to come up with many alternative meanings as they move along this dimension.

Overall, according to this typology, there are nine fundamentally distinct types of visual rhetorical figures. Phillips and McQuarrie (2004) suggest that differences in consumer responses to rhetorical figures arise from the different combinations of rhetorical figures along these two dimensions. According to this typology, visual rhetorical figures have a wide range—from simple and readily interpretable

figures to highly complex figures with a wide range of meaningful interpretations. The next section discusses the development of hypotheses based on this typology.

HYPOTHESES

Consumers enjoy and experience a sense of pleasure in trying to understand the meaning of a rhetorical figure (Peracchio & Meyers-Levy, 1994). When complexity in the ad is not too much, it is pleasurable arousing and is associated with greater ad liking (Phillips & McQuarrie, 2004). Jeong (2008) speculates that this is due to tension and release processes. The deviation from expectations in the rhetorical figures may induce tension at the beginning, but once the meaning is understood, the negative tension is relieved. The initial ambiguity may stimulate interest and motivate consumers to spend cognitive effort to process the ad and, as a result, the subsequent deciphering of the meaning is rewarding (Jeong, 2008). As the complexity increases from juxtaposition to fusion to replacement, the tension and ambiguity also increases along the same lines. Therefore, the degree of pleasure should also be greater from juxtaposition to fusion to replacement provided the meaning is deciphered. In turn, greater pleasure should lead to greater liking of the ad. Hence, we advance the following hypothesis:

H₁: Visual metaphor ads with more complex visual structure will increase ad liking. Specifically, ad liking increases from juxtaposition to fusion to replacement visual structures.

Rhetorical figures are complex in nature and are an artful deviation from expectations (McQuarrie & Mick, 1996). Due to this deviation with prior expectations, individuals will engage in more elaborate processing of the information presented (Heckler & Childers, 1992). In fact, ads with rhetorical figures induce higher levels of elaboration than similar ads without rhetorical figures (McQuarrie & Mick, 1999). This is because visual rhetorical figures are similar to puzzles and require consumers to put different pieces present in the ad together to fully understand the content. Phillips and McQuarrie (2004) argue that as complexity increases, greater elaboration is

produced and the demands on consumer processing of the ad also increases in order to understand the meaning of the ad.

In juxtaposition structure, the demands on consumers processing the content are the least (Phillips & McQuarrie, 2004). This is because there are two elements in the ad that are clearly separated. Consumers simply have to discern how the two elements are related.

In fusion structure, the complexity increases because the two elements are merged together and consumers have to disentangle them before they can process the information (Phillips & McQuarrie, 2004). This increases the demand on consumers' processing.

Replacement structure is the most demanding due to the fact that consumers must discern the missing second element that is related to the element present in the ad and then process how the two elements are related (Phillips & McQuarrie, 2004). Identifying the missing element and then relating it to the element present requires significantly higher processing efforts compared to either fusion or juxtaposition structures. Hence, we advance the following hypothesis:

H₂: Visual metaphor ads with more complex visual structure will increase elaboration. Specifically, cognitive elaboration increases from juxtaposition to fusion to replacement visual structures.

Although, complex rhetorical figures increase demands on consumer processing, they are also more difficult to comprehend than ads without rhetorical figures (McQuarrie & Mick, 1996). Too much complexity in rhetorical figures reduces the comprehension of the ad (Phillips, 2000). This finding is also supported by Morgan and Reichert's (1999) study of concrete and abstract metaphors. They found that abstract metaphors, which are more complex than concrete metaphors, were more difficult to understand by the respondents. Hence, as the typology predicts that complexity of rhetorical figures increases from juxtaposition to fusion to replacement, we argue that comprehension decreases along those same lines. Hence, we offer the following hypothesis.

H₃: Visual metaphor ads with more complex visual structure will decrease comprehension. Specifically, ad comprehension decreases from juxtaposition to fusion to replacement structures.

METHOD

A three-group (juxtaposition, fusion, and replacement) between-subjects experimental design was used holding the 'meaning operation' dimension constant so as to manage the scope of the study. Participants, who were non-business major students from a regional mid-western university, were randomly assigned to one of the three experimental conditions. Two \$25 gifts were offered as an incentive for participating in the study. Business majors were avoided, as they are believed to respond differently or may have a special interest or expertise in advertising (Phillips, 1997). Further, actual ads with real brands were used to increase external validity as recommended by Thorson (1990).

Advertising Stimuli

To begin with, a large set of ads containing visual metaphors were collected from various online sources, such as www.adsoftheworld.com and www.adrants.com. Ads that contained sexual content or celebrities were avoided. We controlled the 'meaning operation' dimension by including only 'comparison of similarity' types of ads (A is like B; see Figure 1). We made this decision for two reasons: to manage the scope of the study, and due to the fact that most studies of visual rhetorical figures have focused on similarity comparisons (Phillips and McQuarrie, 2004).

All ads contained little or no verbal copy. Although visual rhetorical figures can be of many types such as puns, antithesis, or metaphors (McQuarrie & Mick, 2003b), for the purpose of this study, only ads containing visual metaphors were included because consumers' processing of ads may be different for different types of rhetorical figures (McQuarrie & Mick, 1996). From this set, twelve test advertisements were selected; four ads for each of the three experimental

conditions, juxtaposition, fusion and replacement. It was decided to use multiple ads in each group in order to minimize the possibility that the study results are due to the choice of ads selected (Phillips, 2000). One of the authors classified the ads into three conditions after discussions with two faculty members, who were not in marketing discipline. Later, this classification was confirmed with the other two co-authors of this study. To further confirm the test ads set, a pretest was conducted with 22 students. Phillips and McQuarrie (2004) typology and definitions of various terms were explained to the participants and then ads were showed on a projector screen one at a time. Participants placed ads into the three experimental conditions. Only those ads which were most often placed in the right conditions were retained. Three ads, one from each condition were removed based on this pretest.

In order to maintain broad applicability of the results, advertisements were not altered, except when the text size was too small to read, at which time the font size was increased using Photoshop by an art instructor. Each ad was printed on a matte presentation paper and the questions were printed below the ad. Ads were placed in random order in each booklet. The order of questions was also varied. The different ads used in the study are briefly described in Table 2.

Measures

All measures were taken from extant literature. Ad liking was measured using a three item, five-point semantic differential scale (Phillips, 2000). The reliability of the scale was high in all three groups, with Cronbach's alpha ranging from 0.94 to 0.97. An overall mean score was computed with a higher score indicating greater ad liking. Cognitive elaboration was measured by a six-item, five-point semantic differential (McQuarrie & Mick, 1999). The reliability of the scale was high in all three groups, with Cronbach's alpha ranging from 0.82 to 0.85. An overall mean score was computed with a higher score indicating greater elaboration. Ad comprehension was measured by a three-item, five-point semantic differential scale (McQuarrie & Mick, 1999). The reliability of the scale was high in all three groups, with

TABLE 2:
Summary of Test Advertisements

Product Advertised	Visual Structure	Meaning Operation	Description
Sony VAIO Laptop	Juxtaposition	Similarity	The laptop is shown to be lightweight by placing it amidst a bunch of floating papers in a gust of strong wind, which is coming from the propellers of a plane.
Samsonite Luggage	Juxtaposition	Similarity	The luggage is placed among sandbags in an army post to create a perception of sturdiness and protection that the sandbags offer to the soldiers behind them.
Kia Motors	Juxtaposition	Similarity	The car is compared to the elegance of a peacock and the sturdy shell of a turtle by superimposing a picture of a turtle on a peacock and placing it next to the car.
Orbit White Chewing Gum	Fusion	Similarity	A model with a bright lampshade on her head is shown holding the product to create the perception that her smile will be as bright as a lamp after using the product.
Tolnaftate Antifungal Cream	Fusion	Similarity	The product is placed next to slippers which are a pair of straps superimposed on a pair of dead fish similar to a fungal foot condition that the product is being advertised to treat.
Philips Anti-insect Bulbs	Fusion	Similarity	A picture of a frog is superimposed inside that of a bulb to create a perception of anti-insect functionality of the bulb, which is similar to that of a frog feeding on insects.
Orbit White Chewing Gum	Replacement	Similarity	Glowing bulbs were arranged to create the perception of a pair of bright smiling teeth that the product is being advertised to facilitate.
HP Printers	Replacement	Similarity	A baby appears to be attached to the wall of an office cubicle to create the perception that the product helps print life-like pictures.
Erdal Shoe Polish	Replacement	Similarity	A neatly polished shoe replaces the rear view mirror of a car to create the perception that the advertised product can help shine a shoe to a mirrored finish.

Cronbach's alpha ranging from 0.90 to 0.96. An overall mean score was computed with a higher score indicating better comprehension.

Procedure

To increase the generalizability of results, students with a variety of majors were included in the study. Participants received a booklet that contained instructions, a brief description of the

purpose of the study and information about confidentiality, the prize to be raffled, demographic questions, and three advertisements of one type of visual structure. Participants were randomly placed into one of the experimental conditions. To simulate realistic viewing conditions, participants were instructed to view the ads as they normally would when reading a magazine and to look at each ad for as long as they liked. Participants

completed demographic questions first and then answered questions at their own pace after viewing each ad. A total of 185 surveys were completed (99 women, 86 men, $M_{age} = 26.15$ years, age range: 18-71 years). Sixty students were in juxtaposition structure condition, sixty one in fusion structure condition, and sixty four were in replacement structure condition.

RESULTS

A one-way multivariate analysis of variance (MANOVA) was conducted to determine the effect of the three types of visual structures, juxtaposition, fusion and replacement, on three dependent variables, ad liking, cognitive elaboration, and ad comprehension; however, prior to conducting the MANOVA, a series of Pearson correlations were performed between all of the dependent variables in order to test the MANOVA assumption that the dependent variables would be correlated with each other in the moderate range, i.e., .20 -.60 (Meyers, Gamst, & Guarino, 2006). As shown in Table 3, the correlations are moderate, suggesting the appropriateness of a MANOVA. Additionally, a non-significant Box’s *M* value of 16.00, with $p > .05$ indicates a lack of evidence that the homogeneity of variance-covariance matrix assumption was violated.

The main effect of the between subjects variable ‘visual structure’ was significant, Wilks’ $\lambda = .726$, $F(6, 360) = 10.41$, $p < .001$. This indicated that the type of visual structure (viz., juxtaposition, fusion, or replacement) had an impact on ad liking, cognitive elaboration, and comprehension. The multivariate effect size was estimated at .148, which implies that about

15% of the variance in the canonically derived dependent variable was accounted for by the independent variable.

Given the significance of the overall test, the univariate main effects were examined; however, prior to conducting a series of follow up ANOVAs, the homogeneity of variance assumption was tested for all three dependent variables. The Levene’s tests were not statistically significant, $p > .05$. Thus, the assumption of homogeneity of variance is met for this sample (see Table 4). As shown in Table 4, significant univariate main effects for complexity of visual structure were obtained for all three dependent variables: ad liking, $F(2, 182) = 13.13$, $p < .001$, cognitive elaboration, $F(2, 182) = 5.86$, $p < .05$; and comprehension, $F(2, 182) = 25.94$, $p < .001$.

Finally, the post hoc analyses (LSD) were performed to examine individual mean difference comparisons across three levels of visual structure and three dependent variables. The results of this post hoc analysis are presented in Table 5.

Hypothesis 1

Hypothesis 1, which stated that ad liking increases from juxtaposition to fusion to replacement visual structures, was partially supported. As shown in table 5, post hoc analysis showed that there was a significant difference between juxtaposition ($M = 3.75$, $SD = .72$) and fusion ($M = 3.06$, $SD = .80$) structures, $p < .05$. There was also a significant difference between fusion ($M = 3.06$, $SD = .80$) and replacement ($M = 3.61$, $SD = .82$)

TABLE 3:
Pearson Correlations, Means and Standard Deviations Associated with Dependent Variables

Dependent Variable	1	2	3	<i>M</i>	<i>SD</i>
Ad liking	1			3.47	.83
Elaboration	.610**	1		3.34	.66
Comprehension	.599**	.351**	1	3.65	.84

Note. N = 185
** $p < .01$, two tailed.

TABLE 4:
One-Way ANOVAs

Dependent Variables	Levene's Test		ANOVAs			Juxtaposition		Fusion		Replacement	
	<i>F</i> (2,182)	<i>p</i>	<i>F</i> (2, 182)	<i>p</i>	η^2	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Ad liking	.11	.892	13.13	.000	.13	3.75	.72	3.06	.80	3.61	.82
Elaboration	.73	.485	5.86	.003	.06	3.57	.64	3.22	.60	3.23	.69
Comprehension	.58	.561	25.94	.000	.22	4.01	.67	3.09	.80	3.84	.76

Note. N = 185
 η^2 = Partial eta squared

TABLE 5:
Post Hoc Analysis: Multiple Comparisons

Dependent Variable	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	<i>p</i>
Ad Liking	Juxtaposition	Fusion	0.69*	.142	.000
		Replacement	0.14	.140	.316
	Fusion	Juxtaposition	-0.69*	.142	.000
		Replacement	-0.55*	.140	.000
	Replacement	Juxtaposition	-0.14	.141	.316
		Fusion	0.55*	.140	.000
Elaboration	Juxtaposition	Fusion	0.35*	.118	.003
		Replacement	0.34*	.116	.004
	Fusion	Juxtaposition	-0.35*	.118	.003
		Replacement	-0.01	.116	.906
	Replacement	Juxtaposition	-0.34*	.116	.004
		Fusion	0.01	.116	.906
Comprehension	Juxtaposition	Fusion	0.92*	.136	.000
		Replacement	0.17	.134	.189
	Fusion	Juxtaposition	-0.92*	.136	.000
		Replacement	-0.74*	.134	.000
	Replacement	Juxtaposition	-0.18	.134	.189
		Fusion	0.74*	.134	.000

Note. Based on observed means; the error term is Mean Square (Error) = .560;
**p* < .05, two tailed.

structures, *p* < .05. However, ad liking for juxtaposition did not differ from replacement structure, *p* > .05. This means, both juxtaposition and replacement visual structures were liked equally when compared to fusion structure, which was least liked. Although this result was contrary to our prediction,

replacement structure elicited greater ad liking compared to fusion structure, as predicted by the typology.

Hypothesis 2

Hypothesis 2, which stated that cognitive elaboration increases from juxtaposition to fusion to replacement visual structures, was not supported. As shown in table 5, there was a significant difference between juxtaposition ($M= 3.57$, $SD = .65$) and fusion ($M= 3.22$, $SD = .60$) structures, $p < .05$ and between juxtaposition ($M= 3.57$, $SD = .65$) and replacement ($M= 3.23$, $SD = .69$) structures, $p < .05$. However, there was no significant difference between fusion ($M= 3.22$, $SD = .60$) and replacement ($M= 3.23$, $SD = .69$) structures, $p > .05$. This means both fusion and replacement visual structures elicited the same amount of elaboration and this was less than the elaboration elicited by juxtaposition structure. In other words, juxtaposition structure elicited highest cognitive elaboration, which was contrary to what the Phillips and McQuarrie (2004) typology suggests.

Hypothesis 3

Hypothesis 3, which stated that ad comprehension would decrease from juxtaposition to fusion to replacement visual structures, was partially supported. As shown in table 5, there was a significant difference between juxtaposition ($M= 4.01$, $SD = .67$) and fusion ($M= 3.09$, $SD = .80$) structures, $p < .05$ and between fusion ($M= 3.09$, $SD = .80$) and replacement ($M= 3.84$, $SD = .76$) structures, $p < .05$. However, the difference was not significant between juxtaposition ($M= 4.01$, $SD = .67$) and replacement ($M= 3.84$, $SD = .76$) structures, $p > .05$. This means, as predicted by the typology, fusion structure was more difficult to comprehend when compared to juxtaposition structure; however, contrary to the prediction, juxtaposition and replacement visual structures were equally comprehended. In other words, visual metaphor ads with fusion structure were more difficult to comprehend than either with juxtaposition or replacement structures.

DISCUSSION

The use of visual rhetoric in print media has seen a steady rise within the last forty years (McQuarrie and Phillips, 2008). It appears that visual rhetorical figures are also popular in TV

advertising. In a content analysis of 199 British and Dutch TV commercials, it was found that nearly 70% of them contained visual rhetorical figures (Enschot, Beckers, & Mulken, 2010).

The present study tested the visual rhetoric typology proposed by Phillips and McQuarrie (2004). The main contribution of this study is that it empirically tested the typology and expanded our understanding of consumers' liking, elaboration, and comprehension of ads with visual metaphors. Overall, the results provided mixed support for the typology.

The typology predicts that ads with more complex visual structure will be better liked. In other words, ad liking increases from juxtaposition to fusion and from fusion to replacement visual structure. The results of this study do not support this contention. This study showed that both, ads with juxtaposition and replacement visual structures are equally liked while ads with fusion structure are least liked.

The second prediction of Phillips and McQuarrie (2004) typology is that ads with more complex visual structure will elicit more cognitive elaboration. The results of this study do not support this prediction. The results indicate that ads with juxtaposition visual structure elicit most cognitive elaboration compared to ads with either fusion or replacement structure. Thus, juxtaposition structure appears to be more complex than either fusion or a replacement structure, which is in the opposite direction of what the typology predicts. One possible explanation for why juxtaposition structure is more complex is that consumers have to connect the two elements that are separated in the ad and then identify how they are connected. Identifying the connection may impose more cognitive processing demands because consumers are required, first of all, to understand the message before identifying the product that is being advertised. This could lead to more demands on cognitive processing. Further, in a juxtaposition structure, due to the presence of two images, the number of distinct elements might increase, which could contribute to higher visual complexity. Whereas in fusion structure the two figures are already combined and often fade into each other which means consumers may quickly identify the connection between the elements and, as a result, this might place fewer

demands on processing. In replacement structure, even though one element is missing (which might possibly require a higher demand on cognitive resources) it is likely that the designers of advertisements provide clues in the ad to help viewers identify the missing element. These clues could help reduce the demands on cognitive resources. The other alternative explanation is that the study might have failed in controlling the complexity for each of the three experimental conditions because there is still a lack of understanding as to how visual complexity can be controlled in advertising (Pieters, Wedel, & Batra, 2010). Further, visual complexity is not just about how two figures are arranged as suggested by the typology. Visual complexity can also be distinguished between feature complexity and design complexity (Pieters et al., 2010).

Finally, the typology predicts that as complexity increases, ad comprehension decreases. The results presented only mixed support for this prediction. It appears that ads with fusion structure are more difficult to comprehend than ads with either juxtaposition or replacements structure.

This study offers several recommendations for practitioners. Advertising professionals should note that not all visual metaphors elicit the same level or degree of reactions from consumers. Our study results suggest that the manner in which the two metaphorical objects are placed in the ad can impact ad liking, elaboration and comprehension. Specifically, when creating visual metaphor ads, it is best to use juxtaposition structure i.e., to keep the two metaphorical objects as separate. Such ads are most liked, elicit more elaboration and are better understood compared to ads that have other types of visual structures. The next best is the replacement structure i.e. to show only one of the two metaphorical objects in the ads. These ads produce same degree of liking and comprehension like ads with juxtaposition structure, although they do not elicit as much elaboration. This means, if the primary objective is either creating a pleasant and enjoyable ad or an easy to understand ad with clear meaning for consumers, ad creators should use either juxtaposition or a replacement structure, because both of these structures are equally effective. As an illustration, if the

objective is to create an ad for a light weight Sony laptop, clearly and straightforwardly establishing its light weight feature by associating it with a bunch of floating papers, then either juxtaposition or replacement structure will work. Such an ad can be effective with the target audience who are specifically looking for a light weight laptop. However, if the primary communication objective is to stimulate multiple meanings, or provoke consumers' imagination, then they should use only a juxtaposition structure. This creative strategy can be effective in appealing to multiple segments with one ad.

Our study results also suggest that metaphor ads with fusion structure i.e. the two metaphoric objects are fused to create the impression of one single figure should be avoided, or care must be taken when designing them. Such ads are least liked, elicit least cognitive elaboration, and are also more difficult to understand compared to ads with either juxtaposition or replacement visual structure.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

There are certain limitations that should be taken into account when considering the contributions of this study. First, participants viewed the print ads in a classroom environment. Such an artificial situation might have forced respondents to devote more cognitive resources than they would normally use. This might have affected their comprehension and elaboration. Instead of such a forced setting, future researchers might use a more natural setting to assess the typology. Secondly, this study used real advertisements as stimulus materials. Using real advertisements might have influenced participants' responses. It is difficult to control the level of difficulty for each of the three experimental conditions. This could have affected the internal validity of the study, although there are advantages of using real ads such as increasing external validity. Additionally, by using real ads, it is possible that we actually tested the specific ads and not the typology. Further, we should have taken a juxtaposition ad and created a fusion and replacement ad and did likewise with all the ads and thus created three sets of ads. That would

have ensured a better way of testing the typology. Thirdly, we did not test the interactions between the three variables. Finally, we used a convenience sample of students, which reduces the generalizability of results; although students are heavily exposed to advertisements when compared to other groups of demographics and are suitable for studies such as this one.

The following suggestions for future research are offered. First, in this study we held 'meaning operation' dimension constant by restricting visual figures to only one of the three possibilities of richness, such as 'A is like B'. Researchers can test the typology for the other two possibilities, namely 'A is associated with B' and 'A is not like B'. Alternatively, future researchers might hold 'visual structure' dimension constant and vary the 'meaning operation' dimension. Secondly, this study did not investigate the moderator effects. Phillips and McQuarrie (2004) suggest such constructs as need for cognition, consumers' competence, and general attitude towards advertising as moderators. Future research should incorporate them to better understand their impact on both complexity and richness of visual figures. Another important research consideration would be to investigate other dependent variables such as ad credibility and ad recall. Finally, researchers should investigate individuals' 'looking time' and its relationship to complex visual figures. Morrison and Dainoff (1972) found a positive relationship between visual complexity of magazine ads and looking time.

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SUBSTITUTE OR COMPLEMENT? FANTASY FOOTBALL AND NFL FANDOM

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National Football League (NFL) fandom is among the most popular leisure pursuits in North America. Within this fandom lies an ancillary sport activity termed fantasy football. This pastime has exploded in the past two decades to include over 17 million participants and create a \$3.5 billion economic impact (FSTA, 2013). Despite this growth, critics suggest fantasy football diminishes the NFL experience by distracting NFL fans, devaluing defensive players, and most importantly, damaging team loyalties. Given these accusations, this study investigated the moderating relationship of fantasy football-related media consumption on the relationship between commitment and favorite NFL team media consumption. The study was guided by the Theory of Reasoned Action (Fishbein & Ajzen, 1975). A multiple group structural equation model was proposed. Discussed are the theoretical results as well as practical implications for marketers and managers looking to more completely understand the impact of fantasy football participation on brand loyalty and traditional NFL fandom.

INTRODUCTION

There is no question professional sport fandom is a highly popular leisure activity in today's society. The sport marketplace has responded to the enormous interest, and sports fans currently have a litany of opportunities and outlets in which to spend their recreational time and disposable income. Sport consumption, consequently, comes in many forms including, but not limited to the following: live event attendance, merchandise acquisition, broadcast viewership, social media interaction, and publication subscriptions (online and in print). Fantasy sport participation, or the act of managing a fantasy sport team, is also a form of sport consumption that has grown rapidly over the past few decades.

Fantasy sports participation is defined as an ancillary service of professional sports that is directly tied to real-life game outcomes and sport statistics. It is mostly played online and includes several influential factors (psychological, social, & market-driven) that draw in participants and keep them engaged throughout an entire regular season (Roy &

Goss, 2007). The current North American fantasy sports market is estimated to include over 35 million individuals over the age of 12 competing in some form of the activity (Fantasy Sport Trade ---Association [FSTA], 2013). It is also estimated to have a \$3.5 billion economic impact when one includes the media products and services associated with the activity and accounts for over \$800 million in direct spending annually (FSTA, 2013). Nearly every major professional sport from the National Football League (NFL) to the National Lacrosse League has a fantasy game. Fantasy activities have also recently gained popularity among non-sport entities such as politics, movies, and primetime television like *The Bachelor* (ABC) and *The Deadliest Catch* (Discovery).

Of particular interest to marketers, recent research has found the activity influential in altering a sports fan's connection with professional sport (Drayer, Shapiro, Dwyer, Morse, & White, 2010; Dwyer, 2011; Roy & Goss, 2007). This is an intriguing because, as stated above, it is an ancillary service of professional sport where the unique competitive outcomes associated with playing create borderline addictive behaviors for its participants, but it is not directly tied to a professional team's or the league's primary objective of team achievement. The average

fantasy football participant owns and manages 15 NFL players/units spread throughout the entire league. Each week this participant competes against an additional nine players/units owned by an opponent. The participant is left with a competitive interest and/or curiosity in nearly every NFL game played each week. For participants with a previously established connection to an NFL team, the result of the added competitive interest potentially puts individuals in position of choosing between one's fantasy and favorite team. That is, with a limited amount of time and money to consume NFL football and limited supply of games, the compelling nature of fantasy football participation has the potential to dilute one's connection to their favorite team or brand loyalty (Dwyer, 2011).

In other words, with its unique orientations and a limited supply of games, it could be argued fantasy sports participation is in direct competition with traditional (team-focused) sport fandom. Some commentators have gone so far as to argue it is destroying the integrity of professional sports (Spyridakos, 2011; Swartz, 2008). For instance, Spyridakos argued fantasy football (1) challenges team loyalty when your fantasy players play against your favorite NFL team, (2) devalues defensive players because most fantasy leagues do not include individual players on defense, and (3) undermines watching live games because fantasy participants are often equally interested in other games occurring simultaneously. While these claims are bold, they may be warranted as research in this area is in its infancy. From a league or individual team perspective, understanding the impact of fantasy football participation is paramount as it will aid in their positioning of the activity within the organization's brand strategy. Currently, the league and teams have enthusiastically supported the activity, but is this unquestioned support beneficial? Given this intriguing circumstance, this study employed Fishbein and Ajzen's (1975) Theory of Reasoned Action (TRA) to investigate the impact of varying levels of fantasy football participation on traditional NFL team loyalty and media consumption.

REVIEW OF LITERATURE

Brand Loyalty

The relationship between a team and a sport fan, regardless of intensity level, is ultimately a form of brand loyalty. According to Aaker (1996), brand loyalty is a consumer's resistance to change from one product to another in the face of shifting attributes (i.e., product features, advertising, distribution, etc.). Keller (1998) refers to loyalty as brand resonance, a four factor element that includes repeat behavior, attitudinal connection, sense of community, and active engagement. Extended to the spectator sport, team performance is uncertain and nearly impossible to manage from a marketer's perspective; thus, brand loyal sport consumers are paramount to organizational sustainability and ensuring fan interest in spite of team performance (Boone, Kochunny, & Wilkins, 1995; Gladden & Milne, 1999; Ross, 2006). In addition, spectator sport is influenced heavily by one's social networks and by the active engagement of vicarious achievement (Trail & James, 2001; Wann, 1995). As a result, opportunities to build loyal fans exist, yet it is crucial for sport marketers and managers to constantly monitor brand perceptions and implement strategic brand management.

Strategic brand thinking is a complex system of goals and objectives, programmatic decisions, and performance evaluations (Keller, 1999), and it is evident by the amount of interest in the subject that brand strategy is crucial in an organization's success or failure (Aaker, 1996; Keller, 1998; Pearson, 1996; Weilbacher, 1993). The service brand loyalty literature, in particular, points to customer satisfaction as an important factor creating loyal consumers (Bloemer & Kasper, 1995; Caruana, 2002). Brand saliency has also been found to directly influence the choices and decision making of consumers (Ehrenberg, Barnard, and Scriven, 1997). Brand saliency refers to the clarity, conspicuousness, or pronouncedness of the product or service (Reber, 1997). If differences exist between the brand's core concept expressed by the organization and perceptions of the product by the consumer, an abstract brand meaning will result (Franzen & Moriarty, 2009; Ries & Trout, 2000). In this case, the visibility, importance, and relevance of the

brand concept are at risk as the mind of the consumer is clouded. This can ultimately undermine brand equity. Brand saliency is of distinct importance for this study as fantasy football could be seen as a competitive brand extension of traditional NFL team fandom with the potential to challenge favorite team loyalty.

Team Loyalty

The construct of team loyalty has roots in both marketing and branding literature as well as the fields of leisure and sport management. Similar to customer loyalty, it is considered a multi-dimensional construct with an attitudinal and behavioral component (Backman & Crompton, 1991a; Dick & Basu, 1994; Jacoby & Chestnut, 1978). As depicted by Jacoby (1971), a loyal consumer displays intense recurring behavior and a strong, positive attitude toward a product. The same can be said for sports fans except the product is a team (Mahony, Madrigal, & Howard, 2000). Most of the behavioral work has focused on frequency of consumption, but psychological commitment or the attitudinal component of loyalty has received a great deal of attention in the fields of marketing, leisure, and sport.

Initially defined as an individual's attitude strength or a tendency to resist change in preference (Crosby & Taylor, 1983; Robertson, 1976), the construct and measurement of psychological commitment has evolved. Pritchard (1991) developed a three factor instrument for hotel customers, golfers, and airline patrons based on resistance to change, volitional choice, and cognitive complexity. James (1997) extended the scale to sport fans and confirmed the scale's reliability and factor structure. Gahwiler and Havitz (1998) extended the scale further and added a fourth dimension – position involvement.

In 1999, researchers Pritchard, Havitz, and Howard synthesized the previous work and developed a five dimensional construct in which “a consumer's commitment is determined by a complex structure in which their resistance to change is maximized by the extent to which they identify with important values and self-images associated with the preference, are motivated to seek informational complexity and consistency in the cognitive

schema behind their preference, and are able to freely initiate choices that are meaningful” (p. 344).

Mahony et al. (2000) were the first to develop a construct and instrument solely within the context of spectator sport. Drawing from the work of Pritchard et al. (1999), the researchers developed a 14-item Psychological Commitment to Team (PCT) scale. The scale specifically emphasized the resistance of changing preference toward a particular professional sport team. To tie this construct to the current study's theoretical framework, psychological commitment is viewed as an enduring relationship between an individual and their favorite team; thus, from a theoretical perspective it was logical construct to encompass the normative aspect of the TRA.

Fantasy Sport Participation

As the activity has grown, it has garnered more and more attention from academics as an original source for measuring contemporary sport fandom. For instance, Roy and Goss (2007) developed a framework of influences on fantasy sports consumption. The pair's framework included psychological, social, and marketer-controlled influences that were multi-dimensional and interrelated in guiding fantasy sports consumption. The model was the first in a growing literature base of fantasy sports research. It was seminal in signaling the importance of this population to marketers and media companies, and in foreshadowing a transition from passive follower to empowered fan.

In 2010, researchers Drayer et al. also developed a framework for fantasy football consumption. In particular, the authors provided the following three propositions to explain the impact of fantasy football on NFL fandom: (1) fantasy football activated new attitudes within the study's participants to create a redefined NFL product; (2) this redefined NFL broadened a participant's consumption of league-associated media services, and (3) the weekly game outcomes repeatedly influenced participant norms and newly developed perceptions so as to keep the redefinition process actively engaged. Similar to Roy and Goss (2007), the authors suggested

that fantasy football is creating innovative and highly-involved sport fans with a broader, yet stronger interest in the NFL, as a whole.

The Drayer et al. (2010) model was quantitatively tested by Karg and McDonald (2011) and Dwyer and Drayer (2010) and then extended by Dwyer and LeCrom (2013). In particular, the work of Karg and McDonald (2011) suggested the activity of fantasy Australian Rules football was a complement to traditional Aussie Rules fandom, while the work of Dwyer and Drayer (2010) noted significant differences in attitudes and behaviors of participants at differing levels of fantasy football participation. The extension work studied media consumption behavior in association with fantasy participation and found both strong positive correlations between fantasy participation and media consumption and dramatic behavioral changes in media consumption due to newly experienced fantasy participation. In addition, new attitudes such as perceived control, cognitive dissonance, and increased arousal during live games were noted and added to the model (Dwyer & LeCrom, 2013).

With respect to team loyalty and fantasy sport participation, Dwyer (2011) investigated the relationship between service involvement with fantasy football and both the attitudinal and behavioral dimensions of NFL team loyalty. The author found that participants with higher levels of fantasy involvement scored higher on the attitudinal construct yet scored lower on the behavioral intentions of watching their favorite NFL team. In other words, engaged fantasy participants proclaimed to be loyal NFL team fans, yet were reluctant to actually watch their team's live games on television. It was concluded that fantasy football divided attention away from one's favorite team despite the strong attitudinal connection; thus, circumventing the two highly correlated components of team loyalty. This study, however, was limited to television viewership of live games as the only mode of NFL consumption and used a service involvement scale (attitude) to measure a fan's interest in fantasy football as opposed to actual behaviors related to the activity.

Other empirical work in this area has focused on motives and segmentation strategies. For instance, several studies have tackled the question of why people play and the following motives have been discovered: arousal, social interaction, knowledge acquisition, competition, entertainment, diversion, and economic gain (Dwyer & Kim, 2011; Farquhar & Meeds, 2007; Spinda & Haridakis, 2008). Researchers have also uncovered strong correlations between fantasy participation and event attendance and television viewership (Nesbit & King, 2010a; Nesbit & King, 2010b). Dwyer, Shapiro, and Drayer (2011) segmented fantasy baseball participants by different motives and found the activity to be somewhat complementary to traditional fandom, but suggested further research investigating the impact of varying levels of fantasy consumption on traditional team fandom. Once again, one focus of the current study was to investigate the moderating impact of fantasy football related media consumption on the relationship between commitment to team and team-related media consumption.

Theory of Reasoned Action

Stemming from Heider's (1946) Balance Theory, the TRA was the first cognitive consistency framework to include behavioral intentions as an outcome. The premise suggests behavior is predicted by the combination of an individual's attitude and norms (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). In other words, an attitude drives us to action but it can be moderated by subjective norms. This theory has been well-established and validated in the field of consumer behavior. However, one aspect with which the theory was initially criticized, including by authors Ajzen and Fishbein (1980), was related to its application with choice alternatives. That is, the model was not intended to include choice alternatives among actions. In a meta-analysis performed in 1988, Sheppard, Hartwick, and Warshaw found that this initial criticism was unjust as the framework held up well when consumers had an explicit choice alternative. The researchers, however, suggested further research in the area. As an intriguing extension of this theory, the current study examined choices that are not completely explicit or mutually exclusive. That is, a fantasy football participant can consume

both their favorite NFL team and their fantasy team(s) simultaneously via different media platforms (i.e., television, online streaming, and written publications).

Using the Reasoned Action framework, this study proposed that traditional, favorite NFL team fandom was the attitude, psychological commitment to this team represented the normative attitudes, favorite team media consumption was the behavioral intention, and level of fantasy football fandom was an alternative intention moderating the relationship between one's attitudes and behavioral intention (see proposed model in Figure 1). The purpose of this study was twofold: (a) validate the positive relationship between psychological commitment and behavioral intention, and (b) answer the critics whom vocally believe fantasy football participation undermines brand loyalty by testing the moderating impact of fantasy football on the relationship between psychological commitment and favorite NFL team fandom. The following two hypotheses were developed:

H₁: Psychological commitment to one's favorite NFL team will positively influence the intended media consumption of that team.

H₂: The level of fantasy football media consumption intentions will moderate the relationship between psychological commitment to one's favorite NFL team and the intended media consumption of that team such that it will be weaker for higher-involved fantasy consumers.

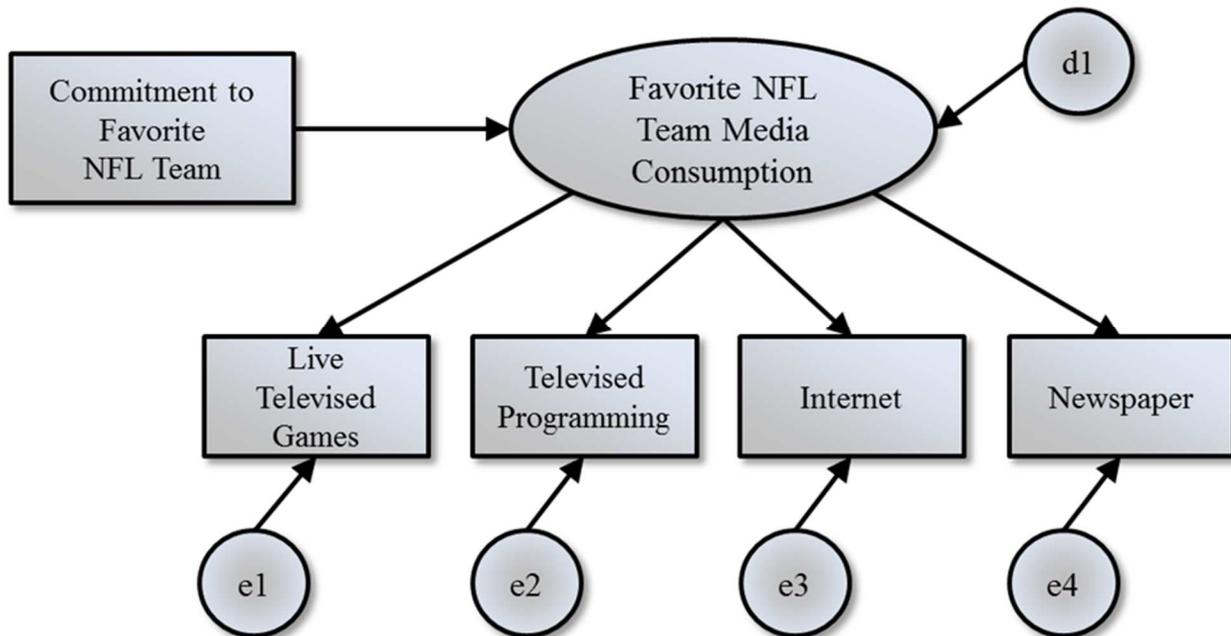
METHODS

Measures

The survey instrument was developed through a literature review of consumer behavior antecedents, marketing theory, and fantasy sports market research. In addition, the questionnaire was analyzed by an expert panel for content and face validity. Three independent investigators from a mid-sized university in the southern United States examined the measures and suggested alterations related to wording and question order. The following sections provide more detail to the scales utilized.

Fantasy team and favorite NFL team media consumption. As mentioned above, behavioral loyalty is often measured by an individual's

FIGURE 1:
Proposed Model



frequency of behavior. Using this as a guide, four statements regarding the intended frequency of sport media consumption relative to both one's fantasy team and favorite team were used to assess an individual's behavior. With an abundance of NFL programming available, the current study looked to previous sport media consumption and fantasy sport participation research as a guide to narrowing down the consumption modes (Dwyer, 2011; Dwyer & Drayer, 2010; Pritchard & Funk, 2006; Roy & Goss, 2007). The resulting forms of media measured included newspapers, the Internet, live event programming (televised games), and sport journalism programming (e.g., ESPN's SportsCenter, & CBS's NFL Today). Respondents were then asked to estimate the number of hours per week they intend to engage in the media for both their fantasy team and their favorite NFL team.

Psychological Commitment to Team. With several instruments available to utilize, the current study used a slightly revised version of Mahony et al. (2000) PCT scale to assess a participant's connection with their favorite NFL team. The revisions included small tweaks to the wording related to one's favorite NFL team. In general, the PCT is a psychometrically sound instrument that was tested on several samples similar to this study's targeted population (Mahony et al., 2000). The instrument was measured on a five point Likert-type scale (Strongly Disagree-Strongly Agree), and was interpreted as a manifest variable that predicted favorite NFL team media consumption. Lastly, the questionnaire included demographic items such as gender, income, age, education, ethnicity, and years participated to ensure the generalizability of the sample.

Participants and Procedures

Three popular fantasy sport websites were used to solicit survey respondents: CBSsports.com, ESPN.com, and Yahoo.com. These sites currently own most of the fantasy sports provider market share. In fact, according to Tedeschi (2012), these three sites owned 85% of the fantasy football market in 2012. Fantasy football message boards, in particular, were used as the mechanism to attract respondents. The survey was hosted by Formsite.com and potential respondents were provided the survey

link within a thread of each website's message board. Potential respondents were engaged in fantasy football-related dialogue and offered an incentive to complete the online questionnaire.

A total of 2,536 individuals viewed the initial postings over the course of two weeks during the NFL season. Of these individuals, 509 began the survey. Sixteen were removed from the sample due to not meeting the age requirement of 18 years old. An additional 187 cases were excluded because of missing data. Cases with missing data were eliminated due to the multivariate non-normality of a few of the dependent variables which required a Satorra-Bentler maximum likelihood of estimation method. The final sample was 306 respondents, which equates roughly to a 12% response rate. The sample demographics (Table 1) mostly mirrored the general fantasy sports population with one real exception. The sample was slightly younger than the FSTA's samples. This could be due to a few scenarios: (1) the procedure of using message boards, and (2) only soliciting fantasy football participants as opposed to both football and baseball. The fantasy baseball population is considerably older (FSTA, 2008).

In general, the use of message boards could be a limitation to the study given the typology of message board participants. According to Walsh, Kiesler, Sproull, and Hesse (1992), self-selected respondents participate because of ease, accessibility, and online status, and it is logical to assume active message board participants could be considered highly-involved fantasy users. The fantasy team consumption rates, however, resulted in adequate variance among respondents. Table 2 provides the means and standard deviations for the fantasy football consumption metrics. According to the FSTA (2013), the average fantasy participant spends three hours managing their team; the current sample mean for hours on the Internet per week related to fantasy football was 2.99. In addition, Weiss (2007) estimated that participants spend an average of five to seven hours per week engaged in activities related to their fantasy team, and the current sample had a total hours engaged mean of 7.69. As a result of these comparisons and the similarities in education,

ethnicity, and income, the overall sample was deemed generalizable.

Statistical Analyses

Using the responses from the 306 fantasy football participants, a multiple group Structural Equation Model analysis was performed in Mplus 7.1 to test the two hypotheses. Groups were formed based on the media consumption results related to one's fantasy football team. A respondent's total hours of fantasy team media consumption were summed. The median score was just over six hours per week; thus, all respondents indicating six hours of interaction or less were grouped as low consuming (*n*=140) and the rest were in the high consuming group (*n*=166).

The models were all tested with standardized coefficients obtained from a Satorra-Bentler maximum likelihood method of estimation.

This estimation method was used because of the multivariate non-normality of the data. To determine the model fit, the chi-square test statistic, the comparative fit index (CFI), the Tucker-Lewis fit index (TLI), and the root-mean-square error of approximation (RMSEA) were all interpreted. The means, variances, covariances, and correlations between the variables are available in Table 3.

Model comparison was also facilitated by positing a nested ordering of models (measurement invariance) where the parameter estimates for a more restrictive model (more parsimonious) were a proper subset of those in a less restrictive model (Bentler, 1990). Measurement invariance refers to the consistency of a model across some form of group demarcation (Ellis, Aguirre-Urreta, Sun, & Marakas, 2008). In this case, level of fantasy football participation was the group distinction (high & low). Thus, measurement invariance

**TABLE 1:
Demographic Characteristics of the Study Sample (n=306)**

Variable	%	Variable	%	Variable	%
<i>Gender</i>		<i>Education</i>		<i>Income</i>	
Male	95.1%	< High School	3.9%	Less than \$25,000	11.4%
Female	4.9%	High School	12.1%	\$25,000 - \$49,999	20.6%
<i>Age</i>		Some College	31.4%	\$50,000 - \$74,999	19.3%
18-24	34.0%	College Graduate	33.7%	\$75,000 - \$99,999	17.3%
25-34	37.9%	Technical School	3.6%	\$100,000 or more	16.0%
35-44	19.9%	Graduate School	10.5%	Rather Not Say	15.4%
Over 44	8.2%	Other	8.5%		

**TABLE 2:
Fantasy Football Consumption Scores in Hours/Week (M, [SD])**

	FANTASY TVGAME	FANTASY TVSHOW	FANTASY INTERNET	FANTASY NEWSPAPER
HIGH	5.321 (2.641)	1.977 (1.125)	5.186 (2.085)	.874 (.125)
LOW	1.817 (1.581)	.754 (.812)	1.713 (1.741)	.316 (.201)
TOTAL	2.955 (2.947)	1.218 (.181)	2.998 (3.035)	.522 (.181)

* Variances on the diagonal, covariance's lower triangle, and correlations upper triangle

TABLE 3:
Means, Variances, Covariance's, and Correlations

	MEAN	COMMIT	TVGAME	TVSHOW	INTERNET	NEWSPR
COMMIT	16.373	10.719	.422	.366	.328	.231
TVGAME	3.889	1.773	1.620	.663	.563	.287
TVSHOW	2.136	1.803	1.260	2.230	.730	.325
INTERNET	3.771	1.672	1.109	1.687	2.393	.241
NEWSPR	1.089	.917	.440	.584	.450	1.368

* Variances on the diagonal, covariance's lower triangle, and correlations upper triangle

TABLE 4:
Measurement Invariance Results

Step	df	χ^2	RMSEA	CFI	TLI	$\Delta\chi^2$
1. Original (Non-Invariance)	10	19.335*	.078	.977	.954	---
2. Metric Invariance	13	20.290	.061	.982	.972	.955
3. Metric and Path Invariance**	14	21.092	.058	.983	.975	.802

* Statistically significant at $p < .05$

** Output available in Appendix

was used to evaluate the lack of variance between psychological commitment, the observed media consumption variables, and the latent variable of NFL media consumption between the two groups. In other words, measurement invariance was used to confirm that the same attribute relates to the same set of observations in the same manner for both groups (Vandenberg & Lance, 2000).

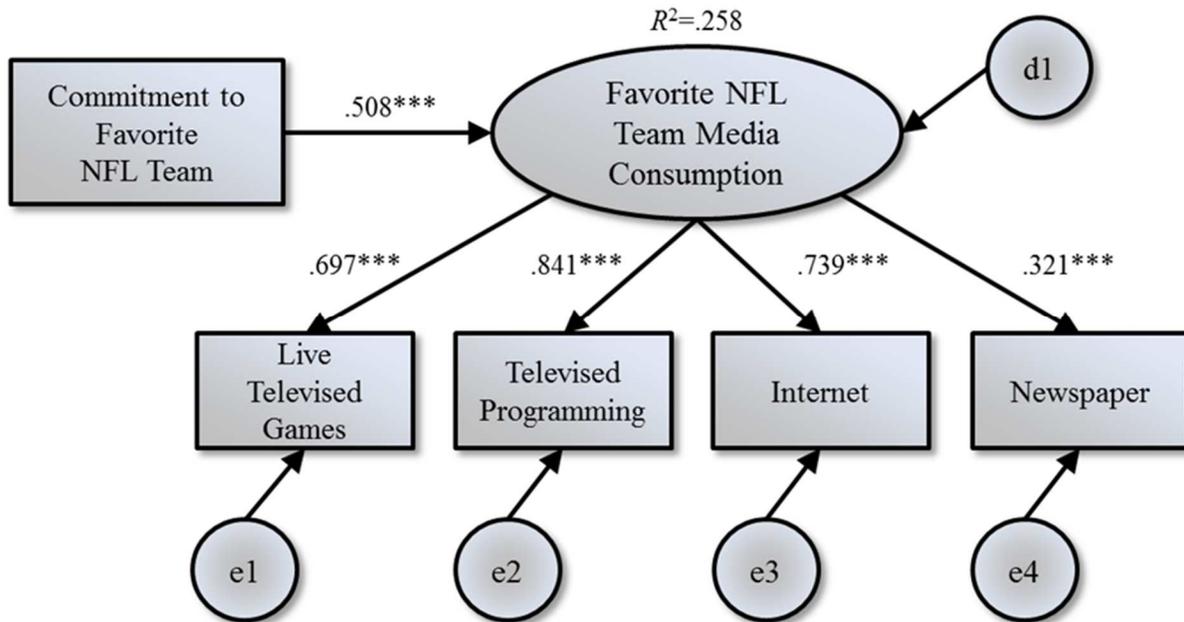
Under appropriate assumptions, the difference in the chi-square test statistics between nested models was tested in relation to statistical significance. In the current study, for example, models with invariance constraints due to the multiple group analysis were nested within models without invariance constraints. In addition to these objective measures, some subjectivity and professional judgment was ultimately used in the selection of the "best" model. The statistical significance and direction of the path coefficient between PCT and the favorite NFL team media consumption latent variable was interpreted to answer hypothesis 1. The measurement invariance results between the two groups (high & low) were used to answer hypothesis 2.

RESULTS

Following proper measurement invariance techniques (Vandenberg & Lance, 2000), the equivalence of two sets of parameters were evaluated in addition to a free parameterized model: (a) factor loadings between groups and (b) factor loadings and the path coefficient between PCT and NFL team media consumption between groups. The fit indices for the three models are found in Table 4. Model 3 was the most parsimonious model and the chi-square difference was not statistically significant; thus, it was selected as the "best" model representing the data. The estimates for both groups are available in Figures 2 and 3. According to cut-off criteria, the model fit was adequate to good (Browne & Cudeck, 1993; Schumacker & Lomax, 1996).

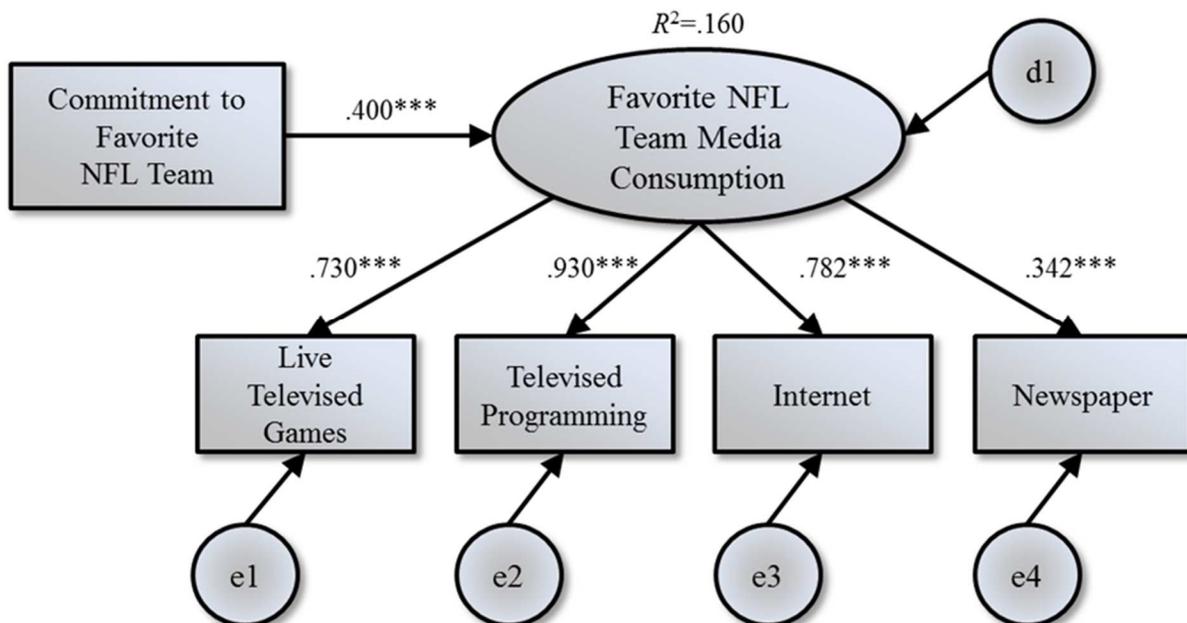
With regard to hypothesis 1, the path coefficient between PCT and media consumption intentions of one's favorite NFL team was both positive and statistically significant at $p < .001$. Thus, the null hypothesis was rejected. The results appear to support the positive influence of PCT on

FIGURE 2:
Model Results for Low Fantasy Football Consumers (n=140)



*** Statistically significant at p < .001

FIGURE 3:
Model Results for High Fantasy Football Consumers (n=166)



*** Statistically significant at p < .001

behavioral intentions related to that team. Lastly, given that model 3 was selected as the “best” fit to the data, we failed to reject the null for hypothesis 2 that there are no significant differences between groups. In other words, fantasy football-related media consumption does not appear to moderate the relationship between PCT and favorite NFL team media consumption.

DISCUSSION

The fantasy sport industry is a multi-billion dollar per year enterprise with over 35 million participants (FSTA, 2013). However, critics have recently claimed fantasy football participation is a detriment to the overall NFL experience (Spyridakos, 2011). Given this allegation and guided by the Theory of Reasoned Action, the current study tested the moderating impact of fantasy football-related media consumption on the relationship between a fan and his/her favorite NFL team. The following section describes some of the key theoretical and practical findings and provides insight for future inquiry.

Our first hypothesis was a straightforward attempt to solidify the relationship between attitude, subjective norm, and behavioral intention. The results confirmed this positive relationship. However, it was not as predictive as one would think. The R-squared was much lower than anticipated ($R^2=.288$). This could be the result of a few things, most notably, the lack of variance within the PCT instrument. Based on this sample, it appears that commitment to one’s favorite NFL team is extremely high. Media consumption, on the other hand, varied quite a bit between participants and this could be due to televised game access that is geographically limited or other higher priority activities needing to be accomplished.

The notion of participants indicating elevated levels of commitment to team is not new. Dwyer (2011) received a similar response despite using a different commitment instrument. This phenomenon could be due to the social desirability surrounding NFL team commitment. Certainly, it is a strongly supported social norm to be brand loyal to your favorite team. However, it appears to be more difficult to follow through with a consistent

behavior that matches one’s attitudinal commitment. More research in this area is advised. Regardless, the premise that psychological commitment positively influences media consumption intention was supported which validates this extension of the TRA.

With regard to fantasy football’s moderating impact, recent fantasy sport related research has been mixed on the topic. Dwyer and Drayer (2010) found that fantasy team-dominant fans had lower NFL team commitment scores than favorite team-dominant fans. Similarly, Dwyer (2011) uncovered a disconnect between the attitudinal and behavioral constructs within an individual’s team loyalty, as highly involved fantasy participants were not behaving in accordance with their attitudinal cues. Dwyer (2013), however, found that as the season progressed fantasy football participants’ attitudes and behaviors with respect to their favorite NFL team did not deteriorate unless the team was unsuccessful that year. In other words, if one’s fantasy team and favorite team were both successful in a given year, participants would consistently consumer both teams. As a result of these studies, the substitute or complement question has been posited several times, yet it had not been explicitly tested. Based on the current study’s results, it appears the activity of fantasy football participation is a complementary activity that does *not* moderate the commitment to team/consumption relationship.

Psychological commitment to team, by definition, is resilient to change. However, it does change over time (Yim & Kannan, 1999). And while fantasy football has been around since the 1960s, it has only been in popular culture since the mid-to-late 1990s. Thus, this study’s findings suggest the *current* connection between a fan and his/her favorite NFL team remains strong, but what will this connection look like in 15 years? According to the FSTA (2013), the average fantasy football participant has about nine years of experience. This pales in comparison to a fan’s relationship with a favorite team. Logic would suggest a consistent disruption or distraction in the form of fantasy football participation between one’s attitudinal connection and viewership behavior would weaken the relationship over time. Brand

loyalty is ultimately at stake here, and team marketers and managers must be akin to the core product's (team) place within the contemporary sports fan's mind space (Ries & Trout, 2000). Certainly more longitudinal research is needed in this area.

This is an important distinction for NFL team owners and league administrators looking to position the activity. Competition to attract and retain sport consumers is at an all-time high and with the numerous options available from which sports fans can choose, it is imperative for marketers and managers to know from where direct competition is coming. Brand extensions, such as fantasy football, in particular have a direct impact on a consumer's belief about the parent brand (Aaker & Keller, 1990). Thus, it is crucial for teams to understand more and more about the constantly evolving sport consumer with the notion in mind that fantasy football orientations and actions can coexist with one's favorite team fandom.

From a strategic perspective, this finding is not limited to a team's media representation. That is, as technological advances are improving the in-home viewing experience, NFL attendance has declined (Hayes, 2012). The impact of fantasy football and the ability to follow several games at the same time has been mentioned as a contributing factor to the decline. In the stadium, a sport fan has the game on the field and scores and statistics available via their cell phone or in-stadium scoreboard. The option to follow other games, teams, and players is an emerging possibility, but is still seen as an ancillary proposition as opposed to the norm. However, the current study's results combined with the attendance data suggest the possibility for providing additional, high quality and high-speed consumption opportunities in the stadium may help attract more fans.

The San Francisco 49ers and Minnesota Vikings are building new, multi-billion dollar home stadiums, and a highly-promoted attribute of both stadia is the blanket presence of accessible Wi-Fi (Hoge, 2013; Nelson, 2013). This will allow fans the opportunity to quickly and easily check fantasy scores from around the league. Adding Wi-Fi at that scale is very costly, but it indicates these teams'

commitment to meeting their fans' needs. In addition, with the in-home experience continually getting better and cheaper, the investment of Wi-Fi may be well worth it to ensure further erosion of the spectator base does not occur.

Additionally, league administrators should embrace the symbiotic relationship ultimately results in more NFL-related media consumption. Despite the notion it may erode one of the league's fundamental elements, individual team loyalty; it appears to provide another highly interactive touch point for NFL fans. From the NFL's perspective, fantasy football is a product extension that has greatly enhanced the overall brand equity of the league. The argument could be made that fantasy football has been important factor in building one the strongest sports brands in the world. The activity has also benefitted league partners, most notably, corporate sponsors and advertisers, given the demographics and psychographics associated with fantasy football participants.

The typical fantasy participant is male, between the ages of 18-45, with above average levels of income and education (Van Riper, 2008). According to the FSTA (2013), the average fantasy participant has played for approximately 8.5 years, owns 5 teams, and spends around \$470 annually on fantasy related products and services. Levy (2005) found that two-thirds of participants in his investigation spent five hours per week managing their fantasy teams with one-third spending 10 or more hours. Fantasy participants also tend to watch more sports on television and spend more money attending sporting events (Drayer et al., 2010; Nesbitt & King, 2010a). In addition, fantasy participants are avid consumers. Not only do fantasy participants out consume general consumers, they also out consume the traditional sport fan population across the major product and service categories (Fisher, 2008). This information has substantial marketing benefits as participation in fantasy sports continue to grow and the typical participants are highly active consumers.

Limitations & Future Research

Limitations within this study certainly existed. First, the sample size was small for a multiple group analysis. This may directly impact the fit indices interpreted. Second, the sampling method lends itself to participation only among highly-involved fantasy users. Third, as mentioned above, the lack of variability in the PCT scale scores could influence the relationship between the constructs. Lastly and this is a limitation to all Reasoned Action research, behavioral intentions were measured as opposed to behaviors. While behavioral intentions have been well-established antecedents to behavioral action, context and timing also play a large role in the equation, and this study examined intentions over the course of a week of professional football fandom.

Looking forward, this model should be tested on larger more diverse samples of fantasy participants. The inclusion of non-fantasy participating NFL fans may also be fruitful for marketers and broadcasters. The extension to other fantasy sports may also lead to illuminating results. Currently, football is at the top of the food chain with respect to North American professional sport. Does this impact fantasy participation? Fantasy baseball and fantasy basketball are very different activities, believe it or not, and the results related to these populations may elicit new information about media consumption patterns related to professional sport. Lastly, new commitment instruments should be applied to this model that may illicit more variance among respondents. Given the relative subjectivity and contextual limitedness of previous commitment instruments developed in our field, other scales may result in different relationships.

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THE MODERATING ROLE OF ATTITUDE IN CONSUMERS' SERVICE ASSESSMENTS

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This study investigates conditions in which transaction-specific evaluations of service quality and satisfaction affect customers' behavioral intentions. Specifically, attitude's moderation of satisfaction and quality effects is investigated. Multiple data collections are used to (1) test interaction effects using MRA, (2) examine hypothesized relationships using simple slopes tests, and (3) calculate the range of attitude effects. The results suggest that service quality and satisfaction have stronger effects on behavioral intentions when contrasted with consumers' global attitudes. MRA and simple slopes analyses support is identified and the effects are illustrated with regions of significance testing. These finding are shown to be consistent for both emotive and consumption satisfaction. The study suggests that firms that reward employees based on periodic, transaction-specific service quality and satisfaction assessments need to understand that improvements in customer assessments might not yield analogous improvements in outcome measures like behavioral intentions.

1. INTRODUCTION

Managers no doubt note the importance the popular press attributes to customer satisfaction and service quality perceptions. This focus on satisfaction and quality is clearly reflected in initiatives by companies as diverse as Renault, Staples, LG, and Microsoft. Specifically, Renault has rolled out a new initiative called "Plan Excellence Renault" that details twenty critical rules that workers must follow to ensure they satisfy customers' needs (de Saint-Seine, 2006). Staples recently launched an advertising campaign touting the "easy button" to increase office workers' satisfaction with rapid order placement (Amato-McCoy, 2008). Koo Bon-Moo, Chairman of LG Group, has also declared that keeping customers satisfied is the critical step in becoming the market leader in their industry (Korea Times, 2005). An *Advertising Age* survey further underscores the interest in customer satisfaction and service quality as managerial initiatives by suggesting that post-delivery and post-consumption research accounts for one-third of the revenues of the largest U.S. research firms (Oliver, 1997). With investments such as these, some industries

now report that as many as 90 percent of customers are satisfied (Reichheld, 1996).

Scholarly interest in satisfaction and service quality is equally notable. However, managers and researchers investigating the influence of service quality and satisfaction are bound to detect a noticeable gap in the literature. Discussions of satisfaction and service quality frequently refer to the "attitude-like" nature of the two constructs (e.g., Gotlieb, Grewal & Brown, 1994; Oliver, 1997), but investigations of the relationship between these constructs and consumer attitudes remain scarce. This is surprising, because attitude is recognized as an influential consumer decision-making construct and a determinant of behavioral intentions (Ajzen & Fishbein, 1977; Fishbein & Ajzen, 1980).

Revisiting the role of attitude in models depicting relationships between satisfaction, service quality, and behavioral intentions provides insights into a key question that confounds researchers and practitioners: When do service quality and satisfaction affect behavioral intentions? Although progress has been made in understanding the fundamental ordering of these constructs (e.g., Sabharwal, Soch & Kaur, 2010; Gotlieb et al., 1994), uncertainty remains about the strength of the

effects of customer satisfaction and service quality on behavioral intentions (Mittal & Kamakura, 2001; Mittal & Gera, 2012). Customers' attitude toward a service provider may offer a missing piece to this puzzle.

This study contributes to the literature in several ways. First, we investigate the moderating role that attitude toward the service provider plays in the relationships among satisfaction, service quality, and behavioral intentions. Second, the form of the interaction is considered and the range in which it applies is isolated. Third, we identify and illustrate when service quality and satisfaction assessments influence behavioral intentions and when they do not. We replicate these effects across two independent research studies with two different measures of satisfaction (emotive and consumption). Finally, we offer managerial insights into how practitioners can use this information to manage employees and set expectations.

2. BACKGROUND

The relationships among satisfaction, service quality, and behavioral intentions have prompted significant interest in the services marketing literature (e.g., Brady, Knight, Cronin, Hult, & Keillor, 2005; Cronin, Brady, & Hult, 2000; Mittal & Gera, 2012). Service quality perceptions represent a primarily cognitive appraisal of service performance (Bitner, 1990; Dabholkar, 1995; Dagger & Sweeney, 2007), whereas customer satisfaction represents a mainly affective response to service experiences (Oliver 1981, 1989). In keeping with attitude theory (e.g., Bagozzi, 1992) and the general views of the services marketing literature (e.g., Akroush & Khatib 2009; Cronin & Taylor, 1992; Gotlieb et al., 1994), both constructs may be important antecedents of behavioral intentions. Thus, we propose direct links between satisfaction to behavioral intentions and service quality to behavioral intentions, consistent with existing service quality (Zeithaml, Berry, & Parasuraman, 1996) and satisfaction (Bolton, 1998) models.

2.1 Attitude, Satisfaction, and Service Quality

Before discussing the interplay among constructs, we consider how consumer attitudes are conceptually distinct from service evaluations. Although many discussions refer to service constructs as attitude-like, service quality and satisfaction are transaction-specific evaluations that differ from global assessments like attitudes. Attitudes represent a global assessment that defines a consumer's predisposition to respond in a favorable or unfavorable manner to an object, organization, behavior, or other entity (Fishbein & Ajzen, 1980; Bearden & Teel, 1983; Oliver, 1980). Alternatively, customer satisfaction and service quality refer to evaluations based on a specific encounter. Unlike global assessments, they include evaluations of encounter-specific stimuli (Brady & Cronin, 2001). Some studies link these transaction-specific evaluations to global, attitude-like constructs (Mohr & Bitner, 1995), but few focus on their potential interactions. Specifically, prior research does not consider the role that global attitudes towards an organization or behavior can play in the relationships among such transaction-specific constructs as satisfaction, service quality, and behavioral intentions. For example, if a consumer has a highly negative attitude towards chain restaurants, will it attenuate the effects of satisfaction or quality experienced during a specific visit to such a service provider? The answer represents a critical gap in the literature.

The effects of global assessments such as attitude on service quality, satisfaction, and behavioral intentions can be predicted according to several theoretical frameworks. For example, an adaptation-level framework suggests that a person perceives and reacts to stimuli from the external environment on the basis of an adapted standard. This adapted standard acts as a sustaining force that influences subsequent evaluations, to the extent that new evaluations relate to the original position. Simply put, in the presence of typical external stimuli, the pre-existing view of a situation influences any new information gleaned from the current encounter, such that changes in the adaptation level tend to be gradual (Helson, 1964). For example, service

consumers may establish general attitudes toward service providers (adapted standards), which interact with transaction-specific satisfaction and service quality assessments to influence their behavioral intentions.

Although we expect that attitude level (favorable versus unfavorable) influences these relationships, research on consumer attitudes and expectations suggest that the effects may not be constant. Specific insights can be gained from the “ceiling/floor” effect, which posits that when consumers enter encounters with expectations that service will be excellent, even very positive encounters are unlikely to have a strong effect on behavioral intentions (Oliver, 1997). Likewise, when consumers with unfavorable attitudes enter a service encounter, a service provider may simply need to deliver service that is above the “floor” to substantially improve behavioral intentions.

Consider the following scenario: Deciding to dine out, a couple selects a restaurant one has a favorable attitude towards whereas the second is unfavorably predisposed. If the dining experience is excellent, the one having the unfavorable attitude is far more likely to return than prior to the visit. The other (favorable prior attitude) also is likely to return, but the current evaluation is qualified by the favorable attitude and has limited impact on behavioral intentions. Thus, it is suggested that pre-existing attitudes interact with new perceptions (i.e., transaction-specific satisfaction assessments and service quality perceptions) in determining behavioral intentions. According to extant theory, transaction-specific evaluations have a stronger effect on behavioral intentions when the evaluations contrast with pre-existing attitudes. Thus, the following hypotheses are considered:

- H_{1a}:** In favorable service transactions, the effects of transaction-specific service quality on behavioral intentions are stronger when consumer attitudes toward the firm are unfavorable.
- H_{1b}:** In unfavorable service transactions, the effects of transaction-specific service quality on behavioral intentions are stronger when consumer attitudes toward the firm are favorable.

H_{2a}: In favorable service transactions, the effects of transaction-specific satisfaction on behavioral intentions are stronger when consumer attitudes toward the firm are unfavorable.

H_{2b}: In unfavorable service transactions, the effects of transaction-specific satisfaction on behavioral intentions are stronger when consumer attitudes toward the firm are favorable.

2.2 Control Variable

Prior experience is posited to influence attitude development, customer expectations, and behavioral intentions (Bolton, 1998; Boulding, Kalra, Staelin, & Zeithaml, 1993). While not a focus of the current research, a measure of prior experience is included as a control variable.

3. RESEARCH METHODS

The hypotheses are tested using multiple data collections across two studies. In Study 1, respondents reflect on a recent service experience from pre-defined industries that are categorized into favorable and unfavorable experiences post hoc. Findings from Study 1 are replicated and extended in Study 2 using two conceptualizations of customer satisfaction across customer-defined favorable and unfavorable experiences. A complete description of both studies and their results follows.

3.1 Measurement

Twenty-four measurement items capture the constructs of interest (measurement properties are identified in Table 1). All scales are adapted from previous studies. Because transaction-specific satisfaction and service quality are used, respondents answered questions on the basis of their perception of a specific encounter, not their overall impressions of satisfaction and service quality. All the items are identified in the Appendix.

3.1.1 Customer Satisfaction. In Study 1, satisfaction items that assess consumers' emotional response to their service experience are used, which is consistent with the literature.

For example, Locke (1967, 1969) proposes that satisfaction is best conceptualized as an emotional state that reflects an assessment of a person's experiences. Similarly, Hunt (1977) refers to satisfaction as the evaluation of an emotion and Oliver (1981) calls satisfaction an emotional assessment brought about by disconfirmed expectations. Thus, the satisfaction scale used in Study 1 is emotionally-based and requires consumers to assess the degree to which they experience positive emotions during a transaction. This construct is termed emotive satisfaction and the scale used is internally consistent across both studies (construct reliabilities of .95 and .98).

Based on Oliver's (1997) suggestion that satisfaction has evaluative overtones, a consumption satisfaction measure is added in Study 2. Consumption satisfaction is an evaluative response to a consumption experience and is less contingent on emotion. Four items from Oliver's (1997) consumption satisfaction scale are employed in order to test the robustness of our results across two measures and conceptualizations of customer satisfaction. The consumption satisfaction scale is internally consistent (construct reliability = .97).

3.1.2 Perceived Service Quality. A subset of Oliver's (1997) service quality measures similar to items used previously in service quality literature (e.g., Babakus & Boller 1992; Cronin & Taylor 1992) is utilized to assess transaction-specific service quality perceptions. The construct reliabilities for this scale are .96 and .97.

3.1.3 Attitude toward the Service Provider. Defining attitude toward a service provider as a predisposition to respond in a favorable or unfavorable manner toward a service provide, we follow the advice of Oliver (1981) and adapt five items from Osgood, Suci, & Tannenbaum (1957). Originally, the items evaluate consumer attitudes toward a product/brand using a semantic differential scale, but subsequent studies successfully adapt the items to various consumption experiences (e.g., Bagozzi, 1992; Oliver & Bearden, 1985). The adapted scale provides construct reliabilities of .91 and .94 across the two studies.

3.1.4 Behavioral Intentions. Zeithaml et al. (1996) suggest that favorable behavioral intentions are associated with a service provider's ability to get customers to (1) remain loyal, (2) not switch to another service provider, (3) pay price premiums, and (4) promote the firm through positive word-of-mouth. The four items that operationalize behavioral intentions based on the domains and measures suggested by Zeithaml et al. (1996) are similar to those reported and used throughout services marketing literature (e.g., Cronin & Taylor, 1992; Gotlieb et al., 1994). The scale has construct reliabilities of .94 and .95.

3.1.5 Prior Experience. Although few formal scales have been established for assessing prior experience with a service provider, recent research suggests that measures should determine the degree to which customers have used a service in the past (Boulding et al., 1993; Rust & Oliver, 2000). Thus, we assess prior experience with an item that measures the amount of prior usage on a Likert scale from 1 (very low) to 7 (very high).

3.2 Assessment of the Measures

The psychometric properties of multi-item scales are assessed using the aggregated data from each study. Results from confirmatory factor analyses indicate that the models offer good fit to the data in each sample (see Table 1).

The procedure outlined by Fornell and Larcker (1981) is used to assess construct reliability and discriminant validity for all scales in each data set. Construct reliabilities are consistently high, from .91 to .98, and the average variance extracted for each construct (67%–90%) is well above 50%, indicating that the measures capture more variance than error. Finally, the shared variance between any given pair of constructs falls below the average variance extracted for the constructs, thereby meeting Fornell and Larcker's (1981) stringent standard for discriminant validity. Scale statistics, including means, standard deviations, correlations, variances extracted and construct reliabilities, are presented in Table 1.

TABLE 1:
Means, Standard Deviations, Correlations among the Variables,
and Results of the Confirmatory Factor Analyses

Construct	STUDY 1				STUDY 2				1	2	3	4	5	6
	ICR	AVE	M	SD	ICR	AVE	M	SD						
1. Prior experience	-	-	4.92	1.73	-	-	4.62	1.93		.69*	.70*	.70*	.72*	.76*
2. Customer attitude	.91	.67	5.22	1.28	.94	.76	4.97	1.59	.53*		.86*	.82*	.87*	.87*
3. Service quality	.96	.87	5.07	1.35	.97	.90	4.55	1.82	.47*	.66*		.87*	.89*	.89*
4. Emotive satisfaction	.95	.77	4.37	1.50	.98	.92	3.90	2.05	.53*	.63*	.66*		.89*	.87*
5. Consumption Satisfaction					.97	.88	4.59	2.08						.91*
6. Behavioral intentions	.94	.81	5.12	1.65	.95	.84	4.38	2.06	.72*	.74*	.71*	.74*		
CFA Results														
	χ^2		df		CFI				NNFI			SRMR		
STUDY 1	855.98		146		.99				.99			.039		
STUDY 2	879.39		199		.99				.99			.029		
Notes:	ICR = internal construct reliability; AVE = average variance extracted; M = mean; SD = standard deviation. Intercorrelations for Study 1 appear in the lower half of the matrix; those for Study 2 are in the upper half of the matrix. * $p < .05$.													

4. STUDY 1

4.1 Sample and Data Collection

Respondents were asked to reflect on their most recent encounter in one of four industries (retail, fast-food, banking, and sit-down dining; n = 970). Six specifically trained student interviewers who had completed a course in research methods collected all data. During a training session, one author discussed survey protocol and demographic quota details. Gender and age quotas were employed to

ensure a representative sample. Following the data collection, we split the sample into favorable and unfavorable service experience groupings based using valence measures introduced in Brady and Cronin (2001).

Respondents were interviewed at multiple locations within the United States (Boston, MA, East Lansing, MI, and Tallahassee, FL) and included initial screenings to ensure respondents' familiarity with, and previous usage of, the services evaluated. Interviewers eliminated persons having completed an

alternate version of the survey or not passing the screening test. Interviewers collected respondents' telephone numbers and a comparison across all samples ensured independent observations. Moreover, we contacted 25% of the sample via email to validate their answers to the survey. We were able to get confirmation from 124 respondents. Respondent demographics reasonably resembled the characteristics of the region. Specifically, the respondents' average age was 30 years and 52 percent were female. Caucasians accounted for 79.7 percent of the respondents while 10.7 percent were African-American, 5.4 percent Hispanic, 1.0 percent Asian American, and 3.2 percent did not classify themselves. The sample was relatively well educated with 39.9 percent having four-year college degrees.

4.2 Assessment of Hypotheses

To assess the interaction between the predictors (service quality and satisfaction) and the moderator (customer attitude) across both high and low levels of service, samples were portioned into sub-samples representing favorable and unfavorable service transactions. Specifically, the sample was split into two groups on the basis of overall satisfaction evaluations. Consumers whose satisfaction ratings were above the neutral point on the customer satisfaction scale were classified in the favorable transaction group and consumers whose satisfaction ratings were equal or below the midpoint on the scale were classified in the unfavorable transaction group.

The hypotheses were tested using a three-step approach that (1) tested interaction effects using moderated regression analysis (MRA), (2) examined the significance of slopes using simple slopes tests, and (3) calculated the range of attitude at which transaction-specific effects were significant using regions of significance analysis. To conduct the MRAs, independent and control variables were mean centered as recommended by Aiken and West (1991) then the control variable (prior experience), the independent variable (satisfaction or service quality), and the moderator (attitude toward the service provider) were entered into the regression equation. In the final step, the mean-centered interaction term (formed by

multiplying the mean-centered independent variable with the mean-centered moderator) was entered into the regression equation. Moderation was supported if the interaction term explained a significant ($p < .05$) portion of the variance in behavioral intentions, above and beyond the main effects of prior experience, the independent variable (satisfaction or service quality), and attitude.

To further probe interaction effects, simple slopes tests were conducted using high and low levels of attitude (+1.0 and -1.0 standard deviations from the mean; e.g., Aiken and West 1991). Simple slopes tests provide an assessment of the conditional effects of the independent variable (satisfaction or service quality) at various levels of attitude toward the service provider. These tests provide insight into the magnitude of the interaction.

Finally, regions of significance for each interaction were identified allowing the determination of the range of consumers' attitudes toward the service provider for which the effects of the independent variable (satisfaction or service quality) on the dependent variable (behavioral intentions) were significant (Curran, Bauer, & Willoughby, 2004). This test is advantageous because it allows the calculation of the exact level of attitude at which transaction-specific evaluations no longer influence behavioral intentions. Historically, regions of significance tests were only possible when dealing with categorical moderators. However, Curran et al. (2004) demonstrated that these tests can be applied to continuous moderators by making minor alterations to the calculations used in the Johnson-Neyman Technique (Johnson & Neyman, 1936) for categorical moderators. It is also important to note that due to the fact that the data were part of a field study, any interaction effects accounting for a one percent increase in the variance explained in the model should be considered acceptable and noteworthy (McClelland & Judd, 1993).

4.3 Results: Perceived Service Quality–Behavioral Intentions Relationship

To test the moderating effects of attitude on the service quality à behavioral intentions relationship, MRAs were conducted for both

favorable and unfavorable service transaction sub-samples. Results of the MRA and simple slopes analyses are presented in Tables 2 and 3.

4.3.1 *Favorable Service Transaction.* In the favorable service transaction sub-sample, support for the interaction effects proposed in *H1a* is found. Specifically, the inclusion of the interaction term explained a significant portion

of variance in behavioral intentions above and beyond the main effects of prior experience, service quality, and attitude ($\Delta R^2 = .018$, $p < .05$). Simple slopes analysis (see Table 3) provided additional support for the moderating effects, as the effects of service quality were significantly stronger when attitudes were unfavorable. Lastly, the calculation of the regions of significance revealed that service

TABLE 2:
Results of Moderated Regression Analyses

Predictors	Standardized Regression Coefficients			
	STUDY 1		STUDY 2	
	Favorable (N = 540)	Unfavorable (N = 430)	Favorable (N = 213)	Unfavorable (N = 208)
<i>Service Quality Interaction Analyses</i>				
Step 1:				
Prior experience	.28*	.42*	.16*	.22*
Service quality	.44*	.24*	.34*	.30*
Attitude	.29*	.42*	.37*	.45*
R ²	.45	.81	.56	.72
Step 2:				
Service quality x Attitude	-.15*	.11*	-.18*	.18*
R ²	.47	.82	.59	.75
ΔR^2	.018*	.011*	.030*	.031*
<i>Emotive Satisfaction Interaction Analyses</i>				
Step 1:				
Prior experience	.31*	.42*	.18*	.23*
Emotive Satisfaction	.41*	.30*	.23*	.19*
Attitude	.21*	.36*	.45*	.51*
R ²	.42	.83	.52	.69
Step 2:				
Emotive Satisfaction x Attitude	-.13*	.08*	-.20*	.14*
R ²	.43	.83	.56	.71
ΔR^2	.016*	.006*	.039*	.016*
<i>Consumption Satisfaction Interaction Analyses</i>				
Step 1:				
Prior experience	-	-	.17*	.22*
Consumption Satisfaction	-	-	.43*	.29*
Attitude	-	-	.28*	.44*
R ²	-	-	.60	.71
Step 2:				
Consumption Satisfaction x Attitude	-	-	-.12*	.15*
R ²	-	-	.61	.73
ΔR^2	-	-	.009*	.021*

Note: The standardized regression coefficients from the final stage of analysis are presented.

* $p < .05$

TABLE 3:
Results of Simple Slope Analyses

Sample	Interaction	Slope at Varying Levels of Attitude		
		Unfavorable	Favorable	
STUDY 1	Favorable Transactions	Service quality x Attitude	.73*	.37*
		Emotive Satisfaction x Attitude	.50*	.27*
	Unfavorable Transactions	Service quality x Attitude	.14*	.44*
		Emotive Satisfaction x Attitude	.30*	.63*
STUDY 2	Favorable Transactions	Service quality x Attitude	.49*	.28*
		Emotive Satisfaction x Attitude	.38*	.09
	Unfavorable Transactions	Consumption Satisfaction x Attitude	.55*	.36*
		Service quality x Attitude	.15*	.57*
	Unfavorable Transactions	Emotive Satisfaction x Attitude	.07	.41*
		Consumption Satisfaction x Attitude	.23*	.71*

* $p < .05$

quality had a significant and positive effect on behavioral intentions for the entire range of consumer attitudes, but the strength of these effects was strongest when attitudes were unfavorable. These results support H_{1a} .

4.3.2 Unfavorable Service Transactions. Support was also found for H_{1b} in the unfavorable service transaction sub-sample. Again, the inclusion of the interaction term explained a significant portion of variance in behavioral intentions above and beyond the main effects of prior experience, service quality, and attitude ($\Delta R^2 = .011$, $p < .05$). The simple slopes calculation also supported the proposed effects as the effects of service quality became stronger as attitudes become more favorable (see Table 3). Finally, the regions of significance analysis suggested service quality had significant and positive effects on behavioral intentions, except when customer attitudes toward the service provider were very unfavorable. Specifically, the tests indicated that the effects of service quality on behavioral intentions were positive and significant for attitude responses that range from 1.39 – 7.00. These results provide strong support for H_{1b} .

4.4 Results: Emotive Satisfaction–Behavioral Intentions Relationship

Moderating effects proposed in $H_{2a,b}$ were tested using the same procedures. To test the

moderating effects of attitude on the satisfaction à behavioral intentions relationship, MRAs for both the favorable and unfavorable service transaction sub-samples produced results that were analyzed with simple slopes analyses and regions of significance calculations.

4.4.1 Favorable Service Transaction. Results of MRAs for favorable service transactions provided strong support for H_{2a} as the inclusion of the interaction term provided significant improvement in variance explained in behavioral intentions ($\Delta R^2 = .016$, $p < .05$). These results were probed using simple slopes analysis (see Table 3), which provided additional support for H_{2a} as effects of satisfaction were stronger when consumer attitudes were unfavorable. The regions of significance analysis suggested that satisfaction had direct effects on behavioral intentions across the entire range of attitude scores; however, these effects were stronger when attitudes were unfavorable. These results provided support for H_{2a} .

4.4.2 Unfavorable Service Transaction. Support for the interaction effects proposed in H_{2b} is found in unfavorable service transaction. Specifically, the inclusion of the interaction term improved the explained variance in behavioral intentions ($\Delta R^2 = .006$, $p < .05$). Simple slopes analysis supported the

hypothesized effect as satisfaction's effect was greater effect when attitudes were favorable. Finally, calculating regions of significance revealed satisfaction had a significant and positive effect on behavioral intentions except when customer attitudes were very unfavorable. Specifically, tests indicated that satisfaction effects on behavioral intentions were positive and significant for attitude responses ranging from 0.70 – 7.00. These results provide strong support for H_{2b} .

4.5 Discussion

The results of Study 1 support the proposed effects. Specifically, transaction specific evaluations' (service quality and emotive satisfaction) effects on behavioral intentions were stronger when they contrasted with consumers' global attitudes. These findings were supported by MRA and simple slopes analysis and the effects were illustrated with regions of significance testing.

Although these results provide new insight into the interactions between transaction-specific evaluations of service and global attitudes, there are two limitations to be addressed. First, favorable and unfavorable service sub-samples were developed post hoc and thereby may not provide the best representation of successful/failed service encounters. Second, the satisfaction measure in the first study was strictly emotive and may not represent the notion that satisfaction be partly a cognitive evaluation (Oliver, 1997). Both limitations are addressed in Study 2.

5. STUDY 2

5.1 Sample and Data Collection

Data were gathered in a manner similar to Study 1. However, to avoid potential problems categorizing respondents into favorable and unfavorable service transaction samples post hoc, half the respondents evaluated a recent unfavorable service transaction ($n = 208$) and the other half a favorable one ($n = 213$) resulting in two samples of consumers whose overall demographic makeup resembled the demographics of Study 1 and the regional populations. In this study, we examined the same four industries (retail, fast-food, banking,

and sit-down dining) in an attempt to create consistency across the two studies for post hoc discussion.

5.2 Measurement

The same items were used to assess service quality, emotive satisfaction, customer attitudes, prior experience, and behavioral intentions in Study 2. In addition, we included a measure of consumption satisfaction (Oliver, 1997). Scale measurement properties were confirmed using the same process as in Study 1 and all scales were reliable and valid. Complete scale statistics are presented in Table 1.

5.3 Assessment of Hypotheses

The assessment of hypotheses was simplified in Study 2 by having respondents reflect on either a favorable or unfavorable service transaction. This process avoided categorizing consumers post hoc. To test the effects proposed in H_1 and H_2 , the same three-step approach used in Study 1 was employed.

5.4 Results: Perceived Service Quality–Behavioral Intentions Relationship

MRA results provided strong support for H_1 in the both favorable and unfavorable service transaction as the inclusion of the attitude – service quality interaction term provided a significant improvement in the variance explained in behavioral intentions (favorable transaction: $\Delta R^2 = .030$, $p < .05$; unfavorable transaction: $\Delta R^2 = .031$, $p < .05$). Specifically, the effects of service quality were stronger when they contrasted with pre-existing consumer attitudes (see Tables 2 and 3). Regions of significance analysis suggested that service quality had a significant and positive effect on behavioral intentions for the entire range of customer attitudes for favorable transactions. In unfavorable transactions, service quality had a significant and positive effect on behavioral intentions when attitudes were greater than 2.39. These results support H_1 and replicate Study 1 findings.

5.5 Results: Emotive Satisfaction–Behavioral Intentions Relationship

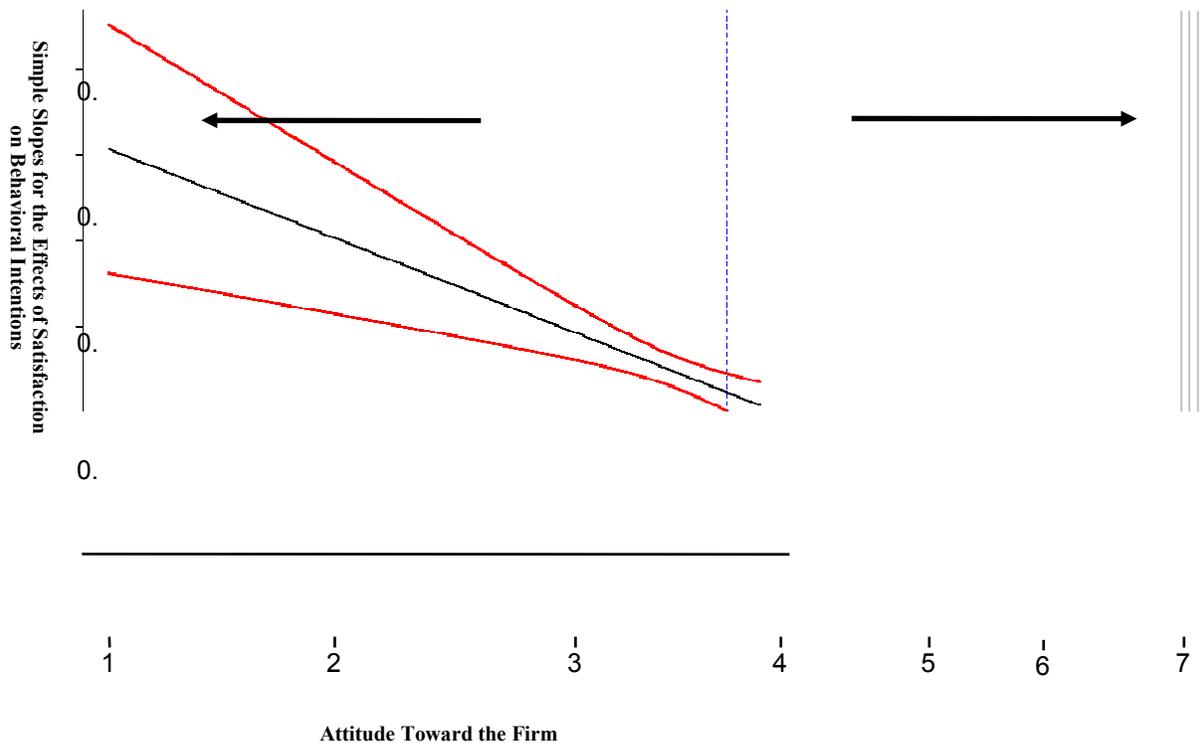
Including attitude – emotive satisfaction interaction terms improved the explained variance in behavioral intentions in both favorable ($\Delta R^2 = .039, p < .05$) and unfavorable transactions ($\Delta R^2 = .016, p < .05$) supporting $H2$. All effects were as hypothesized. Regions of significance analysis demonstrated that for favorable transactions, satisfaction had a significant positive effect on behavioral intentions, except for when attitudes were very favorable (greater than 6.68). For unfavorable transactions, emotive satisfaction had significant effects on behavioral intentions

when attitudes were more favorable (greater than 3.02). Graphical depictions of regions of significance are provided in Figures 1 (favorable transaction) and 2 (unfavorable transaction).

5.6 Results: Consumption Satisfaction–Behavioral Intentions Relationship

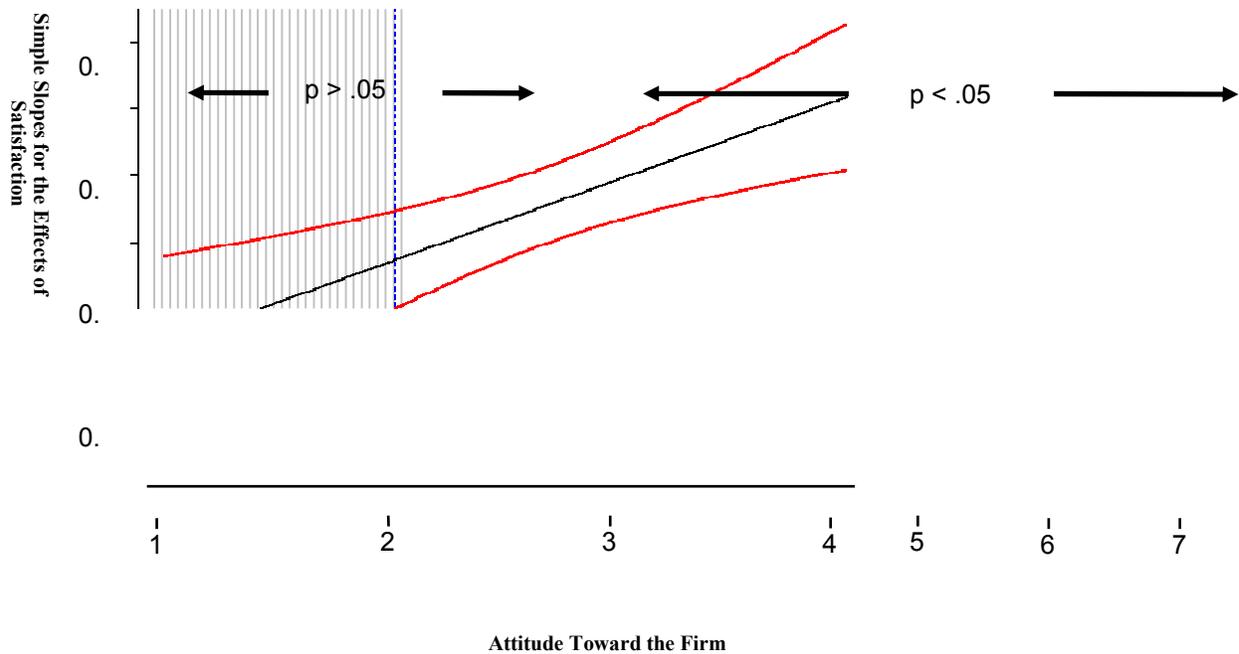
Finally, to demonstrate the consistency of the hypothesized effects across varying conceptualizations of customer satisfaction, we tested H_2 using a cognitive satisfaction assessment rather than Study 1’s emotive measure. The results provided support for H_2 across favorable and unfavorable service

FIGURE 1:
Confidence Bands for Simple Slope Calculations in Favorable Service Transactions:
The Effects of Emotive Satisfaction in Study 2



Notes: Simple slope estimates in the shaded area are not significant ($p > .05$). Simple slopes are significant ($p < .05$) when attitude is less than 6.68. The red bands represent the confidence intervals (95%) around the simple slope estimates.

FIGURE 2:
Confidence Bands for Simple Slope Calculations in Unfavorable Service Transactions:
The Effects of Emotive Satisfaction in Study 2



Notes: Simple slope estimates in the shaded area are not significant ($p > .05$). Simple slopes are significant ($p < .05$) when attitude is greater than 3.02. The red bands represent the confidence intervals (95%) around the simple slope estimates

experiences as adding interaction terms in the regression equations improved the variance explained in behavioral intentions in both samples (favorable transaction: $\Delta R^2 = .009$, $p < .05$; unfavorable transaction: $\Delta R^2 = .021$, $p < .05$). The effect was as hypothesized. Simple slope calculations and regions of significance analysis suggested that in favorable transactions, consumption satisfaction had a positive effect on behavioral intentions across the full range of attitudes, but these effects were significantly stronger when attitudes were unfavorable. For unfavorable transactions, consumption satisfaction significantly influenced behavioral intentions when attitudes were greater than 2.37.

5.7 Discussion

The results of Study 2 replicated Study 1’s findings. The effects were consistent for both emotive satisfaction and consumption

satisfaction. Thus, the results provide robust support for the hypotheses.

6. GENERAL DISCUSSION

The incomplete understanding of how transaction-specific service evaluations affect behavioral intentions represents a critical gap in marketing literature. Based on studies that suggest customer attitudes influence decision-making and behavioral intentions in various contexts (e.g., Bolton & Drew, 1991; Oliver, 1981), the role of attitude in service models is considered to address this gap. The results suggest that the effects of customer satisfaction and service quality depend on customers’ attitude toward the service provider. Specifically, service quality and satisfaction influence behavioral intentions more when they contrast with customers’ global attitudes toward the firm. MRA results from favorable and unfavorable service transactions support this

contention and the results suggest that failure to account for consumer attitudes leads to erroneous interpretations of the influence of satisfaction and service quality on behavioral intentions. Importantly, these relationships hold for both emotive and consumption measures of satisfaction.

6.1 Managerial Implications

The results apply broadly to management, but highlight the need for awareness of the effects of global assessments, such as consumer attitudes, in addition to service quality and satisfaction. Service companies may salvage relationships with consumers having unfavorable attitudes toward their firm by delivering great experiences as the effects of service quality excellence and delight (satisfaction) amplify when consumers have unfavorable attitudes *a priori*. The results suggest, however, that favorable attitudes don't provide a strong buffer against disappointing service experiences. In fact, the effects of poor service on behavioral intentions are strongest for consumers with favorable overall attitudes.

Managing consumer attitudes, satisfaction, and service quality requires research. Post-purchase research, a major source of information for strategic planners (Oliver, 1997), yields greater benefits if consumers' attitudes toward service providers are assessed in addition to evaluations of service quality and satisfaction. Such measurements provide a better understanding of how service evaluations interact and provide a more accurate assessment.

The findings have important implications for firms like Renault and many others rewarding employees based on service quality and satisfaction assessments. Firms using this approach may find that improvements in customer assessments don't yield analogous improvements in behavioral intentions or other outcome measures. Our findings suggest firms gain more from delivering great service when customers enter the transaction with an *a priori* unfavorable attitude toward the firm. This is not to say that firms should foster unfavorable consumer attitudes. This study is intended to provide a better understanding of when and by how much firms can expect the delivery of

great service and customer satisfaction to impact behavioral intentions.

Firms tracking customer dissatisfaction and service failures should not interpret stable behavioral intentions scores as a sign that problems are not worsening. If customers enter transaction with unfavorable attitudes towards the provider the relative effects of a service encounter failure may not significantly impact behavioral intentions. This effect may begin to occur even when customer attitudes are moderate (Figure 2). Alternatively, firms having customers with unfavorable attitudes stand to gain by providing great service experiences. This is a powerful incentive to correct service delivery problems flaws and follow up on customer complaints.

6.2 Research Implications

An objective of this research was to suggest that models of consumer decision making in services failing to account for the effects of attitude may be misidentified. Our results confirm that failure to measure and account for consumers' attitudes toward service providers leads to erroneous conclusions about consumers' decisions. Like most research, our study identifies both questions and answers. The effects of consumer attitudes are considered, but other possible moderators of the customer satisfaction à behavioral intentions and service quality à behavioral intentions relationships should also be assessed. Researchers may consider how factors such as switching costs affect the efficacy of customer satisfaction and service quality initiatives and, ultimately, customer loyalty (Jones & Sasser, 1995). Product involvement, complexity, and other factors may also moderate consumers' willingness to repurchase.

Our results underscore the need to examine contingency effects. A marketing mantra suggests that the right answer in marketing is always "it depends." In current research, the question of why customer satisfaction and service quality perceptions are not always closely related to behavioral intentions is answered; these effects depend on consumers' attitudes toward the service provider. The regions of significance tests and closer inspections of Figures 1 and 2 reveal the effect

of attitude on behavioral intentions is so strong that, at certain levels, service quality and satisfaction effects are no longer significant. This underscores the need for research to re-examine established relationships in the presence of moderating variables. Moreover, the results reveal the efficacy and benefits of conducting regions of significance testing, in addition to simple slope analysis, as a post hoc probing technique for moderation analyses.

6.3 Contributions and Limitations

The results presented are most relevant to service providers that continually measure customer satisfaction and service quality. It is important to note that evaluating quality and satisfaction is not sufficient when predicting customers' intentions. Employee incentive programs and financial projections that are based solely on quality or satisfaction ratings may not be effective because they might not be directly related to customers' behavioral intentions. If consumers' attitudes toward a firm are not considered, predicting behavioral intentions is difficult.

Finally, several limitations need noting. The data were gathered in one region of the United States, so characteristics unique to service consumers in this area may not be generalizable. Additionally, only a select set of service providers were considered. Replication is needed to increase confidence in the results. Furthermore, the field survey method may be a limitation as it precludes attributions of true causes and effects.

7. CONCLUSION

The goal was to present a framework that explains inconsistencies in the effects of customer satisfaction and service quality on behavioral intentions. In doing so, evidence is provided that consumers' attitudes toward a service provider significantly moderate both the satisfaction to behavioral intentions and the service quality to behavioral intentions relationships. The moderating effects of customer attitudes are strong enough to mitigate the effects of service quality and satisfaction completely in certain conditions. Although exceptional satisfaction and service quality may not always drive behavioral intentions, both remain of paramount interest to managers and

researchers. The results confirm the need to provide great customer service, which can dramatically improve behavioral intentions among consumers with unfavorable attitudes.

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**APPENDIX A:
Survey Instrument**

Service Quality: Please circle the number that best reflects your assessment of the service that you received during this transaction.

1. Poor	1	2	3	4	5	6	7	Excellent
2. Inferior	1	2	3	4	5	6	7	Superior
3. Low Quality	1	2	3	4	5	6	7	High Quality
4. Low Standards	1	2	3	4	5	6	7	High Standards

Emotive Satisfaction: Please indicate how you felt about your service transaction on a scale of 1 to 7, where 1 = "Not at All" and 7 = "Extremely":

1. Delighted
2. Joy
3. Elation
4. Pleasure
5. Happiness
6. Enjoyment

Consumption Satisfaction: Please choose the response that best reflects your level of agreement with the following statements, where 1 = "Strongly Disagree" and 7 = "Strongly Agree":

1. I am satisfied with my decision to visit this service provider.
2. My choice to visit this service provider was a wise one.
3. I think that I did the right thing when I visited this service provider.
4. I truly enjoyed my visit to this facility.

Customer Attitude: Please circle the number that best reflects your overall attitude toward the service provider.

1-4. I think visiting this service provider is:								
Extremely Foolish	1	2	3	4	5	6	7	Extremely Wise
Extremely Irrational	1	2	3	4	5	6	7	Extremely Rational
Extremely Unpleasant	1	2	3	4	5	6	7	Extremely Pleasant
Extremely Detrimental	1	2	3	4	5	6	7	Extremely Beneficial
5. My overall attitude toward this provider is:								
Extremely Negative	1	2	3	4	5	6	7	Extremely Positive

Behavioral Intentions: Please indicate your intentions toward this service provider on a scale of 1 to 7, where 1 = "Very Low" and 7 = "Very High":

- The probability that I will visit this service provider again is...
- The likelihood that I would recommend visiting this service provider to a friend is...
- I would classify my loyalty to this service provider as...
- The likelihood that I will say good things about this service provider to other is...

Prior Experience: Please circle the number that best reflects your experience with the firm.

1. My past usage of this facility has been:								
Very Low	1	2	3	4	5	6	7	Very High

CURRENT PERCEPTIONS, PROMINENCE AND PREVALENCE OF SUSTAINABILITY IN THE MARKETING CURRICULUM

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As the sustainability movement continues to gain a foothold in industry, it is imperative that higher education takes an active role in educating future business leaders. This paper seeks to address the prevalence and prominence of sustainability in the marketing curriculum and attitudes of program administrators (department chairs/deans) regarding the importance of including sustainability within marketing programs, the business curriculum and within undergraduate education in general. The sample includes department chairs/program directors of Association to Advance Collegiate Schools of Business (AACSB) schools with undergraduate marketing programs. Rusinko's (2010) model is used to map current undergraduate sustainability offerings in both marketing and business programs. The results help create an understanding of where we are today, and create the need to further investigate how to foster top-down support, faculty expertise and student demand for integrating sustainability in marketing and business courses in the future.

INTRODUCTION

As the primary source of education, research, and creative innovation, universities serve as a key supplier of the talent needed by businesses. Educators bear the critical responsibility of ensuring that students are armed with the skills and knowledge needed to function and, ideally, to thrive in the workplace. However, preparing today's students to solve tomorrow's problems is an increasingly difficult task given our rapidly evolving and expanding global economy. It is imperative that university educators recognize and react to current and future demands within the business environment in order to produce a "product" (i.e., employees) that is adequately suited to these conditions (Eisenhardt & Brown, 1998).

This research acknowledges the vital role of trained employees in the sustainability revolution, and the even greater role of university educators for helping to create this talent pool with appropriate instruction and curricula. To date, the bulk of research within the domain of business sustainability education has focused on the shift within industry and, by extension, among business educators, to

embrace the principles of sustainability. Need recognition has led several authors to develop recommendations for activities, exercises, topics, case examples and other specific additions to the standard curriculum to broaden it in a bottom-up fashion. In parallel, several authors have proposed top-down frameworks of strategic approaches for integrating sustainability content into the curriculum.

This study provides another step forward within the domain of business sustainability education with a preliminary look at the extent and nature of actual progress that has been achieved to infuse the curriculum with the principles of sustainability. Specifically, we ask: to what extent are universities developing and delivering business curricula that addresses sustainability principles and practice? Furthermore, to what extent is sustainability content integrated into the marketing curricula, given marketing's emphasis on adapting business strategy to accommodate shifts in external conditions and customer demands?

As a backdrop to this issue, Friel and McLaughlin (2012) suggest the presence of competing objectives when deans and other leadership within a university consider curriculum change, particularly with regard to adopting sustainability content. These authors note a substantial increase (29.2% in 2009 to 50.5% in 2011) of deans who think it is very

important to hire faculty with expertise in sustainability-related topics. However, they also note a plethora of factors that compromise moving forward with actual change. The aim of this study is to assess the extent to which the perceived importance of sustainability education is consistent with actual integration of content into business program curricula, as well as how this integration is taking place. Implications of this research are intended to guide next steps for advancing sustainability within marketing and business education given the institutional barriers that may be present.

LITERATURE REVIEW

The Sustainability Imperative within Business

Albert Einstein said, “The significant problems we face cannot be solved at the same level of thinking we were at when we created them” (as cited in Dawe & Ryan, 2003). The cumulative effects of population growth, exploitation of energy and natural resources, waste and pollution are straining the limits of the environment to support current levels of consumption. A recent United Nations report noted, “increased levels of human activity are threatening to surpass the Earth’s carrying capacity as a source and a sink” (UN System Task Team, 2012).

Increased mass media coverage and robust scientific validation of environmental degradation have heightened public awareness and concern about the array of long-term implications and the dire need for change. This sentiment is more than a social imperative, it is a growing business imperative as well. According to the 2013 MIT-Sloan Management Review and Boston Consulting Group’s Sustainability Report, nearly 50% of companies have changed their business models as a result of sustainability opportunities, a 20% increase over the previous year. Sources motivating this change include supply chain partners, customers, and employees that are exerting pressure on businesses to make a stronger commitment to sustainable practices and offerings. While there is no legal obligation to prioritize social responsibility, there is a greater likelihood for business leaders to be held accountable for shortsighted activities that may

successfully achieve short term financial or growth goals but sacrifice societal considerations in the process.

Trained Employees are a Crucial Resource

Demand on many fronts for corporate transparency and ethical conduct, coupled with a technologically interconnected and globalized economy, underscores the need for firms to move beyond the traditional measures of success focused on economic responsibility to shareholders and legal compliance. Instead, a firm’s long-term viability increasingly depends upon managing a broader array of ethical and discretionary performance metrics (Werther & Chandler, 2011). Successful transition ultimately depends upon attracting and retaining employees with the essential knowledge and skills to leverage sustainability opportunities into tangible value for the firm (Hart, 2009). While the vital role of trained employees in this process is clear, current methods in use by universities to develop and ensure a reliable supply of qualified candidates is not as well understood.

To help fill this research void, this investigation provides a snapshot of the status of sustainability content in the marketing and overall business curricula from three vantage points: (1) the prevalence of sustainability content in the undergraduate marketing curriculum as well as in other undergraduate business disciplines, (2) the prominence of sustainability content within the marketing major and other business major curricula, i.e. is sustainability featured in courses that are dedicated to this subject or is the content embedded within existing standard courses, and (3) the incidence of student exposure to this content given its status as required or elective coursework. In addition to the nature of sustainability content delivery within the curricula, the study also assesses (4) program administrators/faculty perceived importance of integrating sustainability into the marketing curriculum, into the business curriculum and into undergraduate education in general.

Frameworks for Integrating Sustainability Content

In the United States, some progress has been made within the business school curriculum and within the marketing curriculum in particular to incorporate sustainable business considerations. Several approaches have been proposed to achieve this goal. For example, Bridges and Wilhelm (2008) suggest specific learning points pertaining to sustainable marketing strategies, tactics, products, and communications. Borin and Metcalf (2010) propose a variety of methods for infusing the sustainability principles into the marketing curriculum. The extent to which these recommendations have been adopted is unknown. Likewise, much of the progress that has been made in advancing sustainability in curriculum lies embedded in an assignment, or a course that does not typically make headlines or appear in research journals. It is likely that greater effort is still needed on the part of educators to refocus and align with the push toward greater sustainability within the corporate world and within their current curricula.

The first step in assessing the extent to which sustainability content has been incorporated within the curriculum is to examine recent literature on the subject. In the past several years, a number of studies have been published on the procedural aspects of this puzzle (Benn & Dunphy, 2009; Porter & Cordoba, 2009; Rands, 2009; Roome, 2005; Scott & Gough, 2006; Walker, Gough, Bakker, Knight, & McBain, 2009). Several studies suggest that content integration occurs on a continuum that is affected by conditions such as institutional commitment, faculty expertise, and the availability of resources. Other studies suggest techniques and provide examples of what has worked at a particular college or university. It is clear from this review that there is not a "right" way to infuse sustainability into the curriculum.

Rusinko (2010) presents a coherent and highly actionable matrix of integration strategies that can be applied to the marketing curriculum. Four categories of integration strategies are proposed: (I) Discipline-specific within the existing course structure, (II) Discipline-specific within a new course structure, (III)

Cross disciplinary within an existing course structure, and (IV) Cross-disciplinary within a new course structure (See figure 1).

The matrix is a flexible tool that faculty can use to assess their current efforts and/or plan for future curricula expansion. An overview of these strategic options along with their corresponding advantages, disadvantages and suggestions regarding conditions for adopting each approach are presented in Rusinko (2010) and summarized as follows.

- Strategy Option (I) integrates sustainability into existing courses, minors, majors or programs. It is cited as being the easiest to implement and requires minimal resource demand. An example of this option would be a faculty member incorporating a module on sustainability into their existing supply chain or consumer behavior course. While it would allow students some exposure to the topic, it would simply provide a conceptual overview as opposed to an in-depth investigation. The purpose and learning objectives of the existing course would not center solely on sustainability related issues. One advantage is that a faculty member need not be expert on the topic to introduce a module on sustainability in their existing courses. In fact, a number of marketing specific articles have been published with suggestions of learning activities that can be incorporated to existing course (Rusinko, 2010; Borin & Metcalf, 2010). A disadvantage is the limitations imposed by trying to fit new content into an existing course structure that may not be able to accommodate it. Where the two content areas do not align, important facets of sustainability may not be adequately covered or dropped completely. As a result, full integration of sustainability content may not be achieved
- In Strategy Option (II), a new discipline-specific course, minor, major or program is created. This offers both an independent identity and a more standardized approach to sustainability within marketing. An example of this would be a stand-alone course in green marketing or sustainable marketing. This option does allow for a more in-depth investigation into the

**FIGURE 1:
Integration Framework**

Focus	Delivery	
	Existing Structures	New Structures
Narrow (Discipline-Specific) Curriculum	I. Integrate into existing course(s)	II. Create new discipline-specific sustainability course(s)
Broad (Cross-Disciplinary) Curriculum	III. Integrate into common core requirements	IV. Create new, cross-disciplinary sustainability course(s), minor(s), major(s), program(s)

interaction of marketing and sustainability and would likely result in a greater depth of understanding of the topic within the discipline. Perhaps the biggest barrier to this model is the need for resources, as this option would require either faculty expertise or a team-teaching approach to compliment different areas of expertise.

- Some believe that while a stand-alone course offers benefits, sustainability education needs to be incorporated in a more holistic way across disciplines. In Strategy Option (III), sustainability concepts are infused across disciplines into existing, often-common core requirements. Sustainability does lend itself to interdisciplinary exploration, and this option greatly increases the chance that students will have exposure to the topic. An example of this would be including a module on sustainability in Principles of Management, Micro/Macro Economics, Principles of Accounting and/or other common core courses within the college of business. The key difference between Option I (content incorporated into an existing course in the discipline) and Option III (content incorporated into an existing course across disciplines) is the frequency of exposure as well as the sheer number of students exposed. Given that

many institutions require all business majors to take core classes, exposure would not be limited to marketing majors. The disadvantages are the likely need for college-wide administrative support and departmental buy-in for its successful implementation.

- Strategy Option (IV) creates new cross-disciplinary (within the college of business) courses, minors, majors or programs. As with Strategy Option (III), this approach is likely to result in large numbers of students gaining exposure to sustainability concepts, but would require the most significant resources and support as compared with the other strategic integration options. For a successful cross-disciplinary implementation and the creation of new offerings, infusing sustainability would need to be a business school priority and effort.

The framework developed by Rusinko (2010) serves as the basis for examining the (1) prevalence, (2) prominence, (3) incidence, and (4) importance of exposure to sustainability content in marketing and in other business discipline curricula.

METHODOLOGY

Sample

Several useful resources exist today for documentation of where and how well sustainability principles are disseminated (e.g., AASHE, Aspen Institute). However, the vast majority of this archived information pertains to graduate level education. This research assesses sustainability coverage at an earlier stage in the student's career, at the undergraduate level of education. This focus is inspired by the 1990 Talloires Declaration which establishes sustainability as "the context for all undergraduate learning" (University Leaders for a Sustainable Future, 2007). This vision has important implications for business school programming, suggesting that a sustainability-focused graduate degree may simply come too late in the game to be truly effective. Instead, a younger target audience may be necessary to fully realize and embrace a sustainable business paradigm that emphasizes people and planet as well as profits.

To gauge the overall prevalence of sustainability education within the marketing discipline and business programs overall, the sampling frame of institutions accredited by the Association to Advance Collegiate Schools of Business (AACSB) was selected. AACSB is the most longstanding and recognized professional accreditation a business program can earn. The AACSB standards challenge educators to pursue excellence and continuous improvement in their business programs. In fact, "93% of surveyed schools reported that AACSB Accreditation has a continuous positive effect on ongoing curricula development, program design, and delivery methods" (<http://www.aacsb.edu/aacsb-accredited/students/>). Specifically within the AACSB accreditation standards, standard 15 relates to the management of curricula. In order to gain and maintain accreditation, each school must demonstrate that they have a well-documented, systematic process to develop, monitor, evaluate and revise the curricula of degree programs, including inputs from all appropriate constituencies. This provided the rationale behind the sampling decision, given that each AACSB school is held accountable for this standard. AACSB-accredited schools

represent the leading edge in the future of business education and, as such, are a particularly valid indicator of how and where sustainability-focused business pedagogy has evolved.

The survey sample was developed in three phases of collaborative effort. First, the full listing of 653 AACSB-accredited institutions was assembled from the AACSB publically available website (www.AACSB.com). Second, the list was pared down to only include those institutions with a currently active undergraduate marketing program. Third, the list was further pared down to include only those institutions with an identifiable and reachable marketing department chair or dean. The resulting population was comprised of 548 marketing program administrators presumed to have knowledge of their own program's content as well as a working knowledge of the other business programs in the college.

Procedure

Research has shown that with online surveys, the most important factors to consider are follow-ups, incentives and length and presentation of the questionnaire (Dillman, 2000). These findings were incorporated into the survey methodology. Each prospective respondent received an email invitation to complete the online survey. The email contained a brief description of the project, assurances of confidentiality, an optional incentive to participate (the individual could choose to be included in several random drawings for gift cards) and a web link to click on to be taken to the online survey.

RESULTS

The survey contained a total of 15 questions including classification questions (see Appendix for survey questions). A total of 51 marketing faculty/administrators completed the survey to yield a response rate of 10.75%. The sample size is sufficient for deriving generalizable results as the rule of thumb for conducting statistical analysis calls for a minimum sample of 25-30 observations (e.g., Hogg & Tanis, 2005). Validity and internal consistency of results is further supported by the assumption that the sample is sufficiently

representative of the intended population (e.g., no significant differences in sample classification data were found between early and later responders, related to the timing of reminder invitations to participate, or other potential sources of systematic error or methodological bias). Additionally, the effect size must be of sufficient power to be detected within a small sample size. The analyses utilized in this investigation are of two types: (1) descriptive in nature and thus not dependent upon parameter estimates in relation to effect size, and (2) independent sample mean score comparisons that take the sample size and standard error of the mean into consideration (significant differences were obtained; see results below).

Prevalence of sustainability content

Slightly more than half of respondents (54.9%) report that they do not currently integrate sustainability content into the marketing curriculum. Slightly less than half of respondents (47.1%) report that they do not currently integrate sustainability content into the business curriculum.

Prominence of sustainability content

About 1/3 of respondents (33.3%) offer sustainability content as a module within one or more courses in the marketing curriculum (Strategy Option I) while about 1/6 of respondents (15.7%) offer a dedicated sustainability course within the marketing curriculum (Strategy Option II). Two respondents offer both dedicated courses and modules within the marketing curriculum (both Strategy Options I and II).

Over 1/3 of respondents (39.2%) offer sustainability content as a module within one or more courses within their business curriculum (Strategy Option III). About 1/5 (19.6%) of respondents offer a dedicated sustainability course within their business curriculum (Strategy Option IV). Three respondents offer both dedicated courses and modules within the business curriculum (both Strategy Options III and IV).

Of the respondents who offer sustainability content using multiple integration strategies

within a discipline-specific or cross-disciplinary context, only one respondent indicated the presence of all four integration strategies (I, II, III, and IV) at their institution (see Table 1).

Incidence of student exposure to sustainability content

A total of 49 marketing courses were reported as containing a sustainability-oriented module (Strategy Option I). Almost 2/3 of these exposures (63.3%) are required undergraduate courses. The remainder of exposures were within elective courses (22.4%) or not labeled (14.3%; see Table 2).

A total of 16 marketing courses were reported as dedicated to sustainability content (Strategy Option II). Over 1/2 of these exposures (56.3%) are required undergraduate courses. The remainder of exposures were elective courses (43.7%; see Table 3).

A total of 37 business courses were reported as containing a sustainability-oriented module (Strategy Option III). The management program was by far the most likely program to include courses with embedded sustainability-oriented content (43.2% of incidence). Corporate strategy and economics programs had the next highest incidence of courses with sustainability-oriented content (18.9% each; see Table 4).

A total of 18 business courses were reported as dedicated to sustainability content (Strategy Option IV). Table 5 presented the variety of titles for these courses, some titles reported by multiple respondents. Note that the required versus elective status of business courses dedicated to sustainability or containing sustainability modules was not assessed in the survey, as it was determined that the sample population would not be likely to have sufficient knowledge of the nuances of each business program's requirements. Instead, simple incidence of sustainability exposure within the business curriculum was assessed at a higher level of abstraction to ensure validity of responses.

TABLE 1:
Prevalence and Prominence of Sustainability Content in the Curriculum

Sustainability content within:		Modules in courses	Dedicated courses	None	Not sure
Marketing Curriculum	Strategy	I.	II.		
	Count	17	8	21	7
	%	33.3%	15.7%	41.2%	13.7%
Business Curriculum	Strategy	III.	IV.		
	Count	20	10	11	13
	%	39.2%	19.6%	21.6%	25.5%

TABLE 2:
**Incidence of Exposure to Sustainability
 Modules in the Marketing Curriculum (Strategy Option I)**

Marketing Courses with modules	count	%required	%elective	%missing
Principles of Marketing	12	100.0%		
Marketing Management	8	87.5%		12.5%
Marketing Research	2	100.0%		
Consumer Behavior	3	66.7%		33.3%
Product Branding	2	100.0%		
Communications Promotion	3	33.3%	66.7%	
Marketing Strategy	5	60.0%		40.0%
Global International Marketing	6		66.7%	33.3%
Retail/Wholesale	2		50.0%	50.0%
Selling Sales Management	1	100.0%		
Entrepreneurship	2		100.0%	
Other:	3	33.3%	66.7%	
Supply Chain Logistics (requ.)				
MKT & Society (elec.)				
Guerrilla Marketing (elec.)				
		%required	%elective	%missing
total	49	63.3%	22.4%	14.3%

Note: Multiple mentions per respondent allowed.

TABLE 3:
Incidence of Exposure to Dedicated Sustainability Courses
in the Marketing Curriculum (Strategy Option II)

Incidence of Sustainability-Dedicated Marketing Courses	count	% of incidence
Required	9	56.3%
Elective	7	43.7%
Examples:		
Sustainability and System Dynamics		
Sustainable Pathways		
Societal Issues		
Small Business Sustainability Consultation		
Marketing and Social Issues		
Marketing: Advanced Topics		

Note: Multiple mentions per respondent allowed

TABLE 4:
Incidence of Exposure to Sustainability Modules in the Business Curriculum (Strategy Option III)

Business Programs with Course modules	count	incidence
Management program courses	16	43.2%
Corporate Strategy program courses	7	18.9%
Economics program courses	7	18.9%
Accounting program courses	2	5.4%
Information Technology program courses	2	5.4%
Finance program courses	1	2.7%
Other programs:	2	5.4%
Operations & Supply Management		
Entrepreneurship		
total	37	

Note: Multiple mentions per respondent allowed.

**TABLE 5:
Incidence of Exposure to Dedicated Sustainability Courses
in the Business Curriculum (Strategy Option IV)**

Incidence of Sustainability-Dedicated Business Courses
(18 total mentions; some course titles repeated.)
Sustainability and Environmental Management
Personal & Professional Development: Leadership Sustainability Focus
Fundamentals of Sustainability
Sustainability and System Dynamics
Environmental Economics
Green Management
Business Governance & Corporate Social Responsibility
Sustainable Global Human Resource Management
Sustainable Economics
Ethics and Social Responsibility
Corporate Responsibility and Legal Issues in Sustainability
The Sustainable Organization

Note: Multiple mentions per respondent allowed

Importance of sustainability content

Perceived importance of including sustainability-oriented content within the marketing curriculum, the business curriculum, and undergraduate education overall was examined overall and by respondent group. Groups were defined as those pursuing Strategy Option I (offering sustainability-oriented modules within marketing courses), Strategy Option II (offering dedicated sustainability courses within the marketing curriculum), no strategy or unknown strategy (see Table 6).

With regard to the marketing curriculum, Strategy Option II group rated the importance of sustainability education significantly higher as compared with the No Strategy group. With regard to the business curriculum, both Strategy Option I and II groups rated the importance of sustainability education significantly higher as compared with the No Strategy group. Lastly, with regard to undergraduate education overall,

Strategy Option I and II groups rated the importance of sustainability education significantly higher as compared with the No Strategy group.

DISCUSSION

This investigation represents a new phase in the effort to align business education with the needs of the new economy. As companies recognize their obligation to adopt a triple bottom line vision for the future, tangible progress toward this goal depends upon an updated workforce with relevant knowledge, skills, abilities, and a passion for making this vision a reality. As such, universities play a key role in preparing their students for the urgent challenges that await them in the new economy.

The most striking insight from this investigation is the minimal progress that has been made within roughly half of the sample

TABLE 6:
Perceived Importance of Integrating Sustainability into the Curriculum

Respondents with:		Importance of Sustainability Content in ...		
		Marketing Curriculum	Business Curriculum	Undergraduate Education
Modules within marketing courses (Strategy Option I)	Mean	5.47	5.40 ^a	5.27 ^a
	N	15	15	15
	SD	1.685	1.242	1.033
Dedicated marketing courses (Strategy Option II)	Mean	6.50 ^a	5.63 ^a	5.88 ^a
	N	8	8	8
	SD	0.756	1.408	0.835
None (no Strategy)	Mean	4.67 ^b	4.10 ^b	4.33 ^b
	N	21	21	21
	SD	1.713	1.446	1.528
Not sure (Unknown Strategy)	Mean	5.57	5.14	5.00
	N	7	7	7
	SD	0.787	1.215	0.577
Total	Mean	5.31	4.86	4.94
	N	51	51	51
	SD	1.594	1.47	1.302
	F	3.081*	3.983*	3.74*
	p	0.036	0.013	0.017

Overall F tests were significant for each measure of importance. Superscripts a and b designate post hoc multiple comparison mean score significant differences (LSD criteria).

surveyed. Given the rapid expansion of the green movement, increased concern about social inequity, intensified scrutiny of corporate accountability and heightened interest in other corollaries of the sustainability revolution, it would seem highly unlikely for any business school to avoid adopting some sustainability programming in some fashion. However,

nearly 1/2 of respondents (41.2%) do not currently infuse sustainability into their marketing curriculum. Less than 1/4 (21.6%) report a lack of sustainability content in the broader business curriculum, however this proportion is still surprisingly large. Coupled with the fact that a sizable proportion of respondents are not sure if efforts are being

made within the marketing curriculum (13.7%) or business curriculum (25.5%), there is considerable room for improvement.

As previously stated, Friel and McLaughlin (2012) identified a host of barriers that can exist at the institutional, departmental or faculty level when considering and adopting sustainability content within programs of study, such as insufficient faculty expertise, weak faculty support, resource constraints and incompatible curricula issues. The authors propose tactics for overcoming internal and external pressures to maintain status quo. Their suggestions include pressure from alumni with interests in sustainable enterprise, student demands for more relevant post-graduate preparation, the availability of sustainable job placement opportunities, and efforts to win institutional support in the form of grants, foundation allocations, and other sources of funding that require demonstration of sustainability-oriented pursuits. Any or all of these factors could be present in the current study as disruptive forces between recognizing and acting upon the perceived importance of adopting sustainability content.

Research should investigate other tactics for overcoming potential sources of inertia. Several barriers previously mentioned are external in nature; faculty expertise or the lack thereof is an internal factor. The Friel and McLaughlin (2012) finding of increasing demand for faculty with sustainability-related expertise is encouraging. However it would be useful to develop tangible methods for assessing the breadth and depth of sustainability-related expertise among faculty candidates, as well as best practices for updating the skill sets and expertise within the existing faculty ranks.

It is possible that students are not demanding change in sufficient numbers or urgency due to inadequate awareness of the vast array of job opportunities increasingly available in the green sector. Post-graduation employment is a high anxiety topic for many students, thus greater awareness of sustainability-oriented employment opportunities might help them find a voice to demand change. This type of career development initiative is likely to require partnering with alumni or local firms who value sustainability and would appreciate a supply of

candidates with solid preparation in this area. Career Services staff are also an important resource as they could provide a greater understanding of the opportunities available to students as they choose their majors and future career paths.

Of those institutions that do incorporate sustainability both into marketing and general business classes, differences exist in their execution and strategy. Nearly 1/3 of respondents note that they offer modules in existing marketing courses (Strategy Option I in the Rusinko matrix). According to the results, module integration is occurring primarily in Principles of Marketing, Marketing Management, Marketing Strategy and International Marketing. Many of these courses are required for the major, a finding that supports its "prominence" within the program and guaranteed exposure to the topic. Other courses with sustainability modules are primarily elective offerings and likely to occur later in a student academic career, which equates to less prominence for the topic. In short, sustainability content has reasonable prominence, i.e. likelihood of student exposure, within the marketing major when it is available at all.

On the business curriculum side, management, economics and corporate strategy programs are the primary vehicles for integrating modules of sustainability-related content into cross-disciplinary/core courses (Strategy Option III in the Rusinko matrix). These findings offer preliminary evidence of a sustainability trend across business disciplines, giving a greater number of students some exposure to its component parts without the need to develop new curriculum structures. The diversity of where sustainability content is placed across the business program suggests that it is likely to be encountered at an early point in the student's academic career and thus may trigger both interest and further inquiry. Future research should address the prominence, i.e., guaranteed exposure, to the content within these business courses and the depth of coverage that is achieved.

Survey findings indicate a small number of institutions offer dedicated sustainability courses within the marketing program (Strategy

Option II in the Rusinko matrix, pursued by 15.7% of respondents) and within the business curriculum in general (Strategy Option IV in the Rusinko matrix, pursued by 19.6% of respondents). These courses were reported to be a mix of new courses (Societal Issues, Sustainable Marketing, Advanced Topics) and special sections of existing courses (Retailing, Channels, Principles of Marketing, Consumer Behavior). It is significant to note that the majority of these dedicated courses are required for the marketing major (56.3%). Within the college of business, 18 instances of courses dedicated to sustainability were reported (examples of course titles include Sustainability and Environmental Management, Sustainability and System Dynamics, Green Management, Environmental/Sustainable Economics). It is not known what proportion of these dedicated courses are required for business majors. Regardless, these findings suggest a commitment by presiding marketing and business program directors to immerse students deeply in sustainability concepts, by choice or by design, for an entire course. Among other benefits, this type of experience would ideally provide a competitive advantage to students when seeking employment.

The survey did not reveal any evidence of new cross-disciplinary programs oriented toward sustainability being offered at the undergraduate level, however it may be too soon to see this type of innovative programming. Over time, majors and minors in business sustainability at the undergraduate level could be quite commonplace. Current literature corroborates these findings, as cross-disciplinary work tends to reside in an MBA-level certificate program or concentration.

It comes as no surprise that department chairs/administrators who placed a stronger value on sustainability were more likely to have dedicated sustainability courses in the marketing curriculum. This begs the question as to whether their support is an antecedent or consequence of integration. Those that had discipline-specific courses report significantly higher mean perceived importance of sustainability content within the marketing curriculum (mean $x = 6.50$) as compared to those without such offerings (mean $x = 4.67$) on a 7-point Likert scale. A similar pattern of

results is found when judging the importance of sustainability content within the business curriculum and the undergraduate curriculum overall, as ratings by respondents with dedicated or integrated modules are significantly higher than ratings by those without such offerings. Further research on the role administrators played in championing integration would be of interest to both department chairs and faculty alike. The literature references both top-down sustainability initiatives and grass root efforts. Even if faculty are the driving force behind integration, if resources are involved they likely to need the support and approval of department chairs/administration. Department chairs also would play a role in defining criteria for new hires, which, in turn, increases the odds for integration.

Overall the findings indicate that there is a presence of sustainability in the curriculum, but it does not yet appear to be a high priority for many institutions at this time. It can be concluded that faculty resources, student demand and administrative support are likely antecedents to integration. Those who rated sustainability as being important had modules and courses, while those who did not rank sustainability as a priority, did not. While this appears to be common sense, it does lend insight into how to build and grow integration efforts. If attitude is an antecedent to course integration and development, we must begin to address it. Given that most of the quadrants require (or are more successful with) top-down support, these findings indicate that we must create a convincing argument to administration for these endeavors if sustainability is to find a foothold as well as longevity within marketing and business curricula.

LIMITATIONS OF THIS RESEARCH

Limitations of this research include both the sample size and the type of institutions surveyed. While AACSB schools are credited as being on the leading edge of curriculum development there are likely non-accredited schools making significant progress on sustainability integration. Likewise a 10.75% response rate may or may not be a representative sample of AACSB schools. Although effort was taken to target

marketing department chairs or deans in the absence of a chair, a relatively high number of respondents were unsure if sustainability efforts were being undertaken. This uncertainty may be due to respondents' high level view of the content covered by curricula within their department. Perhaps a sample of faculty may be needed to report upon the specifics of instructional efforts in the classroom.

It is also possible the current definition of sustainability itself is inadequate for enabling respondents to frame their department's coverage of concept. The survey introduction provides the most commonly cited definition of sustainability, derived from the Brundtland Report, as: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987). This definition is more philosophical than tangible, as it lacks specificity regarding the core topics one would expect to cover when teaching the principles of sustainability (Daly, 1996). Respondents may be more familiar with the notion of a "triple bottom line" in business that emphasizes environmental, economic and social equity measures of business performance. As noted by several authors, congruence between core sustainability-related concepts and the triple bottom line is not well articulated or widely available in instructional materials (e.g., Borin & Metcalf, 2010; Bridges & Wilhelm, 2008; DeMoss & Nicholson, 2005). This lack of clear alignment could reflect some degree of measurement error in this research. To close this potential gap, future research should pursue development of an integrated typology of sustainability concepts and alignment of these concepts with the triple bottom line of business performance as well as associated learning objectives. A comprehensive framework is needed to create a more coherent approach for effectively situating sustainability principles within the business curriculum and assessing relevant outcomes.

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APPENDIX: Sustainability in the Marketing Curriculum

Thank you for taking a few moments to complete our survey. The following 10 questions ask you to describe the extent to which the principles of sustainability are included in the undergraduate marketing, business, and university curriculum at your institution. You will also be asked your opinion about the importance of addressing sustainability in the context of a marketing, business and general education, and any goals or initiatives being considered for delivering sustainability-related content in the future.

For the purpose of this survey, sustainability is defined as “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987). From a business marketing perspective, sustainability can be understood in terms of a company’s triple bottom line of environmental, economic and social equity performance.

The Marketing Curriculum and Sustainability

Do any of the courses in your undergraduate marketing program address the principles of sustainability, in their entirety or as a course module?

- Yes, modules within one or more courses address sustainability issues in marketing
- Yes, one or more entire courses address sustainability issues in marketing
- No, our undergraduate marketing program does not include entire courses or course modules that address sustainability issues in marketing
- Not Sure

(skip pattern if Yes, modules within courses dedicated to sustainability)

Please check the names of the courses with modules that address sustainability issues in marketing. Please indicate if each course is a required or elective offering.

	Required	Elective
Principles of Marketing	<input type="checkbox"/>	<input type="checkbox"/>
Marketing Management	<input type="checkbox"/>	<input type="checkbox"/>
Marketing Research	<input type="checkbox"/>	<input type="checkbox"/>
Consumer Behavior	<input type="checkbox"/>	<input type="checkbox"/>
Product/Branding	<input type="checkbox"/>	<input type="checkbox"/>
Communications & Promotion	<input type="checkbox"/>	<input type="checkbox"/>
Marketing Strategy	<input type="checkbox"/>	<input type="checkbox"/>
Services Marketing	<input type="checkbox"/>	<input type="checkbox"/>
Global/International Marketing	<input type="checkbox"/>	<input type="checkbox"/>
Retail/Wholesale	<input type="checkbox"/>	<input type="checkbox"/>
Selling/Sales Management	<input type="checkbox"/>	<input type="checkbox"/>
Entrepreneurship	<input type="checkbox"/>	<input type="checkbox"/>
Other (<i>please list</i>):	<input type="checkbox"/>	<input type="checkbox"/>

(skip pattern if Yes, entire courses dedicated to sustainability)

Please list the names of the courses that are entirely dedicated to sustainability issues in marketing. Please indicate if each course is a required or elective offering.

Required	Elective
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

The Business Curriculum and Sustainability

Do any of the undergraduate business courses offered at your university address the principles of sustainability, in their entirety or as a course module?

- Yes, modules within one or more business courses address sustainability issues
- Yes, one or more entire business courses address sustainability issues
- No, our undergraduate business program does not include entire courses or course modules that address sustainability issues
- Not Sure

(skip pattern if Yes, modules within business courses dedicated to sustainability)
Please check which business disciplines offer courses with modules that address sustainability issues.

(skip pattern if Yes, entire courses dedicated to sustainability)
Please list the names of the courses in other business programs that are dedicated to sustainability issues.

The Importance of Teaching Sustainability in the Marketing, Business, University Curricula

To what extent do you feel that it is important to address sustainability issues in marketing education?
Rate on a 1 to 7 scale where 1 = not at all important and 7 = extremely important.

How do you think the Business School rates the importance of addressing sustainability issues in business education? *Rate on a 1 to 7 scale where 1 = not at all important and 7 = extremely important.*

How do you think the University rates the importance of addressing sustainability issues in undergraduate education? *Rate on a 1 to 7 scale where 1 = not at all important and 7 = extremely important.*

Plans for Teaching Sustainability

Please describe any initiatives under consideration for changing, expanding, or revising how the principles of sustainability are currently being addressed within the marketing curriculum, business curriculum, or university curriculum in general at your institution.

The following questions are for classification purposes only.

Is your university public or private? Public Private

Approximately, how many students are marketing majors? _____

Approximately, how many students are enrolled in the business school? _____

Approximately, how many students are enrolled in the university? _____

How many faculty teach in the undergraduate marketing program? _____

How many faculty comprise the school of business? _____

Please provide the name of your institution (optional): _____

Thank you!

SEARCHING FOR THE ORIGINS OF CONSUMER ETHICS: BRIDGING THE GAP BETWEEN INTUITIVE VALUES AND CONSUMER ETHICAL JUDGMENTS

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In a cross-sectional survey study, links between two prominent measures of values structures and consumers' attitudes – Haidt's Values Model and Muncy and Vitell's Consumer Ethics Scale – are examined to test the general presumption of the role of intuitive processes in shaping attitudes. Three of the five "values pools" depicted in Haidt's model are positively linked to attitudes about recycling, doing good, actively and passively benefitting from unethical activities, activities of questionable ethicalness, and activities deemed "no harm no foul."

INTRODUCTION

Over the past few decades, business ethics researchers have labored to produce a body of theoretical and empirical research to illuminate the process of ethical decision making in business. Unquestionably, the predominant stream in this endeavor is the rational decision making approach, characterized by the most widely-accepted models of decision making, including the Hunt & Vitell (1986; 1993) model, the Treviño (1986) model, the Ferrell & Gresham (1985) model, and the literally dozens of investigations drawing upon these. Increasingly, however, observers and researchers inside and outside of academia have begun to question the primacy of rationality in ethical decision-making and elsewhere (Freestone & McGoldrick, 2007; Haidt, 2001). Perhaps in response to this, researchers have begun to investigate more intuitive approaches to understanding ethical decision making, drawing particularly on the roles of values, emotions, and intuitive responses, and using such diverse techniques as values inventories and more recently, brain imaging and fMRI technologies (see, for example, Greene, Sommerville, Nystrom, Darley & Coehen, 2001; Helmuth, 2001).

An important implication of these trends is that there appear to be distinct processes at work in ethical decision making, and more significantly,

that these processes work in tandem to influence ethical decision making. The purpose of the present study is to examine whether and how intuitive processes underpin the ostensibly cognitive, rational processes that go into decision making, using validated, generally available measures of each. Following the general position that intuitive processes such as values and emotions precede rational cognitive thought (D'Amasio, 1994; Haidt, 2001; 2006; Kahneman & Frederick, 2002; Sunstein, 2005) this study aims to identify specific linkages between these two poles. At the same time, it is expressly not an aim of this study to promote one understanding of the ethical decision-making process at the expense of the other. Indeed, it is argued most persuasively by D'Amasio (1994) and others (e.g. Bartsch & Wright, 2005; Sunstein, 2005) that the two processes – the intuitive and the rational – are interdependent for effective problem solving, whether the context is ethical decision making in business or in life, generally. Most of the focus of the literature discussion in this study is on the intuitive side of ethical decision-making, with only limited attention to the better-understood rational side of the process.

VALUES AND INTUITIVE PROCESSES IN ETHICAL DECISION MAKING

Although values and emotions have been the subject of much recent research in ethics, the topic is not a new one. Hume, for example, argued that morality can never be grasped by reason alone; that we have certain benevolent sentiments that can't be reduced to self-interest

(Hume, 1751). Dewey (1932) identified a “direct sense of value” – as opposed to a consciousness of general rules or ultimate goals – which operates as a running commentary to stamp objects at once as good or evil (p.274). More recently, Wilson (1993) has identified the presence of a “moral sense;” an intuitive or directly-felt belief about how one ought to act, listing among these moral senses sympathy, fairness, self-control, and duty. In the marketing literature, Vitell, Bing, Davison, Ammeter, Garner, & Novicevic (2009) introduced the construct of “moral identity,” and conclude that the rational view of moral motivation based on reasoning alone is insufficient to explain moral actions.

Values are clearly central to our discussion of ethical decision making. They are defined in a variety of ways: as “enduring beliefs about desirable end-states and behaviors that transcend specific situations” (Schwartz & Bilsky, 1987; Urbany, Reynolds, & Phillips, 2008); so deep-seated as to be invisible but for the way they manifest themselves in opinions, attitudes, preferences, etc. (Posner, 2009). These preferential standards can be used to resolve conflicts existing along a continuum of relative importance (Rokeach, 1973) and ultimately coalesce into values systems, which researchers define as normative beliefs about proper standards of conduct and preferred or desired results (Nystrom, 1990; Rokeach, 1973).

Previous research has investigated the linkages between values and consumer behavior constructs, including consumers’ motives, personal values, ethical ideologies, and ethical beliefs (e.g., Freestone & McGoldrick, 2008; Homer & Kahle, 1988; Steenhaut & van Kenhove, 2006). Other studies have examined the connection between personal values and moral reasoning of undergraduate business students (Lan, Gowing, McMahon, & King, 2007); between personal values and fair trade (Doran, 2009), sustainable business practices (Ng & Burke, 2010), organizational decision making (Fritzsche & Oz, 2007), and shopping attitudes and behaviors (Shim & Eastlick, 1998), to name but a few of the dozens of studies done in this area. Clearly, the list of specific values relevant to ethical decision making is long, and summarizing the values

literature is not a goal of this study. While some have suggested that values are both “poorly conceptualized and poorly measured” (Hitlin & Piliavin, 2004), Hunt & Vitell (1993) emphasize the “unquestionable impact of an individual’s value system in the (ethical) decision process and urge researchers to explore “many different values” and their various impacts on ethical decision making.

INTUITION

Perhaps a better way to conceive of values is to construe them as a particular form of intuitive response; an expression of and motivation for the fulfillment of basic human needs to sustain the individual’s biological and social functioning (Lan, et al., 2007). In philosophy, “Intuitionism” holds that there are moral truths, and when people grasp these, the process is more one of perception than reflection. In a similar vein, (Haidt, 2001; Haidt & Joseph, 2004) attribute the sudden appearance in consciousness of a moral judgment, without prior searching, weighing of evidence, or inferring a conclusion as intuitive response. MacIntyre (1981) identifies something similar in the ethical theory of “emotivism;” that the emotivist’s moral judgments are purely non-rational, expressions of attitude or feeling, devoid of factual judgments (p. 12). In a comprehensive review of ethical decision making research, Tenbrunsel & Smith-Crowe (2008) report substantial evidence supporting the intuitionist view of ethical decision making. One example given is that of Haidt, who argues against the supremacy of reason in ethical decision making (2001). Haidt maintains that moral judgments are often made quickly and on the basis of intuition; reasoning itself is basically a *post hoc* justification for intuitive responses (Haidt, 2001; Haidt & Joseph, 2004; Tenbrunsel & Smith-Crowe, 2008).

Probably the best explanation of the tandem processes of rationality and intuition comes from Kahneman & Frederick (2002), who posit that two families of affective and cognitive operations – Systems I and II – can be distinguished. System I is “...intuitive, rapid, effortless, and automatic” while System II is “reflective, slower, self-aware, calculative, and deductive.” System I supplies “quick answers” to judgment problems; System II is a monitor

that confirms and/or overrides System I judgments (Sunstein, 2005). Occasionally, System I supplies a heuristic, for example, the incest taboo, that may or may not be subject to override by System II. In those cases where System II doesn't override System I, the individual cannot, or does not, seek or offer rational explanations for moral judgments, resulting in a sort of "moral dumbfounding" (Haidt & Joseph, 2004).

Although Sunstein's position is that heuristics and intuitive responses usually result in errors of logic and fact, others have questioned this assertion. Bartsch & Wright (2005) suggest that intuitive responsiveness may actually be the product of expertise, of knowledge gained through experience, brought rapidly, effortlessly, and automatically to the decision context. Such a well-functioning intuitive system produces "moral sensitivity" that relies on experience as opposed to heuristics to produce moral maturity. Experience also plays a role in Faber's (1999) account of intuitionism; it is the routinized aspects of daily life, offering not an objective or impartial tool for judgment and decision making, but instead a "composite of cultural lessons that carry with them political judgments representing specific values and ideologies" (Faber, 1999, p. 193). This routinization – the result of trust and security derived from the repetitive nature of day-to-day life and the familiarity it provides – allows individuals to quickly and easily face the decisions of daily life, with important assumptions and choices made without critical reflection (Faber, 1999).

MEASURES OF VALUES AND ETHICAL JUDGMENTS

In his research on values and intuitive responses to ethical dilemmas, moral psychologist Jonathan Haidt has proposed and developed a model of five psychological systems – sometimes referred to by Haidt as "values pools" that provide a basis for much of moral reasoning (Haidt, Kotler, & Dias, 1993; Haidt 2001; 2006; Haidt & Graham, 2007; Haidt & Joseph, 2004). Following Schweder (1990), who identified a schema of three fundamental moralities: an "ethic of autonomy" emphasizing rights, justice, and freedom, an "ethic of community" emphasizing institutions,

families, tribes, etc., and an "ethic of divinity" to protect the soul and spirit from degradation, Haidt's model proposes that social and cultural influences engender specific intuitive responses when individuals are faced with moral and ethical issues. These responses are evaluative feelings – feelings of like/dislike, good/bad – that appear without any conscious awareness of having searched for evidence, evaluated the facts, or reflected on the consequences (Haidt, 2001). Haidt & Graham (2007) have labeled these five values pools as harm, reciprocity (in other studies, aka "fairness"), ingroup, hierarchy, and purity.

To summarize briefly, Haidt draws on various sources in philosophy, psychology, anthropology, and elsewhere to establish the conceptual underpinnings of his model. The "harm" construct (sometimes referred to in Haidt's work as "harm/care") is deeply rooted in the thought of Hume, making the similar argument that people everywhere have an innate sensitivity to cruelty and harm (in the same way a taste bud responds to bitterness) and at the same time express approval toward those who relieve or prevent harm (Haidt & Graham, 2007). "Reciprocity" is founded on the idea that all cultures exhibit "developed virtues related to fairness and justice," and these play out in the valuation of individual rights and equality. "Ingroup" expresses the importance of social cohesion within small communities; the idea that humans have evolved in kin-based groups, being wary and distrustful of other groups, always valuing those who sacrifice for the in-group, while condemning those who betray the group or are otherwise disloyal (Haidt & Graham, 2007). "Hierarchy" also embodies the idea of group cohesion, with an emphasis on authority structures which provide protection and security for members. Respect and admiration for superiors, as well as the virtues of subordination (e.g., duty and obedience) characterize the "hierarchy" values pool which highly prizes magnanimity, fatherliness, and wisdom (Haidt & Graham, 2007). Finally, "purity" (sometimes referred to in Haidt's work as "the psychology of sacredness") is founded in the idea that the self is a spiritual entity striving to avoid pollution and to attain purity and sanctity (Haidt, et al., 1993). Within the domain of purity, disgust is said to function as a guardian of the body and

soul, sanctioning some bodily activities (e.g., carnal passions) and regulating religious activity. Chastity and piety are seen as elevated and virtuous (Haidt & Graham, 2007). These five values pools are summarized in Table 1.

In most of Haidt’s studies cited above, the objective was generally to examine the idea that people in many different cultures and settings are skilled at finding reasons to support their gut feelings (Haidt, 2006).

In light of the preceding discussion, it seems reasonable to expect that many of the ethics measures developed by researchers to tap into ethical cognitions, beliefs, and attitudes should “map” nicely onto these intuitive moral foundations. If the intuitive and the rational, the System I and the System II do operate in tandem, this operation should be evident if we test the Haidt model alongside an accepted and validated measure of ethical decision making – the objective of this study. Clearly there are many to choose from, but in this study, the researchers have selected the Muncy & Vitell Consumer Ethics Scale (1992; 2005). The Consumer Ethics Scale is a logical choice for this study, because it has been used in dozens of studies (see, for example, Erffmeyer, Keillor, LeClair, 1999; Rawwas, 1996; Muncy & Eastman, 1998; Polonsky, Brito, Pinto, & Higgs-Kleyn, 2001; Vitell, 2003), and especially because it measures responses in the context of everyday life, without reference to specialized domains of business, legal, or technological decision making in situations having ethical content.

Following a modification, (Vitell & Muncy, 2005) the Consumer Ethics Scale consists of 31

ethical behaviors, active choices and omissions, for which the respondent indicates their belief that the behavior is(not) wrong. These items are subdivided into seven subscales, each of which examines an area of ethical concern. These are labeled by Vitell & Muncy as downloading/buying counterfeit goods (Downloading), recycling/environmental awareness (Recycling), doing the right thing/doing good (Do Good), actively benefitting from illegal activities (Actively), passively benefitting (Passively), actively benefitting from questionable, but legal practices (Questionable), and no harm/no foul activities (No Harm) (Vitell & Muncy, 2005).

An interesting feature of the Consumer Ethics Scale is the valence of the items. In two of the subscales – recycling and doing the right thing – the statements are worded positively (e.g., “purchasing something made of recycled materials even though it is more expensive”). In the other subscales, the statements are worded negatively, or in the unethical direction (e.g., “drinking a can of soda in a store without paying for it”). Essentially, the former items invite approval; the latter items, disapproval. To facilitate this discussion, these will henceforth be referred to as the “ethical” and “unethical” items of the Consumer Ethics Scale, respectively. It is expected that – to the extent that respondents rely on and endorse one or more intuitive values pools – they will issue approval of the ethical items and condemnation of the unethical items. The reasons for this is that, as construed above, values are positive inasmuch as they have evolved and developed for the preservation of justice, the avoidance of harm, the promotion of caring behaviors, the maintenance of social cohesion and order, as

**TABLE 1:
Haidt’s Values Dimensions**

Values Dimension:	Emphases:
Harm	pain, suffering, protection, empathy, compassion
Reciprocity / Fairness	justice, individual rights, equality, equity
Ingroup	group cohesion, loyalty, fidelity
Hierarchy	deference, obedience, order, discipline, conformity
Purity	transgression, decency, disgust, cleanliness

well as the sanctity of the soul and spirit. Therefore we should expect that when an individual condemns an unethical act or when an individual approves an ethical behavior, he or she is being “nudged” by intuitive values.

Accordingly, it is hypothesized:

Hypothesis One: The Harm Values Pool will be significantly related to one or more of the Consumer Ethics subscales.

- H_{1a}:** The Harm values pool will be negatively related to the Downloading subscale of the Consumer Ethics Scale.
- H_{1b}:** The Harm values pool will be positively related to the Recycling subscale of the Consumer Ethics Scale.
- H_{1c}:** The Harm values pool will be positively related to the Do Good subscale of the Consumer Ethics Scale.

As construed by Haidt, harm focuses intuitively on the avoidance of pain and suffering, with an emphasis on protection. “Harms” present in the Consumer Ethics scale would include harm to / protection of / empathy for the environment and/or providers of intellectual property. In addition, the Harm values pool’s characteristics of empathy and compassion suggest it is relevant to Do-good items in the Consumer Ethics Scale, especially those that concern the welfare of employees.

Hypothesis Two: The Fairness Values Pool will be significantly related to one or more of the Consumer Ethics subscales.

- H_{2a}:** The Fairness values pool will be positively related to the Do Good subscale of the Consumer Ethics Scale.
- H_{2b}:** The Fairness values pool will be negatively related to the Active (actively benefitting from unethical activities) subscale of the Consumer Ethics Scale.
- H_{2c}:** The Fairness values pool will be negatively related to the Passive (passively benefitting from unethical activities) subscale of the Consumer Ethics Scale.

Haidt’s values typology presents the Fairness values pool as a set of intuitive concerns about justice, rights, and equity. Accordingly it should be expected to be especially significant in consideration of Actively and Passively benefitting from unethical activities as presented in the Consumer Ethics Scale, as well as the Do Good items which focus specifically on the fairness of direct exchanges between consumers and businesses.

Hypothesis Three: The Ingroup values pool will not be significantly related to any of the Consumer Ethics subscales.

As noted above, Haidt contends that, for some persons, not all of what he refers to as “values pools” are invoked in moral reasoning. It is therefore plausible, in examining the Consumer Ethics Scale, that some of the pools are more relevant than others to some respondents. Here it is expected that values relating to group cohesion and loyalty will not affect items from the Consumer Ethical Scale, which mostly portray isolated individual behaviors.

Hypothesis Four: The Hierarchy values pool will be significantly related to one or more of the Consumer Ethics subscales.

- H_{4a}:** The Hierarchy values pool will be negatively related to the Downloading subscale of the Consumer Ethics Scale.
- H_{4b}:** The Hierarchy values pool will be negatively related to the Active (actively benefitting from unethical activities) subscale of the Consumer Ethics Scale.

As construed by Haidt, the Hierarchy values pool focuses intuitively on order and conformity, with an emphasis on social hierarchies. It is expected that any of the negatively-valenced subscales of the Consumer Ethics Scale will represent a “challenge” to values concerning order and conformity, however Downloading and Active (actively benefitting from an unethical act) seem conceptually closest to a variety of illegal activities and hence more likely to draw on the Hierarchy values pool.

Hypothesis Five: The Purity values pool will be significantly related to one or more of the Consumer Ethics subscales.

H_{5a}: The Purity values pool will be negatively related to the Active (actively benefitting from unethical activities) subscale of the Consumer Ethics Scale.

H_{5b}: The Purity values pool will be negatively related to the Passive (passively benefitting from unethical activities) subscale of the Consumer Ethics Scale.

Most of the items in the purity values pool represent the intuitive disapproval of unnatural, disgusting acts, and other forms of transgressions. Therefore it is expected that the Purity values pool will not be associated with positively-valenced subscales (i.e., Recycling and Do Good items). Rather, it is expected that the Purity values will be significantly related to condemnation of negatively-valenced items, specifically Actively and Passively benefitting from unethical activities. Finally, although not hypothesized, it is expected here that the Consumer Ethics subscales Questionable and No Harm – being relatively less ethically intense – will be unrelated to the values pools.

METHODOLOGY

Data for the study were collected across nine sections of seven different courses, both online and face to face, in the College of Business of a regional state-supported university in the United States, and from a sampling frame including approximately 1,500 members of national professional organizations of business professors. The sample itself was comprised of both junior- and senior-level undergraduate and graduate business students, as well as non-student professionals. Responses to the survey were completely anonymous; no identifying information was requested, and prior to taking the survey, respondents were given all information necessary to secure their informed consent. All students in the sample were subsequently debriefed as to the purpose of the survey. Although there was no opportunity to provide debriefing for the non-student respondents in the online survey, the email solicitation was carefully worded so as to secure their informed consent as well. The final

count included 261 completed surveys. As a precaution, two different versions of the survey were distributed to minimize the effects of order bias. In addition, consistency checks were performed on the surveys to spot unreliable response sets, producing a final total of 243 usable surveys.

Data for the Haidt and the Muncy & Vitell scales were then analyzed for reliability using Cronbach's alpha; items reducing the reliability of any subscales were subsequently removed. Next, the data set was subjected to confirmatory factor analysis, and following validation of the underlying theoretical structure of the measures, a path analysis was conducted to examine the hypothesized relationships. All the items from the Haidt measures, the Muncy & Vitell Consumer Ethics Scale, and the path analysis can be seen in the appendix.

RESULTS

After performing reliability checks, and removing five (of thirty) items from the scales reducing the reliability for the measures used in the study, all but one of the measures demonstrate satisfactory reliability, as shown in Tables 2 and 3. For the values pools in the Haidt measure, Cronbach's coefficient alpha range from .58 to .73. Clearly the reliability for the fairness, ingroup and authority values pools are not optimal, but, as noted by Hair, Black, Babin, Anderson, & Tatham (2006), "the generally agreed upon lower limit for Cronbach's alpha is .70, although it may decrease to .60 in exploratory research." Four of the five values pool measures in this study satisfy Hair et al.'s criterion. The relatively lower alphas for these constructs should not be surprising when we consider Wilson's (1993, p. xiii) comment that "...the standard supplied by one's moral sense is often, indeed usually, rather general and imprecise." Alpha values for the Consumer Ethics Scale were generally good; coefficient alphas range from .66 to .85. The mean scores on the items in the Haidt measure vary; however all except two means were above the midpoint of the scale (2.5 on a 5-point scale), indicating reliance on/endorsement of the item (see Table 2). Mean values on almost all of the variables in the Consumer Ethics scale appear to be in the expected direction. For the positively-valenced

items in the Recycling and Do Good dimensions, means above the midpoint of the scale (above 3 on a 6-point scale) indicate respondents' approval of or support for these behaviors (see Table 3). The negatively-valenced items Download, Active, Passive, and Questionable, mostly show mean scores below the midpoint of the scale, to indicate respondents' condemnation of the activities. Respondents appear to feel that two of four of the No Harm activities are relatively benign, as evidenced by their lower scores.

To validate the factorial structure of the Moral Values measure and the Consumer Ethics Scale, confirmatory factor analysis was conducted. Of the Haidt moral values items, 22 of 25 show significant loadings, with T-values ranging from 2.00 to 13.86, all significant at $p < .05$, as indicated in Table 2. Three items had insignificant loadings. Although the X^2 value was on the high side, this is presumably due to sample size. Overall, the model performed well on the criteria specified by Schumacker & Lomax (2010), who specify that good model fit

TABLE 2:
Moral Values Dimensions, Confirmatory Factor Analysis

Value Dimension	Item	Average	T Value**	Coefficient	subscale	
					alpha	mean
Harm	Emotionally	3.65	8.29	.65	.72	3.65
Harm	Weak	3.26	10.05	.86		
Harm	Cruel	3.93	12.84	.91		
Harm	Compassion*	3.67	6.96	.52		
Fairness	Treated	3.67	10.34	.73	.66	3.84
Fairness	Unfairly	3.88	9.23	.64		
Fairness	Rights	4.10	9.17	.69		
Fairness	Fairly*	3.76	6.04	.54		
Fairness	Justice*	3.79	4.34	.27		
Ingroup	Love Country	2.55	8.45	.79	.58	3.00
Ingroup	Betray	3.61	12.78	.90		
Ingroup	Loyalty	3.06	13.86	1.04		
Ingroup	History*	3.66	1.95 (n/s)	.15		
Ingroup	Family*	2.99	2.00	.19		
Ingroup	Team*	2.16	.30 (n/s)	.03		
Hierarchy	Respect	3.17	10.49	.80	.62	3.25
Hierarchy	Tradition	2.31	7.46	.60		
Hierarchy	Chaos	3.27	11.19	.85		
Hierarchy	Kidrespect*	4.24	5.16	.30		
Purity	God	3.09	6.98	.84	.73	2.98
Purity	Harmless*	2.86	4.83	.46		
Purity	Unnatural*	2.61	3.45	.35		
Purity	Disgusting	2.65	9.88	.09		
Purity	Decency	3.68	11.36	.84		
Purity	Chastity*	2.99	.71 (n/s)	.11		
$X^2 = 356.41$ (df = 230); $p = .00$			Normed Fit Index (NFI) = .92			
Root Mean Square Error of Approximation (RMSEA) = .048; Root Mean Square Residual = .11			Goodness of Fit Index (GFI) = .89, Adjusted Goodness of Fit Index (AGFI) = .85			
Scaling: 0 = not at all relevant, 1= not very relevant, 2=slightly relevant, 3=somewhat relevant, 4=very relevant, 5=extremely relevant						
*Scaling: 0 = strongly disagree, 1= moderately disagree, 2= slightly disagree, 3=slightly agree, 4=moderately agree, 5=strongly agree						

**all paths significant at $p < .05$, except as noted (n/s)

is indicated by X^2 probability values $> .05$, a Root Mean Square Error of Approximation (RMSEA) $\leq .05$, T values for the paths ≥ 1.96 , Goodness of Fit and Adjusted Goodness of Fit indices (GFI and AGFI) as close as possible to .95 and a Normed Fit Index (NFI) as close as possible to .95. As shown in Table 2,

the confirmatory factor analysis of the Haidt scale performs well on most of these criteria: $X^2=356.41$, $p = .00$, RMSEA = .048, GFI and AGFI = .92 and .89, respectively, NFI = .92, and all but three T values in the acceptable range.

TABLE 3:
Consumer Ethics Dimensions, Confirmatory Factor Analysis

Dimension (Consumer Ethics Scale)	Item	average	T Value**	Coefficient	subscale	
					alpha	mean
Download	Download	2.66	12.10	.98	.66	2.60
Download	Counterfeit	2.53	9.00	.72		
Recycling	Recycle*	3.87	13.75	.82	.77	4.11
Recycling	Protect*	3.84	11.65	.78		
Recycling	Materials*	4.63	10.11	.43		
Do Good	Cashier*	4.56	14.53	.73	.73	4.52
Do Good	Miscalculate*	4.48	13.06	.75		
Do Good	Tip*	4.53	6.35	.34		
Active	Own Fault	1.86	10.15	.71	.79	1.51
Active	Mislead	1.54	13.09	.75		
Active	Access	1.53	14.21	.69		
Active	Soda	1.35	10.40	.53		
Active	Stolen	1.28	7.59	.34		
Passive	Cable TV	2.11	14.32	.93	.85	2.08
Passive	Lying	1.93	15.36	.92		
Passive	Not Saying	1.95	14.34	.90		
Passive	Change	1.83	14.09	.82		
Passive	Free CDs	2.79	8.49	.69		
Passive	Shoplift	1.88	7.23	.44		
Questionable	Coupon	2.59	12.42	.91	.82	2.24
Questionable	Gift	2.31	12.32	.85		
Questionable	Merchandise	2.07	12.3	.85		
Questionable	Automobile	2.33	11.31	.88		
Questionable	Tax Return	1.88	8.38	.55		
No Harm	Software	2.39	14.70	.97	.71	3.37
No Harm	Burning	2.88	16.36	1.15		
No Harm	Not Liking	4.03	3.91	.30		
No Harm	Taping	4.16	7.60	.53		
$X^2 = 415.79$ (df = 315); $p = .00$			Normed Fit Index (NFI) = .95			
Root Mean Square Error of Approximation (RMSEA) = .036, Root Mean Square Residual = .058			Goodness of Fit Index (GFI) = .89, Adjusted Goodness of Fit Index (AGFI) = .86			
Scaling: 1 = strongly believe that it is wrong 2 3 4 5 = strongly believe that it is not wrong						

*items "ethically valenced," e.g., "correcting a bill that has been miscalculated in your favor;"
all other items "unethically valenced," e.g., "drinking a can of soda in a store without paying for it."
**all paths significant at $p < .05$

The Consumer Ethics Scale performed similarly in the confirmatory factor analysis, as seen in Table 3, with $X^2 = 415.79$, $p = .00$, $RMSEA = .036$, GFI and $AGFI = .89$ and $.86$ respectively, $NFI = .95$, and all T values ≥ 1.96 .

To test the hypotheses in this study, path analysis was used. To conduct the path analysis, means scores for each of the subscales (labeled "dimensions" in the tables) were computed. Items within each subscale may be seen in Tables 2 and 3. Data in Table 4 show a good fit between the path model and the data: $X^2 = 43.47$, $p = .012$, $RMSEA = .056$, GFI and $AGFI = .97$ and $.91$, respectively, $NFI = .97$, $RMR = .053$, and several significant paths from the values pools to the consumer ethics items are identified.

Since the Haidt items are scored such that higher means indicate greater reliance on/endorsement of a values pools, higher mean scores on the Consumer Ethics Scale indicate more approval of Recycling and Do Good, and lower mean scores indicate more condemnation of Active, Passive, Questionable, and No harm, significant and positive T values for any path from Haidt's measures to a Consumer Ethics item would indicate support for hypothesized relationships. Specifically, Hypothesis one, that the Harm values pool will be significantly related to three of the subscales from the Consumer Ethics Scale received partial support. H1b, which predicts a significant positive relationship between Harm and the Recycling subscale is supported ($T = 5.08$, $p < .05$). Respondents' greater reliance on/endorsement of the Harm values is significantly related to their approval of recycling. H1a and H1c, predicting Harm's negative relationship to Downloading and positive relationship to Do Good were not supported.

Hypothesis Two, which predicts significant paths between the Fairness values pool and Do Good, Active, and Passive Consumer Ethics subscales was not supported, as all three paths failed to reach significance. Interestingly, Hypothesis Three, which predicts the Ingroup values pool will be unrelated to any of the Consumer Ethics subscales was not supported. Data in Table 4 show that respondents' greater reliance on/endorsement of the Ingroup values

is significantly and positively related to their approval of downloading music from the internet without buying it, and buying counterfeit goods ($T = 3.46$, $p < .05$).

Hypothesis Four, which predicts significant paths between the Hierarchy values pool and Downloading and Active Consumer Ethics subscales was not supported, as both paths failed to reach significance. Finally, in support of Hypothesis Five, respondents' greater reliance on/endorsement of the Purity values pool is significantly related to their disapproval of Actively and Passively benefitting from unethical activities ($T = -2.69$ and -4.83 respectively, $p < .05$). More significantly, respondents' reliance on/endorsement of the Purity values pool is significantly related to fully six of the seven Consumer Ethics subscales: the Purity values pool is negatively related to Downloading ($T = -3.50$), negatively related to Recycling ($T = -3.38$), negatively related to Questionable items ($T = -4.47$), and negatively related to the No Harm subscale ($T = -4.31$).

DISCUSSION

It is worth noting at the outset of this discussion that the data overall is consistent with some basic expectations, particularly in the case of the Consumer Ethics measures. Data in Table 2 show clearly that, with the highest average score, the Fairness values pool seems to have the most endorsement of/reliance on in the sample (average = $3.84/5.00$), followed by Harm, Hierarchy, Ingroup, and Purity, respectively. And of the Consumer Ethics subscales, Table 3 data shows most approval for Do Good items (average = $4.52/6$), followed by Recycling, No Harm (average = $3.37/6$, at approximately the midpoint of the scale), Downloading, Questionable, Passive, and Active (the latter 4 having means of 2.60 , 2.24 , 2.08 , and 1.51 , respectively, and all below the midpoint of the scale, representing the view that these behaviors are wrong).

In addition, several of the hypothesized paths were in the expected direction, although in at least two instances, the results are somewhat equivocal. Clearly, additional research using the Haidt values measures is needed to confirm or qualify the findings here. At the core of the

TABLE 4:
Path Analysis of Values and the Consumer Ethics Scale

Value Dimension	Consumer Ethics Items	T Value*	Coefficient
Harm	Downloading	.30 (n/s)	.02
Harm	Recycling	5.08	.33
Harm	Do Good	1.58 (n/s)	.12
Fairness	Do Good	-.72 (n/s)	-.05
Fairness	Active	-1.60 (n/s)	-.10
Fairness	Passive	-1.34 (n/s)	-.06
Ingroup	Downloading	3.46	.23
Hierarchy	Downloading	-.92 (n/s)	-.07
Hierarchy	Active	.24 (n/s)	.02
Purity	Downloading	-3.50	-.25
Purity	Recycling	-3.38	-.22
Purity	Do Good	1.75 (n/s)	.12
Purity	Active	-2.69	-.19
Purity	Passive	-4.83	-.29
Purity	Questionable	-4.47	-.28
Purity	No Harm	-4.31	-.27
X ² = 43.47 (df = 25); p = .012		Normed Fit Index (NFI) = .97	
Root Mean Square Error of Approximation (RMSEA) = .056, Root Mean Square Residual = .053		Goodness of Fit Index (GFI) = .97, Adjusted Goodness of Fit Index (AGFI) = .91	

*all paths significant at p < .05, except as noted

Harm/care values pool is a deep sensitivity to cruelty, suffering, and compassion – especially as it applies to other persons. It appears these same instincts play out in the form of approval when the object of concern is the environment and environmentally-friendly practices (in this case, recycling).

Although respondents appear to rely on/endorse the Fairness values pool, this reliance did not yield significant paths to any of the Consumer Ethics subscales. Given the sample’s reliance noted above on Harm and Fairness, and the weak influence of those intuitions on the Consumer Ethics scale, it seems reasonable to attribute this to the fact that the items in the Harm measure – suffering, cruelty, and weakness – are more “grave” than the ethical issues implicit in the Consumer Ethics scale. And in the case of Fairness, the emphasis there on rights and justice, and the role of governments and society make this values pool at once more abstract and distant from concerns

in the Consumer Ethics scale, which mostly focuses on individual choices and private acts. In the cases of Ingroup and Hierarchy, these intuitions seem to invoke social relationships, which again, are somewhat different from the Consumer Ethics issues. The only path here that was significant – the Ingroup values’ endorsement of Downloading – seems to run counter to expectations. Perhaps the explanation is one of “us versus them:” that – in this sample – intuitions about loyalty to family and team are related to approval of activities that are actually detrimental to people who are, after all, “others.” These others would include producers of intellectual property: those in the music, film, and software businesses, especially. Clearly, this is only surmise and more research is needed.

The Purity values pool produced the strongest relationships and the most interesting results in this study. Of the “unethical” items in the Consumer Ethics scale (Downloading, Active,

Passive, and Questionable), reliance on/endorsement of Purity intuitions was significantly and negatively related to all. As we would expect, Purity is strongly associated with disapproval of unethical activities. More interesting is the relationship of this pool to the “ethical” items, Recycling and Do Good, where the opposite relationship doesn’t appear quite as we would expect. Although the loading of Purity on Do Good was positive and in the expected direction, the path failed to reach significance. On the other hand, Purity intuitions are negatively related to Recycling: in this sample, this value is associated with disapproval of recycling.

At this point it is premature to speculate, but still worth wondering whether the sense of purity is fundamentally punitive: quicker to condemn injustices than to give praise where it is due. Perhaps the intuitive sense of disgust and transgression acts as a sort of “trip wire” that fosters more severe ethical judgments of unethical behaviors, and occasionally ostensibly ethical behaviors such as recycling. If this circumstance is not limited to consumer ethics and can be found in other contexts (e.g., workplace ethical issues, conflicts of interest, privacy), this finding might provide an interesting prologue to Jones’s model of ethical intensity (1991), in which he depicts an ethically intense situation in terms of magnitude and probability of consequences, social consensus, concentration of effect, temporal immediacy, and social, cultural, psychological, and physical proximity. Jones’s criteria are all perceptions, System II output, much like this sample’s judgments about consumer ethics are cognitively-mediated, and these may also be influenced by underlying values as presented in this study. Based on the findings in this study, it is fair to ask whether one’s propensity to recognize and classify ethical issues as Jones depicts depends on the operation of intuitive values, such as harm, fairness, purity.

Clearly, these findings and this alignment of approval and condemnation remain open to further examination. Why does the purity values pool seem to endorse “doing good” but not the “recycling” subscale of the Consumer Ethics Scale? One possibility comes from Kirklin (2007), who speculates that in various situations, values come into conflict or are

given different priorities by different people, depending on the circumstances. Doran (2009) makes the similar argument that behavior consistent with one value may conflict with another value.

It is also plausible to expect that other qualitative distinctions exist among harm, fairness, ingroup, hierarchy, and purity, and that these might be identified with further research. Schweder’s (1990) typology would suggest that harm and fairness should be classified as an ethic of autonomy, while purity concerns lie within the domain of an ethic of divinity. Why and how autonomy and divinity interact with this sample of students, educators, and practitioners – if this is the underlying factor – remains to be explored.

LIMITATIONS OF THE STUDY

The present study presents evidence of relationships between underlying intuitive values and consumer ethical judgments, and leaves many questions unanswered, awaiting further research. Several limitations should be acknowledged here so that the future pursuit of these questions may proceed successfully. First among these is the sample. While care was taken to select a variety of respondents, including students, academics, and practitioners, and a large sample was ultimately collected, it is not possible at this point to establish the representativeness of the sample. As regards the method of the study, it would obviously be preferable to have observational measures of intuitive processes. Using a pencil and paper methodology may possibly compromise the “intuitive” quality of the responses to the Haidt items, even though Haidt (2001, 2004, 2007) uses the method himself in published studies. The logistical problems associated with collecting this type of data by observational means or by fMRI are probably the reasons that paper and pencil measures are the approach used in similar research (e.g., Bagozzi, Sekerka, & Hill, 2009; Homer & Kahle 1988; Rokeach 1973). Possibly a result of this difficulty are the resulting low alpha values for the values measures reported in Table 2. As noted by Wilson (1993) above, phenomena of this type are “general and imprecise.” In their study of values, Homer &

Kahle (1988) report similar results with alpha values for their five values subscales of .69, .68, .53, .64, and .71.

CONCLUSIONS AND IMPLICATIONS

Hunt & Vitell (1993) emphasize the “unquestionable impact of an individual’s value system in the (ethical) decision process and urge researchers to explore “many different values” and their various impacts on ethical decision making. Even though the five values pools in this study had only a partial impact on the Consumer Ethics scale, it seems reasonable to expect that other studies of important ethical settings in marketing may benefit from a deeper understanding of values structures, including those noted above. For example, do hierarchy and ingroup values affect the ethical judgments and behaviors of sales managers and sales people? If it is important to understand consumers’ and business persons’ attitudes in these areas, then it clearly is also important to recognize the role of values as “...the criteria for judgment, preferences, and choice” (Williams, 1979).

It also seems likely that the other values will – if at first only intuitively – affect consumers’ responses to organizations, their conduct, and policies. The harm values, for example, may be invoked if consumers perceive an abuse of power and authority (i.e., banks “too large to fail”) causing economic harm to markets and consumers, or when ingredient scares, product recalls, and product liability stories appear in the media. And presumably, the values in the harm pool will guide the consumer to be more receptive to organizations that successfully establish their credentials in the area of sustainability and green marketing.

Although connections were not well established in this study for the justice values pool, it nevertheless seems highly relevant to numerous corporate ethical issues such as abuse of market power or confidential information, human resources issues and discrimination, conflicts of interest, truth in advertising, customer service, retail sales activities, and the overall trustworthiness of marketing communications (the theme of a recent television ad campaign for Ally Bank depicting, in one ad, a suave bank executive misleading a small girl).

For the proactive organization, the most significant implication of this study is that there exists a motivated audience with an identifiable set of intuitive concerns. These are opportunities to signal their values to consumers and to deepen the engagement of targeted audiences and consumer groups with the organization’s brand. Since we know that people are more likely to attend to and elaborate information that agrees with their attitudes, it may also be that they do the same with information congruent with underlying values, although this remains to be investigated. Organizations like Chevron and Georgia Pacific probably see themselves as doing Public Relations when they promote their sustainability initiatives. But at the same time, they may in fact be linking their corporate values to consumers’ unspoken values. Other groups – for example, drug abuse resistance groups, not-for-profits opposed to all manner of damaging and destructive behaviors, and political and/or religious groups – will benefit when they clearly telegraph their values mindful of the consumer’s responsiveness to the kinds of transgressions in the disgust values pool. Making values-based outcomes the objective of promotional activities, and addressing challenges in measuring these, would seem to be a meaningful next step for researchers and practitioners.

We hope that researchers and commentators will continue to expand our understanding of the dual nature of ethical decision making – rooted as it is in intuitive values and in conscious deliberation – and particularly the critical importance of their joint operation in our decision making. It is now commonly understood that the operation of intuitive processes without the stamp of conscious deliberation can produce unfavorable outcomes. Brandt (1979) suggests that intuition is little more than socially-inculcated bias, echoing Dewey’s (1932) position that a solely intuitive approach to problems (what he called “an ethic of approbation and condemnation”) has a tendency to enforce a customary morality. And long before it occurred to anyone to say “if it feels good, do it,” Dewey cautioned that over-reliance on intuition leads people to neglect the purpose of their actions, and to justify what they feel inclined to do on the ground that their feelings when doing it were innocent and

amiable (1932, p. 174.) Tobler, Kalis, & Kalenscher (2008) and Sunstein (2005) suggest that although intuitive processes may be sufficient most of the time, they can fail or result in inconsistent behavior in difficult circumstances. Finally, it is easy to imagine that reliance on/endorsement of the “authority” values pool could lead to unwarranted compliance with authority figures, or that the “ingroup” or “purity” values pools could be associated with cronyism, nepotism, racism, less tolerance for diversity, and other forms of discrimination.

On the other hand, advances in our understanding of values and intuitive processes may lead to important insights in the business ethics context, including a better understanding of decision makers’ beliefs, attitudes, and behaviors (Posner, 2009). Central to this discussion is the role of values in learning and moral maturation (Vitell, et al. 2009). There is no reason to assume that values and intuitive ways of responding to ethical dilemmas are somehow fixed, in childhood or later on. The extent to which values may be learned, their plasticity in response to cultural influences in the workplace, and their contribution to decision making represents opportunities for practitioners, educators, and researchers.

If it is true that people in organizations sometimes engage in unethical behaviors when they are uncertain of their own values (Vitell, et al., 2009), then it would seem necessary for everyone in the organization to examine their otherwise “invisible” intuitive reactions, to examine their inclinations, preferences, and assumptions to make explicit what is otherwise unexamined. This is probably what ethicist Dan Ariely had in mind when he wrote in his blog: “...we’ll all be better off if we challenge our intuitions.” So it’s clear that values can be a help or a hindrance to better decision making; what’s needed are good measures and methods to relate them to the everyday world. Kirklin (2007) has written that the challenge for ethicists is to engage the listener or reader – or the customer, worker, or manager – in moral reasoning in a way that recognizes and responds to their intuitive feelings about what is acceptable or desirable. We agree; it is becoming increasingly clear that values and

intuition don’t just contribute to moral reasoning, they drive the process.

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APPENDIX

Haidt's Moral Values Scale items (with variable names)

- *Response format: not at all, not very, slightly, somewhat, very, extremely relevant
- **Response format: strongly, moderately or slightly disagree; slightly, moderately, or strongly agree

Harm Items:

- *Whether or not someone suffered emotionally (emotionally)
- *Whether or not someone cared for someone weak or vulnerable (weak)
- *Whether or not someone was cruel (cruel)
- **Compassion for those who are suffering is the most crucial virtue. (compassion)
- **One of the worst things a person could do is hurt a defenseless animal. (animal)
- **It can never be right to kill a human being. (kill)

Fairness Items:

- *Whether or not some people were treated differently than others (treated)
- *Whether or not someone acted unfairly (unfairly)
- *Whether or not someone was denied his or her rights (rights)
- **When the government makes laws, the number one principle should be ensuring everyone is treated fairly. (fairly)
- **Justice is the most important requirement for a society. (justice)
- **I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing. (rich)

Ingroup Items:

- *Whether or not someone's action showed love for his or her country (lovecountry)
- *Whether or not someone did something to betray his or her group (betray)
- *Whether or not someone showed a lack of loyalty (loyalty)
- **I am proud of my country's history. (history)
- **People should be loyal to their family members, even when they have done something wrong. (family)
- **It is more important to be a team player than to express oneself. (team)

Hierarchy Items:

- *Whether or not someone showed a lack of respect for authority (respect)
- *Whether or not someone conformed to the traditions of society (traditions)
- *Whether or not an action caused chaos or disorder (chaos)

**Respect for authority is something all children need to learn. (kidrespect)
**Men and women each have different roles to play in society. (sexroles)
**If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty. (soldier)

Purity Items:

*Whether or not someone violated standards of purity and decency (decency)
*Whether or not someone did something disgusting (disgusting)
*Whether or not someone acted in a way that God would approve of (god)
**People should not do things that are disgusting, even if no one is harmed. (harmlessdg)
**I would call some acts wrong on the grounds that they are unnatural. (unnatural)
**Chastity is an important and valuable virtue. (chastity)

Muncy and Vitell's Consumer Ethics Survey items (strongly believe that it is/is not wrong)

Downloading Items:

Downloading music from the internet instead of buying it (downloading)
Buying counterfeit goods instead of original manufacturers' brands (counterfeit)

Recycling Items:

Buying products labeled as "environmentally friendly" even if they don't work as well as competing products (friendly)
Purchasing something made of recycled materials even though it is more expensive (recycled)
Buying only from companies that have a strong record of protecting the environment (protect)
Recycling materials such as cans, bottles, newspapers, etc. (materials)

Do Good Items:

Returning to the store and paying for an item that the cashier mistakenly did not charge you for (cashier)
Correcting a bill that has been miscalculated in your favor (miscalculate)

Giving a larger than expected tip to a waiter or waitress (tip)
Not purchasing products from companies that you believe don't treat their employees fairly (employees)

Active (actively benefit from unethical activity) Items:

Returning damaged goods when the damage was your fault (ownfault)
Giving misleading price information to a clerk for an unpriced item (misleading)
Using a long distance access code that does not belong to you (access)
Drinking a can of soda in a store without paying for it (soda)
Reporting a lost item as "stolen" to an insurance company in order to collect the insurance money (stolen)

Passive (passively benefit from unethical activities) Items:

Moving into a residence, finding that the cable TV is still hooked up, and using it without paying for it (CATV)
Lying about a child's age to get a lower price (lying)
Not saying anything when the waiter or waitress miscalculates a bill in your favor (notsaying)
Getting too much change and not saying anything (change)
Joining a CD club just to get some free CD's with no intention of buying any (freeCDs)
Observing someone shoplifting and ignoring it (shoplift)

Questionable (ethically questionable) Items:

Using an expired coupon for merchandise (coupon)
Returning merchandise to a store by claiming that it was a gift when it was not (gift)
Using a coupon for merchandise you did not buy (merchandise)
Not telling the truth when negotiating the price of a new automobile (automobile)
Stretching the truth on an income tax return (taxreturn)

No Harm (no harm no foul) Items:

Installing software on your computer without buying it (software)

“Burning” a CD rather than buying it (burning)

Returning merchandise after buying it and not liking it (notliking)

Taping a movie off the television (taping)

Spending over an hour trying on clothing and not buying anything (clothing)

CONSUMERS' AWARENESS OF SUSTAINABLE FASHION

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Sustainability as a central theme in consumer's fashion choice is investigated in this study. We focus on how well consumers are aware of the sustainable fashion concept and its constituent dimensions; on the inter relationship of consumer demographics with various sustainable fashion dimensions; and finally on the appropriate managerial strategies to close the perceived attitude-behavior gap. Survey data from respondents drawn from working and non-working student population of a large state university are used in this study. A subject expert codified eight sustainable fashion dimensions into sixteen descriptive statements, and the survey data identified whether a respondent agreed or disagreed with each statement. Based on this data, the eight dimensions were further reduced into four factors by using exploratory factor analysis. Eight dimensions making up the sustainability fashion construct (Recycle, Vintage, Artisan, Custom made, Fair Trade, Locally made, Organic, and Vegan) coalesced into a four-factor structure. Consumer awareness varied across the four factors, with most being aware of Recycle/Vintage, followed by Fair Trade/Locally Made; least aware of Organic/Vegan, and Artisan/Custom. Factor scores were then regressed to establish relationships with other independent variables of interest. Cluster Analysis was used to segment consumers. Several interesting relationships were identified between the factors and other independent variables, and three notable customer segments identified. As to managerial insights, this study offered many. For the fashion industry, promoting products by combining Recycle/Vintage features might be more effective; same for Artisan/Custom, Fair Trade/Locally Made, and Organic/Vegan. For consumer rights advocates, their choice of educational materials may combine the knowledge on Organic/Vegan together with Artisan/Custom. This study is the first to explore consumer awareness of the sustainable fashion construct. The relationship between the underlying factors of this construct and other independent variables are explored adding further to our understanding in a fast evolving field of research.

INTRODUCTION

The concept of sustainability was first developed in 1972 at a United Nations conference. Conceptually, it encompassed three issues: (1) the interdependence of human beings and the natural environment; (2) the links between economic development, social development, and environmental protection; and (3) the need for a global vision and common principles (Nature in the City, 2010). Over the years, sustainability movement has come of age to reflect a sustained interest in many areas including the organic, green, fair trade, unfair business practices. Parallely, sustainability as a mainstream concept has been firmly established--one that, arguably, might cast the deciding vote-- in the debate among industry leaders, legislators, and policy makers

for finding broadly acceptable solutions for economic and social problems. In particular, the idea of sustainability has progressed to a more receptive audience in many consumer related sectors.

Interestingly, prevailing opinion and extant evidence imply that final consumers who are often far removed from the debate centered on business practices, have a substantial territory to cover to become integral partners in the sustainability movement. Evidence shows that consumers, being at the end of the marketing channel, have shown hesitation and resistance to actually walk the talk for the sustainability movement. In Europe, statistics show that even though 50% of European consumers claim that they are willing to pay a higher price for sustainable products, the final market share is less than 1% (De Pelsmacker, Janssens, Sterckx, & Mielants, 2005). Consumers' positive attitudes are not always translated into final actual action, and this weak relationship is

generally known as the attitude-behavior gap (Arbuthnott, 2009; Yates, 2008).

Naturally, it is pertinent to ask what factors lead to such an attitude-behavior gap. Among the many factors explored in previous studies, the awareness of sustainable fashion has been the key missing element. Awareness must precede adoption, and one can therefore legitimately suspect that awareness of sustainability and its various constituent dimensions should be fully explored. According to Rogers (2003), before consumers decide to adopt an innovation they need to be knowledgeable about the innovation. This innovation adoption model has been used in many consumer innovation situations, such as internet shopping and internet banking (Aldas-Manzano, Lassala-Navarre, Ruiz-Mafe, & Sanz-Blas, 2009). Therefore, in our context of study, when consumers make a non-sustainable fashion decision, their behavior may not mean so much as they do not value sustainability or they are not conscious of being ethical consumers, but, rather, their biased decisions are only insofar as a reflection of their paucity of knowledge or lack of adequate awareness.

Given the above background, the purpose of this study is to investigate whether consumers are knowledgeable enough about sustainable fashion to the level which such knowledge and awareness plays a role in purchase decisions. Specifically, the objectives of this study are (1) to examine consumers' awareness of sustainable fashion, (2) to investigate the possible impact of consumer demographics on their awareness of sustainable fashion, (3) to explore the appropriate strategies of how to close the attitude-behavior gap, and (4) to segment consumers based on their awareness of sustainable fashion.

LITERATURE REVIEW

Criteria of Sustainable Fashion

Before we define what criteria should be used to determine sustainable fashion, one should acknowledge that the current literature allow multiple nomenclatures to describe the concept. The terms green fashion, ethical fashion, and sustainable fashion are frequently used interchangeably to describe the same concept

(De Pelsmacker, Driesen, & Rayp, 2005; Moisaner, 2007; Newholm & Shaw, 2007), which may have led to a confusion among various writers. A clearer and more precise delineation of the sustainable fashion concept is needed before we venture any further to describe its constituent parts. From tracing the evolution of sustainability movement and from the three general schemes of sustainability promoted by the United Nations conference in 1972, sustainable fashion can be defined as clothing that incorporate fair trade principles with sweatshop-free labor conditions; that does not harm the environment or workers by using biodegradable and organic cotton, and designed for a longer lifetime use; that is produced in an ethical production system, perhaps even locally; that which causes little or no environmental impact and makes use of eco-labeled or recycled materials (Fletcher, 2008; Joergens, 2006). Sustainable fashion so defined envelops both the green and ethical dimensions of fashion. While green fashion dovetails into the environmental theme by promoting utilization of recycled materials and biodegradable fibers, by comparison, ethical fashion focuses more on the fair trade principles, and a production system free from sweatshop labor conditions. Both of these dimensions together make the sustainable fashion concept more comprehensive and richer in scope.

With this definition of sustainable fashion in place, a clear set of standards to evaluate sustainable fashion in contradistinction to other normative standards is necessary. Without such a clear set of standards, its role in actual user behavior is difficult to understand or impractical to monitor. Clarity would also be needed when such standards determine the corresponding industry and labor standards, and to facilitate consumer education. Similar to the ambiguity prevalent in the literature defining sustainable fashion concept itself, there are many competing versions of sustainable fashion standards that complicate a clear consensus.

Review of literature shows that there are five standard criteria emerging as the cornerstones of sustainable fashion, and they are: (1) Is it locally made? (2) Is it ethically produced? (3) Does it incorporate recycled materials? (4) Does it use organic and naturally processed materials? And (5) Is it made to last? (Yip,

2010). There have been efforts to introduce further granularity into the criteria. The criteria for eco-fashion developed by the Green Advisory Board include the following list: fair/ethical trade; local; custom/tailor made; organic/natural textiles and materials; recycled/reborn; vintage/second hand; vegan/animal free/cruelty free; eco printing; fabric waste reduction; green marketing; socially responsible; resource efficiency; and eco-certification (Eco Fashion Week, 2010).

By closely examining the extant sets of sustainability criteria developed in the literature (AVEDA, 2011; Eco Fashion World, 2011), a comprehensive list of criteria emerges, and after further synthesis as to be consistent with the literature, eight broad categories of criteria could be assembled as the following: (1) Recycle (2) Organic (3) Vintage (4) Vegan (5) Artisan (6) Locally made (7) Custom and (8) Fair trade certified. *Recycled* products are created with reclaimed materials from used clothing. *Organic* products are made from natural sources without any pesticides and toxic materials. *Vintage* refers to any second-hand clothes or up-cycled clothes that have been given a new life. *Vegan* products contain no leather or animal tissue products. *Artisan* products perpetuate the skills of ancestral traditions. *Locally made* refers to the products requiring little transportation and contribute to a local economy. *Custom* is a way of encouraging quality and "slow fashion" over mass-produced disposable fashion. *Fair trade certified* refers to the products made by the companies who demonstrate a respect for human rights.

Consumers and their Sustainable Fashion Behavior

Interest in sustainability was soon making its mark in the consumer behavior literature, after it had firmly established among policy makers in the early 1980's. Specifically, it has been described as the third wave in consumerism (Hilton, 2003), and found early adopters among various consumerism movements in the late 1980s including green, socially responsible, and fair trade (Valor, 2007). Sustainable purchase decisions slowly and decisively crept into the lexicon of choice decisions. Sustainable purchase behaviors are defined as consumers

selecting recyclable products, being socially responsible, and taking other actions to protect the environment (Fraj & Martines, 2006). Many studies examined consumers' attitudes toward sustainable products, and consumers' final purchase decisions of sustainable products. Interestingly, several of those studies found that even though consumers in general have positive attitudes toward sustainable products, they often end up not purchasing sustainable products (Carrigan & Attalla, 2001; McDonald, Oates, & Thyne, 2009; Nicholls & Lee, 2006). This discrepancy between consumer attitude and their actual behavior deserves serious attention, and that is one of the main motivations of this study. Bray, Johns, and Kilburn's study (2011) found that several demographics such as gender and age, and other factors such as moral maturity, price sensitivity, and personal experience, were contributing factors to this discrepancy. Research has also found that consumers' needs for environmentally friendly merchandise are affected by their lifestyle (Connolly & Prothero, 2003) and other factors (D'Souza, Taghian, & Lamb, 2007). Joergens (2006) claim that one plausible reason is consumers do not have a real choice since large quantities of garments available in the market are produced in developing countries.

Research also suggests that American consumers tend to pay more attention to the price of products than otherwise behaving ethically in the marketplace. While they express an interest in purchasing ethically, their unwillingness to compromise on other essential attributes make them resistant to change (Joergens, 2006). Another point of view suggests that American consumers tend to have an exceptional view of the responsibilities of businesses (Maignan, 2001). Specifically, many American consumers believe that one of the most important responsibilities for business is profit making, whereas French and German consumers tend to place more emphasis on the importance of businesses' social and ethical responsibilities. All the above studies deal with variables that are tangential to the understanding of actual purchase behavior and none of them question consumer's awareness of sustainability criteria in purchase decisions. That is the lacunae we seek to address in this study.

We hypothesize that knowledge gap could be the main determinant of the attitude-behavior gap observed. Standard innovation adoption theories, for example, Rogers (2003), and other consumer behavior models precondition consumer's knowledge and awareness before a decisive change is adopted. Before consumers make any decision, they need to be knowledgeable about their choices so that they can make careful evaluation of competing alternatives. Not choosing one particular alternative might be by the lack of awareness and knowledge. Specifically, as relevant to our context, when consumers make a non-sustainable fashion decision, their behaviors, plausibly, are only a reflection that they stand fairly untutored, or rather, even naïve as to the importance of sustainability. As a remedy, if given sufficient insight into it, they may well be predisposed to its adoption. To test our hypothesis, the natural starting point is to ascertain whether consumers are aware of all the eight sustainability criteria we discussed in the previous section. If there is a perceived awareness deficiency, it, apart from providing a plausible explanation to the attitude-behavior discrepancy, will also lead to a closer scrutiny of other variables, both lifestyle and demographic variables, that are causative to this perceived awareness discrepancy.

It is also important to distinguish this study from other related or tangential studies. Chief among them is the literature on Corporate Social Responsibility (CSR), an area which has some similarities with the sustainable fashion concept. An organization's activities impact society and its stakeholders and its environment, and therefore it has a natural responsibility to societal well-being. CSR can therefore be considered related but tangential to the sustainability concept. Further, extant research suggests that the determining role of CSR in consumer's decisions is at best superficial. Boulstridge and Carrigan (2000) found that only 20% consumers support CSR and they concluded that CSR is not a main criterion influencing consumer's purchase intention. But interestingly, one of the reasons that CSR is not decisive is because of consumer's lack of awareness of CSR practices (Smith, 2000). Moorthy, Arokiasamy, and Chelliah (2010) found that consumers are not aware about a particular company's CSR

practice but more influenced by the brand name and peers' influence. Importantly, the intention to purchase from a company is more likely to increase when the information about the socially-responsible activities of the business have been provided (Mohr & Webb, 2005). Awareness and information about CSR activities of a business plays a decisive role in actual purchase decisions, and rather analogously, we can hypothesize that awareness and knowledge about sustainability criteria would be equally decisive in consumer's sustainable fashion choice.

In summary, in this study we want to establish that 1) knowledge gap could be the main determinant of the attitude-behavior gap observed, and that awareness and knowledge about sustainability criteria are decisive in consumer's sustainable fashion choice; and 2) the awareness levels of at least some of the sustainability dimensions are inter-correlated and such interrelationships can be used to identify and segment sustainable fashion consumers.

METHOD

A written survey questionnaire was used for data collection using a sample drawn from the student population of a large state University. Being a commuter campus, catering to a largely mature and working student population, the profile of the student respondents ideally suited this study. Five hundred questionnaires were distributed, and three hundred and six (306) useful questionnaires were returned, with an approximate response rate of sixty percent. Efforts were taken to get responses across a variety of student demographics so as to keep the response bias minimal. In the questionnaire, two item statements were developed for each of the eight criteria of sustainable fashion. The eight criteria of sustainable fashion, as we discussed above, were: (1) Recycle, (2) Organic, (3) Vintage, (4) Vegan, (5) Artisan, (6) Locally made, (7) Custom, and (8) Fair trade (AVEDA, 2011; Eco Fashion World, 2011). Therefore, sixteen statements were developed to measure consumers' awareness of sustainable fashion criteria. Specifically, the subjects were asked to indicate which of the following sixteen statements were examples of sustainable fashion by answering yes or no. A

subject expert drawn from the faculty was asked to evaluate each of the sixteen items to judge their face validity with respect to representing the eight criteria. In the questionnaire administered, respondents were asked to check all the items which they viewed as applicable to sustainable fashion. The rest of the questionnaire was related to demographic questions of age, gender, ethnicity, marital status, educational level, and monthly income.

DATA ANALYSES AND RESULTS

Response analysis shows that 38% of the respondents are male and the rest 62% female. The average age is 25 years with the youngest 14 years old and the oldest being 80. The average monthly income is \$1,311, ranging from \$10,000 to \$0. Eighty-two percent of the respondents are single and the rest 18% married or are of undeclared status. As for the racial identity, forty-nine percent of the sample are Caucasians, 7% African Americans, 19% Asians, 14% Latinos, and the rest 10% belonging to the others category. Even though the sample demographics do not accurately reflect the general population profile, it is a good representation of one main consumer group, the group dominated by young and single consumers and also veering more to females than males.

Sixteen items representing the eight sustainable fashion criteria are listed in Table 1 along with the percentage of respondents' agreeing to each statement. Among all the items, Item 4, which describes products made without the use of leather, scored the lowest (25.5 %) percentage agreement. The next lowest is Item 13, which describes custom-made garment as a way to encourage "slow fashion," scoring 29.1%. Item 8, which describes products using artisan skills, scored 31.4%. In contrast to these low scoring items, Item 7, that describes reusing existing materials by reclaiming and reworking, scored the highest agreement (68.3%). The next highest, Item 2, describing a garment made by following environmental laws and social norms, scored 67.0%. Item 3 and 12, both that describe second-hand clothes and vintage in that order, scored 65.7% and 62.7% respectively. Item 15, describing products made of natural fibers, scored 61.1%.

The results show that consumers are generally more aware of the association of products made of recycled materials, second-hand materials and natural fibers, and companies that follow sound environmental and social practices with the concept of sustainability. The least familiar criteria include the association between sustainable fashion and products made of leather materials, or using artisan skills, or just simply not making any purchase to promote "slow-fashion".

[In addition to knowing the awareness levels of various sustainability dimensions, it is also of consequence to know the inter-relationships among some of the dimensions. It is possible that Recycle and Vintage would be closely aligned dimensions from the sustainability point of view. This hypothesized relationships, if supported by the data, would lend to a richer understanding of the complicated processes that drive consumers' attitudes to sustainability. For this purpose, we factor analyzed all the eight dimensions, and through some exploration, a four-factor solution neatly grouped each two of the eight dimensions into four distinct factors. Each component or factor extracted between 15 to 20 % of the variance and together accounted for 75.48 % of the total variance in the eight dimensions. Factor 1 includes Recycle and Vintage; Factor 2 includes Artisan and Custom; Factor 3 includes Fair Trade and Locally Made; and Factor 4 includes Organic and Vegan. Such associations lead to further insights into consumer attitude formation. Recyclability and Vintage tend to go together. The item descriptions of Vintage included a reference to second-hand clothing and it appears that many respondents view the terms second hand and recyclability go hand in hand. Further, Artisan and Custom Made were found to go together. When an artisan is involved in design and production, such as hand-beading and hand-embroidery, the resulting high production cost often will lead to a high retail price. Therefore, consumers may believe that this practice is often applied in high-end product lines, such as custom-made products which are also in general higher priced. Fair Trade and Locally Made were also found to be perceived closely aligned. This may be a result of the widespread perception that imports, in contrast to locally made products, are made without much adherence to fair trade principles.

TABLE 1:
Item Description and % of the Sample Agreeing to Each Item

	Variable Description	% respondents indicating yes (n = 306)
1.	A garment is made from recycled materials. Once the useful life of the piece is over, it will biodegrade, instead of adding to a landfill.	60.1
2.	A garment is made by a company who follows standards of environmentalism and social policy in areas related to production of goods.	67.0
3.	Second-hand clothes that have been given a new life through some sort of customization. So the life of the item is extended so that it stays out of a landfill and new resources are not used to create it.	65.7
4.	Products that have been made without the use of leather.	25.5
5.	When something is made near you, then fewer resources were used in the transport of the item.	41.8
6.	The maker of the garment has comfortable working conditions and enjoys a good quality of life thanks to a higher wage. The product is likely to last season after season, thus reducing your need to buy a new item.	46.4
7.	Anything that has been made from already existing materials, fabrics, metals or fibers. These are often reclaimed from previously made clothing and accessories and reworked into new ones.	68.3
8.	Products that have been crafted using artisan skills such as embroidery, which preserve the perpetuation of ancestral traditions.	31.4
9.	When purchasing the locally made product, it's like investing in your local community.	40.8
10.	A custom-made garment you cherish all your life and pass down to loved ones, which means less consumption.	48.0
11.	A garment is made from materials grown without the use of pesticides, such as organic cotton.	53.6
12.	Second-hand clothes or up-cycled clothes by using existing materials.	62.7
13.	A made-to-order garment, which is also called demi-couture. This is a way of encouraging quality and "slow fashion" over mass-produced disposable fashion.	29.1
14.	A garment is made by a company who follows standards of international labor, such as reasonable work hours, no child labor, the right to unionize, a fair living wage.	43.1
15.	Natural fibers that have been grown without any pesticides and other toxic materials, preserving the health of humans and the environment.	61.1
16.	Products that have been made without the use of animal tissue products.	44.1

Interestingly, Organic and Vegan tended to cluster together. Consumers' attitudes to Vegan and Organic being found closely aligned, this result would be an interesting call for action by organic but non-vegan producers to counter this association so that their side of the business does not suffer for unwarranted associations.

[To proceed with further analysis, we evaluated the reliability of the two items measuring each sustainable fashion dimension by using Cronbach's alpha. This is shown in Table 3. Cronbach's alpha ranged from 0.39 to 0.70. For exploratory study purposes, alpha values roughly above 0.6 are deemed acceptable (Nunnally, 1979). Based on this criterion, we

selected the following dimensions for further analysis, with the alpha value shown in parenthesis: Recycle (0.592), Vintage (0.701), Locally Made (0.662), Organic (0.662), and Vegan (0.614). All the dimensions, with the marginal exception of Recycle, meet or exceed the minimum Cronbach's alpha criterion for an exploratory analysis. We decided to keep Recycle because it has an alpha value very close to 0.6, and also because it was found to be one of the most familiar standards of sustainable fashion for consumers from the previous two sets of analyses.

The next analysis was to investigate the relationship between the five reliably measured dimensions of the initial list of eight (as per the Cronbach's alpha cut-of criterion) with the demographic data of respondents. Variables such as respondent's gender, age, and monthly income were part of the data. Ethnic identity was codified into two groups labeled White (47.7%) and the remaining as Non-Whites (52.3 %) because almost half of the respondents indicated "White" as their ethnic identity. Similarly, since most of the respondents indicated their marital status as single, we created two groups with singles in one group and the rest in the other group. We had measured the education level of respondents, but this variable was excluded in the analysis because most of the respondents were drawn from the undergraduate student population. The regression results are shown in Table 4.

The results show that gender and marital status were not significant to all five dimensions, which means that gender and marital status are non-issues with sustainability dimensions. Among the rest three demographic factors, age and income have significant impact on Organic; and ethnic group has significant impact on Recycle. Specifically, age shows a negative correlation with Organic, whereas income is positively related to Organic. That means younger consumers tend to relate Organic products more to sustainable fashion than older consumers do, and consumers who earn higher income are more aware of the connection between Organic products and sustainable fashion. It may be plausibly concluded that, the younger generation being on the leading edge of organic revolution, when they are aided with a higher income, are more drawn to

sustainability. In addition, ethnic status may be also playing a role, with Recycle being found to be significant with the respondent's ethnic status, because the results show that Whites tend to support Recycle more than non-Whites.

To further understand various benefits sought by consumers, we conducted a cluster analysis by using each individual's factor scores generated in previous procedures. We selected the Euclidean distance as our measure of similarity, and a hierarchical agglomerative clustering procedure was applied for assigning group memberships to the respondents. We used running means in our iterations and conducted K-means clustering ($K=1, \dots, 5$). Based on the information contained in both the agglomeration schedule and the resulting dendrogram, it appears that a three-cluster solution is the most appropriate. We then obtained the centroids for each of these three clusters. The results are shown in Table 5.

As can be seen in Table 5, three segments (clusters) of consumers can be clearly identified in this situation. The first segment consists of consumers who mainly value the "Organic and Vegan" virtue of sustainable fashion products (the mean score of this group in the dimension of Factor 4, $M = .893$, is the highest among those of all the clusters). They also believe that "Recycle/ Vintage" slightly contributes to the overall value of sustainable fashion. However, they tend to dislike the "Artisan/ Custom" and "Fair Trade/ Locally Made" aspects of sustainable fashion, as is manifested by the negative mean scores $-.605$ and $-.649$, respectively.

The second segment, on the other hand, places the highest value in the "Fair Trade/ Locally Made" dimension ($M = .421$). However, these consumers have a quite low mean score in the "Artisan/ Custom" dimension, indicating that they do not associate sustainable fashion with hand-made, high-end product lines in the fashion product category.

Interestingly, the third segment goes, in a sense, in the diametrically opposite direction to that of the second segment with regard to the evaluation on the quality of sustainable fashion products. This group of consumers strongly believes that sustainable fashion has an

**TABLE 2:
Relationships between the Dimensions**

	Factor-1	Factor-2	Factor-3	Factor-4
Recycle	X			
Organic				X
Vintage	X			
Vegan				X
Artisan			X	
Local		X		
Custom			X	
Fair Trade		X		
Variance (%)	20.4	20.04	19.07	15.95
Cumulative Variance of four components: 75.48 %				

Note: 'X' indicates the relationship mapping of each factor component to the eight dimensions

**TABLE 3:
Reliability of Scale Items**

	Dimension	Items from Table -1	Reliability of Dimension (Cronbach's Alpha)
1	Recycle	1 & 7	0.592
2	Vintage	3 & 12	0.701
3	Artisan	6 & 8	0.447
4	Custom	10 & 13	0.467
5	Fair Trade	2 & 14	0.395
6	Locally Made	5 & 9	0.662
7	Organic	11 & 15	0.662
8	Vegan	4 & 16	0.614

Note: Dimensions with acceptable Cronbach's Alpha values are shown in bold

“Artisan/ Custom” element (M = 1.098) weaved into it. In fact, they view it as the most eminent characteristic of sustainable fashion products, as evidenced by the observation that all the other mean scores of this group are close to zero.

Our identification of three distinct consumer groups regarding sustainable fashion is managerially relevant. However, from the

manager's perspective, it would be more practical if the group memberships were identified with certain demographic traits of consumers. To investigate if such association exists, we conducted the non-parametric Kruskal-Wallis test for all the demographic variables in our data, with cluster membership as the sorting variable. The results are shown in Table 6.

**TABLE 4:
Regression Results**

Dependent Variables	Recycle	Organic	Vegan	Locally Made	Vintage
Gender	x	x	x	x	x
Age	x	Beta= -0.184, t= -2.121, d.f=215,	x	x	x
Income	x	Beta= 0.167, t= 1.998, d.f=215	x	x	x
Marital Status	x	x	x	x	x
Ethnic Status	Beta =0.149 t= 2.1, d.f= 215	x	x	x	x

Note: 'x' denotes insignificant coefficient in regression results

**TABLE 5:
Cluster Centers in Three Cluster Situation**

Factors	Cluster		
	1	2	3
Factor 1 (associated with Recycle/ Vintage)	.11824	.00680	-.08423
Factor 2 (associated with Artisan/ Custom)	-.60488	-.63608	1.09720
Factor 3 (associated with Fair Trade/ Locally Made)	-.64859	.42119	-.04601
Factor 4 (associated with Organic/ Vegan)	.89277	-.48779	-.03857

As Table 6 illustrates, among the five demographic variables, only Marriage is significant, indicating that marriage status is an important determinant of the cluster assignment. In general, however, people's demographic traits are not influential on whether they value certain aspects of sustainable fashion.

We created a cross-table to examine the relationship between marriage and cluster membership more closely. As can be seen in Table 7, most of the consumers in the "Organic/ Vegan" segment are single (91.5%). In fact, the distribution of single consumers across the three clusters is quite even (26.3%, 36.0%, and

37.7%, respectively). On the other hand, the "Fair Trade/ Locally Made" segment consists of about 20% married people. The majority of married consumers belong to this segment (66.7%). Such a finding is in consistent with the general observation that those who are married are more likely to have already settled down, therefore more likely to get involved with their communities and provide more support for local economies and environment.

While the majority of divorced people also belong to the "Fair Trade/ Locally Made" segment, a significant share of these consumers can be categorized into the "Organic/Vegan" segment (22.2%). In fact they are about four

**TABLE 6:
Kruskal-Wallis Tests Results**

	Ethnicity	Gender	Marriage	Education	Income
Chi-Square	.704	1.403	10.464	.243	2.892
df	2	2	2	2	2
Asymp. Sig.	.703	.496	.005	.886	.236

**TABLE 7:
Marriage and Cluster Membership**

		Cluster				Total
		Organic/ Vegan	Fair Trade/ Locally Made	Artisan/ Custom		
Marriage	Single	Count	65	89	93	247
		% within Marriage	26.3%	36.0%	37.7%	100.0%
		% within Cluster	91.5%	73.6%	86.9%	82.6%
	Married	Count	2	22	9	33
		% within Marriage	6.1%	66.7%	27.3%	100.0%
		% within Cluster	2.8%	18.2%	8.4%	11.0%
	Divorced	Count	2	6	1	9
		% within Marriage	22.2%	66.7%	11.1%	100.0%
		% within Cluster	2.8%	5.0%	.9%	3.0%
	Others	Count	2	4	4	10
		% within Marriage	20.0%	40.0%	40.0%	100.0%
		% within Cluster	2.8%	3.3%	3.7%	3.3%
Total		Count	71	121	107	299
		% within Marriage	23.7%	40.5%	35.8%	100.0%
		% within Cluster	100.0%	100.0%	100.0%	100.0%

times more likely to be in the “Organic/Vegan” group than are the married consumers. Moreover, comparing to single and married consumers, those who are divorced are the least likely to be in the “Artisan/ Custom” group (37.7%, 27.3%, and 11.1%, correspondingly).

Such findings are managerially significant. For instance, if a sustainable fashion company wants to differentiate itself under the labels of “locally-made” and “fair trade”, the company should probably try to target single consumers. On the other hand, if the company’s goal is to increase its market share by attracting more

single or divorced consumers, its in-house designers should probably introduce more "Organic/Vegan" elements into their products.

DISCUSSION AND CONCLUSIONS

The objectives of this study were to examine consumers' awareness of sustainable fashion, to investigate the possible impact of consumer demographics on their awareness level of sustainable fashion, to explore appropriate strategies of how to close the attitude-behavior gap by raising consumers' awareness of sustainable fashion, and to segment consumers based on their awareness of sustainable fashion. For data collection, this study conducted a survey by using a convenience sample. After data analyses, the results show that among all eight criteria items of sustainable fashion, a four-factor structure is identified: Factor 1 includes Recycle and Vintage; Factor 2 includes Artisan and Custom; Factor 3 includes Fair Trade and Locally Made; and Factor 4 includes Organic and Vegan. Consumers perceive Recycle and Vintage together; Artisan and Custom together; Fair Trade and Locally Made together; and Organic and Vegan together. This finding provides two layers of managerial implications: one for the industry decision makers and the other one for consumer educators. For the industry decision makers, promoting their products and brands might be more effective if they put emphasis on the Recycle and Vintage features of their products together since consumers link these two criteria. Similarly, other observed links suggest that combining the Artisan and Custom features of products, combining the Fair Trade and Locally Made features, and combining the Organic and Vegan features of products during product introduction or promotion process will be more effective strategies as well. It is also very important for the managers to understand the reasons why certain dimensions appear to go together. We alluded earlier that consumers tend to club the recyclability with the vintage dimension. Though some degree of coalescing of various dimensions is a logical consequence of the multidimensional nature of sustainability, managers will note to their advantage that for improving the overall customer's perceptions of the sustainability level of their offering, it requires enhancing customer's perceptions of all the various underlying dimensions of

sustainability. One major consequence of this multi-dimensionality and that which we did not address in this study is the interaction effects between various sustainability dimensions. For example, one managerially relevant question would be whether recycle dimension would tend to interact with, say, the fair trade dimension, in determining the overall view of sustainability by consumers. An implication of one such interaction is the possibility of compensating the perceived lack of one particular dimension when some other dimension is present. It is even more interesting to see whether the presence of one dimension compounds exponentially the positive or negative effect of some other inherent dimension. Such a finer picture of the overall underlying framework of sustainability would be, in our view, immensely interesting to decision makers and managers.

The comparison of the means of the four factors showed that Factor 1 had the highest score, followed by Factor 3, Factor 4, and Factor 2, which means that consumers are most aware of Recycle & Vintage, followed by Fair Trade & Locally Made, Organic & Vegan, and Artisan & Custom. This leads to many implications for consumer educators. As we can see, consumers do not have sufficient knowledge of sustainable fashion, especially the knowledge on Organic & Vegan, and Artisan & Custom. They might not realize that buying hand-made products is part of sustainable fashion; buying leather products, such as leather shoes or purses, are not part of sustainable fashion; or simply not buying clothes and garments is showing support to sustainable fashion. Research has found that American consumers tend to pay more attention to the price of products than behaving ethically in the marketplace, even though they express an interest in purchasing ethically (Joergens, 2006). An increase in the importance of ethical and sustainability dimensions in consumer decision making can come by from unexpected and quite tragic events. Recent tragic events in the news, for example, the building collapse in a garment factory in Bangladesh that has killed more than thousand workers in April 2013, will only motivate customers to pay more attention to the ethical practices followed by the manufacture and marketing of products that they buy. Such attention will also help to improve the fair labor and trade practices in the

places where the goods are produced, and through this effect, integrate the consumption and production more closely in a sustainability themed linkage. If money and finance is really a big issue for some consumers, simply not purchasing anything is part of supporting sustainable fashion. Not being aware of sustainable fashion enough requires consumer educators to provide more educational programs, campaigns, and other related training methods to consumers. In order to be more effective, the educational materials may need to combine the emphases on Organic and Vegan together, and on Artisan and Custom together, since the results show that consumers relate those items together. Also, the issues relevant to consumer educators and ultimately their effectiveness as industry watchdogs, are also inextricably tied to the responsibility of industry decision makers to devote attention to communication strategies so as to align those with that of consumer educators, to achieve common goals.

The results also show that consumer demographics to some extent can be a good indicator for their awareness of sustainable fashion. Age, income, and ethnicity do show some significant correlation with certain dimensions of sustainable fashion. Specifically, age shows a negative correlation with Organic, whereas income is positively related to Organic. In addition, Whites tend to support Recycle more than non-Whites. These findings provide more specific guidance to consumer educators because certain groups need better-tailored educational programs. For example, for a consumer group composed of older consumers with relatively lower income, the Organic feature of sustainable fashion needs to be better emphasized than for a group composed of younger consumers with higher income.

Consistently, the results show that demographic traits, except for Marriage, are not determining factors of consumer segmentation based on the awareness of sustainable fashion. The three segments (clusters) of consumers identified in our analysis are, however, distinguishable with regard to the weights they place on each of the four main measurements of the awareness of sustainable fashion.

LIMITATIONS OF STUDY

The general level of appreciation of the respondents with respect to each of the eight sustainability dimensions seems to be of a high order. As seen from Table 1, for most items, more than 40% of the respondents were in agreement that that item applies to sustainable fashion. The issue of concern is the reliability of the items that purports to measure each sustainable fashion dimension. Being an exploratory study, and with further refinement of the wording of the items to elucidate the intended meaning to the respondent, one would hope that reliability could be improved when we conduct analysis with a more rigorous methodology. That being said, we have found many meaningful relationships that would produce further impetus for research in this field.

Based on the factor analysis results shown in Table 3, the independence of the eight sustainable fashion dimensions with respect to each other is also in question. With more reliable items, we could have answered this question with more certainty, but based on the given data, we can conclude that consumers are more likely to have a holistic view of the sustainable fashion construct, with no individual dimension standing out in independence from the rest of the dimensions making up the sustainable fashion construct. This may be also due to the fact that sustainable fashion being a relatively new idea in the consumer's decision framework, there has been an insufficient level of maturity accorded to this construct for these ideas to take root in the decision framework of consumer decisions, and crystallize themselves into readily describable and identifiable ones. This slowly evolving nature of the sustainable fashion construct, therefore, is by itself an important dimension of the construct.

FUTURE RESEARCH

Further, as a consequence of this slowly crystallizing nature of the sustainable fashion construct, many of the supposedly independent dimensions of this construct may be interlinked with each other, and as a consequence with surprising ramifications for marketers and public policy experts. For example, Vegan and

Organic dimensions are closely aligned in the decision realm of respondents. Organic marketers come in all hues and offer their wares in diverse product categories—their perceived identification with the narrow Vegan construct, and therefore by association, as belonging to a radical fringe of consumption, may be a constraint for their promotion efforts. Another surprising association is the one between Locally made and Fair trade dimensions. One may hypothesize that the rising tide of cheap imports and the associated connotation that these imports go hand in hand with unfair trade practices may have given locally made products a welcome association with fair trade practices. This hypothesis should be explored in future studies. As noted before, such associations and interaction between the underlying dimensions of sustainability are immensely useful for decision makers, and therefore merit a closer investigation.

Except age, income, and ethnic status, all other demographic variables that were regressed showed insignificant relationship with any of the sustainability dimensions. We had measured the education level of respondents in the sample, but this variable was excluded in the analysis because most of the respondents were drawn from the undergraduate student population, thus showing insufficient variability of educational attainment. Further research should be inclusive of respondents from a wide level of educational attainment and it will be interesting to know how this would affect awareness of sustainable fashion. Beyond the usual demographic variables, we strongly believe that social-economic variables such as one's profession, social-class, and educational attainment, may also play important roles in determining one's awareness of sustainable fashion and should be explored as a topic for further research. It goes without saying that the sample drawn should be representative of the wider population of interest for more conclusive results when the intention is to go beyond the exploratory level of analysis.

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